



8-1-1973

## The Effects of Word Context and Meaning Upon Second Grade Students' Word Recognition Ability

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THE EFFECTS OF WORD CONTEXT AND MEANING UPON SECOND  
GRADE STUDENTS' WORD RECOGNITION ABILITY

by

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Bachelor of Arts, Grand Canyon College, 1961  
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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Education

Grand Forks, North Dakota

August  
1973

T1973  
M488

This dissertation submitted by L. Duane Melling in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

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Dean of the Graduate School

Permission

Title THE EFFECTS OF WORD CONTEXT AND MEANING UPON SECOND GRADE  
STUDENTS' WORD RECOGNITION ABILITY

Department Center for Teaching and Learning

Degree Doctor of Education

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## ACKNOWLEDGMENTS

The writer wishes to extend his appreciation to a number of people who have helped and encouraged him with this study.

This writer would like to express his thanks to Dr. Larry Harris, his major advisor, for the advice and encouragement given throughout this study.

To Dr. Ivan Dahl for the special help and encouragement he has provided to this writer throughout his graduate study, appreciation is extended. To the other members of the Faculty Advisory Committee, Dr. Richard Landry, Dr. Lowell Thompson, and Dr. Calvin Vraa, appreciation is given for the help that they have been. To Dr. Edward Merryman for the special help he provided to this writer, a special word of thanks is given.

To the Grand Forks, North Dakota Public Schools, and the teachers who participated in this study, appreciation is extended.

Appreciation is also given to Mrs. Eugene Rose, typist, for her help in this writer's behalf.

Special thanks and appreciation is extended to the writer's family, especially to his wife Charlene, for the understanding and encouragement she has provided, and to his children, Glenn, Ray, and Gary for the special encouragement that only they can provide.

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## ABSTRACT

### Purpose of the Study

The purpose of this investigation was to study children's ability to read words presented in isolation or in a meaningful context. Furthermore, this investigation attempted to determine whether differences exist in children's ability to read polysemous words in two settings: (1) when they are used in their most common meaning in a sentence, and (2) when they are used in a less common meaning in a sentence.

### Summary of the Procedures

The sample for this investigation was comprised of second grade students drawn from five elementary schools in Grand Forks, North Dakota. Students from seven classrooms participated. They were systematically assigned to one of three Student Groups according to alphabetical order by class. All testing was conducted by the researcher during the time period of March 12 through April 6, 1973. Only those students present for all testing were included in the final sample of 97 students.

The instruments used in this investigation were: The Peabody Picture Vocabulary Test; the Gates-MacGinitie Reading Test, Primary B; and the Word Recognition Instrument. The PPVT was used to gain a general indication of IQ for each subject. An estimate of reading ability was gained from the Gates-MacGinitie Reading Test which was administered by classroom teachers during September, 1972. The Word Recognition Instrument, designed by the researcher, was used to assess

the word recognition ability of the subjects in three contexts: (1) the word in isolation, (2) the word used in a sentence in its most common meaning, and (3) the word used in a sentence in a less common meaning.

Sixty polysemous words were randomly selected from the Stone-Bartschi word list, levels 2<sup>1</sup>-3<sup>2</sup>, for inclusion in the Word Recognition Instrument. The most common meaning and a less common meaning were determined for each of these words. Sentences were composed using each word in each of the two meanings. These sentences, along with the words in isolation, were then randomly divided into three groups, controlling for word level and condition (isolation, common meaning sentence, less common meaning sentence). These groups became Word Recognition Instrument, Form A, B, and C, and each one was randomly assigned to one of the Student Groups.

Students were asked to read aloud the words or sentences as they were presented to them. The student's response on each of the key words was noted, whether correct or incorrect, within the time limits established. Responses on words other than the key words were disregarded for purposes of this study.

The analysis of the data involved the use of a one-way regression analysis of variance and a related t test. Reliability of the Word Recognition Instrument was determined using Cronbach's Alpha.

### Conclusions

This investigation has provided evidence which supports the following conclusions, subject to the limitations of the study:

1. Second grade students appear to be able to pronounce polysemous words equally well whether they are presented in isolation or in a sentence using the word in its most common meaning.

2. The context in which a word is used may cause confusion for second grade students if that context is an unfamiliar one.

3. There is no difference in second grade students' ability to pronounce words in context or isolation by either sex or age.

4. More intelligent students are able to read more words used in varying meanings than are less intelligent students.

5. The advice of reading experts against presenting words to children in isolation may not be justified.

## CHAPTER I

### STATEMENT OF THE PROBLEM

#### Purpose of the Study

The purpose of this investigation is to study children's ability to read words presented in isolation or in a meaningful context. Furthermore, this investigation will attempt to determine whether differences exist in children's ability to read polysemous words in two settings: (1) when they are used in their most common meaning in a sentence, and (2) when they are used in a less common meaning in a sentence.

#### Significance of the Study

Much has been written concerning the effectiveness of context clues as an aid to word identification. Context is a major factor in helping to pronounce and understand many words we encounter. For example, "pilot" means one thing to a furnace repairman and quite another to an airplane passenger. When D-E-S-E-R-T appears in print is it pronounced de-sert' or des'ert? It is only through the use of context clues that we can gain a real understanding of the author's message.

It is more than just contextual usage which aids in our identification of certain words, however. The correct pronunciation is almost automatic in the following two usages:

He will desert - - -.

The desert - - -.

In each case grammatical usage plays an important part in our recognition of the word. Through our understanding of the language we know that certain words can only be used in specific ways, thus, in the examples given, our pronunciation varies with the usage.

Since contextual usage does determine the pronunciation of some words in our language, it seems only natural that teachers should provide beginning readers with contextual clues to word identification, along with all other clues that are available, for without context clues, recognition may be very difficult, if not impossible.

Bloomer (1961), in a discussion of communication difficulty, has expressed the idea that communication occurs more easily when tangible concepts are used, and that the greater the number of concepts represented by a word, the greater the probability of confusion. Therefore when multiple meaning words are used in a setting which does not limit their meanings, understanding becomes more difficult. It seems logical to ask whether the same thing may apply to reading.

Opinions differ on the advisability of teaching words in isolation or in context:

In context there are obvious clues related to meaning and usage which are not available in isolation. However, if learning is merely the association of the graphic symbol with meaning already existent within the cognitive framework, context seems superfluous (Chester, 1972, p. 4).

Kenneth Goodman (1965), in a study with second, third, and fourth grade students, reported on their word recognition ability of words in isolation as compared to the same words in a story context.

He found a significant difference between student's success in word identification in these two settings strongly in favor of the contextual usage.

Perhaps an explanation for the apparent word recognition success in context over isolation is that: ". . . the child learns associations between grammatical classes so that words in a particular class tend to elicit words in the next grammatical class" (Samuels, 1967, p. 110).

If grammatical associations do aid in word recognition, this clue is often neglected in classroom practices. In many classrooms words are presented to children in isolation. Teachers list in isolation the "new" vocabulary words contained in a story on the board to introduce them to students. Word charts are used with words presented in isolation as a means of familiarizing children with them. Flash cards containing isolated words are used.

Additional evidence to support or refute the work of Goodman, Bloomer, and Samuels is needed. This investigation should help provide a portion of that evidence.

The syntactic structure of a sentence or phrase has been shown to effect comprehension (Samuels, 1967; Strickland, 1962; Ruddell, 1965). Ruddell (1965) found that written material most closely approximating the children's oral speech pattern was more easily comprehended. Strickland (1962) also found that a significant relationship exists between certain structural aspects of oral language used by children and their achievement in reading.

Goodman (1970) observed that children had better success reading certain words in context when they appeared in their most

common grammatical usage than when they appeared in a less common usage.

These studies suggest that early reading success is dependent upon the syntactic structure of the material children are expected to read. However no definitive study has been found concerning the effects of lexical meaning upon word recognition. Therefore it seems that an appropriate question for further study is: Is there a difference in the ability of children to read words when they are used in their most common meaning in a sentence as compared to a less common meaning?

#### Scope of the Study

This study will attempt to answer the following questions:

1. Do students recognize words better when those words are contained in a sentence as opposed to appearing in isolation?
2. Do students recognize words better when those words are contained in a sentence exemplifying the words most common meaning as opposed to a sentence exemplifying a less common meaning of the word?
3. Is performance on the word recognition task related to: IQ, sex, age, reading ability?

#### Limitations

Because of the nature of this study there are several limitations:

1. This study was conducted using second grade pupils of a medium sized midwestern school system. The results are



therefore generalizable only to comparable second grade students.

2. Student testing was done at different times. Certain key times, such as recess, music, and physical education, were avoided. However the time of testing may have effected the results.
3. The language patterns of the children may not correspond to language patterns established for sentence usage. Therefore what was determined to be the most common meaning or a less common meaning for people in this area, may not fit that category for a particular pupil.
4. Complete non-readers and children with severe emotional problems were excluded from the sample group. Therefore these subjects may not be a representative sample of the general population.
5. The measure of reading ability used in this investigation were obtained approximately six months prior to this investigation. Therefore these scores may not be a reliable estimate of the subjects' reading ability at the time of the study.

#### Definition of Terms

Word List.--A list of words selected as appropriate for various grade levels. In this study the words will be selected from the Stone-Bartschi (1963) word list, levels 2<sup>1</sup> - 3<sup>2</sup>.

Common Meaning.--Each word will be used in a sentence in its most common meaning as determined by the Random House Dictionary of the English Language, Unabridged Edition (1967).

Less Common Meaning.--Each word will be used in a sentence in a less common meaning of the word as determined by Random House Dictionary of the English Language, Unabridged Edition (1967).

