8-1980

An Investigation into the Effectiveness of a Teacher Directed versus an Independent Method of Teaching Students the Use of Context Clues

Maureen Preston

The College at Brockport

Follow this and additional works at: https://digitalcommons.brockport.edu/ehd_theses

Part of the Curriculum and Instruction Commons, Educational Methods Commons, and the Language and Literacy Education Commons

To learn more about our programs visit: http://www.brockport.edu/ehd/

Repository Citation


https://digitalcommons.brockport.edu/ehd_theses/1141

This Thesis is brought to you for free and open access by the Education and Human Development at Digital Commons @Brockport. It has been accepted for inclusion in Education and Human Development Master’s Theses by an authorized administrator of Digital Commons @Brockport. For more information, please contact kmyers@brockport.edu.
AN INVESTIGATION INTO THE EFFECTIVENESS OF A TEACHER DIRECTED VERSUS AN INDEPENDENT METHOD OF TEACHING STUDENTS THE USE OF CONTEXT CLUES

THESIS

Submitted to the Graduate Committee of the Department of Curriculum and Instruction Faculty of Education State University College at Brockport in Partial Fulfillment of the Requirements for the Degree of Master of Science in Education

by

Maureen Preston

State University College at Brockport
Brockport, New York
August, 1980
SUBMITTED BY:

Maureen Preston

APPROVED BY:

Frances Moroney 8/27/80
Thesis Advisor Date

Susan L. Begg 8/25/80
Second Faculty Reader

Norman J. Hill 8/28/80
Chair, Graduate Policies Committee Date
Abstract

The purpose of this study was to investigate the effect of a teacher directed approach versus an independent approach of teaching students to use context clues to determine word meaning. A randomized, two treatment, control group posttest design was used for the study. The sample consisted of 30 students (three classes) taught by the same team of instructors and equated in terms of age, reading level and pretreatment use of context clues.

Eighty words were selected from the social studies units to be studied during the eight week treatment period. The 80 words were divided into five word blocks--one block for each treatment session. During each session both treatment groups read the identical five passages. Each passage, varying in length from one to three sentences, contained one vocabulary word in context and defined that word using one of Deighton's (1959) categories of context clues (example, restatement, definition and modifier). Deighton's fifth category, inference, was not included.

One treatment group (teacher directed) read the passage orally and through questioning and discussion the experimenter elicited from the students the context category present and the meaning of the vocabulary word.

A second treatment group (independent group) read the five passages silently and answered a question following each passage which required the students to apply the meaning of the vocabulary word to their own experiences.
The control group received no treatment.

Upon completion of the eight week treatment period students were posttested on their ability to use context clues. The posttest consisted of 26 items, each containing a nonsense word in context. Each item defined the nonsense word using one of Deighton's context clue categories. Following each item the student had to choose the correct meaning for the nonsense word.

An analysis of variance and Lindquist's (1956) test of critical differences were used to analyze the data at a .05 level of significance. The results indicated the teacher directed method of teaching students to use context clues was significantly better than the independent method and both methods were significantly better than no instruction. Recommendations for classroom application as well as suggestions for future research were given.
# Table of Contents

List of Tables ........................................ iv

Chapter

I. Statement of the Problem ......................... 1

  Purpose ........................................ 1
  Need for the Study ............................. 1
  Hypotheses .................................. 5
  Definitions .................................. 5
  Limitations of the Study .................. 6
  Summary .................................... 6

II. Review of the Literature ....................... 7

  Purpose .................................. 7
  Content Area Vocabulary Learning .......... 7
  Contextual Clues ............................. 10
  Summary .................................. 15

III. The Research Design ............................ 16

  Hypotheses ................................ 16
  Methodology ................................ 16
  Analysis of the Data ....................... 20
  Summary .................................. 20

IV. Analysis of Data ................................ 21

  Findings and Interpretations .............. 21
  Summary .................................. 24

V. Conclusions and Implications ................. 25

  Conclusions ................................ 25
  Implications for Research .................. 26
  Classroom Implications ..................... 27
  Limitations ................................ 28
  Summary .................................. 28

References ....................................... 30
Table of Contents (Continued)

Appendices

<table>
<thead>
<tr>
<th>A. Use of Context Pretest/Posttest</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Independent Group Context Exercises</td>
<td>43</td>
</tr>
</tbody>
</table>
# List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Equation of Control and Treatment Groups</td>
<td>17</td>
</tr>
<tr>
<td>2. Posttest Group Means and Standard Deviation - Use of Context</td>
<td>22</td>
</tr>
<tr>
<td>3. Analysis of Variance Summary - Use of Context Posttest</td>
<td>22</td>
</tr>
<tr>
<td>4. Differences Between the Posttest Means - Use of Context</td>
<td>23</td>
</tr>
</tbody>
</table>
Chapter I

Statement of the Problem

Purpose
The purpose of this study was to investigate the effectiveness of two methods of teaching seventh grade remedial students to use context clues: independent versus teacher directed.

A randomized, control group, posttest design was used for the investigation. In one treatment group (teacher directed) students were directly instructed in the use of and categories of context clues. In the second treatment group (independent) students read passages which contained context clues but these clues were not pointed out nor were the clues discussed by the instructor. After reading a passage, students in the independent group were asked a question in which they had to apply the meaning of the vocabulary word. The control group received no instruction involving context clues.

Need for the Study
Students often enter context courses lacking the necessary skills and background to handle technical reading. Many reading authorities today agree with Herber (1978) that reading skills should be taught functionally in a content classroom, rather than indirectly in a reading classroom (Patberg, 1979). It is also commonly accepted that vocabulary development is fundamental to content
comprehension (Herber, 1970). According to Allington (1976) teachers must first develop the word meanings that will serve as prerequisite knowledge for later knowledge. These word meanings are essential in building the understanding necessary in concept formation (Sutton, 1963).

A review of the literature reveals that there are numerous methods for teaching vocabulary; from dictionary drills to word games (Manzo, 1973). The preteaching of vocabulary is highly recommended (Herber, 1978; Thomas & Robinson, 1977). There are two points of view concerning preteaching (Patberg, 1979). One technique is to preteach key vocabulary using a short direct technique. Here the emphasis is on the successful reading and understanding of a particular assignment. The second approach is to preteach the words using a strategy that will both teach the meaning of particular words and help the student learn vocabulary development skills necessary for independent reading. According to Rowell (1978) in this second approach teachers are working to improve among students both the number of words known (the product) and the ability to learn new words (the process). This second approach is exemplified in Herber's (1978) method for vocabulary development and would appear to be the more practical approach. As Herber (1970) states, "Given the limitation of time and the extensiveness of the curriculum, it is not possible for a classroom teacher to teach every technical word that his students will encounter during their studies of his subject" (p. 151).
One process which facilitates both the learning of specific vocabulary and at the same time develops student skills is teaching the use of context clues. The importance of the relationship of context clues to the reading act is documented in research studies (Askov & Kamm, 1976) and most texts on reading instruction (Allington, 1976; Dale, 1972; Herber, 1978, & Whisler, 1977).

Reading authorities (Herber, 1970; Spache & Spache, 1975) agree that the use of context clues is one of the more important determinants in word recognition for both beginning and mature readers. Spache and Spache (1975) suggest that as the reader matures contextual analysis becomes one of the most frequently used tools for "comprehending strange words" (p. 498).

