

DOCUMENT RESUME

ED 161 007

CS 004 441

TITLE Reading Instruction: Preschool and Elementary: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," April through June 1978 (Vol. 38 Nos. 10 through 12).

INSTITUTION ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.

PUB DATE 78

NOTE 16p.

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.

DESCRIPTORS Annotated Bibliographies; Basic Vocabulary; \*Beginning Reading; Behavioral Objectives; Cloze Procedure; Computer Assisted Instruction; Content Analysis; Distinctive Features; Doctoral Theses; Elementary Education; Individualized Instruction; Learning Laboratories; Phonics; Preschool Education; Questioning Techniques; \*Reading Achievement; \*Reading Comprehension; \*Reading Improvement; \*Reading Instruction; Reading Research; \*Reading Skills; Syllables; Teacher Influence; Teaching Techniques

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 22 titles deal with the following topics: computer-assisted instruction; school characteristics and reading achievement; the process of reading acquisition; on-task behavior, teacher involvement, and reading achievement; the design and use of junior high/middle school language arts/reading laboratories; a modified cloze procedure using context clues to improve reading comprehension; the effects of two modes of prereading assistance; behavioral objectives and reading achievement; the knowledge possessed by a group of elementary school principals about the teaching of reading; acquisition, maintenance, and generalization by three reading procedures; the California early childhood education program's effect upon reading curriculum and instructional methods; phonics instruction in ten basal reading series; individualized instruction and the cognitive and affective outcomes of second graders; the comparative difficulty of beginning reading vocabulary; distinctive feature training in teaching letter names; play orientation in picture books; the effects of reading comprehension questioning; code systems instruction and kindergartners' perceptions of reading; syllables; a comparison of teaching strategies; student question generation; and cloze procedure as a strategy for improving reading skills. (FL)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

ED161007

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIGIN-  
ATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT  
OFFICIAL NATIONAL INSTITUTE OF  
EDUCATION POSITION OR POLICY

Reading Instruction: Preschool and Elementary:

Abstracts of Doctoral Dissertations Published in Dissertation  
Abstracts International, April through June 1978 (Vol. 38  
Nos. 10 through 12)

Compiled by the Staff of

The ERIC Clearinghouse on Reading and Communication Skills

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

University Microfilms

International

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC) AND  
USERS OF THE ERIC SYSTEM."

5804441

---

The dissertation titles contained here are published  
with permission of the University Microfilms International,  
publishers of Dissertation Abstracts International  
(copyright © 1978 by University Microfilms International),  
and may not be reproduced without their prior permission.

This bibliography has been compiled as part of a continuing series designed to make information on relevant dissertations available to users of the ERIC system. Monthly issues of Dissertation Abstracts International are reviewed in order to compile abstracts of dissertations on related topics, which thus become accessible in searches of the ERIC data base. Ordering information for the dissertations themselves is included at the end of the bibliography.

Abstracts of the following dissertations are included in this collection:

Anelli, Catherine Mary  
COMPUTER-ASSISTED INSTRUCTION AND READING  
ACHIEVEMENT OF URBAN THIRD AND FOURTH GRADERS

Barrington, Ida Love  
SCHOOL CHARACTERISTICS AND THEIR EFFECTS ON  
STUDENT ACHIEVEMENT IN READING

Bell, Martha Joan  
TOWARD A MODEL OF THE PROCESS OF READING  
ACQUISITION

Campbell, Rose Marie  
BEGINNING READING, TIME ON TASK, AND TEACHER  
INVOLVEMENT

Carr, Frances Nickles  
A SURVEY ON HOW LANGUAGE ARTS/READING  
LABORATORIES ARE DESIGNED AND USED IN JUNIOR  
HIGH/MIDDLE SCHOOLS IN THE STATE OF ILLINOIS

Duke, Jonquelyn Simpson  
AN EXPLORATORY STUDY USING A MODIFIED CLOZE  
PROCEDURE TO TEACH CONTEXT CLUES AS A MEANS  
FOR IMPROVING READING COMPREHENSION

Fulda, Trudi Annette  
AN INVESTIGATION OF THE EFFECTS OF TWO MODES  
OF PREREADING ASSISTANCE ON FIFTH GRADERS'  
LITERAL AND INTERPRETIVE COMPREHENSION OF  
SELECTED MATERIAL

Gabel,  
THE BEHAVIORAL OBJECTIVES USE  
THIRD GRADE READING ACHIEVEMENT

Gehring, Roger Duanne  
AN INVESTIGATION OF THE KNOWLEDGE OF  
CLARK COUNTY, NEVADA, ELEMENTARY SCHOOL  
PRINCIPALS ABOUT THE TEACHING OF READING  
IN THE PRIMARY GRADES

Goetz, Elizabeth Morey  
AN INDIVIDUAL ANALYSIS OF ACQUISITION,  
MAINTENANCE AND GENERALIZATION BY THREE  
READING PROCEDURES ON PRESCHOOL CHILDREN

Hendricks, Donald Brian  
THE CALIFORNIA EARLY CHILDHOOD EDUCATION  
PROGRAM AND ITS EFFECT UPON THE  
CURRICULUM AND INSTRUCTION METHODS  
RELATED TO READING

Hercik, Naomi Katie Dalton  
A COMPARATIVE STUDY OF THE INTRODUCTION  
OF PHONICS IN TEN BASAL READING SERIES

Herman, Joan Leslie  
THE RELATIONSHIP OF INDIVIDUALIZED  
INSTRUCTION VARIABLES AND SECOND GRADE  
STUDENTS' READING, MATHEMATICS AND  
AFFECTIVE OUTCOMES

Hitchings, C. Gordon  
COMPARATIVE DIFFICULTY OF BEGINNING  
READING VOCABULARY: SET VI  
(MULTISYLLABIC WORDS)

Hurst, Jeri Fuller  
ROLE OF DISTINCTIVE FEATURE TRAINING IN  
TEACHING LETTER NAMES TO KINDERGARTEN  
CHILDREN

McVaigh, Betty Lee  
PLAY ORIENTATIONS IN PICTURE BOOKS: A CONTENT  
ANALYSIS

Matthes, Carole Ann  
THE EFFECTS OF TWO DIFFERENT READING  
COMPREHENSION QUESTIONING PROGRAMS UPON THE  
READING COMPREHENSION ACHIEVEMENT OF STUDENTS  
AT A FOURTH GRADE READING LEVEL

Mayfield, Margie Ida  
AN INVESTIGATION OF THE EFFECTS OF CODE  
SYSTEMS INSTRUCTION ON KINDERGARTEN CHILDREN'S  
PERCEPTIONS OF THE NATURE AND PURPOSE OF  
READING

Sakiey, Elizabeth Haggerty  
SYLLABLES: A WEIGHTED, GRAPHEMIC INVENTORY

Slatton, Thomas D.  
A COMPARISON OF THREE STRATEGIES AND TEACHER  
INFLUENCE ON BEGINNING READING SKILL ACHIEVEMENT

Weiner, Cheryl Jane  
THE EFFECT OF TRAINING IN QUESTIONING AND  
STUDENT QUESTION GENERATION ON READING  
ACHIEVEMENT

Wilson, George Ronald  
AN ANALYSIS OF CLOZE PROCEDURE AS A TEACHING  
STRATEGY FOR IMPROVING READING SKILL

**COMPUTER-ASSISTED INSTRUCTION AND READING  
ACHIEVEMENT OF URBAN THIRD AND FOURTH GRADERS**  
Order No. 7804582

ANELLI, Catherine Mary, Ed.D. Rutgers University The State University of New Jersey (New Brunswick), 1977. 1\*8pp.  
Chairperson: Martin Kling

The purpose of this study was to investigate the effects of various time schedules on the attention span and performance of computer-assisted instruction (CAI) users. Specifically, this study attempted to investigate the nature of the relationship between the time spent on CAI and reading improvement, performance, and attitudes.

The subjects for this study included 121 third and fourth grade boys and girls who were attending three elementary schools in Newark, New Jersey. These children received reading instruction on the computer in either twenty or forty minute time periods. The effect of these various time periods, as well as the effect of the total amount of CAI received by these children was measured by posttest scores on the Stanford Achievement Test (SAT) and by grade changes on the CAI program.

