A 3-year study with 359 pupils compared individualized reading instruction with basal reading instruction. Twenty-eight first-grade classrooms were paired (individualized and basal), and teachers received prior instruction for working in the experiment. Pupils remained together in their various classes and treatment groups for the 3-year period, but their teachers changed yearly. Data collected included scores on the SRA Primary Mental Abilities Test, the Metropolitan Achievement Test Battery, sociograms, self-concept scales, personal interviews, parent questionnaires, and teacher log books. Results showed that (1) pupils in the individualized group scored significantly higher than did the basal group pupils on eight of 13 standardized achievement tests; (2) the basal group had a greater range of achievement scores than did the individualized group; (3) there were no significant differences between the groups in oral reading ability, in social adjustment, or in attitudes towards reading; (4) children in the individualized group read more than did basal group children in first grade, but this trend was reversed in third grade; and (5) parents of pupils in the individualized group had more positive attitudes toward their children's reading programs than did parents of basal group pupils. Tables and references are included. (VJ)
Lakeshore Curriculm Study Council
Individualized Reading

A THREE YEAR STUDY

U. S. Department of Health, Education & Welfare
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May 1970
Lakeshore Curriculum Study Council

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INTRODUCTION

This report presents a description of the planning, design, and results of a longitudinal research project conducted by the Lakeshore Curriculum Study Council, an organization of public school districts in southeastern Wisconsin. As a report of broad-scale curricular research, it illustrates the tremendous potential, and, at the same time, many of the vexing problems which face educators in the difficult task of assessing the effects of instructional innovations. We have often been justly criticized for our "band-wagon" approach to educational change - whichever fad gets the most publicity, has the most prestigious proponents, or catches the fancy of the school board, the administration or vocal parents --- is introduced into the school system, most often in the absence of any sound research justification.

In the mid and late 1950's, one such fad was "Individualized Reading." In meetings of professional educators and in popular and professional journals, there was great interest in the "new" teaching procedure which was to revolutionize the educational world. Grandiose claims were made for the approach, but the conscientious educator had little more than the exhortation of "authorities" on which to base a decision to try individualizing school programs.
In this climate (1959), a group of interested teachers, administrators, and university professors met under the auspices of the Lakeshore Curriculum Study Council. Interest in individualizing instruction was expressed, but there was concern for the lack of research justification. In a series of meetings over an extended period of time, the rationale, design and operation of this study were developed. The Council and the participating systems committed themselves to carry out the study as outlined. It was during this process that the vexing problems of cooperative, broad-scale curricular research became increasingly evident.

The committee included classroom teachers, administrators, and curriculum specialists. Their knowledge and experience of the day-to-day operation of instructional programs proved to be invaluable over the five year period of the project. The planning committee also included several members who had extensive knowledge and experience in conducting research. Their counsel in the design, data gathering and data analysis contributed much to the success of the study.

Inevitable conflicts arose between the priorities and concerns of these two groups. The research consultants were interested in developing a carefully controlled study with all the sophistication of random selection, valid tests, logical design, intensive data analysis, etc. It was necessary for the practicing educators to insist that the research project could not create unreasonable demands on the daily operations of
Each of the groups was forced to compromise on some issues, give in on others, and insist on their prerogatives on others. The end result of this give-and-take was a project that may have been lacking in some elements of research design and data analysis but demonstrated that teams of trained and conscientious educators have the capability of conducting the broad-scale research on curricular problems that is so desperately needed in improving our educational system.

In a sense, this project has justified the convictions of many leaders in the school study council movement as well as in professional organizations such as ASCD and AERA — curricular research is most effective when it is planned and conducted as a cooperative effort between classroom teachers and research consultants.
CHAPTER I
THE PROBLEM AND RELATED LITERATURE

In recent years the development of a new approach to reading instruction in the elementary schools has gained considerable popularity among teachers who are looking for new ways to meet the individual needs of children. Labeled "individualized reading," this approach attempts to put emphasis on individual rather than group instruction; on reading trade books and a variety of materials selected by children rather than reading textbooks selected for children; and on learning skills while reading rather than learning skills in order to read.

A controversy has developed between those who support individualized reading programs and the adherents of basal reading programs as to which is the better approach to the teaching of reading. Individualized reading enthusiasts favor a plan which employs teacher-pupil conferences, flexible grouping, pupil-selected materials and a highly individualized, non-sequential order of presentation of reading skills. Advocates of basal reading programs endorse group instruction using carefully selected and prepared materials which assure the logical, sequential development of reading skills at the proper grade levels.

The purpose of this research project was to study, under carefully defined and controlled conditions and for
long duration, the various results of basal and individualized reading programs. Large numbers of public school children, were studied during their first three school years. It was hoped that the study would be fruitful as a comparative analysis of these two reading programs and that confidence in its results would be increased by the broad base of the study and in terms of adequate sample, duration, and research design.

It is not the first time that differentiated instruction has been considered. American schools have, indeed, made significant attempts to achieve differentiated instruction through progress in educational methodology. Historically, such attempts have been based upon the assumption that there exists at any given educational level a fixed body of subject matter which is most worth learning. Major emphasis in individualization in the past has been given to the quantity of subject matter which can be learned and the rate at which that task can be accomplished.