Classroom experience and research investigations suggest that lack of skill in using context is quite prevalent among students (Burns, 1967). Strang (1944) researched the reactions of high school and college students to unfamiliar words in context. She concluded that students have only vague knowledge of context clues and how to use them to derive meaning from an unknown word. Petty, Herold and Stoll (1967), in a review of the research, stated, "Even in a well written paragraph students may not obtain meaning from context without specific direction from the teacher" (p. 30).

Many researchers (Hafner, 1965; McCullough, 1958; Quealy, 1969; Rankin & Overholser, 1969) concur with Petty et al. (1967) that students need direct instruction in the use of context clues. While Gipe (1978-1979) found the context method to be significantly more effective in teaching word meaning than an association method, a
category method and a dictionary method, her context method did not include direct instruction in the use of context clues. It did require that the subjects read a three sentence passage in which each sentence used an unfamiliar word in a defining context. Each subject was asked to respond in writing to a question at the end of the passage with a word or phrase from his personal background experiences that further exemplified the unfamiliar word.

If the students in Gipe's study were able to learn the meanings of new words through their presentation in context and were also able to apply that meaning to a familiar experience, is it possible that they were also developing skill in using context clues independent of direct instruction?

It is clear from the literature that content vocabulary must be taught. It is also clear that it is not possible to teach every word that a student needs to know. Teaching students to use context clues is one method of vocabulary development which can be used to teach specific content vocabulary and develop skills in students for learning independently. More empirical evidence is needed to establish whether or not teaching students to utilize context clues does in fact help them to use context more effectively and additional research is needed to determine what methods can be used to teach students to use context clues. The findings of this study will help evaluate the effectiveness of two methods (teacher directed versus independent) of teaching the use of context clues.
Hypotheses

1. There is no significant difference between a teacher directed group and an independent group in their use of context clues as shown by a multiple choice posttest.

2. There is no significant difference between a teacher directed group and a control group in their use of context clues as shown by a multiple choice posttest.

3. There is no significant difference between an independent group and a control group in their use of context clues as shown by a multiple choice posttest.

Definitions

Context Clues as defined by Whisler (1977) are "... bits of information gained by the reader from the sense of the surrounding words, sentences and language patterns that are sufficient to bring meaning to an unknown word" (p. 2).

Deighton (1964) defines context clue categories as ways in which context reveals meaning. The four of Deighton's context clue categories used in this study are defined below:

a. **Definition:** A writer often defines a word he thinks may not be familiar to the reader. (p. 26)
   
   e.g. An event that has a high probability of happening is one that is likely to happen. (p. 26)

b. **Restatement:** A writer may restate the meaning of a word in other words. Often the restatement is separated by commas, parentheses, or dashes. Sometimes, the writer calls attention to the restatement by signal words such as, or, in other words or, that is. (p. 26)
   
   e.g. As tribes began to migrate, or to travel from their homeland, some pushed westward into Europe. (p. 27)
c. Examples: Sometimes, to make a term clear, the writer will give examples of specific things or events to which it applies. Often he will use the signal words such as like, or these to alert the reader. (p. 30)

e.g. You can identify a continent from its surface features, such as plains, mountains, and plateaus. (p. 30)

d. Modifiers: Quite often a writer will explain the meaning of a word by adding a phrase or clause. These modifiers usually appear after the terms they explain. (p. 31)

e.g. One early pirate became known as a philanthropist, giving away huge sums of money to the poor people of his home town. (p. 31)

Limitations of the Study

The sample consisted of 30 students at the seventh grade level in one inner city junior high school.

Deighton's (1959) fifth category of context clues, inference, was not included in this study.

Summary

The literature reviewed showed a need for the teaching of content vocabulary in such a way as to develop in students those skills which they can later apply independently. This study investigated the effectiveness of two methods of teaching students to use context clues: independent versus teacher directed.
Chapter II

Review of the Literature

Purpose

The purpose of this study was to investigate the effectiveness of a teacher directed method versus an independent method of teaching students the use of context clues to develop word meaning. This investigation dealt with two areas of reading research and the literature surveyed was divided into the following categories accordingly:

- Content area vocabulary learning
- Contextual clues

Content Area Vocabulary Learning

The technical language of content area instruction often causes communication problems for students. Certain skills are necessary to successful reading in any of the content fields. Developing prerequisite learning skills and providing knowledge prerequisite to further learning are two common problems of content area teachers (Allington, 1976).

As Spache and Spache (1969) stated "pupils cannot be expected to show successful comprehension in materials with unfamiliar vocabulary, presenting concepts beyond their experiential background" (pp. 463-464).
Since vocabulary development is fundamental to comprehension students must have knowledge of the language of the content vocabulary if they are to master content material (Ahrendt, 1977). Content teachers must take some responsibility for preparing their students because few, if any, poor readers and below average achievers enter content courses with the necessary background and skills to handle the technical vocabulary common to content area instruction (Petty et al., 1967).

Development of vocabulary understanding and use of many words are necessary for content concept attainment and concept development is a basic factor helping students comprehend written materials (Sutton, 1963). "Words and concepts are the raw materials of thinking" (Sutton, 1963, p. 540). Serra (1953), in her review of the research on concept development contends that because of the impossibility of students gaining understanding of every concept through direct experience, the medium of language (vocabulary) is very important. Phillips (cited in Serra), in a study involving sixth graders, reported that adequate preparation (vocabulary development) was a necessary component of concept development.

Petty et al. (1967) concluded, from their literature search of vocabulary studies, that no particular method has been proven more effective over any other method and few vocabulary techniques have their basis in concept development theory. However, some vocabulary instruction increases learning more than does no vocabulary instruction.
One recent exception to the conclusion reached by Petty et al. is a study by Gipe (1978-1979). Gipe examined four methods of teaching word meanings: association, category, context and dictionary. Her methods, based on cognitive development theories and memory processes relevant to learning word meanings, found the context method was the most effective. Another method, associating new words with familiar synonyms, was also supported.

After the content teacher accepts responsibility for preparing his students for the conceptual load of his course, a basic concern is having sufficient time to accomplish all the curriculum objectives (Herber, 1978). Vocabulary development is only one among many objectives. This fact forces teachers to make decisions on the distribution of available time for instructional purposes. What is needed is an approach that develops in students skills for developing word meaning at the same time that it develops specific content vocabulary (Dale, 1972). Vocabulary instruction needs to do more than help the student with the day to day burdens of learning content area material (Riley, 1979). Content determines what words and concepts need to be developed but the instructor can choose from many processes to present the concepts (Estes & Vaughn, 1978; Lee, 1978). Herber (1978) also supports discrimination in use of processes used to develop content vocabulary.

Vocabulary is not a one dimensional process as Rowell (1978) noted. Vocabulary can be looked at from a product or process orientation. In the latter orientation teachers are working to improve among students both the number of words known (the product)
and the ability of students to learn new words (the process).

Durrell (1956) labeled the ability of students to analyze new words independently and be able to add to their reading vocabulary without aid from teachers word power. As Dale (1972) emphasized, it is important to teach knowledge that generates knowledge.