#### Summary

Children are often expected to respond to isolated words, whether in list form or individually, in testing and instructional settings. This investigation will study children's ability to read words presented in isolation or in context. It will also help to determine the effect of the lexical meaning of a word upon a child's ability to read that word.

In this chapter the scope of the study was presented, the limitations were identified, and some of the terms used in this report were defined.

## CHAPTER II

### REVIEW OF THE LITERATURE

The purpose of this investigation was to study children's ability to read words presented in isolation or in a meaningful context. Furthermore, this investigation attempted to determine whether differences exist in children's ability to read polysemous words in two settings: (1) when they are used in their most common meaning in a sentence, and (2) when they are used in a less common meaning in a sentence.

This chapter contains a review of the literature which is pertinent to this study. The chapter has been organized into three main sections as follows:

- I. Literature Relating to Word Identification
- II. Literature Relating to Word Identification in Context or in Isolation
- III. Contextual Effects Upon Word Identification

#### Literature Relating to Word Identification

This review will deal with literature published primarily since 1960. It will draw most heavily upon materials available through the Educational Resources Information Center (ERIC) and those contained in professional education periodicals. The materials contained in the Chester Fritz Library at the University of North Dakota were used, also utilizing the services of interlibrary loan.

Word recognition skills have been the subject of much research and writing over the past years. Many individual skills within this category have been identified; Harris and Smith (1972b) give seven distinct techniques that a skilled reader uses in decoding an unfamiliar word; Albert Harris (1970) lists 13. This section will deal with the internal cues that a reader uses in order to recognize a word. This review will focus on materials published since 1960. For an excellent review of earlier research, the reader is referred to W. S. Gray (1960b). In examining the research conducted since the turn of the century, Gray concluded that among mature readers the context, the total form of words, and their detailed parts all function as an aid to word recognition.

Several studies have been conducted in an attempt to determine which aspect of a word is of most value to readers in recognizing that word. In an oft-quoted study by Marchbanks and Levin (1965), 50 kindergarten and 50 first grade children comprised the sample. Each child was shown a word and then presented a group of pseudowords with instructions to choose the one which was most nearly like the word he had just seen. Each of the response words contained one cue that was the same as the stimulus word, with all other cues being dissimilar. The researchers found that specific letters, and not the overall shape of the words, form the basis for word recognition. It was found that the initial letter is the most important cue, followed by the final letter as the next most important. In three letter words the final letter was a more salient cue than in five letter words.

Williams et al. (1970) in a similar study with kindergarten children, first graders, and adults, found differing results at the

different levels. Kindergarten children used no consistent cue selections. First graders matched words on the basis of initial letter, final letter, then medial letter(s), all before overall shape. Proficient adult readers used complex word identification cues, including shape. Possibly word identification becomes a more sophisticated process as a reader becomes more proficient.

Weber (1968), after analyzing first graders' reading errors stated:

One finding that does emerge from both oral reading and matching studies, which corroborates the observations of classroom teachers is: given some training in reading, children make most errors on letters in the middle words, fewer on letters at the end of words, and fewest on letters at the beginning of words (p. 111).

Similar results were obtained by Timko (1970) in a study utilizing 40 first graders who were required to match trigrams of lower case letters in delayed recognition. Trigrams with the same first letter were most often confused, followed by those with the same last letter. He reported no confusion of general shape by ascending and descending letters.

Kolers attempted to determine if cue utilization during word identification (initial letters, ending letters, middle letters) is a visual problem caused by the physiological difficulty of perceiving letters embedded in a dense array, or if it is more related to a linguistic effect. By having subjects pronounce letters in pseudo-words he found as many errors in the initial position as in the medial position. Kolers concluded that differences were the result of grammatical and contextual cues contained in our language (Levin & Williams, 1970).

McCracken and Brown (1969) concluded that shape may be an important cue for first graders in word recognition. This observation grew from an investigation in which students' ability to pronounce individual words printed in all lower case orthography or all capital letters was studied. Children scored about 25 per cent better on tasks involving lower case orthography. It is possible however that the differences noted were caused by a lack of familiarity with capital letters rather than a difference in shape.

In an investigation designed to measure the visual duration threshold for words presented in (1) a highly predictive context, (2) a lesser predictive context, and (3) no context, Morton (1964) analyzed the word errors of the subjects. In comparing the error response with the correct response he found that the subjects' error response was correct by word shape as often as it was by initial and final letter. He, along with McCracken and Brown, concluded that shape may be an important cue in word recognition.

In an interesting experiment using French and English bilinguals, Kolers (Goodman & Fleming, 1968) had the subjects read a passage of mixed French and English words. He found that the subjects often mispronounced both English and French words, or used the French equivalent of English words or vice-versa. These were true bilinguals, equally competent in either language, half of the subjects native English speakers, half native French speakers. Often when there was not a direct syntactic translation for some of the errors, the subjects would supply it, rectifying the syntactic sequence. Kolers concludes: "Clearly, reading is not a simple matter of translating

visual graphemes into phonemes" (p. 13). It is apparent, in this study at least, that context plays a very large part in the subjects' word recognition response.

Smith (1963) in discussing word identification techniques has stated: "Perhaps it is the context clue technique that aids the mature reader most often in recognizing a word which he sees for the first time in print" (p. 182). Chall (1968) has recognized the effects of context on early readers: "Recent research on the oral reading errors made by first graders suggests that in the reading of connected material syntax and meaning do, in fact, play an important role in word recognition" (p. 8).

Kolers has expressed the same belief: "The skilled reader who has not yet attained complete mastery of the visual code he is reading is nevertheless more sensitive to its grammatical regularities than to its appearance" (Levin & Williams, 1970, p. 106).

Harris and Smith (1972b) have expressed a similar view concerning mature readers: "Most mature readers probably use context clues as their initial skill for word identification" (p. 207).

From this review it appears that proficient readers utilize many cues in order to recognize an unfamiliar word. It seems evident that the initial and final letters in a word are strong cues used by most readers, but the evidence concerning word shape, structural analysis, is less clear. However it should not be discounted as a possible word recognition technique.

Context does appear to be a strong aid in word recognition. If it is as strong an aid as the above authors indicate there should

be conclusive evidence of improved recognition when words are presented in context rather than in isolation.

Literature Relating to Word Identification in  
Context or in Isolation

Even though most authorities in reading strongly oppose presenting words to children in isolation (Bond & Tinker, 1967; Gray, 1960a; Goodman, 1970; Harris & Smith, 1972b) there is little empirical evidence to justify this stand (Chester, 1972). Certainly it seems logical that words would be recognized easier in a meaningful context than in isolation, for as Spencer (1969) has said, "we must consider the use of context as the most important word recognition skill that a child has" (p. 11). However the emphasis in word recognition prior to the 1940's was almost exclusively on phonics, and it has only been since the late forties that the technique of using context clues has been widely accepted (N. B. Smith, 1970).

There have been several recent studies attempting to answer the isolation vs. context question, and while the evidence favors word recognition in context, it does not appear conclusive.

In Goodman's (1965) study of reading miscues among primary children, he dealt with the question of word recognition in isolation and context. Graded stories were chosen, out of which words were selected to make up a list of isolated words for each story. Students were asked to pronounce the word lists, care being taken to suit the difficulty level to the ability of the child. After a child had read the word list, he was asked to read the story from which the words were taken. His performance on the individual words was then compared for the isolated words and the words in



context. Goodman found that grade one students missed an average of 9.5 words on the word lists but only 3.4 in the story context; grade two students missed 20.1 in isolation and 5.1 in context; and grade three students missed 18.8 in isolation to only 3.4 missed in the story context. Goodman concludes that children are better able to read words in a meaningful context than in isolation. However no provision was made in this study for the prior learning that might occur by having the children read the words first in isolation and then in a story context. Would the results have favored context had the order been reversed? Unfortunately there was no provision for this in this study, so therefore these results must be viewed with caution.

Levitt (1969) attempted to replicate Goodman's study using mentally retarded and normal first grade children. She also had children read isolated words drawn from a story as well as the story itself, however she alternated the order of presentation. She found that both mentally retarded and normal children made fewer errors when the words were imbedded in context than when they were presented in isolation. The differences she found, however, were not as great as those found by Goodman (1965).

In a study utilizing kindergarten children, Koehler (1971) examined the difference in the subjects' ability to learn content words (a word with a precise meaning, usually a noun or verb; house, car) as opposed to function words (a word which gains meaning from its relation to other words; then, and) in both isolation and context. For both types of words, the students were able to identify more words in context than in isolation. Koehler had hypothesized

that, in relation to content words, function words would be significantly easier to identify in context than in isolation. This hypothesis was not supported by the data. Koehler concludes by saying that ". . . having children learn words in a sentence may not be a very effective way to learn sight words."

Unfortunately, Koehler used only 8 students in his study. He relates very little information concerning this sample. He does tell us that they were "unsystematically assigned" to the various treatment groups, but gives no information concerning how or why this unsystematic assignment occurred. Lacking more detailed information concerning his sampling procedures, Koehler's findings must be viewed with caution.

In another study designed to probe this same question of content and function words taught in context or isolation, Chester (1972) worked with pre-reading first graders from both high and low socioeconomic backgrounds. After screening out words which the children could already read, Chester found, like Koehler, that both high and low socioeconomic students were able to recognize content and function words best when they were presented in context.

From these studies, it appears that words are recognized and learned most effectively in a meaningful context, however, the evidence is not conclusive at this time.

Expert opinion seems uniformly in favor of presenting words in context. Robinson (1972) feels that much harm has been done to students because of an inadequate emphasis on contextual usage:

In my opinion large numbers of pupils have been prevented from learning how to read and enjoy reading by the word list method. Not only have they come to think of reading as a mechanical exercise, but they have been kept from using cues represented within the total context of a message. They have only been equipped to decode words rather than language (p. 6).