Terman (1916) advocated, as a result of his studies, differentiated courses of study which would permit children to progress at a faster or slower rate. He recommended that teachers measure out the work for each child in proportion to his mental ability. In the 1920's, Bobbitt (1924) suggested the development of a curriculum for the brightest pupils, with modifications for average students and further simplification for the slowest. By the 1930's, a variety of
attempts to recognize individual differences were being employed, including homogeneous or ability grouping, special classes, and unit assignments (as in the Morrison, Dalton, and Winnetka plans), as well as problem- and project-method teaching. Emphasis upon rate of learning as a factor in the individualization or differentiation of instruction has continued since the 1930's with an attendant increase in ability grouping practices.

With recent emphasis upon educational innovation, today's schools can be found testing a variety of practices in attempts to increase individualization. These include departmentalization, non-graded organization, team teaching, the use of paraprofessionals and teacher aides, programmed learning, and language laboratories. Of these and other recent attempts to meet individual needs, DeHaan and Doll (1964) have this to say:

Most of the proposals carry the implications that standard content should be learned more speedily. Educators have learned, however, that rate of learning prescribed content is only one consideration in individualization. Learning is personal, unique, unstandardized. Furthermore, learning has numerous dimensions, and it is without limit. Obviously, then, new and different proposals are needed if teachers are to use these facts in individualizing teaching (p. 11).

Most teachers and administrators would readily agree that instructional practices ought to be modified in accordance with the needs of the individual students. To that point,
Groff states, "It would be difficult to find a school system today which does not accept, at least in theory, the principle of individual differences" (1966, p. 1). Finding schools, administrators and teachers who seriously apply this principle to all segments of the school population is another matter. Attempts to modify or individualize instruction, if applied at all, are usually limited to the differentiation of content and the variation of the rate at which content is presented in the classroom. Attention is sometimes given to the way in which content is presented and to differentiating educational goals.

In discussing differentiated instruction, Levine (1965) points out that, in addition to variation of content, rate, method, and educational goals, consideration needs to be given to matching learning environment with learner characteristics.

There are many possible ways to structure the classroom learning environment. If we are sincere in our belief that no one standard approach is suited to the experience, then we must identify, if only crudely, the particular learning environment which matches the developmental level and the behavioral characteristics of any given group of students (p. 143).

In further discussion of the topic, Smiley suggests that it may be possible to devise special educational methods and materials that will compensate for the differences and deficiencies in the child's environment (1964, p. 37).

Application of the principles of differentiated instruction to elementary school reading programs requires that
serious attention be given to the development of various approaches to reading instruction. Children differ greatly in their characteristics as learners, in their backgrounds, and in the ways they respond to instruction. Because reading is an essential tool for all children, great care should be taken that each child's elementary school experience provides him with opportunities for his development as a capable reader. Such opportunities, it seems, must be based upon the recognition of differences, an understanding of the relationship of various methods of instruction to learner characteristics and reading achievement, and the application of such knowledge to early elementary school reading situations.

Related Literature

Research relating to individualized reading is limited, both in quantity and quality. Interest in the subject is relatively new, having come about as recently as the late 1950's, although a few studies were reported earlier. The limitations of research studies which compare individualized reading with basal reading are shown quite clearly in an annotated bibliography compiled by Groff (1966). Thirty-eight entries draw comparisons of some kind, while thirty-nine sources are only descriptive of individualized reading programs. Further, of the studies which are comparative, by far the majority are inconclusive and subject to question. Most studies involved from one to five classes and for periods of from six weeks to six months, and might be judged
to be inadequate in terms of sample, duration, or design.

One of the earliest experimental studies involving individualized reading was conducted in the Dearborn, Michigan, Public Schools by Jackson (1956). Elementary classroom teachers in Dearborn received in-service training at the remedial reading center in a variety of reading approaches, including individualized reading, in an attempt to adapt reading center techniques to classroom situations. Four types of reading instruction --- basal, individualized, and two compromise plans --- were offered to groups of approximately seventeen children at the third, fourth, fifth and sixth grade levels. Pairs of groups were matched on such data as intelligence, reading achievement, and map reading skill. At the end of one year, data were collected by means of the Gates Basic Reading Test and the Monroe Basic Reading Test where each was appropriate.

Jackson found that in one third grade pair the individualized reading class gained four months while the basal reading class gained one month, and that in the other pair, the 40% compromise group (40% individualized, 60% basal) gained seven months while the individualized group gained three months. In the fourth grade, the basal group gained nine months while the individualized group gained one year, six months. In the fifth grade the basal group gained one
year and the 70% compromise group (70% individualized, 30% basal) gained one year, eight months. In the sixth grade, the basal group gained one year nine months, while the 40% compromise group gained one year, four months. Jackson concluded that in three of the four grades, sufficient gains were made in the silent reading abilities of vocabulary and comprehension to recognize the worth of individualized reading techniques.

The study has two dominant weaknesses: (1) the sample of children studied is very small, and (2) the types of reading instruction are defined in terms of time spent rather than in more qualitative terms. The study could have been strengthened by comparing the four types of programs at each grade level and by testing the results for statistical significance.

In a later study, McChristy (1957) was able to exercise more rigorous research controls in her attempt to determine whether a reading program based upon the principle of self-selection could be successful. She matched eight second grade groups on each of five factors: (1) attendance and age, (2) mental status, (3) socio-economic status, (4) reading grade status, and (5) teacher background, experience, and competence. Comparisons were then made between the results of a conventional basal reading pattern. McChristy reported:
(1) Mean grade achievement, total reading gain, and vocabulary were statistically significant in favor of the experimental groups.