Alvin Toffler (1970), author of *Future Shock*, warns that "Education must shift into the future sense" (p. 427). He prophesizes that "Tommorrow's illiterate will not be the man who cannot read; he will be the man who has not learned how to learn" (p. 414). This is especially true in the social sciences. A student who memorized the countries of Africa ten years ago would find that knowledge obsolete today. A student who learned how to read maps could look at a modern map of Africa and name its countries today.

**Contextual Clues**

Authorities in the field of reading have attested to the importance of context as a determinant of word meaning for many years. As early as 1917 Thorndike (cited in Quealy, 1969) treated reading as a high level thinking process in which words constituted the stimuli which operated to reconstruct meaning in the mind of the reader. Aulls (1970), in a review of the literature, reported that since the 1930's the research literature in education has tended to conceptualize context as some specified segment of printed language which provides clues that the reader uses to determine meaning (Eckert, 1928; Burgard, 1950; Stearns, 1954). McKee (1966) wrote "Use of context is the chief means for increasing vocabulary through
reading" (p. 264). McCrimmon (1957) stated "in practice we learn
the meanings of words by their context . . . This is exactly how
the writers or dictionaries got their definitions" (p. 157).

Leary (1951) advocates:

Train a child to anticipate probable meaning, to infer an
unknown word from its total context, to skip a word and
read on to derive its probable meaning, to check the
context for a description or explanation that will identify
the word and he will have acquired the most important single
aid to word recognition. For, regardless of what he
perceives, if it doesn't make sense in its setting, his
perceptions must be in error. (p. 25)

Fay (1956) and Gates (1947) have similar statements supporting
the use of context. More recent reading authorities (Herber, 1970;
Spache & Spache, 1975) have continued to discuss the importance of
c context. Spache and Spache (1975) state:

Eventually contextual analysis becomes one of the most
frequently used methods of derivation of word meaning . . .
Most college and adult readers use letter sounds or
structural elements very little . . . Thus contextual
analysis becomes the reader's main tool for comprehending
strange words. (pp. 497-498)

Much of the research in the area of the use of context clues
to determine the meaning of unknown words has been concerned with
classifying the types of context clues. In a review of more than
20 studies prior to 1970, Aulls (1970) reported that from 1940 to
the mid 1960's, some form of contextual clue scheme has been used
to test the percentage of times a reader correctly determined the
meaning of a word. He also reported inconsistent findings in the
research related to context clues and attributed these to varying
cue categories, response measures, characteristics of sample
populations and conditions under which subjects were selected and tested.
Many reading authorities enumerate what they consider to be important clues. Depending upon one's definition of "context" some clues may appear more appropriate than others. Artley (1943), Deighton (1959) and McCullough (1943) analyzed context clues on the basis of their use in books while Ames (1966) sought to determine contextual aids from the verbal responses of mature readers as they replaced nonsense words in passages with words of appropriate meaning.

Although there are similarities and overlappings among the types of context clue categories, no single category was listed by Artley (1943), Ames (1966), Deighton (1959) and McCullough (1943). In studies reviewed by Dulin (1969), both Artley (1943) and McCullough (1943) concurred that individual discreet types of contextual clues seldom occurred in typical prose. However, they justified their groupings on the premise that systematic teaching of these defined skills demanded precise delineation. McCullough's (1943) categories of clues include experience clues, comparison or contrast words or phrases, synonyms, summary clues, reflection of mood or situation, definition and familiar experiences.

Deighton (1959) analyzing the types of context clues found in textbooks on an eighth grade to adult reading level found context illuminated word meaning through definition, example, modification, restatement and inference.

Throughout the literature the need for specific instruction in the use of contextual aids has been emphasized (Petty et al., 1967; Quealy, 1969; Rankin & Overholser, 1969). In 1958 McCullough stated:
But like every other reading skill that has been investigated, awareness and use of contextual aids are best affected by direct teaching and continuous attention. (p. 299)

A similar recommendation was made by Karlin (1971): "To effect the greatest utilization of contextual aids children should be taught to recognize common types that they will encounter" (p. 185).

Despite the emphasis in the literature on the necessity of instructing students in the use of context clues, Timian and Santeusanio (1974) comment that there is little evidence that teachers evaluate their students' mastery of this skill. Timian and Santeusanio attribute the lack of evaluation of children's use of context clues to the difficulty in teaching these clues and in measuring their use. They suggest a format for testing a child's use of context clues consisting of items which represent the categories of clues outlined by McCullough (1943). In a literature review conducted to determine what context clues could effectively be taught and what pedagogical approach should be used, Humes (1978) concluded that the literature did not provide adequate information. An examination of various practice materials intended to help students develop skill in using context clues revealed that for the most part such exercises provided practice without providing instruction in using the different kinds of context clues that content area material is likely to contain (Lee, 1978).

Investigations involving teaching students the use of context clues have yielded ambiguous results.
Third, fourth and fifth graders were trained in using two specific types of context clues in a study by Askov and Kamm (1976). These children made significant gains in utilizing these context clue categories and maintained their gains as compared with control subjects not receiving the training. Two other studies (Hafner, 1965; Porter, 1960) suggest more guidance in the use of contextual analysis provides for growth in this technique. Porter (cited in Burns, 1967) found that primary children can learn to use contextual analysis of simple types quite effectively. When words were completely omitted from the context, pupils were able to deduce probable meanings of the omitted words 83% of the time.

In a study involving fifth graders, Hafner (1965) found that short term instruction in the use of context aids did not differentiate between the experimental and control groups in a statistically significant manner. However, Hafner concluded, short term instruction in the use of context aids seemed to hold promise of improving the reading comprehension of students. Similar conclusions were reported by Harrison (1960).

Still other studies indicate that context instruction is not always successful (Deighton, 1959; Rankin & Overholser, 1969). One reason for this lack of success as Petty et al. (1967) suggest may be that contextual clues are sometimes presented superficially. Humes' (1978) appraisal of currently available instructional materials supports Petty et al.'s contention. Humes found that authorities on vocabulary instruction neither name nor describe the cognitive processes involved in extracting meaning from context.
Burns (1967) delineates several possible advantages to the reader who learns to use context wisely. These include:
1) understanding that a word has no permanent meaning reflects a living language; 2) making use of available material instead of having to go to another source such as the dictionary; and 3) improving learning to read while reading to learn, thus facilitating integration of skill learning with content learning.

Whisler (1977) enumerates additional advantages: 1) Context clues help students remember words they learned earlier but may have forgotten; 2) Context clues may be combined with other word analysis clues to check for accuracy; and 3) Frequently context clues are required to determine the correct meaning of a word where several meanings are possible.

Summary

Content material cannot be fully comprehended by students unless they are familiar with the language (vocabulary) of that content. A review of the literature supports the teaching of content vocabulary in a time efficient manner because content teachers are limited in the amount of time they have to spend on vocabulary development. Teaching a student to decipher vocabulary meaning using context is one way of improving both the specific content vocabulary of the student and his ability to analyze new words independently. The research and literature on context clues are inconsistent for reasons cited by Aulls (1970). This is an area in which more research is needed either to reject or support the findings of the past.
Chapter III

The Research Design

The purpose of this study was to determine whether direct instruction and independent exercises could effectively teach students to use context clues to determine vocabulary meaning.

