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ABSTRACT

The studies reported in this document reflect the interests and concerns of reading and language arts teachers. Topics of the 10 studies were: a comparison of basal and individualized reading approaches to vocabulary acquisition of fourth graders, a comparison of a formal reading program and an informal general readiness program in kindergarten, an evaluation of first grade reading progress by a standardized test and an informal inventory, a comparison of second level pupils' vocabulary achievement scores using a multitext basal reading approach and a Sullivan programed reading system, a comparison of intelligence and the retention of phonetic sounds in kindergarten children, a comparison of grade score increases in vocabulary and comprehension for a cluster first grade and a self-contained first grade, a comparison of the Distar reading system with a basal reading program in second grade as measured by the Stanford Achievement Test, a comparison of the progress made by fifth grade tutors and fourth grade tutees during a tutorial reading program, a comparison of reading interests of sixth graders from a satellite city and a residential suburb, and a comparison between a child's reading ability and reading group replacement. (JM)

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Foreward

Reading research and research in the language arts are interrelated to such a degree that an investigation in one area is sure to have relevance for the other. The studies reported here were carried out in the Reading Department of the William Paterson College, Wayne, New Jersey by graduate students who were working toward the Masters degree in reading.

These studies reflect the interests and concerns of classroom teachers who are currently involved in the teaching process as it pertains to the many aspects of teaching reading and the language arts. The unique contribution of studies of this nature lies in their direct relationship to the conduct of the language arts program in actual teaching situations. In essence, these investigations are a part of the classroom processes in which they were carried out, and, as a result, should be of interest to practitioners of the art of teaching.

M. Dougherty--Editor

Contents

A COMPARATIVE STUDY OF THE BASAL ECLECTIC APPROACH AND THE INDIVIDUALIZED READING APPROACH IN REGARD TO VOCABULARY ACQUISITION OF A SELECTED GROUP OF FOURTH GRADE CHILDREN

Claire Ellen Walker

A survey of educational thought concerning reading in todays's schools reveals two widely accepted generalizations: All educators agree that the purpose of the school is to meet each child's unique needs; and, fulfilling these needs requires differentiation and individualization of instruction. The concept of individualized reading as a method of teaching reading is based on the principal that children are able to determine for themselves their needs, their interests, and the rate at which they are able to proceed. Other methods, particularly the basal or eclectic approach to reading instruction, endeavor to provide the student with a structured framework in which he can meet needs and develop interests as well as establish a criterion for judging appropriate pace.

Proponents of both the individualized and the eclectic basal methods cite research to support their particular opinions and methodology, but the evidence presented is not conclusive. Reviewing this literature will not provide the educator with definitive decisions based on cumulative research which shows one method is clearly superiour to the other. Aukerman (1971) states this and further suggests that the various aspects of each new approach should be examined in an unbiased and objective manner.

Individualized reading is based upon Olson's (1959) concepts of seeking, self-selection, and pacing. It is assumed that the child has within himself the desire to seek from his environment and the ability to select those reading materials which are consistent with his maturity and his particular needs and interests. Thus, each child may read independently at his seat from a different book that he himself has selected, and, as a consequence, arbitrary separation into ability groups becomes unnecessary. Pacing refers to acts on the part of the teacher which ensure that each child is provided with materials and interesting tasks which cover a wide range of difficulty and variability. Olson believes that the child will react to these materials consistent with his stage of maturation and ability. Veatch (1959) emphasizes the motivational factor inherent in this method of teaching reading. Sperber (1958) and Vite (1958) claim that children have more favorable attitudes toward reading than do the more conventional methods and Evans (1965) considers the psychological effect of freedom from reading groups to be beneficial.

Tyler (1960) discussed desired changes in behavior as an aim of teaching which may be related to Olson's concepts of self-selection and pacing. Tyler states that before the pupil adopts some new behavior, or skill, he must recognize that his previous ways of reaching, or learning, are unsatisfactory so he is stimulated to try new ways. As long as the learner does not recognize that his earlier modes are inappropriate, he will keep repeating what he has been doing.

The learner reaches plateaus in his performance and makes little further improvement unless the learning situation is different from previous ones. Tyler concludes that it is more likely that each learner will make sequential progress in attaining desired objectives in reading if the learning experiences have been selected and planned with sequences in mind. He feels this is especially obvious in vocabulary development. Harris (1956), Betts (1950) and Newbury (1960) concur that the complex aspect of reading, word perception, consists of skills which must be introduced in a planned sequence and mastered in meaningful contexts. For this reason the vocabulary control and repetition of basal readers is economical and fruitful for children acquiring the skills of reading.

This investigation tests one aspect considered important in any reading program--the acquisition of vocabulary, or the understanding of meanings of words appropriate to one's reading level. Harris (1970) and Farr (1970) state that measures of vocabulary are substantially related to other measures of reading ability because extensive word mastery is a necessary skill to competence in reading. It was hypothesized that fourth grade pupils who have been instructed through a systematic presentation of vocabulary skills in an eclectic basal reading system perform significantly better on a test of vocabulary based on that basal system than do fourth grade children who acquire a reading vocabulary through the use of the less structured individualized program.

Method

The subjects of this investigation were seventy fourth grade students, 35 in a basal reading program based on the Scott Foresman reading system and 35 who had been taught to read in an individualized system.

Beginning reading for this group was taught through an augmented basal reader approach until the middle of the second grade when these pupils moved into a totally individualized reading approach. Those taught with basal readers ranged in age from 8 years, 8 months to 10 years, 3 months with a mean age of 9 years, 6 months. This group consists of 21 girls and 14 boys. The ages of the group receiving individualized reading instruction ranged from 8 years, 10 months to 10 years with a mean age of 9 years, 5 months and a standard deviation of 4 months. Twenty were girls and fifteen were boys.

The I.Q. scores for the basal reading subjects ranged from 87 to 135 with a mean of 112.16 and a standard deviation of 13.29 and the I.Q. scores for the individualized group ranged from 91 to 136 with a mean of 114.65 and a standard deviation of 10.89. These scores were obtained from the Lorge Thorndike tests administered in March, 1973.

The method used to determine control of vocabulary was developed from the 1964 and 1965 editions of Scott Foresman's The New Basic Readers. The third, fourth and fifth grade readers were used to select the sample of vocabulary words used. Since the four readers

contained a total of 1.487 pages, the first word, excluding proper nouns or foreign words, was selected from each tenth page in the vocabulary listing in the third and fourth grade readers. One word from every twentieth page was selected from the fifth grade reader. Each of the 125 words chosen for the test was framed in a complete sentence taken from the Thorndike Barhnardt Beginning Dictionary. Words not included in this dictionary were not included in the test.

The test was constructed so that a blank space occurred for the vocabulary word sought and a choice of three words offered; one which was feasible but less suitable than the correct choice, and the correct answer. All choices were similar grammatically and were selected according to similar initial, medial, or final constructions, or inferred association with another word or words in the sentence. The decoy words were chosen from the vocabulary list of a reader at least one level below the correct answer. The students were instructed to circle the word that best fitted the meaning of the sentence.

The classroom teachers administered this test on two school days during the second week of October, 1973. The test was completed in 20 to 25 minutes by the majority of students but subjects who required more time were allowed 45 minutes.

Findings

The total scores for the basal reading group ranged from 37 to 107 with a mean of 69.77 and a standard deviation of 20.13. Scores for the

individualized group ranged from 46 to 103 with a mean of 75.34 and a standard deviation of 17.17. When the significance of the difference between the means is computed, a t-score of 2.2377 is obtained. This is significant at the .025 level of confidence. An examination of the means indicates that those subjects taught in the individualized program scored significantly higher on the vocabulary test than did those subjects taught in the basal reader program. Table 1 indicates this.

TABLE 1

TOTAL NUMBER OF ITEMS CORRECT FOR THE BASAL READER GROUP AND THE INDIVIDUALIZED READING GROUP

	Basal	Individualized
N	35	35
Mean	69.77	75.34
S.D.	20.13	17.17
t=2.2377*		df=68

* (p=.025)

Conclusions

Findings show that the individualized group achieved significantly higher than did the basal reading group. However, the fact that the

students in the individualized group learned the foundation basic sight words and word attack skills through an augmented basal program through the middle of the second grade may have had a pronounced effect. Furthermore, teachers working with children in an individualized program are apt to encourage much reliance on context clues and this skill would be advantageous in the type of test used in this study.

However, this study does indicate that an adequate vocabulary can be acquired through an individualized reading program. Dukers (1971) statement that a comparison of approaches is not a fair measure if the test has been constructed largely on the basis of the approach used to teach one of the groups being compared appears invalid, at least where vocabulary is concerned, because the students in both programs seem to be exposed to a similar body of words. Reading through self-selection does not seem to affect growth of reading skills adversely. Several authorities urge a combination of the two approaches, basal and individualized, in the classroom.

Despite the enthusiastic endorsement of individualized reading by many, it is wise to substantiate these claims for various situations or districts. Both the good points and the problems should be made available to the classroom teacher so that an unbiased evaluation can be made to suit the teacher's objectives, competencies, and the characteristics of the students.

Several questions have been raised in this study. There is a need to design studies and

repeat studies which appraise a constellation of subskills so it can be determined whether or not significant differences exist between these two approaches in the area. Furthermore, test designers need to turn attention to the measurement of other important areas besides mechanical skills. Measurement of attitudes, carry over of values gained through reading, and degree of interest in reading need to be assessed in an empirical manner. Studies this far have raised questions as to which students profit most through an individualized reading approach, and, is this approach detrimental or helpful to the slower students?

References

Aukerman, R.C. Approaches to beginning reading. N.Y.: John Wiley, 1971.

Duker, S. Individualized reading. Springfield, Ill.: Charles Co Thomas, 1971.

Farr, R. Reading: what can be measured? Newark, Del.: International Reading Association, 1969.

Harris, A.J. How to increase reading ability. N.Y.: David Mc Kay, 1970.

Newbury, D.J. Sequence in word perception. In H.M. Robinson (Ed.), Sequential development of reading abilities. Chicago: University of Chicago Press, 1960, (22, Whole No. 90).

Olson, W.C. Child development. N.Y.: D.C. Heath, 1959.

Sperber, R. Self-selection. In A. Miel (Ed.), Individualizing reading practices. N.Y.: Teachers College Press, Columbia University, 1958.

Veatch, J. Individualizing your reading program. G. P. Putnam's Sons, 1959.

Vite, I. Self-selection. In A. Miel (Ed.), Individualizing reading practices. N.Y.: Teachers College Press, Columbia University, 1958.

A COMPARISON OF A FORMAL READING PROGRAM IN KINDERGARTEN WITH AN INFORMAL PROGRAM OF GENERAL READINESS

Patricia C. Bird

For the past decade there has been a continuing debate between those who are opposed to and those who favor reading instruction in the kindergarten. Many opinions have been voiced but little conclusive research has taken place. If educators are interested in teaching children in the best possible way, more must be done to determine whether or not early reading instruction is the best way.

The Denver Study (Brzeinski, Harrison & McKee, 1967) indicates that an experimental group of children taught context clues, listening for beginning consonant sounds, distinguishing letter forms, and using these skills to decode unfamiliar printed words in kindergarten were significantly better readers at the end of first grade than were a control group who received no early reading instruction. O.K. Moore, as reported by Sheldon (1962), and Blanton (1973) report similar increased ability for those children who receive structured pre-first grade reading instruction.

Others, however, do not agree with formal instruction in the kindergarten. Matthews (1959) and Vernon, O'Gorman and McLellan (1955) report no improvement in reading ability but instead increased emotional problems with early formal reading instruction.