Oftentimes the meaning of a particular word cannot be gained when the word is seen in isolation. By presenting it in a contextual setting, students are not only aided in word identification but are aided in meaning development:

The word identification exercises should at all times be in meaningful contextual settings so that there is the opportunity to recognize not only the word, but also its meaning as is necessary for general success (Bond & Tinker, 1967, p. 309).

Stauffer (1970) has suggested that context reading, or using meaning clues, to gain word meaning and identification is one of the most important word attack skills available to a reader.

#### Contextual Effects Upon Word Recognition

Much has been written concerning the use of context as an aid to comprehension. There appears to be at least three levels of contextual constraints operating within the sentence level: (1) associations between word pairs, (2) idea or meaning contained within a phrase, and (3) the grammatical cues operating at these levels as well as at the sentence level. This section will focus upon the effect of context at these three levels.

Certain words in our language have high association values, such as "table-chair," "bread-butter." When words of this type are used together, recognition of the first one of the pair, when the other is not known, aids in the recognition of the second (Rouse & Verinis, 1962).

In an experiment designed to determine if prior oral training in word associations would help kindergarten children read those same word pairs, Samuels and Wittrock (1969) confirmed that such training was helpful. Using two groups of kindergarten children, the researchers provided oral word association training to one group but not the other. The group which had had the oral training learned to read those word pairs for which oral training was given more rapidly than the group which had received no prior training. The strength of the prior oral association had little effect upon the ease with which the students read the words. Whether the oral training had occurred five times or thirty times made no difference. Students with varying degrees of oral training had similar success, and were all more successful than those with no oral training.

In another study examining the effect that grammatical and associative habits have on incidental recall, subjects were required to recall adjective-noun, noun-adjective, adjective-adjective, and noun-noun word pairs. Samuels (1967) found that recall was superior for adjective-noun and noun-adjective pairs. Furthermore, where the adjective-noun pairs varied in word association strength, pairs which had stronger associations were recalled better.

It seems that even between words there is a contextual bond, one which triggers a cue for recognition:

While word associations are known to influence learning to read, the effect of word-association strength on the acquisition of reading is not understood. It is hypothesized that each word in a sentence functions as a stimulus for the next reading response. If the associative strength between words in the text is high, it is probable that when a reader discriminates a word he is unable to read, contextual cues will provide the correct verbal response for the word (Samuels & Wittrock, 1969, p. 248).

Just as there appears to be bonds between certain words, phrases seem to provide a cue which aids reading. The phrase itself seems to work as a whole, a complete thought, or as Ruddell (1969) has termed it, a "psychologically real unit."

The effectiveness of a phrase as a meaning carrying unit is not a universally accepted belief. Harris (1970) stated, "They (teachers) should be aware, however, that most primary grade children cannot really perceive a phrase as a unit . . ." (p. 414). But research lends support to the contention that a phrase is a meaning carrying unit even with primary children.

In a study utilizing both third grade children and adults as subjects it was found at both age levels that more time is required to process and respond to information which occurs across phrase boundaries as compared to information contained wholly within a phrase (Ruddell, 1969). Suci et al. (1967) and Johnson (1965) reported similar findings, providing support for the phrase as a meaning carrying unit for even primary level children.

The work of Fodor and Bever (1965) also lends support to Ruddell's contention that the phrase is a psychologically real unit. In their investigation a clicking noise of a brief duration was made as a sentence was read. The click was sometimes made as the subject reached a phrase boundary, sometimes during the word just before a phrase boundary, and sometimes during the word just after the phrase boundary. Regardless of the placement of the click, the subjects reported it as occurring at the phrase boundary. The researchers concluded that these findings supported the contention that the phrase is a psychological whole.

It is the word associations contained within phrases that help us to perceive the unity of the phrase, for these associations help us to anticipate the flow of language. Our language builds upon itself and tends to cue us for what follows:

. . . the child learns associations between grammatical classes so that words in a particular class tend to elicit words in the next grammatical class. For example, words like give, throw, and push tend to elicit words like him, her, and it (Samuels, 1967, p. 110).

Thus it appears that systematic use of language is an important aid to recognition, for through the cues offered in our language the available word choices are narrowed. By the time a child enters school he can make effective use of these elements in our language (Berko, 1965; Costango, 1972).

Even though children enter school with a good understanding of their language, certain syntactic structures pose problems for recognition as well as comprehension.

Goodman and Burke (1969), in a study of the reading miscues of elementary children state that "no one particular grammatical function is unduly difficult for proficient readers" (p. 127). However they go on to report that adjectives were involved in about twice as many non-transformational miscues as the percentage of their occurrence in the text for second, fourth, and sixth grade children. They further report that second grade children have a tendency to make no corrections on retransformation miscues (a change in grammatical class) involving any grammatical class except nouns. It would appear then that certain grammatical classes of words do pose greater problems for children at various age levels than other grammatical classes, and that, unless

these children would not be classed as proficient readers, there are in fact certain grammatical functions which are more difficult to comprehend than others.

Bradley (1969) also found that nouns had a greater effect upon comprehension than other grammatical classes of words. In a study involving 180 upper elementary children, reading tests with certain grammatical classes of words removed were used. Comprehension was affected only when nouns were removed for fourth and sixth graders. The removal of adjectives and nouns effected the comprehension of fifth graders.

Aulls (1970) used a CLOZE-type exercise to investigate the effects of grammatical class upon word recognition. He reported that the grammatical position of the deleted word did in fact place constraints upon the correct response given for that deleted word.

Allen (Panel Discussion Transcript, 1967), in discussing the educational implications of the research on the aids given by grammatical position, stated that the placement of words in certain grammatical functions appears to be more important to vocabulary control than the number of times the word appears in a story.

Even young children in their first year of school have apparently learned to use and respond to the cues available from word positions.

In an investigation involving first grade children, Weber (1968) studied their oral reading errors. She found that, even when an error was made, about 90 per cent of the time it was grammatically acceptable to the preceding context. She interpreted this to mean that even at this age, children are sensitive to grammatical

constraints. She did find, however, that there was a difference between good and poor readers in their ability to respond to the grammatical correctness of their errors. While good readers rarely corrected errors that made sense in context, while correcting errors that upset the grammatical structure of the sentence, weak readers corrected both acceptable and unacceptable errors to the same degree.

Cammarota (1968) has summarized well the use that grammatical cues play in aiding word recognition:

When we see word markers in our reading, they are signals that certain kinds of words or groups of words are to come. Word markers mark the speech groups of which we have been speaking. When we see a word marker, we know a speech group is beginning. The four major types of word markers . . . are: Noun markers, Verb markers, Phrase markers, Clause markers" (p. 257).

The cues that are provided by grammatical structure to both speech and reading and the difficulties that unfamiliar patterns can cause to a reader or speaker is well illustrated:

Where sentence repetition experiments clearly indicate that middle class white children have as much difficulty repeating syntactical construction commonly used by Washington, D.C., negro children as the negro children had in repeating the white middle class syntactic forms (Shuy, 1969, p. 39).

It seems that the context of a word does provide clues to following words, and that grammatical structure provides a large portion of those clues. Beginning readers need all the help they can get in order to "crack the code," and by giving consideration in instructional settings to language patterns and grammatical structure we can provide significant help for these students (Ruddell, 1965).

#### Summary

This review of the literature has covered reports dealing with (a) literature relating to word identification, (b) literature



relating to word identification in context or in isolation, and (c) contextual effects upon word identification.

From this review it appears that the following generalizations can be made:

1. Specific letters seem to be more important in word identification than overall word shape, however word shape should not be discounted. Letter cues, in the order of their importance for word identification, seem to be initial letter, final letter, and medial letters.

2. Words which appear in context may be easier to identify and comprehend than when they appear in isolation, however, the evidence supporting this is not conclusive.

3. The stronger the association between word pairs, the easier they are to read.

4. Grammatical cues limit the choices available for words which follow.

## CHAPTER III

### DESIGN AND PROCEDURE

The purpose of this investigation was to study children's ability to read words presented in isolation or in a meaningful context. Furthermore, this investigation attempted to determine whether differences exist in children's ability to read polysemous words in two settings: (1) when they are used in their most common meaning in a sentence, and (2) when they are used in a less common meaning in a sentence.

This chapter presents information on the design of the study, the sample group, the procedures used to collect the data and conduct the study, the hypotheses tested, and the statistical analysis procedures. The topics in this chapter are as follows:

- I. The Sample
  - A. Grouping Procedures
  - B. Subjects Lost or Omitted
- II. Instruments Used
  - A. Peabody Picture Vocabulary Test
    1. Reliability
    2. Validity
  - B. Gates-MacGinitie Reading Test, Primary B
    1. Standardization
    2. Reliability
    3. Validity

- C. Word Recognition Instrument
  - 1. Word Selection
  - 2. Design of the Instrument
  - 3. Reliability of the Instrument
- III. Data Collection Procedures
- IV. Hypotheses
- V. Statistical Treatment
- VI. Summary

### The Sample

The students for this study were drawn from five elementary schools in Grand Forks, North Dakota. Seven second grade classes, with a total of 110 students, were involved. The schools were all neighborhood schools with the children living in the surrounding area.

Since involvement in the study was at the discretion of the classroom teachers, not all classrooms in the five schools participated. In one building of five second grades, one participated. In another of two second grades, one participated. In the other three buildings, all classrooms were involved. Of the seven classes involved in the study, three were self-contained and four were combination rooms containing both first and second graders.