Hypotheses

1. There is no significant difference between a teacher directed group and an independent group in their use of context clues as shown by a multiple choice posttest.

2. There is no significant difference between a teacher directed group and a control group in their use of context clues as shown by a multiple choice posttest.

3. There is no significant difference between an independent and a control group in their use of context clues as shown by a multiple choice posttest.

Methodology

Subjects

The subjects involved in this study were seventh grade students attending an inner city school in a predominantly low socioeconomic area.

A total of 45 students participated in this study during the regular meeting of their social studies class which was taught by a
reading teacher/social studies teacher team. Nine students were eliminated from the study due to either poor attendance or lack of test score data necessary to equate the groups. Three additional students were eliminated because they scored above 85% on a context pretest, indicating prior knowledge of the use of context clues. Of the remaining students, 14 were male and 16 were female. The analysis of variance was used to test the equality of the three classes with regard to reading level, age and ability to use context. Table 1 provides the means and standard deviations which resulted from this analysis.

Table 1

<table>
<thead>
<tr>
<th>Groups</th>
<th>Reading Level</th>
<th>Age in Months</th>
<th>Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>2.89 grade score</td>
<td>160.29</td>
<td>16.43</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.47</td>
<td>7.89</td>
<td>2.82</td>
</tr>
<tr>
<td>Teacher Directed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>3.39 grade score</td>
<td>163.45</td>
<td>17.27</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.03</td>
<td>5.77</td>
<td>3.55</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>3.12</td>
<td>161.25</td>
<td>15.50</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.076</td>
<td>5.22</td>
<td>4.38</td>
</tr>
</tbody>
</table>
For reading level, the calculated F-ratio (0.51) was less critical than the critical F-ratio (4.24). This indicated that for \( F(2,27) \alpha = 0.05 \), there was no significant difference among the three groups. The reading level data was taken from the October 1979 Metropolitan Achievement Test, Advanced I, Form I.

For age the calculated F-ratio (0.67) was less than the critical F-ratio (4.24). This indicated that for \( F(2,27) \alpha = 0.05 \), there was no significant difference among the groups.

On the pretest the calculated F-ratio (0.63) was less than the critical F-ratio (4.24). This indicated that for \( F(2,27) \alpha = 0.05 \), there was no significant difference among the groups.

The results indicated there were no significant differences among the groups for age, reading level and ability to determine meaning from context. The three classes were randomly assigned to the control and experimental groups.

**Instruments**

A pretest was administered before the treatment period in order to make sure the groups were equated in terms of ability to determine meaning from context. This test may be found in Appendix A. This test was readministered at the end of the study as a posttest.

The test was designed by the experimenter and consisted of 26 items. Each item contained a nonsense word in context varying in length from one to three sentences. Each item defined the nonsense word using one of Deighton's context clue categories. Following each item the student had to choose (multiple choice format) the correct
meaning for the underlined nonsense word. A fourth choice of "I don't know" was present to eliminate guessing and to project a true representation of the student's use of available clues.

The exercises for both treatment groups were also designed by this experimenter. Eighty vocabulary words were selected from the readings and texts to be used by the social studies teacher during the duration of this study. A one to three sentence passage was developed for each word. At least one sentence of each passage defined the word using one of Deighton's context clue categories.

In addition to a passage, each item for the independent treatment group contained a question in which the students had to apply the meaning of the vocabulary based upon their experiences. These exercises may be found in Appendix B.

Procedures

This author instructed both treatment groups twice a week for a period of eight weeks. During each 20 minute session five vocabulary words were presented in context.

The teacher directed group received direct instruction in Deighton's (1959) context clue categories. Each context clue category was introduced to the class and defined by the experimenter during the first week of the treatment. During each 20 minute session the experimenter presented five vocabulary words in context (one to three sentences) on the overhead projector to the entire class. For each word the experimenter elicited, through questioning and discussion, the context clue category present, the clue or signal that made this category apparent and finally, the meaning of the unknown word.
In the second treatment group (independent group) students silently read the same five passages each treatment period but the clues present were not pointed out nor were they discussed by the instructor. In addition, after reading each passage students in the independent group were asked to respond in writing to a question which required them to apply the meaning of the vocabulary word. It was felt that if forced to apply the meaning of a word, the student would go back to the passage to locate the meaning (context clue which defined the word), thereby learning to use context clues independently.

Analysis of Data

Posttest scores of those who learned to use context clues by direct instruction were compared with the posttest scores of students who had independent instruction and were also compared with those who had no instruction in the use of context clues. An analysis of variance and test of critical difference were used to test the hypotheses at the .05 level of significance.

Summary

A randomized, control group, posttest design was used for this study. The sample consisted of 30 subjects (three classes) taught by the reading teacher/social studies teacher team. The three classes were equated in terms of reading level, age and pretreatment use of context clues to determine word meaning. An analysis of variance and test of critical difference design were used to analyze the data for the hypotheses.
Chapter IV

Analysis of Data

The purpose of this investigation was to assess a teacher directed and an independent method of teaching students to use context clues to determine word meaning.

Findings and Interpretations

The following hypotheses were investigated:

1. There is no significant difference between a teacher directed group and an independent group in their use of context clues as shown by a multiple choice posttest.

2. There is no significant difference between a teacher directed group and a control group in their use of context clues as shown by a multiple choice posttest.

3. There is no significant difference between an independent group and a control group in their use of context clues as shown by a multiple choice posttest.

The hypotheses were to determine whether significant differences existed among the posttest scores of the teacher directed, the independent and the control groups. An F-ratio was used to test the hypotheses at the .05 level of significance. Table 2 provides the posttest means and standard deviations obtained from this analysis.
Table 2

Posttest Group Means and Standard Deviations

Use of Context

<table>
<thead>
<tr>
<th>Source</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>15.43</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>4.04</td>
</tr>
<tr>
<td>Teacher Directed</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>22.09</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>3.59</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>18.92</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>3.53</td>
</tr>
</tbody>
</table>

The teacher directed group's mean was higher than the independent group's mean and the independent group's mean was higher than the control group's mean.

Table 3 provides a summary of the statistics resulting from the analysis of variance.

Table 3

Analysis of Variance Summary

Use of Context Posttest

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F ratio</th>
<th>Crit. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>2</td>
<td>192.3</td>
<td>92.6</td>
<td>7.43</td>
<td>4.24</td>
</tr>
<tr>
<td>Within-groups</td>
<td>27</td>
<td>349.3</td>
<td>12.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>541.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p > .05
As the data in Table 3 illustrate the calculated F-ratio (7.43) was higher than the Critical F (4.24), indicating a significant difference was present.

To determine where the significant difference was located, the value of the critical difference was obtained using Lindquist's (1956) formula for critical difference. This critical difference was compared with the differences between the posttest means of the groups. The results of this analysis appear in Table 4.

Table 4
Differences Between the Posttest Means
Use of Context

<table>
<thead>
<tr>
<th></th>
<th>Teacher Directed</th>
<th>Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>6.66*</td>
<td>3.49*</td>
</tr>
<tr>
<td>Teacher Directed</td>
<td>3.17*</td>
<td></td>
</tr>
</tbody>
</table>

*Critical Difference = 1.903

p < .05

The difference between the posttest means of the control group and the teacher directed group (6.66) was greater than the critical difference (1.903) indicating a significant difference was present. As indicated in Table 2, the posttest mean of the teacher directed group was greater than the posttest mean of the control group. Therefore, the teacher directed group did significantly better than the control group.