A 1959 ruling by the New Jersey State Board of Education stated that no formal instruction in reading, writing, or numbers could be conducted in the kindergarten. On June 4, 1969, an amendment to the 1959 ruling permitted formal instruction on a selective basis to be determined on the teacher's judgment of when each child is ready for instruction. Many New Jersey school systems have taken this ruling to mean that all kindergarten students should receive formal reading instruction.

The present study compares the instructional levels, as these are tested by the Botel Word Recognition Test, at the end of first grade of two groups of children one of which received planned formal instruction in reading in the kindergarten and another group of children who received a traditional program of incidental readiness. Through this investigation, the following hypothesis was tested:

Children receiving a formal program in reading in the kindergarten will do better, when tested at the end of first grade for instructional level, than will those children who receive a traditional, incidental program of readiness.

Method

The 170 subjects of this study were chosen from a rapidly growing, predominantly upper middle-class suburban community. The experimental group consisted of 47 boys and 38 girls whose mean chronological age was six years, eleven months at the end of first grade and the mean chronological age of the control group,

46 boys and 39 girls, was seven years, eight months.

The formal reading instruction given to the experimental subjects consisted of The Readiness in Language Arts Program published by Sullivan Associates used for daily periods of twenty minutes. This program is based on five books which the children go through as they master the left to right progression, the names of twelve colors, geometric shapes, the capital and lower case letters, sound-symbol relationships, and a reading and spelling vocabulary of 115 words.

The control subjects were exposed to a traditional kindergarten appraoch to reading readiness in which each teacher introduced experience charts, letters of the alphabet, initial consonant sounds, left to right progression, and the identification of color names and numbers. All of these activities were conducted in an informal atmosphere according to teacher judgment and class needs.

At the end of first grade, both groups were given the Word Recognition Test of the Botel Reading Inventory (Botel, 1966). These tests were administered individually by the reading consultant. From this, a percentage of correct answers was obtained and converted to an instructional level.

In order to calculate the significance of the difference between the scores of the experimental and the control groups, the levels on the Botel Inventory were assigned positive values.

TABLE 1

POSITIVE VALUES ASSIGNED TO EACH BOTEL LEVEL

Botel Levels	Positive Values
Readiness	1
Pre-primer	2
Primer	3
2	
1	4
1	
?	5
?	
2	6
1	
3	7
2	
3	8
1	
4	9

Findings

The hypothesis stated that the experimental group would outperform the control group. Therefore, a one tailed t test of significance was employed to measure any significant difference between the means of the instructional levels.

TABLE 2

COMPARISON OF CONVERTED SCORES FOR EXPERIMENTAL AND CONTROL GROUPS

	Experimental Group	Control Group
Range	1-9	1-9
Mean	4.1412	4.0471
S.D.	2.1525	1.9450

t=.2972

Note. - The difference between the means is not significant.

When the conversion scores of the experimental group and the control group are compared, a t score of .2972 is obtained. This is not significant and the hypothesis is not supported. From this it cannot be concluded that a formal reading program in the kindergarten has more benefit than does a traditional program of readiness. The means of the converted scores of the two groups, are similar. This indicates that a corresponding instructional level predominates in both groups. This level is first reader, level one.

However, when a comparison of the standard deviations of the conversion scores for the experimental and the control groups is made, the difference is slightly larger. The standard deviation for the experimental group is 2.1525 and, for the control group, it is 1.945. This indicates that the spread is greater for the experimental group than it is for the control group. This indicates that a greater range of differences exists for those who received the structured program. Perhaps this formal instruction differentiates those who are able from those who are not at this level.

Conclusions

The findings of this study indicate that the type of kindergarten program makes no significant difference in how much the children achieve in ability to read. Many of the so-called new and innovative programs will not serve as better strategies for learning than those that have gone before. It appears that a great deal depends on the individual teacher involved. A competent teacher can make a program work well through fostering motivation to learn, promoting iniative, and creating an exciting atmosphere for what is going on in the classroom. A packaged program cannot stand alone. The personal factor provided by the teacher is essential.

Contrary to the findings of Agnew, Dolch and Bloomster (Darrow & Howes, 1968), this study does not reveal that children become confused or are failures as a result of a formal reading program in the kindergarten. There was no evidence of

emotional or social problems stemming from the more structured program.

Grouping for reading instruction in kindergarten was the purpose of the change in New Jersey State Education Law and perhaps small groups who are ready for reading would benefit from this structured reading readiness instruction. The law is not mandatory but is rather permissive because it was intended to provide such teaching for those children who are mature enough to benefit from early learning.

References

Blanton, W. E. A teacher's guide to preschool reading instruction. Prep. Report No. 40, 1973, U. S. Government Printing Office, Washington, D.C.

Botel, M. Guide to the Botel reading inventory. Chicago: Follett Educational Corp., 1966.

Brzeinski, J.E., Harrison, M.L., & McKee, P. Should Johnny read in kindergarten? A report on the Denver experiment. NEA Journal, 1967, 56, 23-25.

Howes, V. M., & Darrow, H.F. Reading and the elementary school child. New York: Macmillan, 1968.

Matthews, E. What is expected of the Soviet kindergarten? Harvard Educational Review, 1959, 29, 43-55.

Sheldon, W.D. Teaching the very young to read. The Reading Teacher, 1962, 16, 163-169.

Vernon, P.E., O'Gorman, M.B., & McClellan, T. Comparative study of educational attainments in England and Scotland. British Journal of Educational Psychology, 1955, 25, 195-203.

A MEASURE OF THE RANGE OF FIRST GRADE READING PROGRESS AS EVALUATED BY BOTH A STANDARDIZED TEST AND AN INFORMAL INVENTORY

Sylvia DeVries

Throughout the years, children have been expected to learn to read in the first grade. It is assumed that this experience is the same for all six-year-olds, consequently, the individual differences present from birth are forgotten. Teachers and parents have placed much emphasis on the product while often neglecting the important steps in the process of learning to read. It should be remembered that many children will require a continuation of the preparatory period, and, for these children, it is necessary to postpone the teaching of reading until physical, mental, and emotional readiness has been acquired.

Children differ in many ways. All six-year-olds and all five-year-olds are not growing or developing in the same way or at the same rate. First grade students differ markedly in the way in which they learn to read and their varied performances at the end of the year indicate a wide range of attainment in reading skills. The difference in levels of reading ability may range from preprimer through the third grade level and beyond this.

Considering the multiplicity of factors which will promote or hinder children as they learn to read, it seems obvious that there

will be much variation among beginning readers. Smith (1963) believes that there is a difference in maturation and in reading achievement between boys and girls. It is an established fact that girls develop more rapidly than boys. This factor may cause some lack of uniformity in a single classroom.

In order to predict the children who are likely to become reading failures in our school systems, DeHirsch, Jansky and Longford (1966) studied a group of children who were failing at the end of second grade. These students were identified through teacher observations and a battery of tests which had been given during kindergarten. The results of this study showed that there were important differences in readiness to read between this failing group and those who were succeeding. The investigators found that it was not failure on any single task that distinguished the failing reader from those reading on grade level, but rather the accumulation of their deficiencies. Many variables contributed to the reading problems of these children including intelligence, socio-economic background, and neurological functioning. These writers conclude that maturational status, which they defined as the process of successive and overlapping changes in growth that take place in the physiological and psychological sectors of the organism, is the predictor of reading readiness and that this varies with different children.

The dictates of child development oppose the rigorous ordering of children's abilities and attainments into the conventional graded structure.

According to Goodlad and Anderson (1963), there is a spread of four years in pupil readiness to learn in the average first grade. This is based on mental age which these writers consider an important criterion of ability or readiness to learn. Mental age is defined as an absolute measure in that units, years and months, are just like chronological age. The measuring scale is an intelligence test. As pupils progress through the grades, the span in readiness to learn widens. The rate of growth and the potential level may vary considerably. Also, the aspects of growth for a single child are uneven in the physical, social, emotional, and intellectual areas. The writers made several generalizations after studying many classrooms. Their first generalization states that children entering the first grade differ in mental age by approximately four full years. To plan a first grade curriculum, one must assume a four year range in the level of difficulty. This means that work levels must be geared for two years below first grade expectancies as well as for two years above. A second generalization was that the spread in achievement in an elementary school class slightly exceeds the number of the grade level. That is, the spread is more than three years in a third grade class.

This disparity of reading achievement levels in almost any elementary school class is underscored by Betts (1963) who states that a teacher of a given grade level who accepts children on their own individual planes of achievement will usually find a range of three or more grades. Betts goes on to state that not all children can

be expected to complete the work of the initial reading period by the end of the first year of instruction because varying learning rates produce unequal achievement levels. Some first grade children will develop the ability to read on the second, third, or possibly fourth grade level.

The purpose of this study was to determine whether or not first grade students read on the same level or have developed a range of at least three years in their reading abilities at the end of the first grade. It was hypothesized that a heterepgeneiously grouped first grade class will show a reading range of three years at the end of their first year of formal instruction in reading as this range is measured by means of an informal reading inventory and a standardized reading test.

Method

The subjects were 26 first grade children in one classroom of a private school in a suburban community of northern New Jersey all of whom were from white, middle-class families. The group included seventeen girls and nine boys whose mean age was six years and ten months. Their ages ranged from 77 to 88 months.

The instruments used to evaluate progress in this study were the Gates McGinitie Reading Test and an informal reading inventory based on Bookmark Reading Program published by Harcourt Brace Jovanovich. The main purpose of the informal inventory in this study was to determine the child's highest possible instructional

level, therefore Betts' (1957) criteria for determining the instructional level is included here:

I. A minimum comprehension score of at least 75 per cent, based on both factual and inferential questions.

II. Accurate pronunciation of 95% of the running words.

III. Ability to anticipate meaning.

IV. Freedom from tension in the reading situation.

V. Freedom from finger pointing.

VI. Freedom from head movement.

VII. Acceptable reading posture.

VIII. Silent reading to locate specific information characterized by:

A. A rate of comprehension substantially higher than that for oral reading.
B. Ability to use sight word techniques (context clues, picture clues, configuration clues, and rhythm clues) and/or word analysis techniques (phonics and syllabication) for recognition of new reading words.
C. Absence of vocalization.
D. Ability to identify mechanical or comprehension difficulties which require the assistance of a teacher or glossary.

IX. Oral reading performance, preceded by silent reading, characterized by:

A. Rhythm, proper phrasing
B. Accurate interpretation of punctuation
C. Use of conversational tone
D. A reasonably wide eye-voice span

In order to make the test materials of sufficient length that the specific abilities and skills of the subjects might be appraised adequately, a 150-word passage was selected for the oral reading, and another 150-word passage was selected for the silent reading evaluation from the primer and each level from grade one through three. On the fourth grade level, the oral and silent reading passages were extended to 200 words. The selections were chosen randomly from any of the stories beyong the first thirty pages in each reader.

For each oral selection, the investigator constructed five questions about the content. Four of these were factual, demanding recall of the passage, while one of the questions was inferential, requiring some interpretation by the examinee. Of the ten questions used for the silent reading appraisal, two questions were inferential. The questions and answers for the oral and silent reading selections were prepared by the examiner in advance and listed on cards. This inventory was then administered by the examiner in five to fifteen minute intervals per test. Each subject read from the text while the investigator observed and recorded the results. In addition to the questions, a word list based on the Bookmark Reading Program was used to determine the starting point for the subjects of low reading ability.

Since the purpose of this investigation was to determine the subjects' highest probable instructional level, this level was arbitrarily set at 93-97% for the oral reading portion and 70-80% accuracy in comprehension. If the subject could not respond to the comprehension questions with 80% accuracy, a lower level reader was used and the same procedure followed. If a discrepancy between the results of the silent and oral selections, the lower score was considered to be the instructional level. For the children whose instructional levels were lower than the primer, according to this inventory, the word list alone determined the instructional level.