There were three levels in the treatment and each treatment level involved participants who had received less than four hours CAI or four or more hours CAI. Each treatment level involved both boys and girls and thus a total of twelve cells was created. The SAT Total pretest score and the CAI initial grade level score were used as covariates to permit comparison of treatment levels on a more equal basis.

Data resulting from this study were analyzed with the aid of the Statistical Package for the Social Sciences (SPSS), 1975. An analysis of variance with the covariates, SAT and CAI pretest scores, was used with the default and Option 9 to yield classic and regression analyses.

Neither total CAI time nor length or frequency of CAI sessions appeared to affect reading achievement as measured by the SAT. Students receiving three to four hours CAI during a three month period made the greatest progress though the CAI program in proportion to the time spent. Girls in all treatment levels made the most progress in the CAI program. The finding that girls made more progress in the CAI program than did boys may be explained by the possibility that girls were inclined to adjust their responses to the requirements of the CAI program rather than to respond according to inner convictions.

Findings reported in previous studies that CAI can be used to improve performance of disadvantaged children and minimize sex differences in achievement were not found in this study. While subjects in this study also seemed enthusiastic about CAI, students were less enthusiastic after seven or eight hours accumulated machine time. Because the CAI drill material was less effective than its proponents anticipated, program modification should be undertaken to provide students with more complex reading tasks and to present material which is interesting enough to survive the effects of student habituation.

**SCHOOL CHARACTERISTICS AND THEIR EFFECTS ON  
STUDENT ACHIEVEMENT IN READING** Order No. 7806372

BARRINGTON, Ida Lové, Ph.D. Claremont Graduate School, 1978. 106pp.

Prior research has proved the significance of variables outside the school environment, such as social class background, family income, and other home influences on students' achievement levels. Other researchers believe that improved educational achievements can come through a better understanding of actions and activities that take place in schools and classrooms. No research yet, however, has proved conclusively which school characteristics cause an improvement in student test scores and educational attainment. Roche argues that critical decisions in the educational process that appear to be related to learning are controlled by local decision makers

such as principals, teachers, and sometimes students. Mos-teller and Moynihan contend that the strategy of looking more closely at what teachers, principals, and superintendents do in assigning resources and controlling practices in schools can make schools more effective institutions. They believe that educational research would be more useful to local decision makers if it utilized this strategy.

The purpose of this study was to determine which school characteristics affect student achievement in reading. Specifically, the study was concerned with investigating the actions and activities in some inner-city schools that showed significant increases in reading achievement as well as other schools in the same geographical area, with students from similar home situations, and students from similar social class backgrounds that showed very little or no increase in reading achievement.

The study sample included third grade students in 30 elementary schools. In 15 of the schools, students showed significant reading gains while in the other 15 schools little or no reading gains were evident. An analysis of data gathered from interviews of parents, teachers, and administrators; observations of classrooms and schools campuses; and official school district information contributed to the compilation of two composite case studies. One case study represented characteristics observed in schools where students showed achievements in reading scores and the other case study represented characteristics observed in schools where students showed limited or no achievement in reading scores.

The results of the study tend to indicate that school characteristics do affect student achievement in reading. Specific postulations of the study are as follows: 1. The leadership styles utilized -- instructional leader, manager, public relations -- have significant effects on student achievement in reading. In schools where the principal perceives of himself as the educational leader, the student test scores are higher. 2. The expertise and activities of teachers and administrators are significant to the level of reading achievement gained. 3. There is no significant correlation between the reading programs used and the student achievement in reading. 4. School demographic factors significantly affect student achievement in reading. 5. All schools are provided with adequate instructional materials, but a difference exists in the school's organization for storage and retrieval of materials. 6. Other factors, such as the effectiveness of motivational techniques, affect student achievement in reading. 7. Significant community participation in the schools is currently non-existent.

**TOWARD A MODEL OF THE PROCESS OF READING  
ACQUISITION** Order No. 7808448

BELL, Martha Joan, Ph.D. New York University, 1977. 211pp.  
Chairperson: Professor John S. Mayher

This study was designed to elicit a data base of children's reading and from it to hypothesize rules and/or stages that a child might acquire as he learns to read. Based on the premise that reading has an internal rule-governed system just as oral language does and that both systems might be acquired in a similar manner, a methodology derived from those used in psycholinguistic language acquisition studies was used in order to elicit a data base, to write a grammar of the reading of each child participating in the study, and then to hypothesize some stages through which they might pass as they learn to read. It then will be the task of future researchers to test, refine, and revise these hypotheses based on data elicited from a new population.

The participants in this study were six children ranging from five to six years of age who had had no formal reading instruction. All were attending kindergarten in a New York City public school and could recognize their own names. Each child was asked to read a variety of materials including words on cards, a story dictated to a picture book, a self-composed dictated story, a trade

The results of the case study analyses yielded a grammar of each child's reading. In addition based on these descriptions, it was hypothesized that children pass through six developmental stages as they learn to read. Direct evidence for Stages 1 through 4 was found in the children who participated in this study. Stage 0 was characterized as the stage at which children acquire two essential rules of reading that the text on a page is fixed and represents the words in oral language and that an individual word has a unique configuration or representation on the printed page. While at Stage 1, the child shows evidence of possessing separate sets of rules or strategies for reading, one for words in isolation and another for discourse in which the sub-strategies are totally reliant upon the child's knowledge of context. Stage 2 can be characterized again by the separate rule systems, but at this point in time, the child is able to use initial letter strategies. The child at Stage 3 shows the beginning of a merger of the two sets of strategies into one rule system as well as an overgeneralization of the rules in single word strategies. At Stage 4, the child has combined his word and discourse strategies, but can do so only when he has provided the context himself. Finally at Stage 5, the child is able to read any text for which he has the conceptual experience. If these hypotheses are confirmed by further research as proposed in this study, then these stages would influence the way in which reading is to be taught to both beginning and problem readers.

**BEGINNING READING, TIME ON TASK, AND TEACHER INVOLVEMENT**  
Order No. 7802508

CAMPBELL, Rose Marie, Ph.D. University of Oregon, 1977. 89pp. Adviser: Terry Bullock

This study represents an outgrowth of the body of research during the past 12 years which has attempted to evaluate educational phenomena via direct observation in classroom settings. The study concerns itself with beginning reading achievement, and focuses specifically on on-task behavior and its relationship to reading achievement. The major hypothesis states that the amount of on-task behavior in learning to read is related positively to beginning reading achievement. Further differentiation was made between Title I and non-Title I students, testing the hypothesis that there would be a greater relationship between behavior and achievement for Title I children.

The method was to observe student reading behavior, noting whether the student was on task, on management, or off task. Observations were taken during 3 days in fall semester and 3 days in spring in 7 first and second grade classrooms in 4 schools participating in the Title I program. The total number of minutes on task per student for the school year was computed from an estimate of hours allocated for reading by the teacher and observation data in fall and spring. This figure was then compared to reading achievement change, as measured by the difference between pre- and post-tests of achievement administered by the school district.

Special qualities of the study include: (1) selection of low SES, low entry skill first graders for comparison with other first graders, (2) use of precise task-related observation categories, (3) obtaining a representative sample of reading activities, (4) carefully documenting the amount of teacher allocated time, and (5) measuring achievement by change. As a result, a unique figure, On-Task Hours was obtained for comparison with achievement, as contrasted with the behavior percentage figures used in the studies reviewed.

The results of the study show a significant correlation between on-task behavior and reading achievement for Title I children, and lesser correlations for other categories of students. It appears that Title I children account for most of the behavior/achievement relationship in this sample. Additionally, the study indicated that teacher involvement was highly related to on-task behavior for all children, regardless of Title I/non-Title I classification.

The study also showed that Title I education varied widely between schools and classrooms, with some children allocated more reading instruction than others (35-125 minutes per day). Further, those classrooms with more allocated time were also more structured and had more on-task behavior.

**A SURVEY ON HOW LANGUAGE ARTS/READING LABORATORIES ARE DESIGNED AND USED IN JUNIOR HIGH/MIDDLE SCHOOLS IN THE STATE OF ILLINOIS**

Order No. 7804253

CARR, Frances Nickles, Ph.D. Southern Illinois University at Carbondale, 1977. 133pp. Major Professor: Terry R. Shepherd

The purpose of this study was to acquire data concerning, "How Language Arts/Reading Laboratories are designed and used in the State of Illinois." The study will also include such information as can be used as data for experimental research in the areas of Language Arts and Reading Curriculum Development within Junior High/Middle Schools throughout the United States.