The difference between the posttest means of the control group and the independent group (3.49) was greater than the critical difference
(1.903) indicating a significant difference was present. As indicated in Table 2, the posttest mean of the independent group was greater than the posttest mean of the control group. Therefore, the independent group did significantly better than the control group.

The difference between the posttest means of the teacher directed group (3.17) was greater than the critical difference (1.903) indicating a significant difference was present. As indicated on Table 2, the posttest mean of the teacher directed group was greater than the posttest mean of the independent group. Therefore, the teacher directed group did significantly better than the independent group.

The findings of this study demonstrate that direct instruction in context clues significantly affected student ability to use context clues to determine word meaning as compared with students who independently used context clues and those students who received no instruction in the use of context clues. The findings also demonstrate that indirect instruction is significantly better than no instruction.

**Summary**

The purpose of this investigation was to assess the effectiveness of two methods (teacher directed versus independent) of teaching students to use context clues to determine word meaning. Analysis of the data demonstrated that direct instruction in the use of context clues is a significantly more effective method than independent exercises in teaching students to use context clues to determine word meaning.
Chapter V

Conclusions and Implications

The intent of this investigation was to investigate the effectiveness of a teacher directed method versus and independent method of teaching students the use of context clues.

Conclusions

The results of the data indicate that there was a significant difference between the two methods of context clue instruction. While both methods were significantly better than no instruction, direct instruction in context clues was significantly more effective than the independent technique in teaching students the use of context clues.

Deighton's classification scheme of context clues, developed by analyzing the types of context clues found in textbooks on an eighth grade to adult reading level, is also appropriate for use with seventh graders possessing population characteristics similar to the subjects in this study.

The significant differences in the posttest scores of the treatment groups support the assumption that teaching a classification system such as Deighton's will promote greater use of such clues and enhance the student's ability to determine the meaning of an unknown word in a sentence.
Teachers can provide useful contextual practice for students by developing exercises based on content material which is structured to emphasize one particular type of clue at a time.

**Implications for Research**

Implications for future research include the following areas:

A larger population could be utilized that includes a variety of reading levels to determine the effectiveness of these two methods of teaching the use of context clues to subjects of different ages, abilities and socioeconomic status.

Deighton's (1959) fifth category of context clues (inference) could be included in the treatments to determine if it can also be effectively taught.

Although the teacher directed group performed significantly better on the posttest, the independent group generated more enthusiasm (e.g., students wanted to share answers and discuss vocabulary words et cetera) during the treatment period. An investigation that combines both treatments into one may be more effective than using just the teacher directed approach.

This study did not examine content vocabulary growth as a result of these two methods of introducing new vocabulary. An investigation that examines the teaching of context clue categories in conjunction with developing and testing for specific content vocabulary could be undertaken.

If students can be taught to use context clues, their comprehension of content reading material containing such clues should
improve. An investigation which involves the teaching of context
clues and the transfer of the skill to paragraph comprehension could
be examined.

An analysis could be made to determine which types of contextual
aids were most used by high, average and low ability students to
determine the possible utility of such aids to various intellectual
levels and to plan instruction and materials.

The majority of the vocabulary words involved in this study
were nouns. Future investigations could include other grammatical
classes of words.

Future research could also include developing a standardized
test of contextual aids.

**Classroom Implications**

Students would benefit from a practical application of this
study.

This study supports systematic direct instruction in the use
of context clues, as recommended in teacher education textbooks.
Direct instruction does result in greater use of the clues by students.
Instead of informal, perhaps haphazard instruction in context clues,
formal instruction appears to be warranted. Context clues should be
considered a tool for recognizing word meaning, and accordingly, be
given formal instructional emphasis.

The direct teaching of context clues facilitated subsequent
student performance in using context clues to determine word meaning.
This treatment, therefore, can help content teachers to maximize the
effective use of classroom time and bring about more effective learning of knowledge and skills.

Limitations

All the materials used, including the pre and posttest, were developed by the investigator. These materials, while carefully developed, were not previously used in order to determine their reliability or validity. Thus, while the data appear accurate for the group of subjects involved in this study, further use of these materials with more students would be helpful in establishing a set of tasks that could be applicable to a larger parameter of students.

Summary

The basic goal of this investigation was to determine the effect of a teacher directed method versus an independent method on the ability of students to determine meaning from context.

The data rejected the null hypotheses. The teacher directed method was significantly more effective than an independent method in teaching the use of context clues. And, both treatments were significantly better than no treatment.

The findings of this study suggest that additional research be conducted. Perhaps, a treatment involving teacher directed and independent exercises would prove to be even more successful than the teacher directed treatment only. Further research needs to include subjects of different ages, abilities and socioeconomic status.

On the basis of this study, it is recommended that the direct teaching of context clues become incorporated into content
area instruction. It is essential that content area teachers develop the vocabulary necessary for the understanding of content concepts. Direct teaching of context clues is one method of teaching specific vocabulary and at the same time developing a skill that students can use independently when doing future content reading.
References
References


Harrison, J. M. Acquiring word meaning through context clues. Master's Thesis. Ohio State University, Columbus, Ohio, 1960.


McCullough, C. M. *Learning to use context clues.* *Elementary English Review,* 1943, 20, 140-143.

McCullough, C. M. *Context aids in reading.* *The Reading Teacher,* 1958, 11, 225-229.


Quealy, R. J. *Senior high school students' use of contextual aids in reading.* *Reading Research Quarterly,* 1969, 4, 512-533.


Riley, J. D. *Defining content area reading instruction at elementary and secondary levels.* *Reading World,* 1979, 19, 129-134.


Stearns, G. B. *The construction and evaluation of a test designed to measure the ability of high school pupils to understand word meanings through the use of context* (Doctoral Dissertation). Unpublished manuscript, Boston University, 1954.


Appendix A

Use of Context Pretest/Posttest
Directions: Read each exercise below, then choose the correct meaning for the underlined nonsense word. Do Not Guess. If you do not know the meaning choose Letter D.

1. The farmers in western New York State wanted to sell their products to the cities. They found ugfites, or roads, that they could follow.

   Ugfites are
   
   a. wagons
   b. people
   c. roads
   d. I don't know

2. Eskimos have always made good use of the animals they kill. The meat is their food. The fur skins are used to make grights, which are coats and they also make sleeping bags and boots from animal skins.

   Grights are
   
   a. fur skins
   b. coats
   c. sleeping bags
   d. I don't know

3. Certain plants, like peas and beans, which grow seeds in pods are called trocks. Trocks are grown on many farms in the South.

   A trock is a plant that
   
   a. grows seeds like cotton
   b. grows on big stalks
   c. grows seeds in pods
   d. I don't know

4. Every person learns many things from his clidge, that is, his surroundings.

   Clidge means
   
   a. surroundings
   b. brain
   c. animals
   d. I don't know
5. Lithers, such as wheat, vegetables, and eggs, provide the farmers with money to buy what they cannot produce themselves.