### Grouping Procedures

For purposes of this investigation the total sample was divided into three equal subgroups, Student Group I, Student Group II, and Student Group III. This was done by listing all students alphabetically by class and then placing them alternately in one

of the groups according to alphabetical order. This resulted in 37 pupils in SG I, 37 in SG II, and 36 in SG III. This grouping procedure insured equal representation of students from each class in each of the groups and in-class differences were minimized. The merit of this procedure became evident later when the sample was compared by classroom for age, IQ, and reading ability, and it was determined that significant differences did exist between classes.

Student Groups I, II, and III were compared to determine the validity of the grouping procedures for the variables of age, IQ, and reading ability standard scores (vocabulary and comprehension). This information is presented in Table 1 for the total group and for the Student Groups. As can be seen from Table 1, no significant differences existed between the groups. Thus the data suggests that the three groups were alike on the variables of age, IQ, and reading level.

#### Subjects Lost or Omitted

There were a total of 110 second grade students in the seven classrooms involved in the study. All teachers were given the opportunity to withdraw students from the investigation who, in their opinion, might find the experience emotionally upsetting because of a total inability to read or some other reason. Of the 110 students available, teachers requested that a total of seven not participate in the investigation, therefore 103 students were available for testing. Of the seven who were withdrawn, two had been assigned to SG I, two to SG II, and three to SG III. Absence during testing accounted for the loss of six other students, two from SGI, three from SG II,

TABLE 1  
STUDENT GROUPS COMPARED BY AGE, IQ AND READING ACHIEVEMENT

Source	N	Mean	Effect	df	Sum of Squares	Mean Squares	F
Age		96.16					
Student Group I	33	95.71	Between Groups	2	102.22	51.11	1.82
Student Group II	32	97.58	Within Groups	94	2635.14	28.03	
Student Group III	32	95.19	Total	96	2737.36		
IQ		105.5					
Student Group I	33	106.2	Between Groups	2	184.09	92.04	<1.0
Student Group II	32	106.8	Within Groups	94	17096.10	181.87	
Student Group III	32	103.6	Total	96	17280.19		
Reading Level							
Vocabulary		51.8					
Student Group I	33	50.8	Between Groups	2	123.85	61.92	1.01
Student Group II	32	53.4	Within Groups	94	5772.03	61.40	
Student Group III	32	51.3	Total	96	5895.88		
Comprehension		49.1					
Student Group I	33	48.6	Between Groups	2	35.89	17.95	<1.0
Student Group II	32	49.9	Within Groups	94	8291.07	88.20	
Student Group III	32	48.7	Total	96	8326.96		

and one from SG III. The final sample of 97 second grade students is presented in Table 2 by Student Group and sex.

TABLE 2  
SAMPLE SIZE ACCORDING TO STUDENT GROUP AND SEX

	Boys	Girls	Total
Student Group I	18	15	33
Student Group II	18	14	32
Student Group III	13	19	32
Total	49	48	97

#### Instruments Used

Three instruments were used to gather data for this investigation. The Peabody Picture Vocabulary Test was used to measure children's intelligence. The Gates MacGinitie Reading Test, Primary B, was used to give an indication of each child's reading ability. The Word Recognition Instrument was developed by the researcher to assess the differences in children's ability to recognize a word used in isolation, used in a sentence in its most common meaning, and used in a less common meaning in a sentence. A description of these instruments follows.

#### Peabody Picture Vocabulary Test

The Peabody Picture Vocabulary Test is an individual intelligence test "designed to provide an estimate of a subject's verbal intelligence through measuring his hearing capacity" (Dunn, 1965).

This is accomplished by having the child respond to a series of four

line drawings, indicating which one he thinks most nearly shows the meaning of a key word which the examiner pronounces to him. There is no time limit on the child's response period.

The initial screening of the test utilized 360 subjects, ages 2-18, responding to 2,055 words illustrated by line drawings. Items were then placed at the age level at which 40-60 per cent of the appropriate age group responded correctly to it. From these a final test battery of 150 plates were selected, providing both a Form A and a Form B (Dunn, 1965).

The final forms of the test were standardized on 4,012 students, aged 2 years 6 months through 18 years, in the Nashville City Schools area, Nashville, Tennessee.

Piers (Buros, 1965), in a review of the PPVT, has described it as "probably now the best of its kind. . . . A substantial list of references is already available and the test is stimulating current research" (p. 823).

Reliability. Alternate form reliability coefficients, using Pearson product moment correlations, have been calculated on the standardization subjects scores for Forms A and B at each grade level. Correlations ranged from a low of 0.67 at the six year old level to a high of 0.84 at the 17 and 18 year old levels, with a median of 0.77. The standard error of measurement for IQ scores ranged from 6.00 to 8.61, the median being 7.20.

Results from eleven studies with both normal and exceptional children showing test-retest reliability as well as alternate form reliability, yield correlations ranging from 0.54 to 0.97 (Dunn, 1965).

Validity.--Congruent validity has been established for the PPVT mental age scores with the Stanford Binet, 1960. Correlation has been found to range from 0.82 to 0.86 with a median of 0.83. Correlation of IQ scores of the PPVT with the 1937 Stanford Binet ranges from 0.43 to 0.92 with a median of 0.71.

Validity studies involving the PPVT and the Weschsler scales show similar correlations. PPVT IQ scores correlated with the WISC-Verbal over the range 0.41 to 0.74 with a median of 0.67, with the WISC-Performance over the range 0.19 to 0.82 with a median of 0.39, and with the WISC-Full Scale over the range 0.30 to 0.84 with a median of 0.61.

Therefore the PPVT was deemed adequate for the purposes of this study.

#### Gates-MacGinitie Reading Test, Primary B

The Gates-MacGinitie Reading Test, Primary B, is part of a new series of tests designed for use in grades K through 12. It consists of two parts, vocabulary and comprehension.

"The Vocabulary Test samples the child's ability to recognize or analyze isolated words" (Gates & MacGinitie, 1965a, p. 1). It contains 48 exercises, each one consisting of four printed words and a picture illustrating the meaning of one of the words. The child is expected to circle the word that best fits the meaning shown by the picture.

"The Comprehension Test measures the child's ability to read and understand whole sentences and paragraphs" (Gates & MacGinitie, 1965a, p. 1). It consists of 34 passages of increasing length and difficulty. Each passage is accompanied by four pictures. The



child is expected to mark the picture which best illustrates the meaning of the passage.

This test yields grade scores, percentile scores, and standard scores. For purposes of this study only standard scores were used.

Items were selected for inclusion in this test on the basis of a nationwide tryout that involved more than 25,000 students. Through the use of item analysis, only the most effective items were retained for use in the final forms of the test. Alternate forms were constructed at each test level to provide an item by item balance in difficulty and a roughly similar distribution of content.

Final forms of the test were administered to a nationwide sample of approximately 40,000 pupils in 38 communities. The communities were "carefully selected on the basis of size, geographical location, average educational level, and average family income" (Gates & MacGinitie, Technical Manual, 1965b, p. 2). Testing was carried out in one or more schools in each community judged by school officials to be representative of the community as a whole.

Reliability.--Reliability of the Gates-MacGinitie Reading Test, Form B, has been established for both split half reliability, using odd-even divisions of items, and alternate form reliability. Coefficients for split half reliability are .93 for both the Vocabulary and the Comprehension sections. Alternate form reliability coefficients are .87 for Vocabulary and .81 for Comprehension (Gates & MacGinitie, 1965b).

Validity.--No mention of validity is made in the manual so apparently no studies have been done to determine this. Van Rockel

(Buros, 1972), commenting on the usefulness of the Gates-MacGinitie Reading Tests, refers to them as functioning best as survey tests when used alone. Since they were used in this study to provide a gross estimate of a child's reading level, they were deemed adequate by this researcher.

#### Word Recognition Instrument

An instrument was needed to determine what differences exist in a student's ability to read words in isolation, in a common meaning context, and in a less common meaning context. The Word Recognition Instrument was designed by the researcher for this purpose. It consists of 60 randomly selected polysemous words, each one used in the three contexts: (1) isolation, (2) a common meaning sentence, and (3) a less common meaning sentence.

Word Selection.--Words for this instrument were selected from the Stone-Bartschi Word List (Stone & Bartschi, 1963), difficulty levels 2<sup>1</sup> - 3<sup>2</sup>. Ten words were selected at each of the 2<sup>1</sup> and 2<sup>2</sup> levels, with twenty each being selected at the 3<sup>1</sup> and 3<sup>2</sup> levels. Five alternate words were also randomly selected at each level to be used in the event that suitable sentences could not be developed for some of the original words.

After selecting the words, the most common meaning and a less common meaning were specified for each word, using the Random House Dictionary, Unabridged Edition, 1967, to determine meanings. This dictionary was used for meanings since entries are listed in it according to preferred usage:

Definitions within an entry are individually numbered in a simple sequence, regardless of any division according to part of speech. The most common part of speech is listed first, and the most frequently encountered meaning appears as the first definition for each part of speech. Specialized senses follow, and rare, archaic, and obsolete senses are usually listed at the end of their part of speech group (p. xxix).

Some subjectivity was involved in determining which of the less common meanings was selected for inclusion. A less common usage was selected which, in the opinion of the researcher, was used with reasonable frequency today.

Words were chosen at varying difficulty levels in an attempt to insure that at least some of them would not be sight words for most students. The intent was to select some words which most all students would be quite familiar with and could recognize in most any context, and others which very few students would be familiar with on sight, in any context, so that the role played by context, and more specifically usage within context, might be determined.

Design of the Instrument. Sixty polysemous words, levels  $2^1$  -  $3^2$  were selected for this study from the Stone-Bartschi Word List. Of the 60 words selected, 10 were at each of the  $2^1$  and  $2^2$  levels, with 20 selected at each of the  $3^1$  and  $3^2$  levels (Figure 1).