(2) On results of the regular testing program (California Reading Test) 59% of the experimental subjects gained two years or more, while 24% of control subjects gained two years or more.

The conclusions of this study were that the self-selection approach could be used successfully at the second grade level; that such a program yields results which are superior to those of conventional three-group, basal reading patterns; and that children were capable of making choices which would promote their reading growth. The study is particularly worthy because of its attempt to assess the value of the principle of self-selection.

Acinapuro (1959) also reported the results of a study which compared two instructional reading programs, an individualized reading pattern and a basal reading pattern, using three ability groups. In a controlled study of three pairs of middle grade classes, using Gray's Standardized Oral Reading Paragraphs and the Iowa Every Pupil Test as criterion measures, Acinapuro found statistically significant differences favoring individualized reading in (a) silent reading comprehension and (b) total silent and oral comprehension. He found no significant differences between the individualized reading pattern and the
three ability group pattern in the development of reading vocabulary. Acinapuro's data also revealed that his experimental subjects, those in individualized reading patterns, read more both in and out of school.

Sperber (1958), a teacher in Levittown, New York, described an investigation in which he compared his own third grade individualized reading class with ten other basal reader classes in the same school system. He gathered three kinds of evidence: (1) "comparative data", (2) parent reactions, and (3) children's reactions. Comparative data were obtained from (a) an inventory in which children could make one of three choices on each of twelve questions (each choice was between one aspect of reading and two other activities appropriate to nine-year-olds) and (b) the number of books each child read during the year in reading class.

Sperber's findings relative to the comparative data were as follows: regarding choice of activities, children in individualized reading chose an average of four reading activities while those in basal reading chose two; regarding number of books, children in individualized reading read an average of 33 books while those in basal reading read 58.

Parent reactions and children's reactions were reported only for the individualized reading group and consisted generally of negative statements in September and positive statements at the end of the school year. Sperber concluded only that the development of a good attitude toward reading
is a primary aim. He implied that individualized reading programs contribute to the development of good attitude.

The merit of this study lies not in its rigorous research technique, but in its attempt to assess the feelings and the attitudes of children who experience individualized reading programs.

Treatment and Ability Differences

Sartain (1960) reported the account of a study designed to determine whether second grade groups of children would make greater gains over a three month period in individualized reading programs or in basal reading programs. Sartain studied ten classrooms of children, of high, middle, and low ability, in six Roseville, Minnesota schools. All teachers in the experiment, while chosen randomly from a group of interested teachers, were experienced in basal reading programs and in self-selection techniques.

During the first 56 day instructional period, five randomly chosen classes participated in the individualized self-selection program while the other classes were taught in the traditional basal reading program using basic readers, supplementary books and ability groups. During the second 56 day instructional period the classes that had been in the individualized program went into the basal program, and those classes that had been in the basal program switched to the individualized plan. Various forms of tests were administered
in September, December, and March. By the end of the study, Sartain had obtained complete data for 234 second grade pupils.

An analysis of the data showed that all groups, regardless of the reading method employed, made greater gains during the first three-month period than they did during the second period. When group means and gains were analyzed to compare reading methods, the low ability basal group achieved significantly higher scores on the word recognition test than did the low ability individualized group. Beyond that, it appeared that subjects in individualized reading programs achieved equally as well as their counterparts in basal programs, since no other significant differences were found.

Though Sartain was apparently satisfied that capable students could make approximately the same gains in either program, he was cautious in his recommendations. Citing evidence that individualized reading does not produce better gains, he saw no reason for abandoning the advantages of a well-balanced basal system. He concluded that the benefits of individual conferences should be obtained by their addition to the basic reader plan.

Walker (1961) reported an investigation designed to evaluate and compare both an individualized reading program and the Science Research Associates "Reading Laboratory" with a conventional reading approach. Walker used as subjects 86 children from three heterogenously grouped seventh grades in Sayville, New York. The three classes were not significantly
different in size, intelligence, reading level, or chronological age. Each class was subjected to a reading treatment for a period of six weeks. One treatment consisted of individualized reading, and employed a variety of materials, the development of skills, critical reading and vocabulary study. A second treatment consisted of using the Science Research Associates Reading Laboratory in the manner suggested by the publishers. The third treatment (control group) consisted of using a conventional basal approach and was limited to one textbook and one workbook for each member of the class, no individualized instruction and no supplemental reading material. Student progress was checked before and after the study period by tests in comprehension and vocabulary.

Walker found no significant differences between final scores of any group when he examined data for the entire study. However, examination of scores for the lower half of each group produced the following results: (a) the individualized reading group gained 24.2% in comprehension and 20.4% in vocabulary, (b) the SRA group gained 18.9% in comprehension and 17.1% in vocabulary, and (c) the basal group gained 8.3% in comprehension and 5.6% in vocabulary. Substantial and significant progress was reported for both the individualized reading group and the SRA group. Walker concluded that the results tend to support individualized programs.
Walker seems to have seriously handicapped the basal reading group by placing unrealistic limitations upon the use of supplemental reading material and individual help. The study is further weakened by its duration of only six weeks. The study has value, however, in that it emphasizes that individualized and basal reading programs may have relative merit for children of different reading ability levels.