Lithers include
a. vegetables
b. farms
c. money
d. I don't know

6. The first quarrel between the North and the South was about the margov—a tax paid on goods brought into a country from another land. The North wanted a high margov and the South wanted a low margov.

A margov is
a. a tax
b. goods brought into the country
c. a quarrel
d. I don't know

7. Penguins always live in groups of two. Each pair of penguins digs its own crell, which is a hole filled with sticks and grass and seaweed. These penguins will use the same crell as long as they live.

A crell is
a. any hole in the ground
b. a rock shelter
c. a nest
d. I don't know

8. Sometimes fruits are kept from going bad by canning, freezing or sloming. Sloming means taking the water out. When water is added later, the fruits taste almost as if they had just been picked.

Sloming
a. is a way of canning food
b. adds water to food
c. takes water from food
d. I don't know
9. As tribes began to rapate, or to travel from their homeland, some pushed westward into Europe.

   Repate means
   a. sing
   b. travel
   c. fight
   d. I don't know.

10. Strong cords and the yarns used to make carpets come from korts, a plant that grows well in our southern states.

   Korts is
   a. used to make carpets
   b. a tree used for its fruit
   c. made from cord and yarn
   d. I don't know

11. To keep a submarine in good shape, its officers and crew are divided into wricks. A wrick is a four hour period time. Each man on a wrick has a job to do.

   A wrick is
   a. a group of men who keep a look out
   b. the crew of a submarine
   c. a period of time when a crew works
   d. I don't know

12. The North Central States have many alons, especially fertile soil, lakes, forests and minerals.

   Alons include
   a. railroads, farms and factories
   b. dairy herds, wheat and corn
   c. rivers and pine trees
   d. I don't know

13. People long ago looked at the stars and tried to explain what they saw. They made up stories, or meirs, about the stars.

   Meirs are
   a. true reports of what happened
   b. made up stories
   c. stories about real people
   d. I don't know
14. Among the traders were the first rucklers, who went into a country and stole cattle and dried the meat for their own use and for trading.

The rucklers were

a. people who stole cattle
b. people who helped the farmers
c. people who liked to fish
d. I don't know

15. The Aztec Indians had no money, but they sometimes used beans, tin or gold dust to flark with. Trading one thing for another without using money is called flark.

Flark means

a. giving something away for nothing
b. paying money for goods
c. trading
d. I don't know

16. The men who wrote the laws for our country knew that people sometimes change their minds about what they think is important. So they decided that people should be able to laver, or change, the laws.

Laver means

a. to change
b. to add more
c. to keep the same
d. I don't know

17. More and more people moved west across the mountains. They often crossed twasps--low places in the mountains--where it was easier to travel. They moved their goods on horseback, or by wagon when roads began to appear.

Twasps are

a. empty places
b. holes
c. places where the mountains are not high
d. I don't know
18. North and South America are joined by a narrow strip of land or spack. The Panama Canal now cuts across this spack. It is thought that at one time a spack connected Asia and Alaska.

A spack is

a. a place where a canal is built between 2 bodies of land
b. a narrow strip of land
c. a narrow strip of land connecting two large bodies of land
d. I don't know

19. "Let's send a smow to the king!" the people said. A smow is a letter from a group of people, asking to have something done about a problem. So they wrote a smow that asked the king to stop the taxes.

A smow is

a. a letter asking for something to be done
b. a group of people who want something done
c. something that has to be done
d. I don't know

20. Steven learned how to mitfat. He could tell how far north he was by looking at the height of the sun above the horizon at noon. Mitfat means learning exactly where you are located on earth.

Mitfat is

a. looking for a location
b. finding your exact place on the earth
c. finding the height of the sun at noon
d. I don't know

21. The gum of the pine tree is made into turpentine, tar, and rosin. In colonial days, these products were known as cilpets.

Cilpets

a. include turpentine, rope and sails
b. are made from oak trees and other hardwoods
c. are made from a product of the pine tree
d. I don't know
22. The world's health has been greatly improved since the discovery of **arms** like penicillin. These **arms** have almost stamped out certain diseases.

**Arms**

a. are drugs  
b. include old remedies  
c. include diseases  
d. I don't know

23. Objects do not move by themselves. They move only when a **zack** (a push or a pull) acts upon them.

Which of the following are **zacks**?

a. the wind  
b. a desk  
c. a book  
d. I don't know

24. Suppose you are looking at a picture. The picture is suddenly covered. The effect of the picture on your eye does not stop right away. It seems to remain, or **yon** after the picture is covered.

**Yon** means

a. continue  
b. fail  
c. stop  
d. I don't know

25. When some cells reach a certain size, they divide, or split in half. This process of **tollent**--the splitting of a cell into equal parts--gives each new cell half of the materials in the old cell.

**Tollent** means

a. dividing  
b. exploding  
c. scattering  
d. I don't know
26. During a physical examination, the doctor will try to find out if your nerves are all right. He will ask you to cross your knees. Then he will tap your knee. He is looking for your rither--that is the upward jerk of your knee when it is tapped in this position.

A rither is

a. how your nerves are working
b. the upward jerk of your knee
c. tapping the knee
d. I don't know
Appendix B

Independent Group Context Exercises
Directions: Read each exercise and answer the question that follows.

1. In 1977 George Eastman spent $94.36 for some photographic supplies. These photographic supplies included a camera and some film. Eastman bought these photographic supplies because he decided to take up picture taking.

   You take some photographic supplies with you to the zoo. Write down what you are probably going to do.

   ____________________________________________________________________________

2. When Eastman was 14 years old he quit school because he wanted to become a photographer (person who takes pictures).

   Write down one thing a school yearbook photographer might do.

   ____________________________________________________________________________

3. George Eastman's interest in picture taking helped him to earn a fortune (great deal of money) during his lifetime.

   Write down how much a fortune is to you.

   ____________________________________________________________________________

4. George Eastman built an industrial (having to do with industry) empire.

   Write down the industry we are talking about when we speak of Eastman's industrial empire.

   ____________________________________________________________________________

5. In Rochester today many people are employees (people who work for someone else) of Kodak.

   Write down someone you know who is an employee of Kodak.

   ____________________________________________________________________________
Directions: Read each exercise and answer the question that follows.

1. A machine is something that does the work that a person would have to do with his hands and muscles. The spinning jenny was a machine that could make thread. The steam engine was the machine that provided the power for Robert Fulton's steamboat.

Write down two machines that help to make your life comfortable.

2. The spinning jenny helped to give America its first industry, the textile (cloth) industry. Not many years later hundreds of factories were making cotton and woolen textiles for clothing and curtains.

Write down the name of another textile used to make clothes today.

3. Factories were able to produce large quantities (numbers) of goods because they employed large quantities of people and they used machines. When they produced large quantities of goods the factories needed to sell large quantities of goods.

Write down the quantity of pencils Mr. Campbell keeps in his pencil block.

4. Thousands of stores wanted to buy the products factories were making. So factories hired middlemen who handled a product between the time it was finished in the factory and the time it was delivered to the stores.

Write down the person whom we would call the middleman in a baseball game. Be ready to explain your answer.

5. Some companies were so powerful that they owned whole towns. These towns were called company towns. The workers in company towns had to live in company houses and buy everything they needed from company stores. The lives of the people in company towns were controlled by the company.