The word lists used for the preprimers contained fifteen words; every fifth word from the three preprimers was selected with the exception of proper nouns. The number of errors determined the instructional level for each preprimer. The scoring for the three books was as follows:

1-2 errors - third preprimer level
3-4 errors - second preprimer level
4 or more errors- first preprimer level

The highest possible score on the comprehension section of the Gates MacGinitie Reading Test was 3.7, and 3.5 on Vocabulary. Eight of the subjects scored perfectly and an advanced form of the test was not administered. Therefore, the widest possible range on the silent reading test was not determined.

Findings

The findings support the hypothesis which states that a heterogeneously grouped first grade class will show a reading range of three grade levels at the end of their first year of formal instruction. On the informal reading inventory the scores ranged from the second preprimer to the fourth grade. The preprimers and primer reading levels are early first grade reading materials and can not be called a full year. Therefore, the range in reading ability for this group of subjects is greater than three actual grade levels.

Table 1 shows the results of the Gates MacGinitie Reading Test and the informal inventory. The highest grade level on the Gates MacGinitie Reading Test is 3.6 and the lowest grade level is 1.4, a range of two years and two months. The mean score was 2.6 grade levels with a standard deviation of 2.39. On the informal reading inventory, the range of reading ability constituted three years, from the second preprimer to the fourth grade.

Three boys and one girl attained a preprimer level on the informal reading inventory. Their ages were 78, 79, 81, and 86 months; two boys and one girl were younger than the class mean of 82 months. One girl, aged 84 months, and one boy, aged 88 months, attained reading scores of 3.6 on the Gates MacGinitie Reading Test and a reading level of grade four on the informal inventory.

TABLE 1

COMPARISON OF TEST RESULTS

	Gates MacGinitie	Informal Inventory
Range	1.4-3.6	Second Preprimer Fourth Grade
Mean	2.6	First Reader, Sixth Month
S.D.	1	

Conclusions

The evidence presented in this research indicates that a representative class of first grade children who have completed the first grade reading program have attained a range of at least three grade levels, and those who reach the highest instructional levels are older than the mean age of the class. Furthermore, although the standardized reading test corresponds to the levels measured by the informal inventory, it does not closely predict the range of the instructional level as this is measured by means of an informal reading inventory based on an eclectic basal reader. These findings reiterate Betts' (1957) contention that standardized tests do not accurately predict children's instructional reading levels and that standardized tests

should not form the sole basis for grouping in reading classes.

Stauffer (1965) has suggested that the range of individual differences is at least five years in a typical class of six-year olds. This research indicates three to four year-differences at the six to seven year age levels. However, the findings of this study agree with those of Goodlad and Anderson (1963) who found a spread of four years in readiness to learn. They say that one must assume a four-year range in level of difficulty when planning a first grade curriculum.

Teachers of first grade classes will need to make the reading curriculum flexible and broad enough to provide instruction on the appropriate levels for children who read on various levels and progress at differing rates. The instructional materials used for reading should include materials spanning at least four grade levels including readiness materials as well as materials for advanced readers.

References

Betts, E.A. The prevention and correction of reading difficulties. Evanston, Ill: Row Peterson, 1963.

Betts, Foundations of reading instruction. New York: American Book Co., 1957.

deHirsch, K., Jansky, J.J., & Langford, W.S. Predicting reading failure. New York: Harper and Row, 1966.

Goodlad, G.I., Anderson, R.H. The non-graded elementary school. New York: Harcourt. Brace and World, 1963.

Smith, N.B. Reading instruction for today's children. Englewood Cliffs, N.J.: Prentice Hall, 1963.

Stauffer, R.G. A language experience approach First grade reading programs, 1965, 86.

A COMPARISON OF SECOND LEVEL PUPILS' VOCABULARY ACHIEVEMENT SCORES USING A MULTI-TEXT BASAL READING APPROACH AND A SULLIVAN PROGRAMMED READING SYSTEM

Angela Tursi Piatek

Many new approaches to teaching reading have evolved from changing philosophies of education. Early education stemmed from religious goals and later importance was placed on the individual and society. More recently the impact of learning theories conceptualized by behaviorists such as Skinner (1938) and Gagne (1970) have invaded the field of education, and, as a result, reading instruction has been influenced. Various approaches and programs based on these theories have received acceptance in the American classroom. It is the task of the reading teacher to carefully assess and evaluate the available programs in order to best meet the needs of the pupils.

The present study is concerned with the programmed reading approach. Lewis (1963) cites the work of Skinner as prompting the development of programmed reading. Skinner's stimulus-response theory of operant conditioning and Pressey's (Umans, 1963) development of programmed textbooks demonstrated it's application in the field of education.

Programmed instruction requires active responding by the student. The material to be learned is presented in units called steps; the learner works and responds through a series of

steps which, when combined in order of progressive difficulty, contribute to the mastery of a skill. The learner receives immediate feedback in this self-pacing program. Thus, according to Haring and Phillips (1962), the student will have a low rate of error, and this factor, in itself, reinforced learning.

Perhaps the most commonly used approach to the teaching of reading is the basal reading system which came into existence in the 1930's. It utilizes an eclectic method whereby the child is first taught a sight vocabulary which enables him to read the first stories which are especially written with a limited variation in vocabulary. Phonetic and structural analysis skills are taught in order to give him the independence necessary for word attack as he advances to stories requiring more skill. Comprehension is taught simultaneously. According to Zintz (1970, a multi-text basal reading approach incorporates a variety of different basal readers to accomodate the wide range of abilities in a class.

The purposes of this study are to examine the effectiveness of programmed reading instruction in the area of vocabulary recognition; to examine its effectiveness with second grade children who are reading at or near grade level; and to determine whether or not there is a significant difference in vocabulary recognition ability with children using programmed instructional materials or children using basal readers. To determine this the null hypothesis that children who are taught to read with programmed

readers will perform no better on a test of vocabulary achievement than will those children taught with basal readers.

Method

For this study thirty-six subjects, eighteen from each of two schools in middle-class suburbs of New York City, were selected on the basis of the average reading scores attained on standardized tests. These subjects, paired according to chronological age and reading grade, had attained grade levels of from 1.5 to 2.3 at the time of testing. The experimental group were taught by means of the Sullivan Programmed Series and the control group were taught using a multi-text basal reader approach.

A vocabulary test, prepared from the Sullivan Programmed Series, grades one, two and three, was administered to the two groups of subjects at the beginning of the second grade. This test included 150 words, fifty taken from each of the first through the third grade books of the programmed series since these levels represent the lower and the higher limits of the second grade level. The total number of new words presented in each grade was calculated, proper names excluded and fifty words were randomly selected from the net total by arriving at an interval and choosing those words which fell at the upper limit of each one. One hundred and fifty completion sentences were constructed using the vocabulary controlled to match the reading levels of the designated words. The two alternate word choices were randomly selected from the remaining words at each grade level. This type of

test, according to Betts (1954), provides an accurate measure of reading comprehension.

The test was administered in twenty minute periods on five consecutive days. Each subject was given sufficient time to finish the test.

Findings

The number of correct answers attained by each subject constitutes his score. The scores of the experimental group range from 16 to 108 with a mean of 70 and standard deviation of 26.5675 and the control group attained scores ranging from 54 to 136 with a mean of 98.22 and a standard deviation of 33.3996. A test of significance calculated for the two means results in a t score of 2.7263 (p=.01). This is shown in Table 1.

TABLE 1

VOCABULARY SCORES

	Experimental Subjects	Control Subjects
N	18	18
Range	16-108	54-136
Mean	70	98.22
S.D.	26.5675	33.3996

t=2.7263 df=34

An analysis of the two groups, the experimental group who received programmed instruction and the control group taught through a multi-text basal reader approach, indicates a significant difference between the means in favor of the control group. Thus, the null hypothesis cannot be rejected; the multi-text basal reading approach produces as good as or better results than does programmed reading.

A comparision of the vocabulary scores with scores on the Gates MacGinitie Test obtained by the experimental subjects, those taught by means of programmed readers shows a low correlation ($s=.23$) when compared by means of Spearman's rho. The control group, those who learned to read with a multi-text basal reader approach, show a corresponding pattern of high to low scores on both the Metropolitan Achievement Test and the vocabulary test based on the programmed materials. When the two scores are compared by means of Spearman's rho, a correlation coefficient of .7926 results.

Conclusions

The results of this study indicate that children instructed with basal readers achieve greater gains in vocabulary and the attendant comprehension than do children instructed with programmed materials. This finding agrees with those of Hill (1968) who reports significantly higher scores on tests of sentence reading and word recognition for pupils who use basal readers over those taught with programmed readers. Basal readers incorporate varied learning experiences which promote vocabulary development through an extensive selection of varied independent and

teacher-directed learning activities for the purpose of developing and enriching vocabulary concepts. The suggested activities consider a learner's different styles and interests and these are developed to foster vocabulary. Programmed reading does not include this expérience factor in its vocabulary development program.

This study indicates that the conventional or basal reading approach is a more effective teaching tool, specifically where vocabulary is concerned, than is the programmed reading system. Findings of this study indicate that programmed reading is less efficient in developing vocabulary recognition skills with average readers. The results of this investigation challenge the advisability of using a programmed reading system since the vocabulary achievement scores for subjects involved in such a program were significantly ($p = .01$) lower than those scores for subjects utilizing basal readers.

Although advocates of programmed readers consider them a means of individualizing the reading program, one might question the characteristics of these reading materials in light of a truly individualized situation. An individualized reading program incorporates self-selection from diverse materials whereas the Sullivan program tested here confines students to one set of workbooks and consequently one group of characterizations from kindergarten through the third grade. Creativity is fostered through flexibility and the individual is afforded the freedom for self-expression and experimental learning in a truly individualized situation. The regimented programmed approach which consists of response-

reward does not incorporate the flexible aspect into its program as do the time honored basal approaches which incorporate creativity into their modes of vocabulary development. In this research this development of creativity in the area of vocabulary acquisition skills indicates that it has advantages with respect to achievement as is evidenced by the significantly higher scores of the basal reading group as opposed to the lower scores obtained by the programmed reading group.

It may prove valuable to carry on a longitudinal study to determine the effects of the two reading programs on vocabulary development. A study to determine the development of vocabulary from first through third grade with the subjects tested at the end of each grade may help to determine which of the two reading approaches, programmed or multi-text basal, produces the best results at each level.

References

Betts, E.A. Foundations of Reading Instruction. New York: American Book Co., 1954.

Gagne, R.M. The Conditions of Learning. New York: Holt, Rinehart and Winston, 1970.

Haring, N.G., & M.A. Hauck. Improved learning conditions in the establishment of reading skills with disabled readers. Exceptional Children, 35: 341-352, 1959.

Hill, S.A. A comparative Study: two methods of teaching reading--conventional and programmed. Dissertation Abstracts, 29: 1677-A, 1968.

Lewis, D.J. Scientific Principles of Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1963.

Umans, S. New Trends in Reading Instruction. New York: Teachers College Press, Columbia University, 1963.

Zintz, M.V. The Reading Process: The Teacher and Learner. Dubuque, Iowa: Little Brown, 1970.

A COMPARISON OF INTELLIGENCE AND RETENTION OF PHONETIC SOUNDS IN KINDERGARTEN CHILDREN

Elizabeth Taylor Pratt

Those involved with the early education of children are faced with a number of questions. Are young children able to understand and recall the sounds of consonants at the beginnings and endings of words, and if they are, is it because of innate ability? If children have this ability, is it neurologically based or is it a result of experiential factors? If a child apperas verbally able, will he also do well in such reading-associated tasks as phonic discrimination? The question is raised as to whether or not a child who scores high on an intelligence test of perceptual-motor, vocabulary, and draw-a-man measures will also be able to recall specific phonetic sounds. If this is the case, a teacher will be able to identify these children through use of such tests and instruct them at an advanced level beyond that which necessitates the teaching of every consonant sound.