The sample of the study was limited to the Junior High/Middle Schools in the State of Illinois that were so identified in the 1976-77 Directory of Illinois Schools.

The descriptive-analytical research design was employed through the use of a survey instrument. The instrument (questionnaire) used to gather the data was mailed to the principals of five hundred and seventy (570) Junior High/Middle Schools in the State of Illinois. This research does not reveal the exact number of Language Arts/Reading Laboratories. Of the three hundred fifty-seven (357) schools which returned the questionnaire, one hundred and seventy-eight (178) reported having a Language Arts/Reading Laboratory. The results of the study involved the one hundred and seventy-eight (178) respondents that indicated they had Language Arts/Reading Laboratories.

The research questions for this study were as follows:

1. How many Language Arts/Reading Laboratories are in the Junior High/Middle Schools in the State of Illinois?
2. How are the laboratories physically designed?
3. What major functions do the laboratories fulfill with the school setting?
4. How are the students scheduled for utilizing the laboratory's facilities?
5. What types of materials are most often used in the laboratories?
6. What types of students are most often involved in the laboratories?
7. What is the distribution of laboratories in the State by self reported rural or urban setting?
8. What is the student enrollment in the districts having laboratories?
9. What are the grade levels in the Junior High/Middle School?
10. How are the Language Arts/Reading Laboratories funded?
11. How many adults work in the laboratories?
12. What types of equipment are included in the Language Arts/Reading Laboratories?
13. If funding were available, what changes, if any, would be made in the laboratory? Please indicate amount of funds needed for changes.

To obtain a categorized perception of the individual respondent, the researcher hand tallied the number of items checked by the subjects for each category corresponding to each statement.

The findings of this research may be summarized as follows:

1. There were more Language Arts/Reading Laboratories in the Junior High/Middle Schools in the Urban Districts than in Rural Districts.
2. The most frequently designated Grade Levels in the Junior High/Middle School were seven (7) and eight (8).
3. More Language Arts/Reading Laboratories were funded locally than from any other single financial source.
4. More Language Arts/Reading Laboratories were found in the Northeast Quadrant than in any other Quadrant in the State of Illinois.
5. More Language Arts/Reading Laboratories were housed in regular four walled classrooms than any other type of facility.
6. The Language Arts/Reading Laboratories were staffed by at least one full time professional.
7. The Language Arts/Reading Laboratories in the Junior High/Middle Schools all have the basic types of materials and equipment.
8. The

most often indicated scheduling for the Language Arts/Reading Laboratories was Small Group Instruction. 9. The incentive needed to encourage the development of laboratories within the districts without Language Arts/Reading Laboratories was finances. 10. If additional funds were available, most of the districts with Language Arts/Reading Laboratories would spend the money for materials and space.

The findings of this research will prove to be of value upon which additional research may be approached. Empirical research is recommended in order to eliminate conjecture and to determine the educational impact of Language Arts/Reading Laboratories in Junior High/Middle School is actually having upon the individual student, the classroom, the district, and, ultimately, the children within the State of Illinois who are participating.

#### AN EXPLORATORY STUDY USING A MODIFIED CLOZE PROCEDURE TO TEACH CONTEXT CLUES AS A MEANS FOR IMPROVING READING COMPREHENSION

Order No. 7807593

DUKE, Jonquelyn Simpson, Ed.D. Duke University, 1977. 192pp. Supervisor: Anne H. Adams

Ninety third-grade Caucasian students in a school system in New Hampshire formed the population for a study of which the purpose was to determine the effectiveness of a modified cloze procedure using context clues in improving reading comprehension. The control group was taught the basal text Ginn 360 and the experimental group also had Ginn 360. The experimental group's reading program was supplemented by thirty-six lessons of fifteen minutes duration, three times a week. The lessons utilized seven types of context clues: the experience clue, the definition clue, the summary clue, the synonym clue, the comparison and contrast clue, the reflection of a mood clue, and the familiar expression clue.

Pre-test and post-test were administered, using the Metro-politan Achievement Test, Primary II and Elementary levels. The following subtests were used as test criteria: (1) word knowledge, (2) reading, and (3) total reading.

Standard scores were used as the units of measurement for comparison in each statistical analysis. The null hypothesis was postulated and .05 level of significance was established as the lowest accepted level of confidence.

A correlated "t" test was used to determine the significance of the changes between pre-test and post-test means for each parameter. Coefficients of correlations were computed to determine the relationships between the initial status of the subjects and the degree of treatment changes. An independent "t" test, or an analysis of variance, was used to determine the significance of the differences in mean gain of the treatment group.

The following conclusion was reached: the strategy of using the modified cloze procedure to teach context clues as a means for improving reading comprehension for third grade students was as effective as a conventional method in producing significant gains in word knowledge, reading comprehension, and total reading achievement.

#### AN INVESTIGATION OF THE EFFECTS OF TWO MODES OF PREREADING ASSISTANCE ON FIFTH GRADERS' LITERAL AND INTERPRETIVE COMPREHENSION OF SELECTED MATERIAL

Order No. 7803914

FULDA, Trudi Annette, Ed.D. Ball State University, 1977. 153pp. Adviser: J. David Cooper

#### Purpose of the Study

The purpose of this study was to investigate the effects of two modes of prereading assistance on fifth-graders' literal and interpretive comprehension of selected material. Readers of average ability were considered. The two modes of prereading assistance studies were Directed Reading Question introductions (tape-recorded prereading assistance given pupils which set purposes for reading by having them read to find answers for specific questions) and Cognitive Organizer introductions (tape-recorded prereading assistance given pupils which included both general information about the topic and a preview of the sequence of events in the passage). Additionally, one-third of the pupils were given no prereading assistance and were used as the Control group.

#### Methodology

From an original population of all fifth-grade pupils reading on grade level in Anderson, Indiana's twenty-eight elementary schools, fifth-graders in three representative schools were chosen by the Assistant Superintendent. All fifth-graders in these three schools (159 subjects) were given Ransom's Cloze Test as an initial screening device. Those students scoring between fourth and seventh-grade instructional level, inclusive, on the Cloze Test were individually administered the Silveroli Classroom Reading Inventory. Of the fifth-graders found to have an instructional reading level of fifth-grade, sixty-three were randomly divided into three groups, the Directed Reading Question group, the Cognitive Organizer group, and the Control group. The Directed Reading Question and Cognitive Organizer groups listened to the appropriate tape-recorded introductions before reading each of the three reading passages (three selections from SRA Kit 11b), and then answered the posttest questions over each passage. The Control group received no prereading assistance before reading the passages and answering the posttest questions.

All materials, the introductions, passages, and fifteen literal and fifteen interpretive subtest questions were validated by a panel of reading experts. Additionally, all materials were field tested with fifth-graders reading on grade level from a fourth representative Anderson School. Kuder-Richardson-20 reliability estimates for the subtests were .69 and .78. Total post-test was .85.

#### Findings

Nine null hypotheses were tested using Bonferroni t procedures and multivariate and univariate analysis. Using the .05 level of confidence as the predetermined criterion, six of the nine null hypotheses were rejected. On the total posttest, the scores of the three groups were significantly different. The students who received the Cognitive Organizer introductions scored significantly higher than the other two groups on the total posttest. The Directed Reading Question group scored significantly higher than the Control group on the total posttest. In the three cases involving individual subtests where the null hypothesis was not rejected (those comparing the DRQ and CO groups on the literal and interpretive subtests and that comparing the DRQ group and CG on the interpretive subtest), existing differences, though not statistically significant, favored the Cognitive Organizer group over both the other two groups, and the Directed Reading Question group over the Control group.

#### Conclusions

The findings of this study indicate in general that for these particular students, subject to the limitations of this investigation, the Cognitive Organizer type of introduction was superior to the Directed Reading Question type of introduction and to giving no introductions at all.