STONE-BARTSCHI WORD LIST	
10 LEVEL $2^1$ WORDS	10 LEVEL $2^2$ WORDS
20 LEVEL $3^1$ WORDS	20 LEVEL $3^2$ WORDS

Fig. 1.—Word Levels Used.

After determining the most common meaning and a less common meaning for each of the 60 words selected, each word was used in a sentence where it carried its most common meaning and in a sentence where it carried a less common meaning. It was also used once in isolation (Figure 2).

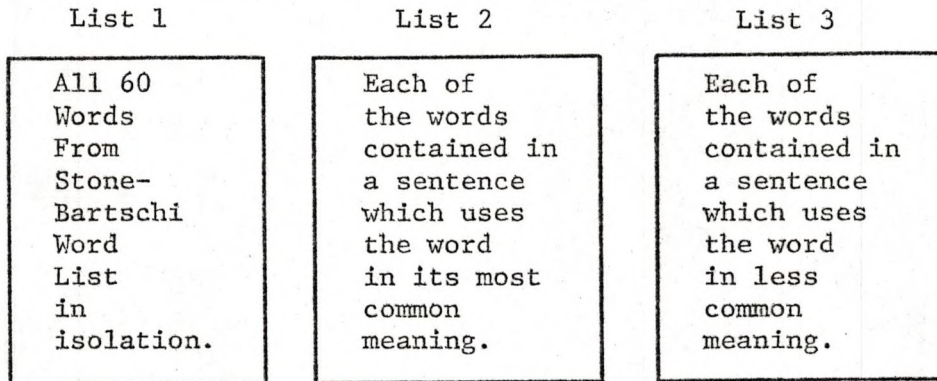


Fig. 2.--Word Usage--Isolation, Common Meaning, Less Common Meaning.

The complete list of words and sentences, by level, is contained in Appendix A.

From the three lists represented in Figure 2, three new lists, Word Recognition Instrument, Form A, Word Recognition Instrument Form B, and Word Recognition Instrument, Form C, were constructed, each list containing all sixty words, but in different forms of usage (Figure 3).

The word usages were systematically divided among the lists to insure that there was an equal number of words from each level, 2<sup>1</sup>, 2<sup>2</sup>, 3<sup>1</sup>, 3<sup>2</sup>, in each list as well as providing twenty examples of each usage in each list. The Word Recognition Instrument, Forms A, B, and C are contained in Appendix B.

	WRI, Form A	WRI, Form B	WRI, Form C
Word 1	Isolation	Common Meaning Sentence	Less Common Meaning Sentence
Word 2	Common Meaning Sentence	Less Common Meaning	Isolation
Word 3	Less Common Meaning Sentence	Isolation	Common Meaning Sentence

Fig. 3.--Word Usage Placement on Word Recognition Instrument, Forms A, B, and C.

Words used in the sentences other than key words were selected on the basis of their usage level as indicated by Rinsland (1945). All were words which were indicated as being common at the second grade level. This was done in order to minimize the vocabulary load of the sentence itself, thus avoiding as much as possible interference with the child's ability to read the key word.

A copy of the definitions selected for each word and the sentences derived from them was then given to a panel of doctoral students in Education at the University of North Dakota. They were asked to judge the accuracy of each sentence in exemplifying the lexical meaning selected for each word. The judges concurred that the sentences were an accurate exemplification of the meanings selected.

The Word Recognition Instrument, Forms A, B, and C, were then randomly assigned to one of the Student Groups.

After final grouping of words and sentences was completed, the order of each list was determined by random selection. The items were then typed on a 3 inch x 16 inch card. A sleeve-like carrier was constructed with a window slot cut out so that the card containing the

test items could be inserted into the carrier; only one item could be seen at any one time (Figure 4).

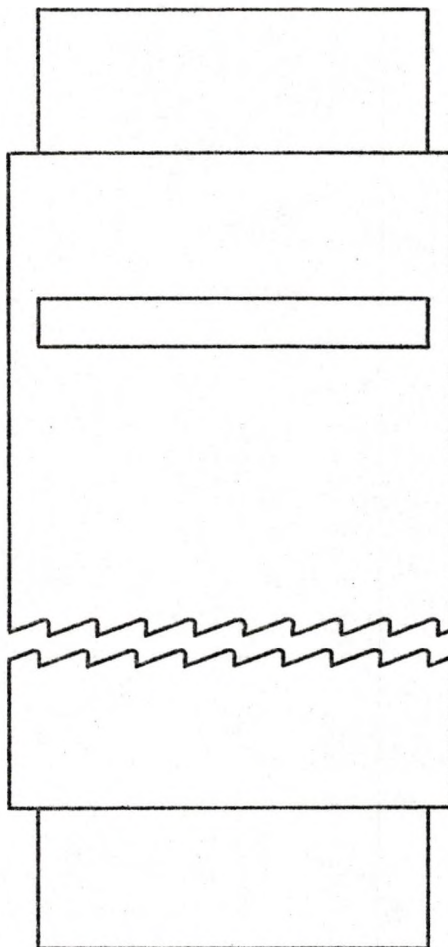


Fig. 4.--Construction of Word Recognition Instrument.

Reliability of the Instrument. Internal consistency reliability of the Word Recognition Instrument, as measured by Cronbach's Alpha, is reported in Table 3. This table consists of internal consistency reliability coefficients for the subscales (isolation, common meaning, and less common meaning), by Student Groups, as well as

for the composite score by group. It should be noted that subscale scores ( $r_{ic}$ ) ranged from .92 - .96 and that all composite scores are .98.

TABLE 3

INTERNAL CONSISTENCY RELIABILITY COEFFICIENTS BY STUDENT GROUPS,  
BY SUBSCALE, AND BY COMPOSITE SCORES OF THE WORD RECOGNITION  
INSTRUMENT

Groups	Internal Consistency ( $r_{ic}$ )
Student Group I Composite	.98
Isolation	.94
Common Meaning	.96
Less Common Meaning	.94
Student Group II Composite	.98
Isolation	.94
Common Meaning	.94
Less Common Meaning	.94
Student Group III Composite	.98
Isolation	.92
Common Meaning	.95
Less Common Meaning	.93

#### Data Collection Procedures

After obtaining the consent of the administrative officers of the Grand Forks school system to conduct this research in the schools of that city, the researcher met with all teachers who would be

involved in the study. The purpose of this meeting was to explain fully the significance of the investigation and the procedures which would be followed. At this time the researcher, in consultation with each teacher, determined what time would be most desirable to work with her students. In this way key instructional times in each classroom were avoided, as well as times such as recess, art, and physical education. Because of the concern expressed by some teachers of the effects of participating in this study upon some students, all teachers were given the opportunity to withdraw any students from the study whom they wished. Seven students were withdrawn because of possible emotional difficulties.

All testing was conducted by the researcher during the period March 12 through April 6, 1973. Testing was done either in a quiet corner of the classroom or in a nearby room. Testing conditions were not ideal in all instances, however effective testing procedures with regard to physical environment, comfort of the student, and establishing rapport were followed as closely as conditions permitted.

The Peabody Picture Vocabulary Test was administered to all but five of the subjects prior to beginning the testing with the Word Recognition Instrument. In those five cases, the students were absent the final day of PPVT testing and were tested later.

During each testing session, both with the PPVT and the WRI, subjects from each of the Student Groups, I, II, and III, were tested. This was done in an attempt to reduce the effects of testing at a particular time on any one group.

After administering the PPVT to all but five subjects of the sample group, testing with the WRI was begun. This order of testing was followed because, in this researcher's opinion, reading for a



stranger is more upsetting to a child than identifying the number of a picture, which is done on the PPVT, and working through the PPVT allowed some measure of rapport to be established between the researcher and each student.

As with the PPVT, some testing with the WRI was done in the classroom and some in another room. Each child was tested separately. Each child was introduced to the procedures to be followed and told that they would be reading some words and sentences. They were instructed to do the best they could to pronounce each word, but not to spend much time analyzing any one word. Each isolated word was presented to the child for three seconds and each sentence for five seconds. This allowed the child time to recognize and pronounce the words, but, in most cases, not enough time to analyze a word. The WRI was designed to allow only one word or sentence to be seen at a time through the "window." Time was kept by the researcher and all student responses were tape recorded as well as being noted on a student record form.

For purposes of this study a response was considered correct if the key word was pronounced correctly, on the first try, within the time allowed. Incorrect responses on words other than key words in the sentences were disregarded.

During September of 1972, all second grade students in the Grand Forks Public School System were given the Gates-MacGinitie Reading Test, Primary B, Form 1. The results of this test were used as an indication of reading ability for each child.

#### Hypotheses

The hypotheses for this study were formulated to determine the effect of context upon second grade students' word recognition abilities.

The hypotheses for this study are:

1. There will be no significant difference between the number of words subjects pronounce correctly from a word list of polysemous words:
  - A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
  - B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
  - C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.
2. There will be no significant difference in the ability of boys or of girls to pronounce polysemous words:
  - A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
  - B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
  - C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.
3. There will be no significant relationship between the age of the subjects and their ability to pronounce polysemous words:

- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
  - B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
  - C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.
4. There will be no significant relationship between the reading ability of the subjects and their ability to pronounce polysemous words:
- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
  - B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
  - C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.
5. There will be no significant relationship between the IQ of the subjects and their ability to pronounce polysemous words:
- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;

- B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
- C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.

### Statistical Treatment

This investigation was designed to provide insight into the three questions identified in Chapter I. From these questions six null hypotheses were formulated and are presented in the preceding section.