As Durrell (1956) states, we actually do not yet know how to measure early stages in the development of the ability to hear and discriminate between sounds. Hagen and Harekham (1972) investigated the effect of a phonics-oriented kindergarten program on auditory discrimination and reading readiness using the Wepman Auditory Discrimination Test and the New York State Readiness Test and found that instruction in phonics resulted in a higher readiness score but no higher scores in auditory discrimination.

Brown (1971) and Legge (1971) found that listening and intelligence were highly coordinated in fourth, fifth, and sixth grade children Legge found an even closer correlation between listening ability and scholastic achievement than between listening ability and intelligence. He cites the need for furthering the training of listening ability, particularly in the early stages of formal education.

If the ability to understand, retain, and recall the phonetic sounds of consonant letters is an important factor in learning to read, then it is essential that we know how to recognize and to judge whether or not this ability is developed sufficiently well at the kindergarten level and whether this can be measured through assessing intelligence and perceptual ability. It was the purpose of this study to investigate the degree to which kindergarten children can recall specific consonant sounds after having heard these related in a story, and whether or not the intelligence of these children has a positive correlation with this ability. Furthermore, this research was planned to determine whether or not there is a significant difference between the responses of those children who attend in the afternoon, and whether sex is a factor in phonic ability at this level.

Method

The subjects were 42 kindergarten children who attended two sessions, morning and afternoon, in a middle-class suburban neighborhood. The morning class consisted of 21 children, ten

boys and eleven girls, and the afternoon class consisted of eleven boys and ten girls. The girls in the morning class ranged in age from 70 to 59 months with a mean of 64.5 and a S.D. of 3.42 and had intelligence quotients ranging from 133 to 77 with a mean of 105.5 and S.D. of 18.60. The boys in this class ranged in age from 68 to 58 months with a mean of 63.3 and a S.D. of 3.04 and had intelligence quotients ranging from 116 to 85 with a mean of 100.8 and S.D. of 13.08. In the afternoon class the range of ages for the girls was 68 to 59 months with a mean age of 62.9 months and a S.D. of 2.9 and their intelligence quotients ranged from 139 to 81 with a mean of 116.1 and a S.D. of 13.96. The boys in the afternoon scores ranged in age from 68 to 59 months with a mean of 63 and S.D. of 3.31 and their intelligence quotients ranged from 134 to 75 with a mean of 104 and S.D. of 12.2. The intelligence test used was the Vane Kindergarten Test.

The consonant sounds were taken from Phonics in Listening in Speaking in Reading in Writing by L.B. Scott and J.J. Thompson. They were as follows:

b as in ball and bed,
d as in doll and duck,
f as in farm and fish,
g as in gun and goat,
h as in house and hat,
j as in jump and jam,
k as in kitten and key,
l as in light and leaf,
m as in mouse and man,

n as in nut and nest,
p as in pan and pig,
r as in rabbit and rake,
s as in sun and sail,
t as in turtle and top,
v as in valentine and vine,
w as in window and wagon,
y as in yard and yo-yo, and
z as in zoo and zebra.

The stories used were the "Soundie" stories in Chapter 4 of the book. These stories describe a little man who lives under a mushroom and travels about talking to his friends and looking for sounds that he can put into a bag that he carries. The sounds, though used in isolation, are presented in meaningful words and sentences. Association with corresponding alphabetic symbols was introduced concurrently but was not emphasized.

The examiner read one story to the class early in the period. The children were not specifically encouraged to repeat the sounds as they heard them, but many did so spontaneously. After each story was read, the normal school routines were pursued. At the close of the regular free time period, the children were asked individually what sound the little man had put into his bag that day. The examiner recorded whether or not each subject recalled the sound correctly.

In order to determine whether or not there exists a positive correlation between the measured intelligence of the subjects and their ability to retain phonic sounds, the subjects' scores on

the Vane Kindergarten Test were compared with the number of sounds remembered correctly Spearman's rank order coefficient of correlation (rho).

Findings

The number of sounds recalled correctly for the whole group of 42 subjects ranged from eighteen or total recall to none. The mean number of sounds recalled was ten and the standard deviation was 4.94. When these retentions were rank ordered and compared with intelligence quotients a coefficient of correlation equal to .55 resulted. This low positive correlation is not significant.

The mean number of sounds recalled by those children who attended kindergarten in the morning was compared with the corresponding mean for those children who attended kindergarten in the afternoon. For the morning class, the range of I.Q. scores is 133-to 77 with a mean of 103.28 and a S.D. of 15.16 and for the total sounds recalled, the range is 18 to zero with a mean of 10.42 and S.D. of 4.93. For the afternoon group, the intelligence quotients ranged from 139 to 75 with a mean of 109.76 and S.D. of 14.89 and the range of total sounds recalled is 18 to 2, with a mean of 9.76 and a S.D. of 6.31. These are shown in Table 1.

When a t score is computed for the difference between the means of the total sounds recalled for the morning and the afternoon groups, a value of .3721 is obtained. This is not significant, therefore it can be presumed that the number of total sounds recalled is not dependent on the time, morning or afternoon, at which

children attend kindergarten.

TABLE 1

COMPARISON OF I.Q.'s AND TOTAL SOUNDS RECALLED FOR MORNING AND AFTERNOON GROUPS

	Vane Kindergarten Test		Total Sounds Recalled	
	Morning	Afternoon	Morning	Afternoon
Range	133-77	139-75	18-0	18-2
Mean	103-28	109.76	10.42	9.76
S.D.	15.16	14.89	4.93	6.31

In order to find out whether or not there is a significant difference between the ability of girls and the ability of boys to remember these specific consonant sounds, two selected groups of children, one composed of six girls and one composed of an equal number of boys matched for age and intelligence, were compared Table 2 shows the ages, intelligence quotients and total number of sounds recalled for these subjects. For the girls, the ages range from 68 to 59 months with a mean of 63.5 and a S.D. of 3.68. For the boys, the ages range from 68 to 59 with a mean of 63.16 and a S.D. of 3.43. The intelligence quotients for this group of girls range from 115 to 77 with a mean of 103.33 and a S.D. of 12.99. The boys showed a range in intelligence from 116 to 75 with a mean of 103.5 and a S.D. of 13.9.

The total number of sounds recalled by the

girls in this group ranged from 16 to 5 with a mean of 8.33 and a S.D. of 3.59. Similar scores for the boys ranged from 17 to 3 with a mean of 11.83 and a S.D. of 4.45.

TABLE 2

AGE I.Q.'s AND TOTAL SOUND RECALLED
MATCHED GROUPS OF BOYS AND GIRLS

Age		I.Q.		Total Sounds Recalled		
Boys	Girls	Boys	Girls	Boys	Girls	
60	61	116	115	14	6	
61	60	115	114	10	8	
59	59	111	111	17	5	
64	65	103	103	13	16	
67	68	101	100	14	7	
68	68	75	77	3	8	
68-59	68-59	116-75	115-77	17-3	16-5	Range
63.16	63.5	103.5	103.3	11.83	8.33	Mean
3.43	3.680	13.90	12.99	4.45	3.59	S.D.

When a t score is computed for the difference between the means of these two groups, boys and girls matched for age and intelligence, a value of 1.3687 is obtained. This is not statistically significant, therfore it may be assumed that there is no difference between the ability of girls and the ability of boys of similar age and intelligence to recall sounds one hour after they have heard them in a story sequence.

Conclusions

Moore and Ronney (1971) found that the child

with slower ability intellectually did not retain speech signals during the process of audition. The findings of this research also indicate that children with lower intellectual ability are less able to recall sounds than are those with higher intellectual ability. Since intelligence and auditory discrimination correlate with success in primary reading (Thompson, 1964; Hildreth, 1950; Covoures, 1964), it may be assumed that the ability to identify phonemes in reading may be, at least partially, predicted through the use of standardized testing instruments which are purported to measure, perception and intelligence. It follows from this and other research that the more intelligent children are able to listen better since they can recall the sounds more accurately.

However, differences in reading approaches and methods of presentation may account for differences in the way in which children learn phonemes. The method used here incorporated the sound into a story sequence whereas other methods utilize key words and pictures. Perhaps a combination of these based might be proven effective.

In comparing the ability of girls and boys to recall specific consonant sounds, this study indicated no significant difference between the sexes. This corresponds with the research reported by Wise (1964) who found that sex differences were not significant at the readiness level. However, Durrell (1956) found that girls generally are more able in visual and auditory discrimination of words. This may indicate that

boys are more able to retain sounds presented through auditory means, and, if this is so, then boys need a heavier emphasis on visual skills and should be taught primarily through an auditory method.

The girls in this study obtained higher intelligence quotients on the Vane Kindergarten Test than did the boys, although the mean ages for each group were close. This test of perceptual motor, vocabulary and draw-a-man skills may be more suited to girls than to boys. Perhaps tests should be developed which are calculated to measure the particular characteristics of boys.

References

Brown, C.T. Relationships among listening, reading, intelligence and scholastic achievement. Listening: Readings. Vol. 2. Metuchen, N.J.: Scarecrow Press, 1971.

Cavoures, D.G. Phoneme identification in primary reading and spelling. Dissertation Abstracts. Vol 26, No. 10, University Microfilms, Ann Arbor, Mich., 1964, p. 5905.

Durrell, D. D. Improving reading instruction. New York: Harcourt Brace and World, 1956.

Hagen, L.V. and Harckham, L.D. Effects of a phonics oriented kindergarten program on auditory discrimination and reading readiness. ERIC Index, January-June 1972.

Hildreth, G. Readiness for school beginners. Yonkers-on Hudson, N.Y.: World Book, 1950.

Legge, W.B. Listening, intelligence and school achievement. Listening: Readings, Vol.2 Metuchen, N.J., 1971.

Moore, M.V. and Ranney, J.B. An auditory language quantum. Listening: Readings, Vol. 2. Metuchen, N.J., 1971.

Thompson, B.B. Relation of auditory discrimination and intelligence scores to success in primary reading. Dissertation Abstracts, Vol. 22, No. 3, University Microfilms, Ann Arbor, Michigan, 1964, p.785.

Wise, J.E. The effects of two kindergarten programs upon reading achievement in grade one. Dissertation Abstracts, Vol. 26. No.10, Uiversity Microfilms, Ann Arbor, Michigan, 1964.

A COMPARISON OF GRADE SCORE INCREASES IN VOCABULARY AND COMPREHENSION FOR A CLUSTER FIRST GRADE CLASS AND A SELF-CONTAINED FIRST GRADE CLASS

Carol Minehan

Learning is a social act, and children learning from children can be a generating force for education. Children of differing ages and abilities who have the opportunity to mix freely and to teach each other should score higher on reading tests than those who do not have this opportunity. In the United States informal multi-age grouping has increased. Variations of the British schools can be found in primary schools here. Children of different ages and abilities can be found working together in a variety of situations one of which might be tutorial. Majors (1971) experimented with first and fifth grade children working together in a tutoring program. Improved test results in reading for the first grade student and reinforced knowledge combined with increased interest in their work were noticed with the sixth grade tutors. A more positive attitude toward authority, teaching, and learning was found for all after this experiment. Swett (1971) reported increased positive perceptions about themselves for fourth and first grade students after a tutorial situation. These and other researchers have reported that heterogeneous mixtures of children will enrich the learning process. Because of the maturation of intelligence with increasing age, the main influence may be the free intercourse with children of varying ages.

Children at the first grade level who observe

daily the importance and multiple uses of reading should be motivated to learn to read and to engage in the act of reading to such an extent that their abilities in the area of reading are increased. This increase in ability should be measurable for vocabulary and comprehension. Therefore; the following hypothesis was tested: Children in the first grade who have the opportunity to communicate freely and to teach each other in combined classroom and learning center situations among first, second, and third grade children over a two-month period will evidence greater increases in vocabulary and comprehension scores as these are measured by a standardized reading test than will children in a self-contained classroom.