THE EFFECT OF BEHAVIORAL OBJECTIVES USE ON  
THIRD GRADE READING ACHIEVEMENT Order No. 7807194

GABEL, Glen Jay, Ed.D. Northern Arizona University, 1977.  
99pp. Adviser: Dr. David Whorton

**Problem.** The major problem of this investigation was to determine whether the use of behavioral objectives in reading instruction had a significant impact upon the reading achievement of primary students. Both the control and experimental groups were third grade students in Arizona public schools in the 1975-76 school year. The control group were attending schools which had no use of reading behavioral objectives in kindergarten in 1972-73, in first grade in 1973-74, or in second grade in 1974-75. The experimental group were attending schools which had relatively high use of reading behavioral objectives in those same grades and years.

**Methodology.** Each elementary school which possessed reading behavioral objectives during the years in question was assigned a score. This score was derived from an evaluation of the quality and quantity of the objectives and from a questionnaire completed by the principal and designed to measure the extent of past use of those objectives.

The questionnaire was based on the premise that the following procedures constitute use of objectives: (a) frequent evaluation of the students' progress on the objectives, (b) a thorough record keeping system based on the frequent evaluation, (c) constant regrouping of students within the room based on the frequent evaluation, (d) alternate learning procedures for each objective, and (e) inservice training on the use of the objectives. (A school which adhered to the above practices would have been in substantial conformity with Arizona's Continuous Uniform Evaluation System law and with a mastery learning approach to teaching).

Students in schools scoring more than half of the possible number of points (1,746 students in 25 schools) became the experimental group. Students in schools which did not even possess reading behavioral objectives (18,324 students in 289 schools) became the control group.

The reading ability of all third grade public school students in Arizona was tested in October of 1975 as part of a statewide achievement testing program. Grade equivalent scores on the "total reading" section of that test, the Stanford Achievement Test, were used for this research. The data was analyzed by means of T-tests to determine if the difference in the means of a given comparison of the experimental group and the control group was significant at the .05 level.

**Findings.** In eleven of the twelve comparisons between the experimental and control groups, a statistically significant difference in reading achievement in favor of the experimental group was found. Consequently, six of the seven null hypotheses of the study were rejected. It seems reasonable to assume that the experimental treatment produced an increase in reading achievement test scores--that the primary children who received instruction based on a high use of behavioral objectives in reading had reading achievement that was superior to that of the children for whom behavioral objectives did not even exist.

AN INVESTIGATION OF THE KNOWLEDGE OF CLARK  
COUNTY, NEVADA, ELEMENTARY SCHOOL PRINCIPALS ABOUT THE TEACHING OF READING IN THE  
PRIMARY GRADES Order No. 7808900

GEHRING, Roger Duanne, Ed.D. University of Colorado at  
Boulder, 1977. 207pp. Director: Professor Donald E. Carline

This study focused upon the amount of knowledge that Clark County, Nevada, elementary school principals had about reading and the teaching of reading in the primary grades. The purpose of the study stemmed from charges that many principals lack the knowledge to effectively supervise reading programs in their respective schools.

To establish conclusions about principals' knowledge, four questions were investigated which attempted to determine knowledgeability of elementary principals and teachers concerning commonly accepted concepts related to reading. The responses were compared to a National Jury of reading experts.

Six null hypotheses were explored which compared the responses of selected Clark County teachers and principals on the Research Form with information from Criterion Referenced Testing at the third grade level. Comparisons were made among student populations above and below the 50th percentile on the CRT tests and analyzed with the scores of principals and teachers scoring above and below the mean score for the Research Form.

#### Procedure

Data were obtained from a Research Form completed by 21 principals and 188 primary-grade teachers from the State of Nevada. The instrument included 43 questions developed from a list of concepts related to primary-grade reading. Questions representative of commonly accepted principles and practices related to the following eight reading categories were utilized: 1) word recognition, 2) comprehension, 3) reading readiness, 4) materials, 5) methods, 6) evaluation of teachers, 7) evaluation of students, and 8) miscellaneous factors. A personal data form was also completed by each respondent. The four questions were answered by the extent to which the two sample populations concurred with the views of a national jury of reading experts on each question and a comparison made between the scores of the two sample populations on the total test score, the eight categories identified above, and on each of the 43 questions which comprised the Research Form.

The six null hypotheses were answered by comparing the responses of Clark County Teachers and principals on the Research Form with student scores for third graders in Clark County on a Criterion Referenced Test. All students were in the same schools as the selected principals and teachers. The principals were divided into high and low scoring groups according to their responses on the Research Form. Scores from the schools were divided between those above or below the 50th percentile on the CRT Test.

#### Results

From the analysis of the data collected, the following results occurred: 1. It was determined that the principals were in accord with the national jury of experts on 28 of the 43 questions. 2. The principals attained 75 percent of the total number of points possible on the test as viewed by the collective mean. 3. Based on the responses of the teachers, it was determined that they were in accord with the national jury of experts on 28 of the 43 questions. 4. Judging by the collective mean, it was found that the teachers attained 75 percent of the total number of points possible on the test. 5. From a statistical analysis of the differences between the total test means, the knowledge of the principals was found to be not significantly different from the knowledge of the primary-grade teachers.

#### Conclusions

It is concluded that (1) principals from Nevada are knowledgeable in reading, (2) principals from Nevada are relatively knowledgeable about concepts related to primary-reading instruction, and (3) principals from Nevada are qualified to offer instructional leadership in reading.

AN INDIVIDUAL ANALYSIS OF ACQUISITION, MAINTENANCE  
AND GENERALIZATION BY THREE READING PROCEDURES  
ON PRESCHOOL CHILDREN

Order No. 7809350

GOETZ, Elizabeth Morey, Ph.D. University of Kansas, 1977.  
197pp.

Initially all potential preschool subjects were given a series of pretests to determine whether they would be appropriate subjects for this reading study. The tests included: (1) word meaning; (2) individual letter names and sounds; (3) recall of syllable units taken from training words; (4) recall of training words; (5) recognition of training words; (6) recall of pseudo-words designed to measure generalization of sounds; and (7) recall of compound words which began with the to-be-trained words. The subjects selected were six who passed the word meaning tests at a given criterion but did not pass at a specified criterion the other pretests, with the exception of the letter names and sounds and syllable tests. Information on the letter names was taken for a correlation with reading ability, and information on letter sounds and syllable units was collected for control purposes so that a sound or syllable pronounced before training could not be counted as possible generalization after training.

This study used an individual analysis design which controlled for individual differences in that each child was trained by three different reading procedures: sight, syllable and phonics. (One word was always associated with a given procedure for any one child.) The subjects were divided into two groups for control purposes. Group I (three subjects) originally learned three-letter words, and then during a replication learned four-letter words, while Group II (three subjects) originally learned four-letter words, and then had five-letter words taught during the replication. Each of the 18 words used in the study was counterbalanced across subjects and reading procedures so that word difficulty was controlled.

Pretests, posttests and daily probes were administered for a comparison of the acquisition, maintenance and generalization of trained words for the three reading procedures. In general, the sight procedure resulted in the most rapid acquisition for recall, fewer training errors, fewer letter-order recognition errors, and more frequent recall of trained words in compound words. In addition, sight words were recalled more in sentences and stories read to the children by the experimenter. There also was an indication that after sight training children were more likely to respond to individually presented syllables with approximation of the correct sounds indicating more guessing behavior. On the other hand, after syllable and phonics training there were better performances for reproduction of individual letter sounds and generalization of letter sounds to pseudo-words. Thus, results indicated that when sight units (whole words) are trained, there is better performance on tests for the whole word. When sound units (letter sounds and syllables) are trained, there is better performance on tests for sound units. The differences between reading procedures noted during the original training (fall semester) were consistent during the replication (spring semester), but probably not so clearly different. This may indicate that the children had begun to learn words using their own preferred procedure or a combination of procedures, and the training procedure had less influence.

The implication of these overall results for the teaching of reading to preschoolers is discussed.

THE CALIFORNIA EARLY CHILDHOOD EDUCATION PROGRAM AND ITS EFFECT UPON THE CURRICULUM AND INSTRUCTION METHODS RELATED TO READING

HENDRICKS, Donald Brian, Ed.D. University of Southern California, 1977. Chairman: Professor Grayce A. Ransom

**Problem.** The California State Early Childhood Education Program has necessitated many changes in school management and instructional programs. As a result of the accountability requirements, the testing necessary to document progress, the evaluation procedures, and the additional community involvement, many problems have developed. The demands for a more sophisticated instructional program and an effective staff development plan have provided additional challenges. There is a great need to identify effective methods of staff in-service to bring about an understanding and knowledge of what needs to be done to accomplish the goals of ECE. The purpose of this study was to ascertain significant changes in reading instruction, determine the most difficult areas of the ECE requirements to implement, study significant findings in the literature, and develop recommendations for staff in-service for dealing with the identified difficulties of implementing an ECE plan.