The statistical procedures used in this study included Cronbach's Alpha, the related t test, and a one way regression analysis of variance.

Cronbach's Alpha was used to obtain indices of internal consistency reliability for the Word Recognition Instrument.

To test Hypothesis 1, related t tests were performed between the three subscales: (1) words in isolation, (2) words in a common meaning sentence, and (3) words in a less common meaning sentence.

To test Hypothesis 2, a one way regression analysis of variance was employed to compare the scores of boys and girls on the three subscales.

To test Hypotheses 3, 4, and 5, a one way regression analysis of variance was employed to compare performance on the three subscales by age, by reading ability, and by IQ.

Summary

This chapter has described the study in terms of the sample, the instruments used, the data collection procedures, the hypotheses tested, and the statistical treatment used for the analysis of the data. The results of this study are presented in Chapter IV.

## CHAPTER IV

### ANALYSIS OF THE DATA

The purpose of this investigation was to study children's ability to read words presented in isolation or in a meaningful context. Furthermore, this investigation attempted to determine whether differences exist in children's ability to read polysemous words in two settings: (1) when they are used in their most common meaning in a sentence, and (2) when they are used in a less common meaning in a sentence.

This study was designed to seek answers to the following questions:

1. Do students recognize words better when those words are contained in a sentence as opposed to appearing in isolation?
2. Do students recognize words better when those words are contained in a sentence exemplifying the words most common meaning as opposed to a sentence exemplifying a less common meaning of the word?
3. Is performance on the word recognition task related to: I.Q., sex, age, reading ability.

The literature related to this investigation was reviewed in Chapter II. The design of the study and procedures employed were described in Chapter III. This chapter presents the findings of the

investigation. For the purpose of testing significance, the .05 alpha was chosen a priori. The researcher also reported .01 significance levels.

Five hypotheses were tested for this investigation. Comparisons were made for each hypothesis for the total sample group. The order of presentation of the hypotheses in Chapter III is followed in the analysis and presentation of the data.

#### Null Hypothesis One

There will be no significant difference between the number of words subjects pronounce correctly from a word list of polysemous words:

- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
- B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
- C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.

Table 4 presents the data relative to hypothesis one. This table includes the means and standard deviations for the three subscales: (1) isolation, (2) common meaning, and (3) less common meaning; also the related t scores, degrees of freedom, and indication of any statistically significant differences in mean scores for the three subscales of the Word Recognition Instrument.

As indicated by the table the mean score for words in isolation was 13.98, 14.02 for words used in a sentence in their most

TABLE 4

SUMMARY TABLE FOR RELATED t TEST FOR THE THREE SUBSCALE SCORES, ALL POSSIBLE COMBINATIONS  
(N=97)

	Mean	SD	Source of Variation	Related t	df
Isolation	13.98	5.95	Isolation vs Common Meaning	-0.142	96
Common Meaning	14.02	6.37	Isolation vs Less Common	3.60 <sup>a</sup>	96
Less Common Meaning	12.71	6.35	Common Meaning vs Less Common	4.98 <sup>a</sup>	96

<sup>a</sup>Significance at the .01 level, two-tailed test, 96 df = 2.63



common meaning, and 12.71 for words used in a sentence in a less common meaning. The related t score was not significant when comparing words in isolation with words in a common meaning sentence, however the comparisons of the means for words in isolation and less common meaning sentences as well as the means for common meaning sentences and less common meaning sentences were both significant at the .01 level of probability. Because of the t values obtained, hypothesis 1A therefore was not rejected, while rejecting hypotheses 1B and 1C. Thus for this investigation no significant difference was found to exist in pupil's ability to pronounce words in isolation as compared to words in a sentence of a common meaning. There was, however, a significant difference in pupil's ability to pronounce words both in isolation and in a common meaning sentence when compared with words in a less common meaning sentence.

#### Null Hypothesis Two

There will be no significant difference in the ability of boys or of girls to pronounce polysemous words:

- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
- B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
- C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.

The data relating to this hypothesis is presented in Table 5. Although the mean scores for girls was slightly higher than that of the boys in each of the three subscales, the F ratios obtained in the one way regression analysis of variance were not significant. Therefore hypothesis 2A, B, and C were not rejected. Therefore performance on the word recognition task does not seem to be related to sex.

TABLE 5

SUMMARY TABLE FOR A ONE WAY ANALYSIS OF VARIANCE FOR THE THREE  
SUBSCALE SCORES BY SEX (N=97)

Source	N	Mean	Effect	df	Sum of Squares	Mean Squares	F
Words in Isolation							
Boys	49	13.19	Between Groups	1	62.70	62.70	1.79
Girls	48	14.79	Within Groups	95	3331.26	35.07	
			Total	96	3393.96		
Words in Common Meaning							
Boys	49	13.04	Between Groups	1	95.06	95.06	2.38
Girls	48	15.02	Within Groups	95	3800.90	40.01	
			Total	96	3895.96		
Words in Less Common Meaning							
Boys	49	11.63	Between Groups	1	115.22	115.22	2.91
Girls	48	13.81	Within Groups	95	3758.70	39.57	
			Total	96	3873.92		

### Null Hypothesis Three

There will be no significant relationship between the age of the subjects and their ability to pronounce polysemous words:

- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
- B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
- C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.

The data relating to hypothesis three is presented in Table 6. As indicated by the table, the mean scores obtained for the three subscales were not significantly different when compared by age. Hypothesis 3A, B, and C is not rejected. Therefore performance on the word recognition task does not seem to be related to age.

TABLE 6  
DATA RELATING TO AGE, FOR THE THREE SUBSCALE SCORES (N=97)

	R	R <sup>2</sup>	df	F
Age				
Isolation	.054	.003	1, 95	0.28
Common Meaning	.049	.002	1, 95	0.23
Less Common Meaning	.045	.002	1, 95	0.20

Null Hypothesis Four

There will be no significant relationship between the reading ability of the subjects and their ability to pronounce polysemous words:

- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
- B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
- C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.

Table 7 presents the data relating to hypothesis four. According to the data there is a significant relationship between the mean scores obtained by the second grade sample subjects on the vocabulary

TABLE 7

DATA RELATING TO READING ABILITY FOR THE THREE SUBSCALE GROUPS (N=97)

	R	R <sup>2</sup>	df	F
Reading Ability (Vocabulary and Comprehension)				
Isolation	.705	.496	2, 94	46.32 <sup>a</sup>
Common Meaning	.711	.505	2, 94	47.94 <sup>a</sup>
Less Common Meaning	.719	.517	2, 94	50.29 <sup>a</sup>

<sup>a</sup>Significance at the .01 level, 2, 94 df = 4.82

and comprehension sections of the Gates-MacGinitie Reading Test, Primary B, and the mean scores obtained on the three subscales of the Word Recognition Instrument. Thus hypothesis 4A, B, and C is rejected. Therefore a significant relationship seems to exist between reading ability, as

measured by the Gates-MacGinitie Reading Test, Primary B, and success on each of the three subscales of the Word Recognition Instrument.

#### Null Hypothesis Five

There will be no significant relationship between the IQ of the subjects and their ability to pronounce polysemous words:

- A. when the words are presented in isolation as compared to when they are used in their most common meaning in a sentence;
- B. when the words are presented in isolation as compared to when they are used in a less common meaning in a sentence;
- C. when the words are used in their most common meaning in a sentence as compared to when they are used in a less common meaning in a sentence.

The data related to hypothesis 5 is presented by Table 8. In comparing the mean of the IQ scores for the subjects on the Peabody Picture Vocabulary Test with the mean scores on the three subscales of the Word Recognition Instrument, the data indicates that a significant relationship did exist. Thus hypothesis 5A, B, and C is rejected. Therefore a significant relationship did exist between IQ and performance on the Word Recognition Instrument.

An additional breakdown by IQ was conducted in an attempt to further clarify the findings relating to this hypothesis. The subjects were blocked according to IQ. Three groups were formed, the lower third included IQ's from 77-98, the middle third included IQ's from 98-110, and the upper third included IQ's from 112-167. This

TABLE 8

DATA RELATING TO IQ FOR THE THREE SUBSCALE GROUPS (N=97)

	R	R <sup>2</sup>	df	F
IQ				
Isolation	.300	.090	1, 95	9.45 <sup>a</sup>
Common Meaning	.285	.081	1, 95	8.43 <sup>a</sup>
Less Common Meaning	.304	.092	1, 95	9.65 <sup>a</sup>

<sup>a</sup>Significance at the .01 level, 1, 95 df = 6.90

information is presented in Table 9. As can be seen from the data, the high IQ group performed best on words in isolation, followed by sentences using the common meaning of the word, and poorest on sentences using a less common meaning of the word. The same pattern was true for the low IQ group. High and low IQ subjects had greater success pronouncing words in isolation than under either of the two context conditions.

Only the middle IQ group experienced greater success with words in context as compared to words in isolation, and they had greater success on the common meaning sentences than the less common meaning sentences. Their success with words in isolation was also greater than their success on the less common meaning sentences.