Safford (1960) conducted a "post-mortem" study of seven individualized reading classes, grades 3 - 6, by comparing group means on the reading section of the California Achievement Test with mean scores of the previous year. None of the pupils or teachers knew they were being studied; all measures were recorded after the year of instruction was completed. Mean IQ scores for the seven classes were not significantly different from the school district mean.

None of the seven classes had mean gains even close to the national norm of 1.0 year, or to the school district's higher norm of 1.25 years of total reading achievement. Only 26% of all subjects attained a gain of 1.0 year or greater in total reading achievement. Safford further analyzed the data by separating the subjects into "average" and "superior" groups on the basis of mental maturity scores. The difference between the mean reading gain of the "superior" students was not statistically different from the mean reading gain of the "average" students.
Safford's conclusions, that individualized reading techniques result in lower gains and that there is no difference between the gains of the superior and average students in individualized reading programs, is in contradiction to conclusions based on the other studies reported in this review. In all of the other studies, the participants were aware of their research roles. It may be, as Safford implies, that teachers and pupils who are knowingly involved in classroom research projects greatly influence the outcomes.

Conceding that their work was exploratory in nature rather than rigorously experimental and that one of their purposes was to give teachers experience in conducting individualized reading instruction, Bohnhorst and Sellars (1959) designed their comparative study of individualized and basal reading programs in two phases. Phase I included a teacher preparation period from September to January and two periods of eight weeks each during which 72 subjects in the top groups of five classrooms were subjected alternately to either basal or individualized reading programs.

Results of Phase I were inconclusive regarding the relative merits of individualized and basal reading instruction. Most conclusive was the fact that all five groups, regardless of the type of reading program, consistently gained more during the first period and less during the second period. Examination of the data suggested that there
were some types of children who profit more from individualized instruction and less from basal instruction. The authors failed to elaborate; they carefully noted, however, that the likelihood of errors of measurement render the above statement highly speculative.

Phase II results, though not statistically significant, indicated that the group which had some individualized instruction during each of both years had both the highest average achievement and the widest range of achievement scores, and that the next highest places in achievement and range were held by two groups which had some individualized reading instruction in either grade one or grade two.

The authors concluded that "...for children who are among our ablest readers, individualized reading instruction tends to increase average levels of achievement over basal reading instruction and widen the range of individual achievement." They recommend further study of the relative effects of individualized reading instruction on readers of other ability levels. The study suggests the possibility that differentiated reading instruction, that is, individualized reading for some children and basal reading for others, may be warranted.

Treatment, Ability and Sex Differences

The only research to date which investigated individualized reading programs in terms of differences in treatment, ability, and sex is that of Spencer (1966). The study
was designed to compare the effectiveness of individualized and basal reading programs at the first grade level. Twenty-two first and first-second combination grades with a total of 482 subjects were included in the study. Twelve classes experienced individualized reading programs, ten classes had basal programs.

Spencer's individualized reading program was different from the popular concept in that it consisted of two parts: intensive systematic phonetic instruction and motivated varied story reading. The experimental program utilized whole class and small group instruction, pupil-team activities, individual pupil-teacher conferences, and independent study. The basal reading program employed traditional ability groups and the materials and procedures suggested by the publishers of the basal series. Pupils were assigned randomly to classes, and classes were paired in rural communities. Teachers were selected as above average and paired as equal in effectiveness of teaching.

After 140 days of instruction, a battery of standardized tests was administered to all subjects. The tests included in the battery were: The Stanford Achievement Test, Primary I; Gilmore Oral Reading; Gates Word Recognition; and Gates Pronunciation. The reading skills measured by the tests were word recognition, word meaning, paragraph comprehension and rate, word study skills, and spelling. Test results were analyzed by a multivariate analysis of variance which included 18 variables analyzed by treatment, by levels of intelligence, and by sex.
All subjects except the Gilmore Oral Reading Rate, showed a significant difference (beyond the .01 level) between treatments in favor of the individualized approach. Both sexes and all ability levels were served equally well by both approaches.

Spencer drew a number of conclusions, including the following: individualized reading is more effective than the basal method; both individualized reading and basal reading programs serve all ability levels effectively; and boys and girls are served equally well by both individualized reading and basal reading programs.

Summary

This brief review of research relating to individualized reading has been intended to give the reader an overview of current thinking and study regarding the topic. An attempt has been made to examine the scope of that research activity which has been of fundamental significance in order to bring the reader to an appreciation for the present investigation. In general, the following statements summarize the literature reviewed:

1. In terms of quantity, research given to the topic is meager. Only a few major studies have been conducted in the past ten years, and none earlier than that.

2. Research studies of individualized reading programs have, over time, begun to demonstrate an encouraging degree of sophistication, having grown in magnitude from early one-classroom studies to more
recent studies including many classrooms in many communities, in duration from a few weeks to a few years, in control from classroom action research to definite design, and in statistical analysis from simple comparisons to multivariate analysis of variance.

3. Much of the research which has been conducted consists of efforts to compare and contrast individualized and basal reading programs as two different and competing reading programs, as though trying to prove that all children should experience one or the other. No attempt has been made to recognize both programs as instructional alternatives.

4. Very little research has attempted to see the possibility of either individualized or basal reading programs being more profitable for certain children. Those which have approached this view have used either mental ability or sex as criteria for such classification.

5. No reading research conducted to date has examined the possibility that the most effective application of basal and individualized reading programs as instructional alternatives lies in their discriminate use with children of different socio-economic status.