**Procedures.** An 8-page questionnaire was developed to ascertain answers to 12 questions. A research population of 204 school-level ECE coordinators in schools throughout California designated as having ECE programs for the first year during 1975-1976 was used. A 64% response was received. Data were analyzed and presented by frequency and percentage with comparisons made between selected data and selected pairs of items utilizing chi-square tests of significance.

**Findings.** (1) As a school's student mobility increases, the school experiences a significant increase in the degree of difficulty in directing aides, maintaining 10:1 student-adult ratio, recruiting volunteers, and implementing parent education. (2) As average annual income of families served by the school increases, they experience significantly less difficulty in recruiting volunteer assistance and implementing a parent education program. (3) Both paid instructional aides and volunteer parents were utilized in ECE reading programs in at least 90% of the schools. (4) Due to the changes in approaches and methods to reading instruction resulting from ECE, the resources found to be of most value and most frequently used at the school level for staff development were the principal and local specialist.

**Conclusions.** The findings suggest: (1) Schools serving lower socioeconomic families and those located in areas of high mobility have much greater difficulty implementing the ECE program. (2) The ECE program has facilitated the use of paraprofessional personnel and volunteer aides. (3) A local school specialist and the principal are most effective as a staff development resource. (4) The most effective time for staff development activities is during the school day with personnel relieved of regular classroom responsibilities. (5) Changes in organizational patterns and methods or approaches to instruction in reading are being accomplished as a result of ECE. (6) ECE staffs experience the greatest difficulty in implementing nongraded/multigraded organizational patterns, locating resource people for programs and assistance, and providing parent education.

**Recommendations.** On the basis of the findings and conclusions it is recommended that: (1) the California ECE program be continued with emphasis on increasing the number of participating schools, continuing additional funding for those schools serving low socioeconomic areas and areas of high student mobility, identifying resource people, continuing use of volunteer aides, and providing parent education and community awareness; (2) a staff development program be designed which includes the following conditions: (a) a principal and a resource teacher with strong leadership abilities who are knowledgeable regarding ECE, have a high level of commitment to the program and will include staff input in planning and developing ECE staff in-service be assigned to the school; (b) time be provided during the school day for staff members to participate in staff development activities; and (c) all members of the school's ECE staff be included in the plan for in-service training.

(Copies available from Micrographics Department, Doheny Library, USC, Los Angeles, CA 90007.)

# A COMPARATIVE STUDY OF THE INTRODUCTION OF PHONICS IN TEN BASAL READING SERIES

Order No. 780752..

HERCIK, Naomi Katie Dalton, Ph.D. Ohio University, 1977.  
128pp. Director of Dissertation: Dr. Milton Plöghoff

## Statement of the Problem

The purpose of this study is to describe certain aspects of phonics instruction at the primary level in selected basal reading series. The problem is one of obtaining and comparing information relating to the size of the phonics load, to the sequencing and to the complexity of the phoneme-grapheme associations at each instructional level in each series.

## Procedure

Ten leading basal reading series, in the latest editions readily available for the 1976-77 school year, were obtained. The skills development section of the lesson plans in the teachers' manuals for each textbook, from the readiness through the third-grade levels, were examined in this study. A tabulation was made on each level of the phonetic skills introduced in each of the 10 reading series, and a record was kept of each time the skills were reinforced. Tables, developed from the records and tabulations, were presented and described to make specific comparisons among the series relative to the scope, sequence, and timing of the introduction of phonics skills.

## Conclusions

1. All of the 10 basal reading series examined in this study acknowledge the value of phonics instruction in beginning reading as is indicated by the inclusion of phonetic analysis skills in their primary programs.
2. The introduction of phonetic elements at pre-first-grade levels is not supported by research findings since no studies at this level could be found.
3. Phonics instruction is not delayed until after sight vocabularies have been developed, an apparent change since the early 1960s.
4. Basal readers are tending to include larger phonic loads with the incorporation into the basal texts much material that formerly was included in supplementary books.
5. Phonic generalizations are not stressed in the basal readers, and this practice agrees with research findings on the low value of instruction in this aspect of phonics.
6. There is some agreement on the general sequence of introduction of phonetic elements. However, there exists a general lack of agreement on the sequence of introduction within the categories.

## Recommendations

1. The approaches to the introduction of sound-symbol relationships for vowels should be studied to determine which is most efficient for teaching vowel sounds. Should all the sounds associated with a vowel be taught together, or should the long or short sounds be grouped together for introduction?
2. Since the category of vowel digraphs, diphthongs, and vowel consonant combinations appears to contain the greatest disagreements among the series, perhaps an effort should be made by the textbook companies to simplify the learning of these skills by:
  - a. Determining which elements have the greatest usefulness in word attack, and eliminating those which occur infrequently
  - b. Teaching the application of the vowel digraph rule early in their programs
  - c. Providing emphasis for selected vowel combinations equal to the emphasis given to single vowel sounds.
3. Since a basal series could appear to have a strong phonics program when it actually only introduced large numbers of phonetic elements without providing reinforcement, a small-scale study similar to this one should be done to determine if a textbook series provides the phonetic program desired by a school.
4. Textbook publishers should include a tabulation of the emphasis given on specific levels for the skills introduced in their series because this would simplify the task of the teacher in textbook selection, and material for reteaching phonetic elements could be found by referring to the index.
5. With the individualization of reading instruction becoming more pop-

ular, it is important that the variations in materials be considered when plans are made for providing instruction in phonics. The basal series were developed under the assumption that basal materials will be used continuously throughout the primary levels.

# THE RELATIONSHIP OF INDIVIDUALIZED INSTRUCTION VARIABLES AND SECOND GRADE STUDENTS' READING, MATHEMATICS AND AFFECTIVE OUTCOMES

Order No. 7806489-

HERMAN, Joan Leslie, Ed.D. University of California, Los Angeles, 1977. 128pp. Chairman: Professor Eva L. Baker

The purpose of the study was to examine the effects of a complex of variables associated with individualized instruction. The strategy was to identify some of the necessary attributes of an individualized approach to instruction, based on a review of the literature and of existing systems, and then to use current classroom data to examine the relationships between these attributes and student cognitive and affective outcomes.

A model was logically derived to explain the inter-relationships between the identified variables and their effects on student outcomes. Aides were hypothesized to indirectly affect student outcomes by making progress monitoring, a number of concurrent activities, and individualized interaction with the teacher more feasible. Individualization in decisionmaking, including sources used for placement, frequency of progress monitoring and instructional corrections, was expected to have a direct effect on outcomes, and also an indirect effect through its influence on the number of classroom activities and individualization in teacher-student interactions. Individualization by activity was also expected to have a direct effect on outcomes, as well as an indirect effect by facilitating individualized interaction with the teacher. Further, individualization in teacher-student interactions was hypothesized to directly affect outcomes. Socio-economic status was also included in the model, with expected direct and indirect effects.

The data used in the study were a subset of that collected during a recent evaluation of California's Early Childhood Education Program (Baker, 1977), and included data on 90 second grade classrooms. Process information was obtained from teacher questionnaires and interviews and classroom observations. Student outcomes were assessed using criterion-referenced tests in reading and mathematics and measures of attitudes toward reading and mathematics.

Path analysis was used to examine the significance of the relations in the hypothesized model for both reading and mathematics. To examine whether socio-economic status affected the patterns of relationships, interaction terms reflecting SES effects were also added to the model.

The results in both reading and mathematics indicated that the hypothesized model did not provide a satisfactory fit of the data. Relationships among process variables in both subject areas were sporadic, while process and outcomes relationships were contradictory. As predicted, socio-economic status was positively related, and whole class instruction for higher SES groups was negatively related to reading achievement. However, consulting with students, and, for lower SES classrooms, one measure of corrective action were negatively related to reading performance; whole class instruction was associated with greater achievement in lower SES classrooms. With respect to attitudes toward reading, consulting with students was found to be a negative predictor, and in lower SES classrooms, more adults were associated with more positive student attitudes.