Thus it appears that students of all IQ groups are more successful at pronouncing words in isolation and in a common meaning sentence than at pronouncing words in a less common meaning sentence. It also appears that high and low IQ students had their greatest success at

TABLE 9

WORD RECOGNITION SUCCESS FOR THE THREE CONDITIONS OF THE WORD RECOGNITION INSTRUMENT  
FOR HIGH, MIDDLE, AND LOW IQ GROUPINGS

	N	Mean	Effect	df	Sum of Squares	Mean Squares	F
Isolation							
High IQ	32	15.19	Between Groups	2	190.54	95.27	2.80
Middle IQ	33	14.73	Within Groups	94	3203.42	34.08	
Low IQ	32	12.00	Total	96	3393.96		
Common Meaning							
High IQ	32	14.88	Between Groups	2	382.95	191.47	5.12 <sup>a</sup>
Middle IQ	33	15.88	Within Groups	94	3513.02	37.37	
Low IQ	32	11.25	Total	96	3895.96		
Less Common Meaning							
High IQ	32	13.69	Between Groups	2	376.98	188.49	5.07 <sup>a</sup>
Middle IQ	33	14.45	Within Groups	94	3496.93	37.20	
Low IQ	32	9.94	Total	96	3873.92		

<sup>a</sup>Significance at the .01 level, 2, 94 df = 4.82

pronouncing words in isolation, while the middle IQ group performed best on words in a common meaning sentence.

### Summary of the Findings

The findings from the analysis of the data are summarized by the following statements:

1. Hypothesis 1A was not rejected. No significant difference was noted in the performance of the subjects in this investigation on words in isolation as compared with words in a common meaning sentence.

2. Hypothesis 1B and C was rejected by the data in this investigation. The subjects differed in their ability to pronounce words in isolation and in a common meaning sentence when these two conditions were compared with their ability to pronounce words in a less common meaning sentence.

3. Hypothesis 2A, B, and C was not rejected. There was no significant difference indicated by this data between the performance of boys or of girls on the Word Recognition Instrument.

4. Hypothesis 3A, B, and C comparing the relationship between age and performance on the Word Recognition Instrument was not rejected.

5. The data did not support hypothesis 4A, B, and C, therefore this hypothesis was rejected. A significant relationship did exist between reading ability and performance on the Word Recognition Instrument.

6. Hypothesis 5A, B, and C comparing IQ and performance on the Word Recognition Instrument was not supported by the data and was therefore rejected.



## CHAPTER V

### SUMMARY OF THE INVESTIGATION

#### Purpose of the Study

The purpose of this investigation was to study children's ability to read words presented in isolation or in a meaningful context. Furthermore, this investigation attempted to determine whether differences exist in children's ability to read polysemous words in two settings: (1) when they are used in their most common meaning in a sentence, and (2) when they are used in a less common meaning in a sentence.

#### Summary of the Procedures

The sample for this investigation was comprised of second grade students drawn from five elementary schools in Grand Forks, North Dakota. Students from seven classrooms participated. They were systematically assigned to one of three Student Groups according to alphabetical order by class. All testing was conducted by the researcher during the time period of March 12 through April 6, 1973. Only those students present for all testing were included in the final sample of 97 subjects.

The instruments used in this investigation were: The Peabody Picture Vocabulary Test; the Gates-MacGinitie Reading Test, Primary B; and the Word Recognition Instrument. The PPVT was used to gain a

general indication of IQ for each subject. An estimate of reading ability was gained from the Gates-MacGinitie Reading Test which was administered by classroom teachers during September, 1972. The Word Recognition Instrument, designed by the researcher, was used to assess the word recognition ability of the subjects in three contexts: (1) the word in isolation, (2) the word used in a sentence in its most common meaning, and (3) the word used in a sentence in a less common meaning.

Sixty polysemous words were randomly selected from the Stone-Bartschi word list, level 2<sup>1</sup>-3<sup>2</sup>, for inclusion in the Word Recognition Instrument. The most common meaning and a less common meaning were determined for each of these words. Sentences were composed using each word in each of the two meanings. These sentences, along with the words in isolation, were then randomly divided into three groups, controlling for word level and condition (isolation, common meaning sentence, less common meaning sentence). These groups became Word Recognition Instrument, Form A, B, and C, and each one was randomly assigned to one of the Student Groups.

Students were asked to read aloud the words or sentences as they were presented to them. The student's response on each of the key words was noted, whether correct or incorrect, within the time limits established. Responses on words other than the key words were disregarded for purposes of this study.

The analysis of the data involved the use of a one way regression analysis of variance and a related t test. Reliability of the Word Recognition Instrument was determined using Cronbach's Alpha.

### Summary of the Limitations

This investigation is limited to the population from which the sample was drawn. Other limitations include the meanings established for the words, the language patterns of the subjects, and the conditions under which the testing was carried out.

### Summary of the Findings

Subject to the limitations identified earlier, the findings of the study are presented in the following statements.

1. There was no significant difference in the ability of second grade children to pronounce polysemous words presented in isolation as compared to the word being used in its most common meaning in a sentence.
2. Second grade students in this study were able to pronounce a significantly greater number of polysemous words used in isolation or a common meaning sentence as compared with those contained in a sentence using the word in a less common meaning.
3. There was no significant difference, as measured by the Word Recognition Instrument, in the ability of boys, as compared to girls, in pronouncing polysemous words presented in any of the three conditions.
4. There was no significant relationship between the age of the second graders in this study and their ability to pronounce polysemous words presented in each of the three conditions.
5. The reading ability of the second grade students in this study, as measured by the Gates-MacGinitie Reading Test, Primary B, was highly correlated with the student's ability to recognize

polysemous words in each of the three conditions tested by the Word Recognition Instrument.

6. Success in pronouncing polysemous words in all of the three subscales of the Word Recognition Instrument was significantly related to IQ as measured by the Peabody Picture Vocabulary Test.

### Discussion

Examination of the data related to this investigation raises several questions concerning the findings. While both Goodman (1965) and Levitt (1967) report findings which support greater success with words presented in a story context as compared with those same words presented in isolation, the results of this study do not completely agree with their conclusions. Words presented in this study in a sentence which used the word in a less common meaning context were recognized significantly less often than either of the other conditions, isolation or a common meaning context. Therefore this study suggests that words in context cannot be considered a superior way of presenting words to children.

There are several differences between this study and those of Goodman and Levitt which must be considered in accounting for the differences in the results of these investigations. While both Goodman and Levitt presented words in a story context, this study presented them in a sentence context. The greater length and number of contextual clues available in a story may contribute more to word recognition than a simple sentence is able to provide. However it seems to this researcher that a sentence context is more nearly what would be used in a classroom setting when introducing an unfamiliar word to students.

In this investigation there was a significant difference obtained in the mean scores of students when pronouncing words in isolation and common meaning words as compared with words used in a less common meaning. Perhaps the meanings of the words used by Levitt and Goodman were more familiar to the students than those used in this investigation, thus explaining the difference in the findings.

Students were allowed three seconds in which to pronounce each isolated word in this study. This may have allowed them time to analyze the word, therefore producing distorted results. However, when exposure time is not a factor, as it would not be in an actual classroom situation, perhaps presenting words in isolation is as effective for word recognition as presenting them in context.

Goodman's findings were based upon the difference in the number of words children missed in isolation but were able to pronounce correctly in context. Goodman was actually assessing the effect of context upon words which were unknown in isolation. The present investigation and Levitt's both assessed word recognition in various contexts. Perhaps the results of these two studies are not comparable to Goodman's investigation because of this difference.

Yetta Goodman (1970) found that grammatical usage affected word recognition in a contextual setting with the most common usage being recognized more often. In the present study each word changed its grammatical position (part of speech) as the meaning changed, e.g., a verb in a common meaning sentence may have been used as a noun in the less common meaning sentence. The less common meaning sentence also may have used the word in a less common grammatical usage. Therefore

the findings of this investigation seem to be consistent with Y. Goodman's results.

The highly significant relationship obtained relative to hypothesis four is not surprising since both instruments used in testing that hypothesis, the Gates-MacGinitie Reading Test and the Word Recognition Instrument, were testing success in reading.

In analyzing the data relating to hypothesis five, it is interesting to note that children in the middle intelligence group were more successful in pronouncing words contained in a common meaning sentence, while children of both higher and lower intelligence were more successful with words in isolation.

In view of the results obtained in this investigation, this researcher questions the basis for the statement of many reading authorities against presenting words to children in isolation. A more defensible position appears to be that of advocating the presentation of words in different settings, isolation and various contextual usages, in order to provide the best possible chance for recognition by all students.

#### Conclusions

This investigation has provided evidence which supports the following conclusions, subject to the limitations of the study:

1. Second grade students appear to be able to pronounce polysemous words equally well whether they are presented in isolation or in a sentence using the word in its most common meaning.
2. The context in which a word is used may cause confusion for second grade students if that context is an unfamiliar one.

3. There is no difference in second grade students' ability to pronounce words in context or isolation by either sex or age.

4. More intelligent students are able to read more words used in varying meanings than are less intelligent students.

5. The advice of reading experts against presenting words to children in isolation may not be justified.

#### Educational Implications

In this investigation an authoritative source (Random House Dictionary, 1967) was used to determine the most common and a less common meaning for each word. Assuming that these categories were correct for all subjects in the study (which they may not have been), then it is evident that teachers need to provide help to students in dealing with unfamiliar words, or familiar words used in unfamiliar ways. Background needs to be built to enable students to read and comprehend these words effectively. Unfamiliar meanings need to be explained to children and examples given to show the correct usage and context. Teachers need to be aware of the constraints that context imposes upon word recognition and be prepared to help students overcome these constraints.

Educators need to recognize that children often know only the common meaning of a word and are not familiar with the other meanings and usages that a word may have. In order to help a student extend his own vocabulary he needs to be exposed to and presented with the various usages of words. Teachers need to make a conscious effort to extend pupil vocabularies in this direction.

Since the findings of this investigation indicate that students performed as well reading words in isolation as those used in a common meaning sentence, and that each condition was better for some students, teachers need to use a variety of approaches in introducing unfamiliar words to students. Words should probably be presented to students both in isolation and in context, helping students to become familiar with the word in both conditions. Thus the child could become familiar with the graphic representation of the word without the need to distinguish it from other words which may or may not be familiar to him, as well as helping him become acquainted with the usage and meaning of the word.