In spite of limited research, personal stands, either supportive or in opposition, have been vigorous. And, because of the lack of statistical evidence, these stands have, for the most part, been attempts to discredit the opposition rather than support a cause. Fay (1962) referred to individualized reading as "a potentially hot topic with elementary teachers, supervisors and principals."

The issue involved seems not to be whether some form of individualized instruction is appropriate to successful reading programs, but whether individualized reading can be
a total reading program. Lazar (1957) wrote that "...individualized reading is a way of thinking about reading - an attitude toward the place of reading..." and as such should not be confused with individualized instruction, extension reading or recreational reading. Individualized reading is not an adjunct to a basic reading program; it is built upon a philosophy and a psychology which will fulfill the requirements of a sound educational reading program.

According to Harris (1962) the two programs are incompatible and mutually exclusive.

"Individualized reading requires the complete abandonment of the basal reader and the basal reader system. It is the complete antithesis of the basal reader system in all respects."

Witty (1959), in evaluating individualized reading, cited evidence that group instruction has unmistakable value, and further, that in spite of the interest, and in some studies, the effectiveness, total dependence upon individualized reading cannot be justified. He and Sartain (1960) both indicate that the most defensible program in reading will combine the best features of both individualized and group instruction.

In a scathing response, Veatch (1960) raised a number of "controversial irreconcilable" issues. These issues relate the physical, mental, and emotional growth of children to such variables as teacher-made assignments, ability grouping, year-in-year-out repetition of lessons, relating reading skills to broader skills, systematic instruction as it enhances or
retards application, necessity of sequential skill development, the self-selection principle and the learning climate in a classroom. Veatch further admits the need for research in individualized reading but points out that "...we still know little about the total value of any major reading practice." It is too early to judge with any finality that individualized reading is (1) unimportant, (2) a fad, or (3) something good teachers have always done. It is, she says, "...but the beginning of a renaissance in which teaching is returned to the teacher."

It was from this background of inadequate research, conflicting claims and authoritative exhortations that the study reported in this book evolved.
CHAPTER II
RATIONALE, DEFINITIONS AND HYPOTHESES

Rationale for the Study

The origins of this project lie in the need to examine differences in approaches to materials, procedures, grouping and sequence, as integral parts of reading programs.

Selection of material. It is recognized that selection of reading material in an individualized reading program is related to what is available. But within the limits of what is available (basal and supplementary readers, trade books, magazines, newspapers, etc.) each child selects his own reading material.

Reading is a form of communication. Humans receive messages when they are interested in the content of the messages. They will also shut out messages when the content seems dull or unimportant to them.

Basal readers are, by and large, written to interest mythologically average children. They are often either boring or unrelated to the background of a large proportion of school children. There is reason to doubt that basal readers provide the kind of stimulus to youngsters which would maximize their desire to receive communication. Self-selection, it is argued, provides the maximum opportunity for learners to work with materials, basal or otherwise, which will stimulate their desires to find out what the material says.
**Instructional procedure.** The basic interpersonal learning situation should be a one-to-one relationship, a teacher-pupil conference. The teacher is then focused directly upon the performances of one child and that child has the direct attention of the teacher. Concern for the influence of others in the class is minimized. The teacher and the pupil have an increased opportunity to develop an intimate sharing and understanding without going outside the curriculum structure. The individualized reading conference provides a basis for a tutorial relationship which each child approaches as an individual and in which the teacher sees each child in terms of this individuality.

**Grouping.** Each child has unique ability. No two children fit precisely the same ability group. No two children have the same background, potential, talent, interest or readiness. Ability grouping facilitates learning only to the extent that it makes the teacher's job easier. It does not deal directly with the learning situation. On the other hand, grouping for specific tasks, which may involve children of a wide range of ability, focuses the grouping structure more directly on what is to be learned. In individualized reading, grouping is flexible, based upon short term needs centered around specific objectives, not upon ability.
Sequence. It is denied that learning to read must be tempered by such devices as controlled vocabulary or sequential introduction of skills and learning tasks. Rather, it is proposed that learning to read is related to children's needs and interests in a direct way. The important aspect of learning to read is how children "see" the task, not how experts (who can already read) logically decide the tasks should be presented. There is no generally accepted sequence for developing reading skills. No two commercial basal textbooks present skills in the same cycle, or have the same controlled vocabulary or the same context. The choice is therefore reduced to the acceptance of some predetermined system or the acceptance of the child's determined needs.

The argument for not predetermining the system is based upon the idea that no matter what system is used, it will never fit all children and it will always be adult in origin. Therefore, children should learn skills when they are needed to unlock a communication which the learners wish to receive. In individualized reading, skills and tasks are not presented in a systematic, logical progression. Methods of selection of reading materials, instructional procedures, grouping and skill sequence development are characteristics which distinguish individualized and basal reading programs.
Definitions of Terms

For the purpose of this research project, individualized and basal reading programs are defined in terms of criteria, materials and instructional procedures.

**Individualized reading.** Individualized reading is defined as a program which meets the following four criteria:

1. Reading material is self-selected by the child with the general guidance of the teacher.
2. The predominant instructional procedure is one-to-one, a teacher-pupil conference.
3. Grouping is flexible and focused on specific tasks for specific youngsters at specific times.
4. There is a non-sequential skill development program.

The material to be read by the children includes trade books (any library book other than a basal reader), other readers, magazines and newspapers. Each child selects his own reading material and reads at his own reading rate. Self-selection is a cardinal rule of the individualized reading program.