In mathematics, as predicted, SES was positively related and whole class instruction was negatively related to student performance. An unexpected finding was that the number of adults was negatively related to achievement in lower SES classrooms. Grouping was found to contribute to both more variation in classroom achievement and to less positive attitudes toward mathematics. For lower SES classrooms, more activities and a teacher's use of corrective action were positively related to attitudes toward mathematics.

The mixed findings regarding the effects of individualized instruction may be a function of the fact that classroom practice does not mirror the theory espoused by advocates of classroom individualization. The lack of significant relationships among process variables suggest that teachers do not implement individualization in a coherent manner, and therefore the present results cannot fairly assess the potential of individualized strategies. However, given the sparsity of encouraging results found in this study, it might be well to examine more critically the assumptions underlying individualized instruction prior to expending resources to ensure that teachers use more individualized approaches.

COMPARATIVE DIFFICULTY OF BEGINNING READING  
VOCABULARY: SET VI (MULTISYLLABIC WORDS)

Order No. 7809590

HITCHINGS, C. Gordon, Ed.D. University of Pittsburgh, 1977.  
115pp.

The purpose of this study was to determine the effect of word length on learning difficulty of a set of fifty multisyllabic words, while also investigating the relationship between the word frequency and the rank order of learning difficulty of these words. Also included was a modified replication of the treatment of the thirteen words originally selected from the Mangieri vocabulary study and continued to be replicated through the series of Horodezky, Cogar, Crouse, and Cianflone. The thirteen word replication was done in order to ascertain consistency of findings from different groups of children.

The population consisted of 152 kindergarten children from Meadville, Pennsylvania. The Slosson Intelligence Test was administered to the children in order to provide a stratified random sampling of 108 pupils who were divided into equal numbers of high, medium and low categories. The subjects were further divided into three equivalent sections of 36 pupils with twelve from each of the three I.Q. categories.

The subjects were introduced to sixty-three monosyllabic and multisyllabic words through a combined method of instruction developed to include elements of the phonic, kinesthetic, and the meaningful context methods used in earlier studies of the series. The sixth set of words was selected on the basis of length and contained twenty-one single syllable words, twenty-one two syllable words and twenty-one three syllable words. The sixty-three words were divided into word lists A, B, and C on a stratified random basis.

The lists were taught to equivalent groups of six students in two fifteen minute instructional periods on consecutive days. Recall tests were given immediately following the instructional periods. A delayed recall test was administered twenty-four hours after instructional period two.

The significance of difference in the learning difficulty of monosyllabic and multisyllabic words as shown by scores on the three tests (within the three word lists for the different I.Q. levels) and significance of interactions were tested by a four factor analysis of variance. Relationships between rank order of word frequency and the rank order of learning difficulty were computed using the Spearman rank-order correlation coefficient formula. Relationships of the rank order difficulty with the difficulty indices of the five previous studies were computed using the Pearson product-moment formula.

The major findings of this study, based on the hypotheses tested are as follows: (1) The difficulty indices for fifty monosyllabic and multisyllabic words were found; (2) There was a significant difference for students' learning indices of words of different length. One-syllable words tend to be learned more easily than two- and three-syllable words except when compared to high visual imagery words; (3) I.Q. does make a difference in how many words students learn regardless of different length; (4) Differences in word learning can be expected when teaching and testing at different intervals. Instructional reinforcement prior to testing will raise scores on recall tests; (5) Since no significant interaction effects were observed, I.Q., word length, time of testing act independently of one another;

(6) The relationship of I.Q. and learning difficulty of words shows no interaction; (7) There was no evidence of relationship between the rank order of difficulty of the sixty-three words and the rank order of word frequency as taken from the Comprehensive Reading Vocabulary - Primary List.

ROLE OF DISTINCTIVE FEATURE TRAINING IN TEACHING  
LETTER NAMES TO KINDERGARTEN CHILDREN

Order No. 7809441

HURST, Jeri Fuller, Ed.D. University of Kansas, 1977. 96pp.

1. Statement of the Problem. The assumption tested in this research is that letter-naming is a multi-stage process in which children can be helped by giving them training in noting the distinctive auditory and visual features of the letters. The letters b, d, and p were selected for study because of their high incidence of confusability among elementary school students. A valid appraisal of such a program would take into consideration the cumulative number of trials to criterion of training and transfer.

2. Procedure. Children who did not recognize b, d, and p by name were randomly selected from the nine kindergarten classes in Atchison, Kansas. Fifteen children were randomly assigned to each of the eight treatment groups and to the control group. The treatments varied in regard to types of distractors used and kinds of training administered. Some of the groups had visual training and others received auditory training. Treatment also differed with respect to the sequence of visual and auditory discrimination training.

3. Findings. There are no significant differences in the letter-naming achievement of kindergarten children trained in a program emphasizing the distinctive visual and auditory features of b, d and p versus those kindergarten children trained in a program not emphasizing the distinctive visual and auditory features of b, d and p.

It does not seem to be important that visual training precedes auditory training or auditory training comes before visual training when kindergartners are randomly selected and randomly assigned to groups for instruction in learning to distinguish the letters b, d and p by name.

With reference to kind of distractors and sequence of training, the present study did not isolate one best method for teaching letter names to kindergartners.

There was as much variance within the treatment groups of children in the study as there was between the groups.

4. Conclusions. The results of the study indicated that the differences between the treatment groups were not great enough to warrant the recommendation of any one of the methods as being the best to use when teaching kindergartners to recognize the letters b, d and p. However, it is possible that differences between treatments could have been masked by the extensive within group variability. The auditory training for the groups of children in this study was easy, yet the paired-associate transfer task remained comparatively difficult for many of them. Apparently the task was of minimal difficulty and contributed little to the letter-naming transfer task. The training was harder for the students using similar distractors, but it did not seem to reduce the number of trials to criterion on transfer. The initial phase of visual training, simultaneous discrimination, was entirely unnecessary for many children in the present study. It was perceived that some children may need to begin training with dissimilar distractors and then move to highly similar distractors when the simpler task is mastered. A dissimilar distractor phase may be unnecessary for other children. Examination of individual training and transfer scores in the present study indicates that there were children who needed few trials to reach criterion on the visual training but had difficulty with the transfer task. Apparently the children had discrimination needs that were not being met by the type of treatment preceding transfer. Perhaps paired-associate learning is not, for some children, a multi-stage process in which discrimination training is the first step. Obviously, there is a need for further research regarding distinctive-feature training and paired-associate learning.

PLAY ORIENTATIONS IN PICTURE BOOKS: A CONTENT ANALYSIS

Order No. 7809135

McVAIGH, Betty Lee, Ed.D. The University of North Carolina at Greensboro, 1977. 121pp. Director: Dr. Rosemary McGee

The purpose of this study was to investigate play theory orientations presented by the outcomes of play and game stories in children's picture books. Secondly, play theory orientations were investigated to discover their relationships to sex of the major characters, racial and ethnic portrayals of major characters, sex of adults in the stories, involvement of adults in the play or game experiences, and types of play and game activities. A subproblem was to determine the effectiveness of Caillouis' classification of games as a typology for play and games found in picture books.

Sixty-four preschool and primary school level picture books with play and game themes were analyzed. The Elementary School Library Collection (9th edition) was used as the source for the book titles. The data were collected by use of content analysis. A checklist was developed for coding the variables. Cross-tabulation tables were used to analyze the data.

Analysis of the data provided information that showed three major orientations toward play. Autotelically-oriented outcomes were present in more than half the picture books. Socially-oriented outcomes ranked second, and self-orientations were third. Orientations were related to other variables in the following ways: Caucasian boys were most often depicted in play stories. Adults were usually depicted as passively encouraging play. The type of game, most often played involved various forms of simulation. Caillouis' classification of games was not totally adequate to type children's play in picture books, especially the play activities of very young children.

THE EFFECTS OF TWO DIFFERENT READING COMPREHENSION QUESTIONING PROGRAMS UPON THE READING COMPREHENSION ACHIEVEMENT OF STUDENTS AT A FOURTH GRADE READING LEVEL

Order No. 7809159

MATTHES, Carole Ann, Ph.D. The University of Nebraska - Lincoln, 1977. 119pp. Adviser: O. W. Kopp

Purpose

The experimenter investigated the effects of varying levels of oral cognitive questions on the reading comprehension of selected subjects, reading at the fourth grade level. Specifically, the experimenter compared the treatment effects of higher-level and knowledge-level questions on the reading comprehension of the subjects.