Methods

The subjects of this study were two first grades each containing nineteen pupils selected from a middle-class school. These classes differed in that one was a traditional self-contained classroom while the other was part of a cluster of classes which included a second and a third grade class. These three classes shared learning centers which included areas for art, audio-visual equipment, science, social studies, mathematics, and a library while the self-contained class used materials for each subject within the one classroom and did not interact with other classes.

The cluster class was comprised of thirteen boys and six girls whose mean age was seven years and the self-contained class was made up of

twelve girls and seven boys whose mean age was seven years also.

During the school year both classes used the A.B.C. Read Series combined with enrichment books used at the discretion of the teachers.

The cluster classes, grades one through three, grouped pupils for reading activities on the basis of informal reading inventories, the Murphy-Durrell Readiness Test-Grade 1, Stanford Reading Achievement Test-Grade 2, and the California Achievement Test-Grade 3. The cluster classes also engaged in varied types of informal reading activities which included playing reading games, sharing books and pupil-made stories, poems and plays and other media from the instructional centers. These activities spanned the grade levels of the three cluster classes.

The self-contained class engaged in similar activities using similar materials but used these in their own first-grade classroom. These children did not have as easy access to materials spanning the grade levels and had little interaction with older children.

The Gates-MacGinitie Reading Tests, Primary A, Forms 1 and 2 were used as pre-tests and post-tests respectively on April 19 and 20, 1973 and June 14 and 15, 1973.

Findings

The scores obtained on the two forms of the Gates MacGinitie Reading Test, Primary A, were

compared for both groups to ascertain whether or not a significant difference in mean gain occurred. The range of grade score increases on the vocabulary section of the test ranged from 0 to 1.7 with a mean of .4211 and a standard deviation of .6769 for the cluster group. For the self-contained class, the vocabulary gain ranged from 0 to 1.0 with a mean of .1474 and a standard deviation of .2783. When the means are compared, they yield a t-value of 1.5865 which is not significant (p=.10). This is shown in Table 1. This, although not statistically significant shows a trend toward a greater mean gain in reading vocabulary for the first grade class who were taught in a cluster of first through third grades.

TABLE 1

GAIN IN VOCABULARY

	Cluster	Self-Contained
Range	0-1.7	0-1.0
Mean	.4211	.1474
S.D.	.6769	.3783

*t=1.5865 df=36
*Not statistically significant (p.=.10).

The grade score increases in comprehension for the cluster class ranged from 0 to 1.6 with

a mean of .4526 and a standard deviation of .5019. The grade score increase on the comprehension measure for the self-contained group was from 0 to 1.4 with a mean of .3105 and a standard deviation of .4272. When the means of the two classes were compared, a t-value of .9144 was obtained. This did not reflect a statistically significant difference. Table 2 shows this comparison.

Whilde there was a greater increase in comprehension scores for the cluster group, this difference was not statistically significant and does not clearly support the hypothesis that cluster grouping across grade levels effects an increase in reading vocabulary greater than is accomplished in a conventional self-contained classroom. Over a longer period of time than the two months of this study, gains in comprehension may have shown a greater diversity than occurred in this research.

TABLE 2

GAIN IN COMPREHENSION

	Cluster	Self-Contained
Range	0-1.6	0-1.4
Mean	.4526	.3105
S.D.	.5019	.4272

*t=.9144 df=36

*Not statistically significant.

Conclusions

According to the data presented here, children in a first grade who were able to mix freely with other children of multi-age and ability levels did perform better, although in this short two-month period this difference was not statistically significant, on tests of reading vocabulary than did those children in a self-contained classroom. Grouping children of different ages and ability levels together may prove to be a workable alternative to the regular classroom situation. Much of the reading skill taught in the first grade are word recognition and vocabulary and so the more revealing tests of reading ability at this grade level may very well be tests of vocabulary.

With the continuing and ever increasing knowledge explosion and the drive toward individualization of instruction, children working with and learning from other children of different ages and abilities may be a possible solution to the problem of schools which must educate the whole child. If multi-age grouping can increase learning; a changing of group structure similar to the one-room schoolhouse but utilizing the added educational knowledge gained through the years might be instituted.

References

Majors, H.L. Working together works. Childhood Education, 1971, 48. (1), 25-28.

Swett, M. This year I got my buddy to laugh. Childhood Education, 1971, 48 (1), 17-20.

A COMPARISON OF THE DISTAR READING SYSTEM WITH A BASAL READING PROGRAM IN THE SECOND GRADE AS MEASURED BY THE STANFORD ACHIEVEMENT TEST

Virginia Salmond Payne

The educational problems of disadvantaged children, particularly the problems these children have with reading, have received much attention in the literature. Deutsch (1967) stated that forty percent to seventy percent of the total population in the nation's twenty largest cities were children from marginal economic and social circumstances, and that by the time they reach high school, sixty percent of these children are retarded by one to four years. Marburger (1963), in describing the Detroit Great Cities Project, points out the need for the development of an educational program adapted to the needs of these children. Passow (1963) and Feitelson (1968) suggest that preventative practice in the form of programs developed to suit the characteristics of children of the urban poor should be developed.

One such program is Distar, the name of which is an acronym for "Direct Instructional Systems for Teaching Arithmetic and Reading," developed by Bereiter and Engelmann who feel that the disadvantaged child is lacking in learning but not in the ability to learn. This system was developed using two main strategies; the first, verbal bombardment by the teacher to compress a large amount of verbal experience into a short time, and direct instruction in activities focusing on the academic skills needed by the children.

The authors of Distar recommend several procedures for reading instruction for disadvantaged children including special emphasis on developing awareness of words as distinct entities, and emphasis on the alphabetic nature of the English language. Further, they state that the most important requirement for a set of readers is that it should be based on spelling patterns rather than on content or the meaning or frequency of the vocabulary chosen.

Much has been written to the effect that the specific reading method does not have as much to do with the reading achievement of children as does the effectiveness of the teacher. In reviewing the United States Office of Education reading studies, Sipay (1968) suggests that teachers often influence classes more than the method of instruction used. Sipay also states that no one reading program proved to be superior for all children in every respect of reading measured. Similarly, another study comparing basal, linguistic, and modified linguistic methods in first and second grades found all methods equally effective. Sheldon, Stinson & Publes, (1969). However, Bovee (1972) reports findings indicating that phonic approaches produce better word recognition skills than methods which do not stress phonics.

While there is some research indicating that the particular reading method used does not make as much difference in the reading achievement of the pupils as does the teacher, several writers state that code-emphasis approaches are producing better reading achievement. This seems to be

especially true for slow learners and disadvantaged children. The Distar reading system, with its code emphasis which was developed particularly for disadvantaged children and slow learners, is shown in several investigations to have improved the reading achievement of the children for whom it was designed (Science Presearch Associates, Inc., 1970). The purpose of this study was to compare the reading achievement of inner city students who had been taught with the Distar system since kindergarten with the reading achievement of children in the same school who were taught with a basal approach.

Methods

The 146 subjects used in this study were drawn from the total number of students taking the Stanford Achievement Test at the end of second grade in May, 1971, and in May, 1973 in Paterson, New Jersey. Only those children who had been in this particular school since kindergarten were included. Data concerning the subjects; I.Q.'s was not available since the Paterson does not test for I.Q. at this grade level. There were 32 girls and 41 boys in the 1971 group and in the 1973 group 38 were girls and 35 were boys.

The 1971 basal reading roup received no formal reading instruction in kindergarten beyond the readiness activities given at the discretion of the individual teachers. In the first and second grades the Scott, Foresman Basal Reading Program was used. Any phonics instruction was that included in the basal program are given as supplemental instruction by the individual teachers. In 1970, the Distar group began this structured program in

kindergarten and, by the end of the scond grade, had progressed to reading short stories in traditional orthography.

The 1965 edition of the Stanford Achievement Test was administered to both groups of subjects at the end of the second grade, Form W to the 1971 basal reader group and Form X to the 1973 Distar group. All eight subtests, Word Meaning, Paragraph Meaning, Science and Social Studies Concepts, Spelling, Word Study Skills, Language, Arithmetic Computation, and Arithmetic Concepts, were given. In addition, a Total Reading score was computed. These scores are reported in grade equivalents. A test of significance of the difference between the means was computed for the two groups on each test to determine whether or not there was a significant difference between the test scores for those subjects taught by means of Distar and those taught with basal readers.

Findings

The hypothesis which stated that the 1973 Distar group would show significantly higher reading and language scores on the Stanford Achievement Test than would those taught with the Scott Foresman Basal Reading Program, was supported. When scores obtained for the Total Reading subtest are compared a t-score of 3.1924 (p=.005) was obtained. The 1971 basal group obtained grade-equivalent scores ranging from 1.5 to 3.6 with a mean of 2.14 and a standard deviation of 14964. This is shown in Table 1.

TABLE 1

COMPARISON OF TOTAL READING GRADE-EQUIVALENT SCORES

	1973 Basal Group	1973 Distar Group
Range	1.5-3.6	1.4-4.1
Median	2.14	2.54
S.D.	.4964	.9522

t=3.1924 (p=.005) df=144

When the Word Meaning grade-equivalent scores for the two groups are compared, the 1971 basal group ranges from 1.2 to 4.4 with a mean of 2.27 and a standard deviation of .8758 and the 1973 Distar group ranges from 1.3 to 4.7 with a mean of 2.66 and a standard deviation of 1.3452. When these means are compared a t score of 2.0638 (p=.01) which indicates that the Distar group achieved significantly better than did the basal group. This is shown in Table 2.

TABLE 2

COMPARISON OF WORD MEANING GRADE-EQUIVALENT SCORES

	1971 Basal Group	1973 Distar Group
Range	1.2-4.4	1.3-4.7
Mean	2.27	2.66
S.D.	.8758	1.3452

t=2.0138 (p=.01) df=144

On the Paragraph Meaning subtest the 1971 basal group obtained a range of scores from 1.4 to 3.4 with a mean of 2.1096 and a standard deviation of .6710 while the 1973 Distar group obtained a range of scores from 1.0 to 4.0 with a mean of 2.4972 and a standard deviation of .6879. When the means are compared, a t-score of 2.0638 (p=.0005) results which indicates that the 1973 Distar group achieved significantly higher scores in Paragraph Meaning than did the basal reader group. This is shown in Table 3.

TABLE 3

COMPARISON OF PARAGRAPH MEANING GRADE-EQUIVALENT SCORES

	1971 Basal Group	1973 Distar Group
Range	1.4-3.4	1.0-4.0
Mean	2.10	2.49
S.D.	.6710	.6879

t=3.4228 (p=.0005) df=144

Sixty-seven of the basal reading subjects took the Spelling subtest in 1971 and 72 of the Distar group took this subtest in 1973. The 1971 basal group obtained a grade-equivalent range of 1.3 to 6.3 with a mean of 2.81 and a standard deviation of 1.2958. For the Distar group, the range was 1.3-5.7 with a mean of 3.26 and a

standard deviation of .9559. When the means are compared a t-score of 2.334 (p=.01) is obtained. These data are shown in Table 4. It should be pointed out here that while the range of the Distar group is smaller, the distribution of the majority of subjects above a grade-equivalent level of 3.1 produced the significantly higher mean score of 3.26. The data indicate that, for these subjects, the use of the Distar reading system resulted in significantly increased spelling ability.