Write down how the owners of a company town would feel about you going to Wegman's to do your food shopping.
Directions: Read each exercise and answer the question that follows.

1. Around the 1800's craftsmen (shoemakers, barrel makers and furniture makers) and their shops were being replaced by factories. Factories (places where machines made things) often had hundreds of people working for them. Each worker in a factory usually performed one step in the making of a product.

Write down the names of 2 factories we have today in Rochester.

2. When goods were made in small shops a man needed only a small amount of capital to open a shop. But factories required much more capital, which is money used to start a business.

Your rich aunt dies and leaves you a lot of capital. What would you do with it?

3. Corporations came into being because it took so much money to start a factory. A corporation is a business owned by more than one person.

You want to set up a kool-aid stand but you don't have enough money. Write down how starting a corporation can help you.

4. Most factories were located in urban (city) areas. The factories needed a lot of workers and they could find these workers in urban areas such as New York City.

Write down the names of 2 more urban areas in New York State.
Directions: Read each exercise and answer the questions that follow.

1. In N.Y.S.'s early factories the workers labored (worked) for long hours and low pay. Many workers labored for 14 or more hours a day.

You labor all day, taking care of your brothers and sisters. Write down what you are going to do in the evening.

2. Workers began to realize that if they grouped together maybe they could help themselves. They began to form labor unions, which are groups of workers joined together to get better working conditions.

All the baby-sitters in your neighborhood get paid 25¢ an hour. Write down how a union can help them.

3. The union members elected one person to talk to the boss about better conditions. Then, if the members didn't get what they wanted they would go on strike. A strike is refusing to work until you get what you want.

Write down what it would be like if all the trash collectors went on strike for a month.

4. Some of the big unions got states to pass laws to protect the children working in factories. These laws, which were called child labor laws, said that children were not allowed to work more than eight hours a day or to do dangerous work.

Write down one way your life might be different without child labor laws.
Directions: Read each exercise and answer the question that follows.

1. At age 14, Frank became a correspondent for a Buffalo newspaper. He enjoyed his job as a correspondent. A correspondent is a person who writes for a newspaper.

Write down 1 problem you would write about if you were a correspondent for a Rochester newspaper.

2. When Frank graduated from high school he won a college scholarship. A scholarship is a gift of money to go to school. Frank’s family was poor and this scholarship helped him a lot.

If you won a college scholarship what would you like to study at college?

3. When Frank was only 24 he became a newspaper executive. An executive is a manager of a company. It was unusual for a person only 24 years to become an executive.

Write down the name of the top executive at Franklin High School.

4. If something is annual that means it happens once every year. Franklin Day is an annual event at our school. Christmas is an annual holiday.

Write down an annual event that you enjoy.

5. Interview means to ask questions of a person. The reporter wanted to interview the president of the United States. He was sure it would be an interesting interview.

Write down the name of a person you would like to interview.
Directions: Read each exercise and answer the question that follows.

1. Madam Walker was an Afro-American, that is, she was a black American who could trace her roots to Africa. She was the first Afro-American woman to become a millionaire.

Are you an Afro-American? Explain your answer.

2. Madam Walker became a millionaire by selling cosmetics (materials used to beautify the skin or hair). She went from door-to-door selling her cosmetics to black housewives.

Write down some cosmetics that people today use.

3. Madam Walker spent several years making secret formulas, or recipes, for a system of hair care for blacks. She came up with formulas for soaps and shampoos. Some of her formulas were good for straightening hair.

Write down 3 things you might find in a formula for getting good grades in school.

4. Madam Walker was so rich she built a $250,000 mansion (large house) on the Hudson River. In her mansion she had a gold-plated piano.

Write down something else you might find in a mansion.

5. Madam Walker's mansion was one of the showplaces of that time. A showplace is an area well known for having something beautiful on display. One of the things people came to see in Madam Walker's showplace was her $60,000 pipe organ.

Name 2 or 3 of Rochester's showplaces.
Directions: Read each exercise and answer the questions that follow.

1. Henry Ford wanted to manufacture (make) a car every family would be able to buy. Before the Model T was manufactured, all the cars on the market were very expensive.

Write down something Kodak manufactures.

2. Henry Ford was the first person to mass-produce cars. That is, he was the first person to make a large number of cars at one time using an assembly line.

Write down 2 more things which are mass-produced in factories.

3. Each part of the car was made separately. The workers were specialists. For example, some workers made only right front fenders and other workers made only wheels. Still other specialists made only headlights, seats or doors.

Write down what you think a bicycle specialist does.

4. After each part was made, they were all put together. The chassis, or frame, of the car moved on belts past lines of workers. Each worker put one part on the chassis as it moved by.

Write down what we might call the chassis of our body?

5. Henry Ford's car was a very practical, or useful one. For example, it could turn easily and it was light so that it would not get stuck in mud. It was also practical because its body was high enough off the ground to go over tree stumps in the road.

Write down 1 or 2 reasons why it is practical to go to school.
Directions: Read each exercise and answer the question that follows.

1. Investment, which is putting money into something to make a profit, is how Andrew Carnegie made his fortune. Carnegie's biggest investment was in the steel industry. From this investment he made millions of dollars.

Write down the name of another person we have read about and tell what he/she invested his money in.

2. Henry Bessemer invented a new process (way in which a job is done) for making steel. This new process was much cheaper than the old way of making steel.

Write down the first step in the process of making a cake.

3. Carnegie gave millions of dollars to organizations working for world peace. An organization is a group formed to do a job.

Write down the name of one of your neighborhood organizations and tell what it does.

4. Many of the millionaires we've read about have been concerned about the welfare or condition of health and happiness of other people. Carnegie showed his concern for the welfare of other people by building libraries and colleges. George Eastman showed his concern by giving away more than 100 million dollars while he was alive.

Write down how we can show our concern for the welfare of the people around us every day.

5. Some of your word study exercises ask you to write the plural of certain words. Words such as cities, rats and problems are plural words.

Write down the plural of the word student.
Directions: Read each exercise and answer the question that follows.

1. Millions of people in and around New York City must commute to work—that is, they travel into the city to work and return home at night. Some of these people commute by bus and others commute by car or train. It is not unusual to spend an hour commuting to and from work.

Write down how you commute to school each day.

2. After 1900, many blacks migrated to New York State from the South. Migrate means to move from one part to another part of the same country. Some of them migrated to New York City where they could find work in factories.

Your family migrated to New York State. Write down where you might have come from.

3. One of the main reasons New York's population began to grow was because of the immigrants (people who leave one country to live in another country). Many immigrants from Europe landed in New York City and decided to stay in this state. Many of these immigrants found jobs in factories.

You are an immigrant to the United States. Write down where you might have come from.

4. By 1960, at least 8 of every 10 people lived in cities. When a lot of people live in a small area that area is said to have a high population density. In parts of New York City the population density was 250,000 people per square mile.

What would you guess Rochester's population density is?

5. New York City is divided into five boroughs or sections. The five boroughs are Manhattan, Brooklyn, Queens, Staten Island and the Bronx. All of the boroughs except the Bronx are islands or parts of islands.

Is Rochester divided into boroughs? Explain your answer.
Directions: Read each exercise and answer the question that follows.