Hypotheses

Three specific null hypotheses were formulated: 1. There is no significant difference between fourth grade reading level students' reading comprehension achievement and the type of questions asked in a low-order questioning program, a high-order questioning program, or a basal text questioning program (control group). 2. There is no significant difference between fourth grade reading level students' reading comprehension achievement and school they attend. 3. There is no significant interaction between the school attended and the treatment given in either a low-order questioning program, a high-order questioning program or a basal text questioning program (control group).

Procedure

Sixty-six children, reading at a fourth grade level, from two different elementary schools, were randomly assigned to two experimental and one control group: those involved with high-order questioning procedures, those involved with low-order questioning procedures and those in a control situation (questioning procedures from a basal text).

The length of the experiment was three weeks with all subjects meeting daily for a twenty-five minute session with a regular staff member of the school.

For the treatment, all subjects were given the same reading materials. One experimental group (HO) experienced high-order oral questions after reading the stories. The second group (LO) experienced low-order oral questions after reading the stories. The control group (C) used questions prescribed in the teacher's manual of a basal program. Two post-tests of reading comprehension were given. Data analysis for the measures derived from the three groups was accomplished by using a two-way analysis of covariance with the I.Q. as covariate.

Results

Statistical treatment of resultant data, using a two-way analysis of covariance with the I.Q. as covariate, revealed an F ratio significant at the .05 level for the interaction between schools and treatment. No significant differences were found between the effect of treatment and reading comprehension achievement. Similarly, there was no significant difference discovered between the effect of school and reading comprehension achievement.

Conclusions

The use of high-order questioning patterns did not show a significant difference between the control of low-order questioning groups. However, high-order questioning groups showed highest achievement scores for all groups and both schools.

AN INVESTIGATION OF THE EFFECTS OF CODE SYSTEMS INSTRUCTION ON KINDERGARTEN CHILDREN'S PERCEPTIONS OF THE NATURE AND PURPOSE OF READING

Order No. 7802696

MAYFIELD, Margie Ida, Ph.D. University of Minnesota, 1977. 228pp.

The purpose of this investigation was to determine kindergarten children's perceptions of the nature and purpose of reading and the effects of code systems instruction based on a code systems approach using five code systems (graphic, idea, word, alphabet, special) found in the young child's environment.

The study was conducted using three kindergarten classes (N=82): one class was assigned to intensive instruction (series of lessons on concepts, vocabulary, identification, and use of code systems); the second class to integrative instruction (vocabulary and concepts of code systems were integrated into a kindergarten program during sharing/meeting time and a unit on community helpers); the third class was the control group.

All of the children were pretested individually on their perceptions of the purpose of reading (Orientation to Literacy), their understanding of reading behaviours (Understanding Literacy Behavior), their identification of code systems (Code Systems Identification), their ability to read printed symbols in an environmental context (Contextual Picture), and their responses to four interview questions (What do you think reading is? Can you read? Who do you know who can read? What does reading help you do?).

The Investigator conducted twenty daily instructional sessions of approximately 25 minutes with each of the two treatment groups. After treatment was completed, all children were posttested using the same measures as before with the addition of Code Systems Vocabulary to measure the ability of the treatment groups only to name the specific code systems.

The results of the interview questions were analyzed descriptively. The main analysis was a MANCOVA to determine the effects of the treatment across and within the three groups on the children's perceptions of the nature and purpose of reading and their understanding of code systems. Additional information from children, parents, and teachers was presented.

Kindergarten children in both treatment groups showed an understanding of the concepts and vocabulary of code systems and improved perceptions of the nature and purpose of reading as measured by the instruments. There was no statistically significant effect due to age, sex, or treatment by sex interaction. MANCOVAs showed a statistically significant effect across the three groups due to treatment on Understanding Literacy Behavior, Code Systems Identification, and Contextual Picture tests but not on Orientation to Literacy. There were statistically significant differences within both treatment groups on Orientation to Literacy, Understanding Literacy Behavior, Code Systems Identification, Contextual Picture, and Code Systems Vocabulary.

From an analysis of the children's responses to the interview questions, it was found that the majority of the children gave meaningless responses to What do you think reading is? and What does reading help you do? in pre and posttest. Nearly all the children could name someone who could read. In the pretest, the majority of children said they could not read; in the posttest, more children in the intensive instruction and control groups said they could read.

Additional information obtained from the children, parents, and teachers suggests that some children showed an interest in code systems outside school and that some children showed more interest in and more positive attitudes toward reading.

The results of this study suggest that kindergarten children can learn the concepts and vocabulary of code systems and that such instruction had an effect on the children's perceptions of the nature and purpose of reading. It is possible to integrate code systems instruction into kindergarten programs.

The findings of this study question the accuracy, value, and usefulness of interview questions alone to ascertain children's perceptions of the nature and purpose of reading. The gathering of information from the participants and observers in this study was valuable and insightful.

#### SYLLABLES: A WEIGHTED, GRAPHEMIC INVENTORY Order No. 7804604

SAKIEY, Elizabeth Haggerty, Ed.D. Rutgers University The State University of New Jersey (New Brunswick), 1977. 156pp. Chairperson: Edward B. Fry

The American Heritage Word Frequency Book (Carroll, Davies, & Richman, 1971) served as basic raw data for the study. Compiled from a computer assembled selection of over 5,000,000 words or tokens from texts used in grades three through nine, its 86,741 word types were presented both in Alphabetical and Rank Lists.

#### Problem

The main problem of the study was to develop a weighted graphemic syllable inventory based on the first 5,000 words in descending order of frequency produced from an Edited Alphabetized List which was derived from the above-mentioned data.

Secondary problems included the following: (a) the development of an Edited Alphabetized List, (b) the generation of a Descending Order Frequency List, (c) the production of a list of unweighted syllables, (d) the development of a list of weighted syllables, and (e) the determination of the gross number of syllables, the number of distinct syllables, and the number of one through six syllable words in the commonest 5,000 words.

#### Procedures

The initial phase of this research involved editing Carroll et al.'s, (1971) Alphabetical List. This was accomplished by eliminating and combining certain data using both computer and hand procedures. An Edited Alphabetized List and Descending Order Frequency List resulted.

The next step was graphemic syllabification of the top 5,000 words on the Descending Order Frequency List. The American Heritage School Dictionary (1972) and the unabridged version were utilized as sources. With the help of the computer, these syllable coded words were merged with the total word frequency data previously obtained. Then an unweighted inventory and a reduced list of unweighted syllables was generated. From that information, a weighted syllable inventory and a reduced Weighted Syllable List were developed. This was accomplished by summing the frequencies of the various words in which the syllables appeared.

Determination was also made of the gross number of syllables, the number of different syllables, and the number of one through six syllable words that occurred in the 5,000 commonest words.

#### Results

The following results were obtained: 1. The 86,741 word types of the Word Frequency Book were reduced in number to 44,174. Thus the size of both the Edited Alphabetized List and the Descending Order Frequency List were approximately half the size of the lists upon which they were based. 2. With the exception of "words" and "word," there was little difference in the rankings when the top 100 words of the Descending Order Frequency List was compared with the American Heritage Rank List. 3. The ten most frequent words in descending order were as follows: "the," "of," "and," "a," "to," "in," "is," "you," "that," and "it"; all of which were functors. 4. On the unweighted 3,402 syllable inventory, only 322 different syllables or 10% had frequencies of five or higher. These syllables were reported as the Unweighted Syllable List. 5. "ing," "er," "a," "ly," "ed," "i," "es," "re," "tion," and "in" were the 10 commonest unweighted syllables in descending order of occurrence. 6. Two hundred ninety-five syllables had weighted frequencies above 2,945 which was .05 of 1% of the gross syllable token weight and nearly 10% of the number of different syllables. These syllables comprised the Weighted Syllable List. 7. In descending order, the 10 most frequent weighted syllables were as follows: "the," "a," "of," "to," "and," "in," "ing," "er," "is," and "i." 8. Forty-seven of the weighted syllables occurred only once. 9. The number of syllables common to both lists was 156 which was 48% of the unweighted list and 53% of the weighted list. One hundred sixty-five syllables were unique to the unweighted list; 139, the weighted list. 10. There were 9,358 gross syllables of which 3,402 were distinct syllables. 11. Monosyllabic and two syllable words each accounted for 40% of the 5,000 commonest words; three syllable words, 15%; four syllable words, 4%; and five and six syllable words combined, 1%.