The reading conference is a period of close personal relationship between teacher and pupil, a time for specific teaching according to the child's needs. During the conference the teacher probes, questions, and listens to evaluate the child's progress, to diagnose the strengths and weaknesses, and to discover the child's attitudes and interests. The reading conference varies in duration, generally 5 - 10
minutes per conference is sufficient. Conferences are scheduled so that every child has an opportunity for a conference as his name appears on the list or as a need develops. A record is kept by the teacher for each conference. This record includes notes about the areas in which the child needs help as well as special interest, attitudes and future plans for the individual.

_Basal reading._ A basal reading program is defined as a program which meets the following four criteria:

1. The reading material is pre-selected and is embodied in a basic series.
2. The predominant instructional procedure is teacher to group.
3. Grouping is consistent over a period of time, although individuals within a group may move to another group.
4. Sequential skills are developed as suggested in the basal series.

In a basal reading program children are grouped into three or more achievement groups for instruction in reading. In a heterogeneous classroom, achievement grouping generally follows a pattern of a small group of high achievers, a larger group of average achievers, and a third small group of low achievers. Children within groups remain together for long-term assignments, but allowances are made for individuals within a group to move to another group if the individual's achievement merits the move. Basal readers are used in each group.
according to the instructional level of the group. Workbooks to accompany the basal reader or worksheets are used as part of the basal reading program.

The procedure for each class is indicated in the manual for the basal series being used. A sequential pattern of reading skills is developed as suggested in the basal series teacher's manuals. The class procedure generally follows these four steps:

1. Preparation for reading the story.
2. Reading the story.
3. Development of reading skills.
4. Enrichment reading activities.

Each group meets daily with the teacher. The instructional period for a group is about one-third of the total time allocated for reading. Each group then works independently for the remainder of the reading period.

Hypotheses

A number of research questions, phrased as hypotheses, follow. Though stated as positively favoring individualized reading, they are intended to be unbiased. The null hypothesis, in each instance, would be that there would be no statistically significant differences between the two groups.

1. Children in Individualized reading programs will show significantly higher standardized test performance than children in Basal reading programs.
2. Children in Individualized reading programs will have a greater range of achievement scores than children in Basal reading programs.

3. Children in Individualized reading programs will show significantly higher oral reading ability than children in Basal reading programs.

4. Children in Individualized programs will read more than children in Basal reading programs.

5. Children in Individualized programs will show better social adjustment than children in Basal reading programs.

6. Children in Individualized reading programs will develop more positive attitudes toward themselves as readers than children in Basal reading programs.

7. Parents of children in Individualized reading programs will have more positive attitudes toward their children's reading programs than parents of children in Basal reading programs.

Several additional findings related to the achievement test score differences between boys and girls are also reported as a matter of general interest. The planning committee was also interested in assessing the impact of the two instructional procedures on the development of self-direction. Attempts to construct reliable instruments to assess self-direction were unsuccessful and are not reported here.
Also included is a brief summary of an extension of this study conducted by Rodney H. Johnson as a doctoral dissertation at the University of Wisconsin in Madison. Johnson, as a principal in one of the participating systems, was centrally involved in the planning and operation of the study. He had reported preliminary findings in Elementary English (Dec., 1965) and was given authorization to use the basic data of the complete study as a supplement to his doctoral research project. Johnson was particularly interested in the interrelationships between the selected variables of sex, socio-economic status (SES) and performance in the two instructional programs. Complete results of his study are reported in his dissertation (1967). Selected portions are presented here as an extension of the original study.
CHAPTER III
DESIGN AND PROCEDURE

Pilot Study

In the fall of 1959, a committee composed of members from interested school systems in the Lakeshore Curriculum Study Council met to propose a study of individualized reading practices. The committee defined a study involving matched experimental and control groups from a number of schools to take place over a three-year period. It became apparent that it would be impossible to institute this study during the 1959-60 school year. A question was also raised concerning the willingness of member school systems to begin an individualized reading program without some sort of evidence to justify the procedure. With these two considerations, the committee developed a pilot study plan, to be conducted during the 1959-60 school year in preparation for the larger study. The purpose of the pilot study was to assess whether the conditions for learning in classrooms varied according to the present reading programs of selected teachers who utilized a wide range of reading practices.

Procedure. All first, second and third grade teachers in four member systems were interviewed by committee members.
The interview was so constructed that the committee was able to analyze the teacher responses in terms of basic reading practices on a dimension of more or less individualization of instruction. Four types of programs were identified by this procedure: individualized; basic groups with planned-for individualization; basic groups with incidental but some individualization; basic groups with little or no individualization. Each teacher in the participating schools was placed in one of the above categories, according to type of program.

Next, a random selection of teachers was made according to grade level, type of program and school system; i.e., a cluster-stratified-random sample. A few adjustments were necessary because of special circumstances, but when a teacher was dropped another was drawn from a common pool. The final population consisted of twelve teachers -- one teacher of each type at each grade level.

At this point an observation team of three people from participating systems began training for visitations to these twelve teachers. The MacDonald-New York University Rating Scale was selected to assess the conditions of learning present in classrooms. The instrument contains fifteen scales which measure the following conditions:

1. **Basis and function of social control.** Is control shared? Does the teacher make the majority of decisions? Are there rules and are the children aware of them? Can children predict the basis of control?
2. Children's involvement in learning experiences. Are the children interested in what they are doing? Are they investing emotional energy in the learning experience? Is there a sense of importance and eagerness about their own activity in the learning experience?