1. Bausch and Lomb founded a company to make optical frames and lenses. The company now makes a large number of optical (for the eye) products and instruments.

Write down an optical problem you might have if the teacher writes very small on the board.

2. Like most cities Syracuse has a variety of attractions. For example, it has an art museum, a zoo and major college sports events at Syracuse University.

Write down 2 attractions that Rochester has.

3. Buffalo, like most other cities in the state, finds it hard to raise money to rebuild some of its older areas. Some private companies have started a giant program to rebuild the downtown business area. Rebuild means to build again.

Write down something in Rochester that needs to be rebuilt.

4. George Eastman developed an inexpensive (low-priced) camera. Because it was inexpensive almost everyone could afford to buy one.

Write down 2 things that are so inexpensive most teenagers can buy them.

5. Rochester faces a declining population, that is, the population has been going down. The population has been declining because the birthrate is down and so many people have moved to the suburbs. The number of students in the schools has also been declining.

Write down what it means if your report card marks have been declining.
Directions: Read each exercise and answer the question that follows.

1. In all of New York City's boroughs there are very old overcrowded neighborhoods where the houses are badly run down, which are called slums. New York's poorest people live in these unhealthy crowded slums. Today a few of the worst slums have been replaced by clean and modern apartment buildings, surrounded by trees and grass.

   Write down one dangerous thing about living in a slum.

2. New York City has an underground railroad system which is called a subway. This subway has replaced railroads built above the ground. The subway provides reliable and fast transportation.

   You are riding on a subway. Write down what you see while looking out the window.

3. Because New York City is almost covered with buildings and streets necessities, such as food and building materials, have to be brought in from the outside. Good transportation is needed to obtain these necessities.

   Write down two necessities for a baseball game.

4. New York's subway system is one of the safest in the world but it does have some disadvantages (problems). One disadvantage is that during rush hours passengers are packed together like sardines. Another disadvantage is that sometimes a person is carried past his station because he cannot push his way to the door.

   Write down a disadvantage of getting out of school at 2:00 everyday.

5. In November 1965 there was a blackout in part of the United States. A blackout is a time when there is an electric power failure. In NYC during the blackout, hundreds of people were stuck in elevators.

   Write down 1 place you wouldn't want to be if there was another blackout in Rochester and tell why you wouldn't want to be there.
Directions: Read each exercise and answer the question that follows.

1. New York State has many resources, that is, supplies of things that can be used when needed. Many of New York's resources are natural (found in nature) resources. Some of these [natural resources] are New York's rivers, lakes and forests.

Write down a resource that you might use if you had to write a paper about the Iroquois Indians.

2. New York State's many waterways have helped to make it a popular state. Some of these [waterways] are the St. Lawrence River, the Hudson River and the Erie Canal.

Write down 1 [waterway] that runs through or touches Rochester.

3. New York State also has many landforms. Some of these [landforms] are the Adirondack Mts., the Great Lakes Plain and the Alleghany Plateau. These [landforms] help to make New York an attractive area.

Write down the above [landform] that you think Rochester is part of.

4. Hydro-electric power (electric power produced by falling water) is one of the state's leading resources. Much [hydro-electric power] comes from Niagara Falls.

Write down why the Genesee River is not used for [hydro-electric power] today.
Directions: Read each exercise and answer the question that follows.

1. New York State has more than 40,000 wholesale businesses that buy large amounts of products at a very low cost from factories. Wholesale businesses sell their goods to stores and the stores sell them to the public.

Write down what the person is called who takes care of the products right after they leave the factory. He is part of the wholesale business.

2. Retail businesses such as Wegman's, Naum's and Two Guy's buy their products from wholesalers. Retail stores sell their products directly to individual customers.

Write down 2 more retail businesses found in Rochester.

3. Finance can mean to manage money. New York State has more financial institutions than any other state. Financial institutions are those businesses that deal mainly with money.

Write down 2 financial institutions in Rochester.

4. The New York Stock Exchange (trade) is located on Wall Street. Each day at this exchange thousands of shares of stock are bought and sold.

You need a pair of shoes. Write down the only thing Altiers will accept in exchange for a pair of shoes.

5. Millions of New Yorkers are employed in service occupations, that is, jobs having to do with helping other people. Some of these service occupations are doctors, street cleaners and butchers.

Write down 2 more service occupations.

6. Insurance is protection in time of need. Your father may have insurance that provides money in an emergency such as an automobile accident or fire.

Write down another time when you might need insurance.
Directions: Read each exercise and answer the question that follows.

1. The United States is run by a set of rules which is called the constitution. Each state also has its own constitution or set of rules. Benjamin Franklin, whom our school was named after, helped to write the United States constitution.

Write down one thing which might be found in the constitution of a gang of boys.

2. The laws of the constitution can be amended or changed. The first United States constitution allowed slavery. The constitution was later amended and slavery was forbidden.

Write down one rule at Franklin High School that you would like to see amended.

3. The 15th amendment gave black men the right to vote. The 19th amendment gave all women the right to vote. Amendments are laws that are added to the constitution.

Write down an amendment to our class constitution.

4. In 1789 ten laws were added to the U.S. constitution. These ten laws, which are called the Bill of Rights, include the right to a trial by jury, freedom of speech and freedom or religion.

Write down 2 things you would include in a Bill of Rights for students.

5. New York City is run by a charter, which is a list of rules like a constitution.

Write down 1 thing that might be found in a boy scout charter.
Directions: Read each exercise and answer the question that follows.

1. The government of the United States is divided into three branches (parts).

Write down the location of one branch of the Lincoln First Bank.

2. Each branch or part of the U.S. government has a different job to do. The executive part makes people follow the laws. The legislative part makes the laws and the judicial part punishes the people who breaks the laws.

Pretend your family has a government.

a. Write down the member of your family that is the executive part of the family government.

b. Write down the member of your family who is the legislative part of the family government.

c. Write down the member of your family who is the judicial member of the family government.

3. New York State hires about 90,000 civil service workers--as persons holding jobs with the state are called. In order to become a civil service worker, a person must pass a state test. Some of N.Y.S.'s civil service workers include social workers, welfare workers and the state police.

Write down three jobs that you know are not civil service jobs in Rochester.
Directions: Read each exercise and answer the question that follows.

1. Hugh Carey is the governor, that is, the chief executive, of New York State. One of the governor's jobs is to make sure people follow the laws of N.Y.S. In times of riots and floods the governor can send out the state police and the National Guard to keep order.

2. Every state has a budget, that is, a plan for spending its money. When a budget is developed the state has to make sure that it is not spending more money than it has. The budget includes how much money the state will spend to repair roads, to improve schools and for public health.

Write down one thing your mother or father has in his/her budget each week.

3. Every city has a mayor, who is the chief executive of that city. Thomas Ryan is Rochester's mayor.

Write down one thing you would like to talk to Mayor Ryan about if you had the chance.

4. A veto occurs when the mayor refuses to sign a law. For example, if the legislature wants to raise the taxes and the mayor doesn't want to raise them he can veto that law.

Write down one of your mother's rules that you wish you could veto.

5. The governor of New York State is elected for a four year term. The president of the United States is also elected for a four year term (length of time).

Write down how many months there are in one school term.