#### Conclusion

The Edited Alphabetized List and its concomitant Descending Order Frequency List provide a more convenient and efficient source of word frequency data for publishers, educators, and researchers. Therefore, it could be used as a supplement to the Word Frequency Book.

Moreover, knowledge of the most common syllables should aid in the preparation of teaching materials. However, users of the syllable data are cautioned to consider that an unweighted count can be misleading since many syllables do not occur in high frequency words. Conversely, high ranking weighted syllables sometimes turn up in but a few words. The list including syllables common to both the unweighted and weighted lists might be a practical, all-inclusive solution to the problem of what syllables to teach. Such a list would have the advantage of containing the most heavily weighted syllables and of having the scantily weighted but oft-occurring syllables eliminated.

**A COMPARISON OF THREE STRATEGIES AND TEACHER INFLUENCE ON BEGINNING READING SKILL ACHIEVEMENT**  
Order No. 7809137

SLATTON, Thomas D., Ph.D. The University of North Carolina at Greensboro, 1977. 79pp. Director: Dr. Nancy White

This study is an investigation of the use of three different methods of teaching beginning reading by each of six teachers to equal numbers of elementary students of similar social and economic backgrounds.

The three systems utilized included the Ginn 360 Basal Reading Series, the Wisconsin Design for Word Attack Skill Development, and the Van Allen Language Experience Programs. All teachers participated in in-service workshops conducted by this writer.

The pre- and posttest experimental design spanned a ten-week period. Gains in reading achievement were compared among systems utilized and among teachers participating.

Results indicated that there was no significant difference in achievement due to a particular instructional method used. However, results supported the fact that individual teachers accounted for significant differences in reading achievement.

It was concluded that gains in reading achievement by students in the primary grades is not dependent on the method utilized to teach reading. Rather, gains are attributable to individual differences among teachers.

Suggestions for further research included the isolation of the less quantifiable personality factors of teachers to provide a closer match of teacher and pupil, wherever possible, to maximize success.

**THE EFFECT OF TRAINING IN QUESTIONING AND STUDENT QUESTION GENERATION ON READING ACHIEVEMENT**  
Order No. 7802574

WEINER, Cheryl Jane, Ph.D. University of Oregon, 1977. 205pp. Adviser: Dr. Karl D. Hesse

The purpose of the study was to investigate the effects of student question generation on reading achievement. Two main effects were studied. The first was the effect of training students to ask six generic questions about what they read. The second was the effect of inducing students to ask these questions about their reading while participating in an instructional unit. The study was conducted in one public elementary school in Springfield, Oregon. In each of the three sixth grade classrooms, students were randomly divided into four treatment groups: Trained-Questioners (TQ), Trained Non-Questioners (TNQ), Untrained Questioners (UQ), and Untrained Non-Questioners (UNQ).

The study had three phases: a pilot study, a training program sequence, and an instructional unit sequence. The 3 day pilot study was used to make decisions about how to implement both the training program and the instructional unit. During the 9 day training program sequence, the TQ and TNQ groups were trained to ask questions about what they read. During the 11 day instructional unit sequence on ecology, students in all four treatment groups read a passage, completed a written worksheet, and interacted with a partner in dyads. The worksheets given to the TQ and UQ groups directed them to generate six questions about the reading. The worksheets given to the TNQ and UNQ groups directed them to complete various language arts activities related to the content of the ecology unit. The training program and worksheets were developed by the experimenter.

Reading achievement was measured by an objective multiple choice test and an essay test given to all four treatment groups before and after the instructional unit treatment. A 2 (training) x 2 (questioning) factorial design was used to investigate the two main effects of training and questioning on reading achievement. A Two-Way Analysis of Co-Variance was used to analyze the post test scores on the two tests. The pre tests

were the co-variates. The mean score of the dyad of partners was the unit of analysis. There were 27 dyads analyzed: eight in the TQ group, five in the UQ group, seven in the TNQ group, and seven in the UNQ group. Multiple planned comparisons were computed using the Scheffé test. Statistical significance was at the .05 level.

Based on the scores of the objective multiple choice test, there was a statistically significant training effect and interaction effect but no questioning effect. There was a significant difference between the Trained Questioner and Trained Non-Questioner groups in the direction of the TNQ group. Also, there was a difference between the combined Trained-Questioner, Untrained Questioner, and Trained Non-Questioner groups and the Untrained Non-Questioner group in favor of the three treatment groups. Scores on the essay test did not achieve statistical significance; however, they showed trends in the same direction.

The results indicated that students who were trained to generate six generic questions about what they read did better on two reading achievement tests than students who were not trained. On the other hand, inducing trained and untrained students to generate questions during instruction did not affect their achievement test scores. However, training in questioning combined with practicing questioning was not as effective as training alone on the objective test, but was more effective on the essay test.

The results have implications for both classroom teachers and researchers. Training students to engage in a covert but active cognitive strategy while reading, such as generating questions, may be an effective way to improve students' achievement in reading. However, making students manifest that strategy in overt observable behaviors, such as completing worksheets, may interfere with their reading achievement. Moreover, grouping students into dyads may be a viable instructional technique that improves individual achievement. Further research is warranted in training students to generate questions or engage in other covert cognitive strategies while reading. Also, the efficacy of rote worksheet drills as opposed to more open language arts worksheet activities needs to be explored. Finally, dyadic interaction deserves more careful consideration as a viable instructional alternative that could promote more efficient prose learning.

**AN ANALYSIS OF CLOZE PROCEDURE AS A TEACHING STRATEGY FOR IMPROVING READING SKILL**

Order No. 7803379

WILSON, George Ronald, Ph.D. The Pennsylvania State University, 1977. 248pp.

This experiment was designed to study changes in cloze scores when students were asked to attend to form words and structure words. The study placed emphasis upon the syntactic relationship of the words deleted and the remaining structures. An understanding of syntactic structures was presumed to be an integral part of the reading process, and the study was an investigation into an alternative to the established approaches to reading improvement. Six classes from a small school district in Central Pennsylvania were involved in the study. Two of these were fourth grade; two were sixth grade; and two were eighth grade. The eighth grade findings were not part of the final discussion because the statistical data was not complete for that particular group.

One class from each grade level was labeled as a cloze group. These were the experimental groups. The remaining three were labeled as rhetorical groups. The design followed was to give all students a pre-test followed by a sequence of nine instructional sessions, a post-test followed by nine other

lessons, and a second post-test. The rhetorical groups received a sequence of eighteen lessons involving those items of instruction associated with traditional reading and rhetoric classes. Tests used for Pre-test, Post-test 1, and Post-test 2 evaluation were the Stanford Reading Achievement Tests (Forms W, X, and Y, 1964) and a cloze test.

The grammatical lessons presented to the cloze groups were, as much as possible, presented first by definition and then by syntactical position. All lessons were presented by a series of transparencies on overhead projectors. A definition, as well as examples, of the type of word was first presented. Then, a cloze exercise was presented from which all of the corresponding parts of speech for that lesson had been removed. The students supplied answers on answer sheets and then removed their pencils from their desks and used a felt tip marker to correct their papers. An overlay was next placed on the cloze exercise providing the correct answers. After corrections were completed, a third stencil was placed upon the first two, indicating the relation of the target part of speech and the remainder of the sentence. This procedure was followed in each lesson by a short review summarizing the point of the lesson.

Three null hypotheses were formulated for statistical analysis. No significant difference was found between those who received cloze training and those who received rhetorical training for the period involving structure words nor was there significant difference for the period involving form words. This was also true for the entire experiment. Therefore, the null hypotheses could not be rejected.

The research did not provide statistical evidence that grammatical exercises could be enhanced by the cloze procedure. However, since all groups did improve slightly in reading ability, the research does suggest that the use of cloze as a classroom procedure is just as effective as traditional models of instruction. This provides reading teachers with one more classroom technique to use in diversifying classroom presentations. It was recommended that similar studies should investigate using cloze procedure as an alternate technique over longer periods.