3. Children's participation in evaluation. Do the children take all their evaluation cues from the teacher? Are they actively involved in evaluation? Is self-evaluation an integral part of their experiences?

4. Children's response to and use of materials and resources. Are the children interested and/or involved with materials? Do children use materials on their own initiative or only as directed? Do children create materials and/or use them as resources for interrelated learnings?

5. Children's response to each other. Do children apparently respect each other and each other's rights? Is there an easy acceptance of each other? Are children sensitive to each other's feelings and attitudes? Are there signs of affection toward each other?

6. The children's response to the teacher as a guide to learning. Are the children fully engaged in learning activities? Do the children accept the teacher's guidance and direction?

7. Children's response to the teacher as a person. Do the children like the teacher as a person? Do they seek him out as a friend?

8. Communality or complimentarity of teacher-pupil purposes. Given a task, are the teacher's purposes for this task in conflict with the pupil's purposes for activity? Is there a positive correlation between pupil and teacher purposes?

9. Content organization for teaching. Does the teacher have the content well in mind that he wishes to deal with for that day? Has he clarified his instructional objectives and related them in a meaningful way?
10. **Interpersonal contact (task oriented).** Are all children given opportunities to be included in class tasks? Does the teacher focus on a segment to the exclusion of others? Are learning activities flexible enough for productive interpersonal contact?

11. **Knowledge of children and their differences.** Does the teacher know his pupils as individuals? Does he know the group? Does he make allowances for individual and group differences?

12. **Planning for and utilization of the evaluation process.** Does the teacher see how and attempt to evaluate the attainment of objectives? Has he selected some appropriate technique for evaluation? Is evaluation an integral part of the learning situation?

13. **Teacher competence in subject matter.** Does the teacher seem well versed in content? Does he make many mistakes, give misinformation about facts, concepts or processes? Does he allow for children to add to content, or does he control content rigidly?

14. **Teacher knowledge of and preparation of materials.** Does the teacher have a variety of materials present? Are the materials of good quality? Are materials appropriate for the teacher's aims? Has the teacher gone beyond the standard and/or been creative in his preparation?

15. **Teacher vitality, awareness, alertness.** Does the teacher have a quality of vital awareness? Does he live his teaching or does he treat it as a social role? Is his performance perfunctory and disinterested in contrast to being imaginative and creative?

When the training was concluded a schedule of visitation was arranged for three observers over a three-week period. Each of the twelve teachers was visited three times, each time by a different pair of observers. Observers were paired to provide reliability checks on the ratings. Each visit lasted
from forty to sixty minutes, during which time the teacher was working in what she felt was her basic developmental reading program. The three visits provided six individual ratings for each teacher on the fifteen scales.

Results of the Pilot Study

Reliability of ratings. The Kendall Coefficient of Concordance was used to assess agreement. The agreement among the three raters obtained by this method was +.36. Agreement was positive and statistically significant beyond the .001 level; i.e., what agreement there was could be accounted for by chance alone only once every one thousand times the experiment was run.

Variations in conditions of learning found among the four types of programs. Mean ratings were computed for each of the fifteen items listed. It should be pointed out that the greatest difference in mean ratings occurred in item 11 (Knowledge of children and their differences) with the individualized programs scoring significantly higher.

The Sign Test was applied to a comparison of the direction of mean differences for each type of program. By this method the difference in direction between programs 1 and 2 could be accounted for by chance only once every one thousand times; i.e., .001 for a 14-1 ratio. The difference in direction between programs 2 and 3 was also significant at
the .001 level. The difference in direction between programs 3 and 4 was not statistically significant and could easily be accounted for by chance.

**Interpretations of the Pilot Study**

The reliability of the ratings was not as high as expected. The Coefficient of Concordance is, however, not directly comparable with other correlation techniques. In terms of the nature of the data the concordance is best described as fair, rather than low. A breakdown of the inter-rater assessments also indicates that two of the three raters were in considerably higher agreement than either of these raters was with the third. It is felt that the use of mean scores has partially overcome this disagreement and gives greater meaning to the results.

The results indicate that the reading programs could be differentiated into three groups. Type 3 and 4 were either artificial categories or were a result of inadequate assessment of reading programs. Given three categories rather than four there was, apparently, a systematic decrease in the occurrence of desirable conditions for learning in classrooms as programs became less individualized; or, the more individualization in a reading program, the greater the occurrence of desirable conditions for learning.
There were several serious limitations to this pilot study (sample size, low inter-rater reliabilities, etc.) which make any broad generalization inappropriate. It is not possible to conclude from this study that the individualized reading programs were better than group programs. It is possible to conclude, however, that there was no apparent reason to believe that individualized reading programs will lower the quality of reading instruction in the primary grades. What evidence exists, though not conclusive, would indicate the possibility of higher quality in individualized programs.

DESIGN OF THE STUDY

Selecting Teachers

It should be pointed out that an agreement was made by those who participated in the study that comparisons between teachers, classes, schools and/or school systems would not be made. Before the selection of any teachers or classes, it was determined: 1. that no teachers should be selected unless willing to participate; 2. that all individualized reading classes should be matched with basal reading classes in the same school or school system in order to control social, economic and cultural differences between communities; 3. that all classes should be grouped heterogeneously in
accordance with prevailing local school procedures; 4. that attempts should be made to equalize class size, the length of reading time periods and the availability of reading materials; 5. that each participating school would commit its staff to involvement in a three-year study so that children who began in either reading program in the first grade could remain in that program through third grade; and 6. that no new pupils would be added to the study after its inception.