The findings of this study have significant implications for writers of children's materials. Since performance on less common meaning sentences was significantly poorer than performance on the other two conditions, writers need to present unfamiliar words and usages of words carefully. Care must be taken to insure that unfamiliar word usages are presented clearly and understandably in order that students experience the greatest possible success in reading these materials.

#### Recommendations for Further Study

Several areas for additional study are suggested by this investigation:

The purpose of this study was to investigate the recognition ability of second grade students in pronouncing words in three different conditions. Since the findings indicate that differences did exist according to the conditions of presentation, the logical



question to be asked next is: Do children learn words more effectively when they are presented and taught in one of these three conditions? Research needs to be carried out in an actual classroom situation which is designed to investigate this question. Words could be presented to students consistently in only one of the three conditions with the effectiveness of each practice being determined over a sufficiently long period of time, preferably at least a year.

A similar study could be conducted with printed materials. These materials could be written using words in the two varying contextual conditions. Both vocabulary development and reading ability should be assessed after a suitable period of contact with these materials.

One of the limitations of this investigation was that the meanings established for the words, common and less common, may not have corresponded to that same category for each pupil. Therefore an additional investigation needs to be conducted, determining the most common and a less common usage of the words contained in the study for each subject involved and using those meanings to assess recognition ability.

This investigation used words selected from the Stone-Bartschi word list. Would the results remain the same if alternate words were selected, if another word list was used from which to select words, if different levels of words were used, if words selected from the student's own writing were used, if words which were unknown by the subjects were used, would context then improve word recognition?

This investigation was conducted with second grade students. Since the literature indicates that vocabulary develops with age, this same general study needs to be conducted with pupils at various grade levels.

The review of the literature indicated that differences exist in children's ability to recognize words in various grammatical positions, i.e., nouns, verbs, adjectives. An investigation to determine the effect of changing the meaning of a word in a sentence without also changing its grammatical position needs to be carried out.

The results of this study differed in part with the results of other studies designed to answer a similar question. A clear-cut distinction between students' ability to recognize words in isolation as compared to words in context was not found. Therefore, additional investigations designed to answer this same general question need to be conducted.

APPENDIX A

WORDS SELECTED FOR THE WORD RECOGNITION

INSTRUMENT BY LEVEL AND CONDITION

Level 2<sup>1</sup> Words

Catch

Circus

Clean

Count

Fall

Fence

Field

Pick

Push

Watch

Level 2<sup>1</sup> Words Used in a Sentence in Their Most Common Meaning

He will catch a fish.

He saw a large circus.

It was a clean rag.

He will count the candy.

He will fall down.

He saw the white fence.

He saw a big field.

He will pick it up.

We will push the box.

We will watch the sea.

Level 2<sup>1</sup> Words Used in a Sentence in a Less Common Meaning

It was a big catch.

He saw the circus horse.

He will clean the pan.

The count was right.

It was a long fall.

He will fence in the cows.

He will field the ball.

You may take your pick.

It was a hard push.

It was a long watch.

Level 2<sup>2</sup> Words

Drink

Face

Farm

Mine

Pack

Point

Slow

Voice

Wall

Wash

Level 2<sup>2</sup> Words Used in a Sentence in Their Most Common Meaning

He will drink the milk.

He had a sad face.

He saw a big farm.

That is mine.

He saw a big pack.

It has a sharp point.

It was a slow ride.

It was a loud voice.

He saw a red wall.

You may wash your hands.



Level 2<sup>2</sup> Words Used in a Sentence in a Less Common Meaning

He had a cold drink.

He will face the class.

He will farm the land.

It was a deep mine.

He will pack the car.

He will point the way.

We will slow down.

You may voice your joy.

There was wall space.

He will give the car a wash.

Level 3<sup>1</sup> Words

Bean

Break

Bridge

Bug

Cave

Change

Crowd

Hunt

Log

Part

Pass

Paw

File

Reach

Shop

Slice

Smoke

Spread

Trip

Whisper

Level 3<sup>1</sup> Words Used in a Sentence in Their Most Common Meaning

He saw a large bean.

He will break the glass.

It was a long bridge.

He saw a small bug.

We saw a dark cave.

He will change the water.

He saw a large crowd.

He will hunt the dog.

He saw the long log.

He has the large part.

He will pass the car.

We saw the dog's paw.

He saw a rock pile.

He will reach the side.

He saw a small shop.

He will slide the box.

We saw the black smoke.

He will spread the paper.

It was a long trip.

He will whisper the news.

Level 3<sup>1</sup> Words Used in a Sentence in a Less Common Meaning

He will bean the batter.

He saw a break in the rope.

He will bridge the gap.

He will bug the room.

It will cave in.

It was a fast change.

They will crowd the gate.

It was a long hunt.

We will log the hill.

He will part the hair.

It was a high pass.

He will paw the ground.

He will pile it.

It was a long reach.

We will shop for shoes.

It was a long slide.

He will smoke the pipe.

We saw the spread of branches.

He will trip the boy.

It was a loud whisper.

Level 3<sup>2</sup> Words

Bone

Broke

Cast

Club

Coast

Herd

Hog

Hollow

Iron

Loaf

Puzzle

Reason

Rule

Shed

Spare

Study

Sweep

Switch

Yell

Level 3<sup>2</sup> Words Used in a Sentence in Their Most Common Meaning

He saw the dog's bone.

He broke it.

He will cast the rope.

He had a long club.

He saw a rocky coast.

He saw a large herd.

He saw a big hog.

He had a hollow ball.

It was made of iron.

He saw a large loaf.

It was a hard puzzle.

He had a good reason.

The rule was good.

He saw a small shed.

It was a thin slice.

We will spare the tree.

He will study hard.

He will sweep the floor.

He had a long switch.

He will yell for help.

Level 3<sup>2</sup> Words Used in a Sentence in a Less Common Meaning

We will bone a turkey.

He is broke.

It was a good cast.

He will club the animal.

He will coast down.

He will herd the cows.

They will hog the food.

He will hollow out the boat.

He will iron the clothes.

He will loaf all day.

We will puzzle out the game.

We will reason it out.

He will rule the people.

He will shed his coat.

He will slice the bread.

He will get the spare.

He put in long hours of study.

It was a fast sweep.

He will switch the boy.

It was a loud yell.

APPENDIX B

WORD RECOGNITION INSTRUMENT, FORM A, B, AND C



## WORD RECOGNITION INSTRUMENT, FORM A

He will spread the paper.

He saw a rock pile.

He saw a big field.

It was a fast sweep.

rule

switch

It was made of iron.

He will coast down.

He will face the class.

He will pack the car.

It was a slow ride.

He will slice the bread.

log

It was a long reach.

mine

point

drink

He will bug the room.

He will break the glass.

He saw a large crowd.

He will clean the pan.

You may take your pick.

He saw the white fence.

cave

He will get the spare.

It was a loud whisper.

watch

puzzle

There was wall space.

trip

He will hunt the dog.

He put in long hours of study.

He saw a big hog.

He will herd the cows.

change

He saw a large circus.

He will pass the car.

He saw the dog's bone.

He will bridge the gap.

paw

The count was right.

He saw a big farm.

yell

He will loaf all day.

He saw a small shed.

He had a good reason.

hollow

fall

He will catch a fish.

push

You may voice your joy.

He saw a small shop.

broke

You may wash your hands.

part

smoke

He will bean the batter.

cast

He will club the animal.

It was a long slide.

## WORD RECOGNITION INSTRUMENT, FORM B

He will give the car a wash.

wall

It was a high pass.

He had a hollow ball.

They will hog the food.

He saw the circus horse.

He broke it.

bug whisper

He will iron the clothes.

coast

We saw the dog's paw.

The rule was good.

He saw a break in the rope.

clean

He will pile it.

We will reason it out.

He will shed his coat.

He will yell for help.

slide

We will slow down.

It has a sharp point.

We saw the black smoke.

voice

He will fence in the cows.

We saw the spread of branches.

spare

face

He will fall down.

He has the large part.

He will study hard.

pack

He had a long switch.

We will watch the sea.

We will shop for shoes.

bean

He will change the water.

loaf

We saw a dark cave.

slice

bridge

He will drink the milk.

It was a long hunt.

He will field the ball.

pick

count

sweep

We will push the box.

That is mine.

It was a big catch.

herd

club

They will crowd the gate.

We will bone a turkey.

He will farm the land.

It was a hard puzzle.

He saw the long log.

It was a long trip.

reach

He will cast the rope.

## WORD RECOGNITION INSTRUMENT, FORM C

He will slide the box.

It was a clean rag.

farm

He had a long club.

slow

It will cave in.

He will point the way.

He will paw the ground.

He is broke.

hunt

It was a long bridge.

He had a cold drink.

He will pick it up.

fence

We will puzzle out the game.

He will smoke the pipe.

shop

wash

bone

He had a sad face.

He saw a rocky coast.

catch

He will count the candy.

He saw a large bean.

He will sweep the floor.

It was a hard push.

He saw a large herd.

pile

He will part the hair.

He saw a big pack.

We will spare the tree.

It was a loud yell.

field

spread

He will switch the boy.

It was a long watch.

It was a good cast.

He saw a red wall.

He will reach the side.

He will rule the people.

crowd

He will trip the boy.

study

He saw a small bug.

It was a loud voice.

It was a long fall.

iron

reason

It was a thin slice.

He will hollow out the boat.



pass

He will whisper the news.

hog

It was a fast change.

It was a deep mine.

He saw a large loaf.

circus

break

We will log the hill.

shed

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