TABLE 4

COMPARISON OF SPELLING GRADE-EQUIVALENT SCORES

	1971 Basal Group	1973 Distar Group
N	67	72
Range	1.3-6.3	1.3-5.7
Mean	2.81	3.26
S.D.	1.2958	.9559

t=2.3324 (p=.01) df=137

It was hypothesized that the 1973 Distar group would achieve significantly higher scores than would the 1971 basal reader group on the Word Study Skills subtest. This was not supported by the data presented in Table 5. There were 73 subjects in the 1971 basal group and 72 subjects

in the 1973 Distar group who took this subtest. The 1971 basal group obtained a range of 1.1 to 5.8 grade levels with a mean of 2.30 and a standard deviation of .9962. The 1973 Distar group obtained grade-equivalent scores ranging from 1.2 to 7.0 with a mean of 2.37 and a standard deviation of 1.3029.

TABLE 5

COMPARISON OF WORD STUDY SKILLS GRADE-EQUIVALENT SCORES

	1971 Basal Group	1973 Distar Group
N	73	72
Range	1.1-5.8	1.2-7.0
Mean	2.30	2.37
S.D.	.9962	1.3029

t=.3803 df=143

There were 73 subjects in the 1971 basal group and 72 subjects in the 1973 Distar group who took the Language subtest of the Stanford Achievement Test. In 1971 the basal group obtained a range of 1.2 to 3.9 grade levels with a mean of 2.33 and standard deviation of .1275. The 1973 Distar group obtained a grade level range of 1.0 to 6.4 with a mean of 3.08 and a standard deviation of 1.7912. A comparison of these scores yields a t-score of 5.6610 (p=.0005). This data is included in Table 6.

TABLE 6

COMPARISON OF LANGUAGE GRADE-EQUIVALENT SCORES

	1971 Basal Group	1973 Distar Group
N	73	72
Range	1.2-3.9	1.0-6.4
Mean	2.33	3.08
S.D.	.1275	1.7912

t=5.6610 (p=.0005) df=143

Conclusions

The highly structured Distar reading system with its strong code emphasis produce significantly better reading achievement at the second grade level in this inner city school than did the Scott, Foresman Basal Reading Program in the Total Reading scores and all of the subtests except Word Study Skills. It is probable that the fact that the Distar group began reading instruction in the kindergarten while the basal group did not have some effect on their relative achievement in second grade. This finding gives support to proponents of early, systematic teaching for disadvantaged children. In addition, this indicates that the needs of the disadvantaged child can best be met with a highly structured system such as Distar presents. Whereas the basal reading series are often based on concepts of middle class living,

teaching in the Distar approach does not rely as much on the background experience of the children. This direct approach teaches one skill at a time. Failure is not a large factor because each child moves on as he masters each skill.

Scheffler (1958) states that "The guiding principal... is that educational content is to help the learner attain maximum self-sufficiency as economically as possible (p.469, 470)." This economy of content should be evident, according to Scheffler, in teaching effort and resources, learner's effort, and subject matter. The Distar system of reading instruction seems to fit these requirements. First, teaching effort and resources: the Distar system is teacher-centered; however the sequence of lessons and explicit directions for teaching are incorporated into the materials. The authors have developed the system along certain lines and the teacher has only to follow the sequence and directions for teaching lessons. Second, the learner's effort should be minimized. The Distar system minimized the pressure of failure by systematically teaching one skill at a time. Each child moves at his own pace as he masters each skill. The teaching of Distar is characterized by much drill and repetition for children who need it. Children who have mastered a skill may move on to the next skill without as much repetition. Third, economy of subject matter, as recommended by Scheffler, is exemplified. Each skill necessary for beginning reading is built upon by succeeding skills. The philosophy of the authors is to give students just the skills they need to learn to read.

The results of this investigation indicate that Distar with its highly structured, code emphasis approach, when this is begun in kindergarten, produces significantly better reading ability with disadvantaged children than does a meaning-approach basal system with phonics introduced incidentally.

References

Bereiter, C., & Engelmann, S. Teaching disadvantaged children in the preschool. Englewood Cliffs, N.J.: Prentice-Hall, 1966.

Bovee, O.H. Which method of teaching reading is the best? Education, 1972, 92 (3), 1-3.

Deutsch, M. Nursery Education: The influence of social programming on early development. In M. Deutsch (Ed.) The disadvantaged child. New York: Basic Books, 1967.

Feitelson, D. Teaching reading to culturally disadvantaged children. The Peading Teacher, 1968, 22, 55-61.

Marburger, C.L. Considerations for educational planning. In A.H. Passow (ED.), Education in depressed areas. New York: Teachers College Press, 1963.

Passow, A.H. (Ed.) Education in depressed areas. New York: Teachers College Press, 1963.

Scheffler, I. Justifying curriculum decisions. The School Review, 1958, 66, 461-472.

Science Research Associates, Inc. Distar--What's the proof? Chicago: Author, 1970.

Sheldon, W. D., Stinson, F., & Peebles, J.D. Comparison of three methods of reading: A continuation study in the third grade. The Reading Teacher, 1969, 22, 539-546.

Sipay, E.R. Interpreting the USOE cooperative reading studies. The Reading Teacher, 1968, 22, 10-16.

A COMPARISON OF THE PROGRESS MADE BY FIFTH GRADE TUTORS AND FOURTH GRADE TUTEES DURING A TUTORIAL PROGRAM IN READING

Audrey Cleeff

Learning to read continues to hold a high rank among the major developmental tasks children face today because the ability to interpret the printed page continues to be the means for preparing for well-rounded living. However, this complex skill is seldom learned incidentally by casual trial-and-error methods. What, then, is the best road to reading? What sort of program will enable the child to learn according to his abilities and interests? Bond and Tinker (1967) state that new trends in reading instruction are brought about by many factors among which are a better understanding of child development and of children's learning processes. Methods of reading instruction are changing with the improvements in other aspects of teaching and learning. As a result, schools have been trying to effect more and individualized reading instruction but are not able to afford the extra personnel necessary for this type teaching.

With under achievers and nonreaders, some schools have tried the very old idea of children teaching children. Riessman (1971) contends that children and youth learn more from performing the teaching role than they do as students in the classroom. He cites the work of John Lancaster, the English Quaker, who told of the positive results obtained when a lack of funds forced

him to use children as teachers in a school for the poor, Fowle (1866) continued the Lancastrian theory and found that the more advanced pupils benefited from the review they underwent while teaching the younger pupils. It is toward this old system that this study was directed.

The pupose of this study was to determine whether or not tutors or tutees gain more from a tutorial program in which fifth grade remedial students tutored fourth grade remedial students to ascertain whether the tutors or the tutees gain more in reading achievement. The focus of this investigation was on reading comprehension and vocabulary.

Methods

A pilot study was conducted by the investigator during the previous school year. In this particular program, fourth grade students tutored third grade students and fifth grade students tutored fourth grade students. This tutoring was done before school in the library.

The tutors were briefed on the procedures they were to follow. In preparing their lessons, the tutors were requested to read the story in the Reader's Digest Skill Builder and make word cards for any words they thought might be difficult for their tutees. An independent study page was provided for the tutor as a culminating activity. No pre-or past-testing was done.

When the Ginn 100 Edition Readiness Test was given the following September, many of the

children who had worked diligently in the program scored at the high middle of the class. This represented a marked improvement. It was concluded from this that a tutorial situation would benefit the students involved. This investigation tested this premise further.

Sixteen fourth-grade students and fifteen fifth grade students whose reading achievement was below grade level were the subjects of this study. They were called "under achievers" by their teachers.

The chronological ages for the fourth grade tutees ranged from 109 to 125 months with a mean age of 117 months and a standard deviation of 5.51 months. Their I.Q.'s ranged from 79 to 115 with a mean of 94 and a standard deviation of 11.09 as measured by the Kuhlmann-Anderson Intelligence Test. The guardians of the fourth-grade tutees were rated on the Socio-economic Status Scale (Reiss, 1961). The classification of these children's guardians range from a high of 90 to a low of 25 with a standard deviation of 17.84. This data is shown in Table 1.

The chronological ages for the fifth grade tutors ranged from 121 to 141 months with a mean of 132 months and a standard deviation of 6.77. Their I.Q.'s ranged from 76 to 113 with a mean of 97 and a standard deviation of 11.85 as measured by the Kuhlmann-Anderson Intelligence Test. The guardians' occupational ratings ranged from 96 to 25 with a mean of 64.26 and a standard deviation of 20.91. Table 1 includes these data.

TABLE 1

AGE, I.Q. AND SOCIO-ECONOMIC CHARACTERISTICS OF THE TUTORS AND TUTEES

	FOURTH GRADE TUTEES		
	Age	I.Q.	Socio-economic Rating
N	16		
Range	109-125	115-79	25-90
Mean	117	94	53.31
S.D.	5.51	11.09	17.84

	FIFTH GRADE TUTORS		
	Age	I.Q.	Socio-economic Rating
N	15		
Range	121-141	113-76	25-96
Mean	132	97	64.26
S.D.	6.77	11.85	20.91

The subjects were given the Stanford Diagnostic Reading Test Form W at the beginning of the study and Form X of the same test was given at the conclusion of the study. The teachers used the Ginn, 100 Edition, Readiness Test in the beginning of the year to assist them in grouping children for reading, these scores are considered in this study. The test puts emphasis on: (1) Vocabulary, including (a) word meaning and context clues, and (2) comprehensions, including (a) main ideas and (b) details. The Ginn,

100, Achievement Test was given at the end of the study. A scale to Measure Attitudes Toward Reading (Johnson, 1971), consisting of a list of 22 questions was given to the students in the beginning of the program to ascertain their attitude toward reading.

The Reader's Digest Skill Builder grades two-two through four-one were used. This material was not used in the classroom. Lined tag-board card measuring three by six inches were provided so the tutors could prepare flash cards for the tutees.

The tutorial period ran from 8:30 to 9:00 A.M. three days each week. A fifth grade remedial student was paired with a fourth grade remedial student. Boys were paired with boys and girls were paired with girls.

At briefing sessions, prior to the tutorial program, the fifth grade tutors were told that they would be helping fourth grade students in reading; and their goal was to raise the reading scores of their tutees. The tutors were shown the materials they would be using which were: The Reader's Digest Skill Builder, the flash cards, the word study page, and the questions at the end of each story which the tutee would be required to answer. The tutors were advised that they would have to prepare a lesson for their tutee by reading the story in the Reader's Digest Skill Builder, by selecting and printing on the flash cards any words they thought would be difficult for the tutee, and by having the tutee answer the questions at the end of each story. They would be permitted to prepare their lessons

in the class under the direction of the reading teachers, and if they could prepare their lesson at home, they would be able to accomplish much more with their tutee. Proper attitude and conduct toward the tutee was discussed.

The fourth grade tutees were told that they would have a fifth grader working with them on a one-to-one basis as an experiment to see if this extra reading time with an individualized program would help improve their reading. The materials they would be using were shown to them, in order to alleviate any anxiety on their part, and they were told what they would be expected to do.

Every fifth day the group was split, and one reading teacher conducted a reading lesson with the tutees. Another reading teacher took the tutors so they would be able to discuss their program and bring up any questions or problems they were having. After tutoring sessions, both tutors and tutees evaluated their experiences sometimes individually, sometimes with each other.

During the actual tutoring periods, the subjects sat on one side of the tables so all faced the front. Their chairs were to be touching, the tutor was instructed to say "good" after every correct response. Ten A's in succession on the separate word lists prepared by the tutor merited a reward, a piece of candy for both tutor and tutee. Three supervising teachers circulated among the children to answer questions and give any necessary help. This procedure was carried out for three months.

Findings

The differences which resulted when the scores on the pre-and post tests; Form W and Form X of the Reading Comprehension section of the Standard Diagnostic Reading Test were compared for the two groups. For the tutors these differences ranged from zero to 15 with a mean of 6.6 and a standard deviation of 8.3944. The differences in the scores for the tutees resulted in a range of zero to 18 with a mean of 5.7 and a standard deviation of 4.2697. When the differences between the two means are compared, a t-score of .4930 is obtained. This is not statistically significant, however, the tutors accomplished the greater mean gain in reading comprehension. This is shown in Table 1.

TABLE 1

DIFFERENCES IN GAIN IN COMPREHENSION

	Tutors	Tutees
N	15	16
Range	0-15	0-18
Mean	6.6	5.7
S.D.	8.3944	5.4190

t=.4930 df=29

When the differences between the means are compared, t=.4930 (not significant).

On the Vocabulary test, the gains obtained by the tutors ranged from zero to 6 with a mean of 3.9 and standard deviation of 1.6645. The differences in the scores of the tutees ranged from zero to 9 with a mean of 2.5 and a standard deviation of 2.6944. When the means are compared, a t value of 2.7664 results. This is significant at the .0005 level of confidence. This is shown in Table 2. The tutors' greater gains support the hypothesis that tutors gain more than tutees in a remedial reading situation.

TABLE 2

DIFFERENCES IN GAIN IN VOCABULARY.

	Tutors	Tutees
N	15	16
Range	0-6	0-9
Mean	3.9	2.5
S.D.	1.6645	2.6944

t=2.7664 df=29

When the differences between the two means are compared, t=2.7664, (significant at the .0005 level).

A comparison of the grade-level scores obtained by the two groups shows that the tutors' gain was significantly higher than was the grade level gain of the tutees' (p=.05). The tutors' grade

level gains ranged from zero to 1.8 with a mean of .93 and standard deviation of .7066. The differences in the grade level scores for the tutees ranged from zero to 2.0 with a mean of .59 and standard deviation of .5499. This is shown in Table 3.

TABLE 3

DIFFERENCES IN GRADE SCORES

	Tutors	Tutees
N	15	16
Range	0-18	0-2.0
Mean	.93	.59
S.D.	.7066	.5875
t=1.4745		df=29

When the differences between the two means are compared, t=1.4745 (significant at the .05 level).

An analysis of the attitude scale revealed that the tutors and the tutees agreed that:

1. Most books are too long.
2. Most books get dull toward the end.
3. Time should be included for free reading during the day.
4. Books are not the only items which make good presents.

5. Approximately half of the subjects involved felt that reading is only for "grade grubbers".
6. Reading is necessary.
7. Sharing books has value.
8. Money spent for books is well spent.

Conclusions

An evaluation of the results of this study indicate that it is a highly effective procedure and produces appreciable gains in learning to read. This works well for a variety of reasons, both cognitive and emotional. For the tutor it provides feelings of competence and maturity. The tutor becomes an active, participating learner filling the gaps in his previous learning sequence and reinforcing previously gained insights. In a sense, he obtains all of the benefits of overlearning.

The tutor and the tutee do not benefit alike. Each benefits in a different way, and, from this data, it may be concluded that the tutor benefits in a greater number of reading processes than in the normal classroom situation.

As a tutor progresses through a tutorial program, it may assist him in learning how to learn, in managing his own learning, and in improving his study habits. He may come to expect more of himself as a result of being placed in the teaching role.

The tutee feels that, with his tutor's help, he can learn to read, and the tutor can learn reading techniques because he has to be

successful with the tutee. Also, the cooperative experience with a peer or a younger child offers an important social experience in contrast to the competitive context in which learning generally takes place in our society.

References

Bond, G. L. & Wagner, E.B. Teaching the child to read. New York: Macmillan, 1960.

Fowle, W.B. The teachers' institute. New York: A.S. Barnes, 1866.

Lancaster, J. Improvements in education. London: Collins and Perkins, 1806.

Reiss, A. J. Jr. Occupations and social status. New York: The Free Press, 1961.

Reissman, F. The 'helper-therapy' principle. Social Work, 1965, 10, 27-32.

A COMPARISON OF READING INTERESTS OF SIXTH GRADE PUPILS FROM A SATELLITE CITY AND A RESIDENTIAL SUBURB

Alice E. Schlogl

Reading is one of the foremost sources from which children learn. According to Terman (1931), the reading habit must be fostered in a sequential manner. First, the child learns the mechanics of reading. After this he should be supplied with many good books. He should be encouraged to read by being exposed to books which reflect his everyday interests as well as interests that fit his age level or stage in the pattern of interests which children follow. Frank (1937) says that although there are wide individual differences between children of the same age, certain types of reading belong to certain ages and a well-defined curve of interest may be traced through the ages of childhood.

Although it is not easy for an adult to determine the reading interests of children, studies point to definite conclusions which can be used as a guide by parents and teachers when choosing children's literature. Certain reading preferences develop at definite ages or stages of childhood. Individual differences result from the influence of one's surroundings and special interests. Ford and Koplyay (1968) found age and sex to be more important factors in the influence of children's interests than socio-economic background. Turness (1963) states that children's interests indicate that three

factors influence children's reading: intelligence, age and sex.

The purpose of this study was to determine the reading interests of two groups of sixth grade children in selected schools of New Jersey to determine whether or not children of the same age and grade level share the same reading interests and to find out whether children living in a satellite city encompassing high rise apartment dwellings have interests similar to children living in a residential suburb of predominantly single family dwellings.

Methods

Of the total of 46 subjects studied here, 23 were from Borough A, a suburban residential area with a population of approximately 8,500, and 23 were from Borough B, a predominantly residential suburb adjacent to New York City, with a population of approximately 31,000. Despite their proximity to an urban metropolis, both boroughs are middle-to upper middle-class in socio-economic level.

The Borough A group consisted of thirteen boys and ten girls ranging in age from 11 years to 12 years 12 months with a mean age of 11 years 3 months and a standard deviation of .298 months. The intelligence quotients of this group ranged from 100 to 129 with a mean of 107.7 and a standard deviation of 9.543. The Borough B group consisted of fifteen boys and eight girls ranging in age from 11 years, 1 month to 12 years, 2 months and a standard deviation of 3.427 months. The intelligence quotients of this

group ranged from 100 to 147 with a mean of 113.3 a standard deviation of 10.870. The reading scores of the Borough A subjects, obtained from the Stanford Diagnostic Test ranged from 4.5 to 11.1 grade levels with a mean of 7.2 and a standard deviation of 1.650. For the Borough B subjects, reading scores ranged from 5.5 to 9.7 grade levels with a mean of 7.0 and a standard deviation of 1.142 as measured by the Iowa Test of Basic Skills.

A questionnaire, constructed by the investigator, surveyed student preferences for types of books. Forty-five excerpts from children's books were selected. Each excerpt was approximately twenty to fifty words in length. The nine categories included were: adventure-mystery, biographies, animals, humor, science, sports, religion, girls' stories and myths. The excerpts were selected for the type of reading interests they reflected. The excerpts were arranged randomly throughout the questionnaire. The researcher kept a code sheet including selections and categories to which each belonged as well as the title of each selection and the author.

The questionnaire was administered in two different sittings on two days. Each sitting lasted from thirty to forty minutes. This was done by the regular classroom teacher and the time of day varied accordingly from school to school.

A separate scoring page was prepared containing each excerpt and scoring columns for the likes, dislikes, and no preference categories. The scores for each preference for Borough A

boys and girls and Borlugh B boys and girls were tallied separately. Then the total number of responses for each excerpt was tallied. Because there were five excerpts in each interest area, the scores for each of the five excerpts were added together and a raw score for each interest area was arrived at. This gave a score for boys from Borough A who showed a preference for that type of literature, girls from Borough A who showed a preference for a type of literature, boys from Borough B who showed a preference for that type of literature and girls from Borough B who whowed a preference for that type of literature. The same method was employed to indicate scores for dislikes of each type of reading material listed on the questionnaire.

The scores for boys and girls from each of the two boroughs were added together to obtain scores for the total samples of each borough for each interest category. These raw scores were converted to percentages to make them comparable. The percentage scores were then correlated by means of Spearman's rho to determine how closely, if at all, the total scores of one borough were related to the scores obtained for the children of the other borough. When these correlations are close, a definite relationship between interests was presumed predictable for the two samples regardless of the type of surroundings in which they live. When the correlations are not close, it might indicate that other factors are more responsible for interests such as teachers' influence, sex, availability of books.

Findings

The correlation between the reading preferences of Borough A and of Borough B students was .51 which does not indicate a close correlation. The correlation coefficient obtained when the scores for the two groups' reading dislikes were compared was .54. These correlations do not indicate a close degree of similarity of reading interests between the two groups.

The correlation between the reading interests of the two groups of boys was close (p=.96). However, when comparing their reading dislikes, a correlation of .65 was obtained. An even closer coefficient of correlation, p=.98, was found for the dislikes of the two groups of girls.

Girls from both towns liked adventure, mysteries and girl's stories. Similarly, the percentages of girls from each borough who liked biographies and myths is close. It should be noted that while half of the Borough A girls liked humorous stories, only 27 percent of the girls from Borough B indicated that they would like to read the humorous books selected. Approximately the same percentage of girls from both towns disliked biographies. Only one-fourth of the girls from each town indicated a dislike of girls' stories.

When the girls' reading preferences were ranked, Borough A girls' stories first and adventure stories second. Borough B girls preferred

adventure stories first and their second preference was girls' stories.

When the girls' dislikes were ranked, sports stories, science, biographies, and humor were the first four most disliked by the girls from Borough A. Borough B girls indicated a dislike for science, biographies, sports, and humor in that order.

Boys from both boroughs showed preferences for sports first and adventure mystery second. Both groups disliked girls' stories more than any other type of literature studied. Approximately the same percentage of boys from both boroughs liked humor, 41 percent from Borough A and 42 percent from Borough B.

Both boys and girls show a desire to read adventure-mystery stories, however, while the girls indicated a desire to read action stories, the boys showed a definite tendency to avoid stories having girls as central characters. The same percentages of both boys and girls indicated a desire to read religious stories. This was 28 percent.

More boys indicated a preference for science books (40%) than did girls (13%). Girls ranked science and sports lowest, (13 percent and 20 percent), whereas boys ranked girls stories lowest (5.7 percent). Girls showed a stronger liking for animal stories (46 percent) than did boys (27 percent), and girls showed more interest (50 percent) than did boys (32 percent) in mythology. However, the interests of boys (39 percent) and girls (41 percent) was similar for biography.

Conclusions

While boys ranked girls' stories last, girls list the boys' favorite, adventure, second only to girls' stories. Both boys and girls place religious stories seventh. Boys placed a much higher priority on science, the third in the series, while the girls'placed science last. Boys indicated that their primary interest was sports stories but girls appeared to be barely interested in sports and placed it eighth in thier order of priorities. Girls rated animal stories fourth and boys rated these stories eighth.

The findings indicate that there are no significant similarities or differences between the reading interests of sixth grade children from a residential suburb when these interests are compared with the reading interests of children of similar age and grade level from a satellite city. However, reading interests are dichotomized for boys and girls at this age and grade level. Whereas the girls in the two locales indicated similar likes and dislikes, the boys from the two towns indicated similar preferences but not similar dislikes.

The implications for teachers and librarians who select books for children, while not altogether clear, were indicated by these findings. Certain books will probably be enjoyed by most girls or boys at a certain age and these should be made available for recreational reading. When books are selected for an entire class, it should be recognized that while mystery and adventure stories

interest both boys and girls, a romantic or girl-centered story will be rejected by the boys.

However, it may be wise to investigate the reasons for which boys reject stories that feature girls as the central character and the reasons for which girls turn away from sports and science. Is it because girls have been taught from early childhood that sports are for boys and is it because most schools feature boys' team sports and fewer such activities for girls? Have boys been taught to view anything featuring girls as not part of their image?

References

Ford, R.C. & Koplyay, J. Children's Story Preferences. Reading Teacher, 1968, 22, 233-235.

Frank, J. What books for Children? New York: Doubleday, Doran, 1937.

Furness, E.L. Researches on Reading Interests, Education, 1963, 84- 3-6.

Shores, J.H. Reading interests and informational needs of children in grades 4-8. Elementary English, 1954, 31, 493-500.

A COMPARISON BETWEEN A CHILD'S READING ABILITY AND READING GROUP PLACEMENT AS PREDICTED BY THE CLASSROOM TEACHER

Lillian Haefeli

Teachers form judgments about the rate of progress pupils achieve in school and use this judgment to rank and group pupils for instruction. This is particularly true in the teaching of reading. Whether or not pupils tend to sense and mirror the teachers' judgment and standards and consequently justify these expectations is a concern for all who are interested in children and the factors which determine their academic achievement. Smith (1963) and Harris (1970) state that teacher judgment is the most reliable of all criteria for deciding when a child has arrived at a stage appropriate for undertaking reading instruction. Rosenthal and Jacobsen(1968) found that theacher's favorable expectations effect gains in pupil's I.Q.'s and, for the lower grades, these changes are quite dynamic. Palardy (1969) found that when first-grade teachers reported that they believed boys are far less successful than girls in learning to read, the boys of these teachers did achieve less well on a standardized reading test than did a comparable group of male pupils whose teachers reported that they believed boys are as successful as girls in learning to read.

The purpose of this study was to investigate an hypothesized relationship between pupil's reading abilities according to standardized

reading tests and reading group placement as predicted by the classroom teacher.

Methods

The subjects of this study were pupils enrolled in a small, middle-class neighborhood school. Subjects in the first grade were five boys and five girls; one second grade group consisted of four boys and six girls; another second grade group consisted of five boys and five girls; and the third grade subjects were six girls and four boys. The Ortis Quick Scofe Mental Ability Tests were used to obtain I.Q. data for the four groups of subjects. For the first grade subjects, the mean I.Q. was 113.3, for the first second grade group the mean I.Q. was 120.8; for the second group of second grade pupils the mean I.Q. was 112.5; and for the third grade group the mean I.Q. was 112.8. The mean age in months for the first grade group was 78.8; for the first second-grade group the mean age was 92.8 months; for the second second-grade group the mean age was 92 months; and for the third grade group, the mean age was 102.1 months.

All subjects were given the Gates-Mac Ginitie Reading Test which includes vocabulary and comprehension. The first grade subjects were administered Primary A, the second grade subjects Primary B, and the third grade subjects Primary C. The comprehension scores on these standardized tests were then converted to Scott Foresman Reading Systems levels so that Gates Mac Ginitie grade scores correspond to the reading levels as follow:

grades 1.0 - 1.2 to level 2; grades 1.3-1.5 to level 3; grades 1.6 to level 4; grades 2.0-2.2 to level 5; grades 2.3-2.5 to level 6; grades 2.6-2.7 to level 7; grades 2.8-2.9 to level 8; grades 3.0- 3.2 to level 9; grades 3.3-3.5 level 10; grades 3.6-3.7 to level 11; and grades 3.8-3.9 to level 12.

Following a prepared reading skills chart supplied by Scott Foresman Reading Systems for use with Levels 1-12, a qkestionnaire was designed to elicit teacher's prediction of pupil placement on instructional reading levels Each teacher was provided with this checklist of the reading skills pupils were expected to acquire through the several levels of the Scott Foresman Reading Systems. These teachers were then asked to pre judge pupils reading ability based on information supplied in the questionnaire and their observations of the pupils' reading abilities and to place these pupils in levels appropriate for reading instruction. The teachers involved made these predictions independently of standardized test scores or cumulative records of any kind. At the end of a three week period, the participating teachers were asked to submit a list indicating the reading level on which each pupil had actually been assigned for instruction.

Spearman's rank order coefficient of correlation was then used to calculate the correlation between the teacher's predictions and three measures of reading placement; the actual functioning level in the classroom as measured by the levels placement checklist provided by Scott Foresman to accompany the reading system used in the school, the actual

reading comprehension scores as measured by the Gates-MacGinitie Reading Test-Primary A, B, and C, and this standardized test converted to levels. This procedure tested the hypothesis that a child's instructional reading level, as measured by tests precribed by the instructional materials used, can be reliably predicted by the classroom teacher.

Findings

For the first grade group, the reading comprehension scores on the Gates-MacGinitie Reading Test-Primary C ranged from 1.2 to 1.6 with a mean of 1.4 and a standard deviation of .41. These test scores converted to levels range from 2 to 3 with a mean of 2.90 and a standard deviation of 1.97. The levels of actual placement after three weeks of instruction ranged from 2 to 4 with a mean of 2.90 and a standard deviation of 1.97. The independent predictions of the classroom teacher ranged from 3 to 4 with a mean of 3.30 and a standard deviation of 1.45. These levels are shown in Table 1.

Table I

READING LEVELS FOR FIRST-GRADE

	Classroom	Gates-MacGinitie		SFRS Level Placement
		Level	Grade Score	
Range	3-4	2-3	2-4	1.2-1.6
Mean	3.30	2.90	2.90	1.40
S.D.	1.45	1.97	1.97	.41

A Comparison made between the measured reading levels as converted from the Gates - MacGinitie Reading Test and the actual placement levels as they were measured by the Scott Foresman Reading Systems yielded a perfect correlation. A comparison between the reading levels as measured by the Gates-MacGinitie Reading Test and the levels predicted by the classroom teacher yielded a coefficient of correlation of .17. Similarly, a comparison between the actual reading level placement by the Scott Foresman Reading Systems after three weeks of classroom instruction with the level predicted by the classroom teacher yielded a coefficient of correlation equal to .17. This does not support the stated hypothesis which predicted that a child's reading ability and subsequent reading group placement may be quite reliably predicted by the classroom teacher.

For the first group of second grade subjects reading comprehension scores obtained on the Gates-MacGinitie Reading Test - Primary B, ranged 1.9 to 5.4 with a mean of 3.55 and a standard deviation of 3.40. These test scores converted to levels range from 4 to 17 with a mean of 10.40 and a standard deviation of 13.20. The levels of actual placement after three weeks of instruction ranged from 4 to 7 with a mean of 6.40 and a standard deviation of 2.89. The independent predictions of the classroom teacher ranged from 6 to 10 levels with a mean of 8.60 and a standard deviation of 4.67. These levels are shown in Table 2.

Table 2

READING LEVELS FOR THE
FIRST SECOND GRADE GROUP

	Classroom Teacher	Gates-MacGinitie Level	Gates-MacGinitie Grade Score	SFRS Level Placement
Range	6-10	4-17	1.9-5.4	4-7
Mean	8.60	10.40	3.55	6.40
S.D.	4.97	13.20	3.40	2.89

A comparison between the measured reading levels as converted from the Gates-MacGinitie Reading Test and the levels measured by the Scott Foresman Reading Systems yielded a correlation of .78 which is significant. A comparison between the reading levels as measured by the Scott Foresman Reading Systems and the levels predicted by the classroom teacher yielded a coefficient of correlation equal to .89. The closest correlation occurred between the measured levels according to the Gates-McGinitie Reading Test and the levels as predicted by the classroom teacher. This coefficient of rank correlation was .99. From this it may be concluded that the classroom teacher predicted as accurately the instructional level of the children as did the standardized reading test.

The second group of second grade subjects obtained reading comprehension scores on the Gates-Mac Ginitie Reading Test - Primary B ranging from 1.6 to 5.1 grades with a mean of 3.55 and a standard deviation of 3.68. These

test scores converted to levels range from 4 to 17 with a mean of 10.40 and a standard deviation of 14.10. The levels of placement after three weeks of instruction ranged from 5 to 7 with a mean of 6.40 and a standard deviation of 3.08. The independent predictions by the classroom teacher ranged from 5 to 10 levels with a mean of 8.60 and a standard deviation of 6.20. This is shown in Table 3.

Table 3

READING LEVELS FOR THE SECOND SECOND-GRADE GROUP

	Classroom Teacher	Gates-MacGinitie Level	Gates-MacGinitie Grade	SFRS Level Placement
Range	5-10	4-17	1.6-5.1	5-7
Mean	8.60	10.7	3.55	6.40
S.D.	6.20	14.1	3.68	3.08

A comparison made between the measured reading levels as converted from the Gates-MacGinitie Reading Test and the grade placement levels as measured by the Scott Foresman Reading Systems yielded a correlation coefficient equal to .89. A comparison between the reading levels as measured by the Gates-MacGinitie Reading Test and the levels predicted by the classroom teacher yielded a coefficient of correlation coefficient of correlation equal to..89. A comparison between the suggested reading level placement, as measured by the Scott Foresman Reading Systems after three weeks of instruction, and the reading level predicted by the classroom teacher yielded a perfect positive correlation (rho=1.00). Therefore, the hypothesis that a

child's reading ability and reading group placement may be quite accurately predicted by the classroom teacher is supported.

For the third grade subjects, reading comprehension scores obtained on the Gates-MacGinitie Reading Test - Primary C ranged from 4.1 to 5.8 grades with a mean of 5.12 and a standard deviation of 1.58. These test scores converted to levels range from 15 to 18 with a mean of 16.10 and a standard deviation of 3.61. The level of placement after three weeks of instruction as measured by the Scott Foresman Systems was level eleven for all subjects. The independent prediction by the classroom teacher also was level eleven for all third grade subjects. This is shown in Table 4.

Table 4

READING LEVELS FOR THE THIRD GRADE GROUP

	Classroom Teacher	Gates-MacGinitie Level	Gates-MacGinitie Grade	SFRS Level Placement
Range	11	15-18	4.1-5.8	11
Mean	11	16.10	5.12	11
S.D.	0	3.61	1.58	0

When the reading level measured after three weeks of instruction using the Scott Foresman Reading Systems was compared with the reading level measured by means of the Gates-MacGinitie Reading Test, a correlation coefficient equal to .66 resulted. When these measures were compared with the predictions of the classroom teacher, a rho of 1.00 resulted. This occurred because of the tied ranks and the sameness of the level measured by the Scott Foresman Reading

Systems. However, the teachers earlier predictions corresponded with the placement level of the subjects. The hypothesis was supported.

The data indicated that the reading levels predicted earlier by the teacher are accurate as these correspond to later group placement according to measured reading levels for grades two and three but not for the first grade.

Conclusions

The results of this study coincide with the findings of Smith and Jensen (1972) who found teachers were accurate in their assessment of children's capabilities in 70 percent of the cases. This study supports this for grades two and three but not for the first grade. Is is probable that children in the first grade come to school with a wide range of abilities that are not easily discernable. They come from different experiential backgrounds, have different levels and rates of maturation, and varying motivation from their homes. Some first grade children, although deficient in their experiential backgrounds, do have a high degree of intellectual ability and can learn to read when given formal instruction in reading. Similarly, some children have been exposed to experiences which prepare them for reading but, because of variations in intelligence and maturity, do not readily grasp the skills of reading. It is possible that this combination of variable factors affects the accuracy of teacher's judgments of beginning readers.

The results of this study and of former research indicate that, although teachers can and do predict pupils' achievement levels with reasonable accuracy, many variables probably operate when teachers make judgments regarding grade placement in reading. Therefore, to assign pupils to reading groups solely on the basis of informal assessment would not be the judicious procedure for school systems to follow.

References

Harris, A. How to Increase Reading Ability. New York: David McKay, 1970.

Palardy, J.M. "What teachers believe--what children achieve," Elementary School Journal, 1969, 69, 370-374

Smith, R.J. & Jensen, K. Canaries, sparrows and reading grade placement. The Reading Teacher, 1972, 26, 166-170.

Rosenthal, R. & Jacobsen, L. Pygmalion in the classroom. New York: Holt, Rinehart, Winston, 1968.