First grade teachers of both reading programs volunteered to participate in the study; random selection of teachers were made within the above limits. Thus, fourteen individualized reading teachers, fourteen basal reading teachers, and their classes were selected for the study.

In-Service Program

Continuous emphasis was placed on providing learning experiences for both the experimental and control teachers. In March, 1961, the spring before the study began, three meetings were held. Orientation to the project was given and discussions of the two approaches were held. Planning sessions, consultant help and classroom visitations were scheduled for late spring to help teachers get ready for the fall session. A summer workshop at the University of Wisconsin - Milwaukee was conducted with this project as a central focus.
Continuous workshop meetings were organized and held throughout each of the following years, interspersed with consultant help on call and some classroom visitations by consultants and by participating teachers. The facilities of the Campus Elementary School at the University of Wisconsin - Milwaukee were an integral part of the early training phases.

In the spring of each succeeding year, the teachers for the next year's groups met and began a similar training program. Each year, additional teachers entered the program and those participating in earlier phases were encouraged to attend meetings and share experiences even though their part was completed. A large group of interested participants from both groups remained throughout the study.

Data Collected

Many different methods of evaluation and appraisal were used in this study. Group tests, individual tests, rating scales, log books, sociograms, attitude scales, attendance records, and parent questionnaires were part of the comprehensive testing program designed to obtain as much information as possible about each participant.

Standardized tests were selected by a committee which included university professors, reading specialists and classroom teachers. Psychologists and supervisors of
elementary education helped to prepare the rating scales, sociograms and attitude surveys especially constructed for this study.

Routine records included attendance, ages of pupils and size of classes. In addition, specific attention was given to objective measures such as the following:

1. The SRA Primary Mental Abilities Test was administered at the beginning of the first year of the study. A different, appropriate age-level form of this same test was administered at the end of the third year of the study.

2. The Metropolitan Achievement Test Battery was administered annually in May. All parts of the tests were used including the spelling and arithmetic tests.

3. Sociograms were completed in each classroom annually.

4. Reading specialists were employed to conduct personal interviews and test pupils selected at random several times during the experiment. Oral reading ability was evaluated as part of each individual interview.

5. Each classroom teacher kept a log book to record book titles and the number of pages read by individual pupils.
Efforts were made to have as many pupils as possible complete the three-year program. Final records were maintained only for those pupils who started at the beginning and continued through the three-year study.

The tests were administered by the classroom teachers following the directions contained in published manuals or special directions provided. The teachers scored many of the tests but other tests of pupil aptitude and interest were scored by clerks especially trained to assist in this phase of the project. In general, raw scores were used to make comparisons between individuals and groups. Teachers and other persons collecting data were not required to convert raw scores to grade equivalents or percentiles.

**Measurement Schedule**

Data were collected with reference to the hypotheses of the study in accordance with the following schedule:

**Beginning of first year**
- Science Research Associates Primary Mental Ability Test

**End of first year**
- Metropolitan Achievement Test Battery
  - Word Knowledge
  - Discrimination
  - Reading
  - Arithmetic
- Sociogram
Self-Concept Scale

Personal Interview
  Oral Reading
  Comprehension
  Word Attack Skills
  Vocabulary

Parent Questionnaire

Teacher Log Books

**End of second year**

Science Research Associates Reading Comprehension Test

Science Research Associates Vocabulary Test

Metropolitan Achievement Test Battery
  Word Knowledge
  Discrimination
  Reading
  Arithmetic

Sociogram

Self-Concept Scale

Personal Interview
  Oral Reading
  Comprehension
  Word Attack Skills
  Vocabulary

Teacher Log Books

**End of third year**

Science Research Associates Reading Vocabulary Test

Science Research Associates Reading Comprehension Test

Science Research Associates Primary Mental Ability Test
Different school systems were found to vary in the number of days taught each year. Since school calendars were different, teachers were asked to administer the tests in May and to close their experiment records before the end of their school year in order to achieve uniformity in the number of teaching days considered a part of the research program.

Population

Table I shows the summary of the number of teachers and subjects included in the study.
TABLE I

POPULATION

<table>
<thead>
<tr>
<th>Year</th>
<th>Basal Teachers</th>
<th>Basal Boys</th>
<th>Basal Girls</th>
<th>Basal Total</th>
<th>Individualized Teachers</th>
<th>Individualized Boys</th>
<th>Individualized Girls</th>
<th>Individualized Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st (1961-62)</td>
<td>14</td>
<td>177</td>
<td>166</td>
<td>343</td>
<td>14</td>
<td>182</td>
<td>183</td>
<td>365</td>
</tr>
<tr>
<td>2nd (1962-63)</td>
<td>15</td>
<td>117</td>
<td>99</td>
<td>216</td>
<td>13</td>
<td>128</td>
<td>142</td>
<td>270</td>
</tr>
<tr>
<td>3rd (1963-64)</td>
<td>15</td>
<td>79</td>
<td>77</td>
<td>156</td>
<td>14</td>
<td>96</td>
<td>107</td>
<td>203</td>
</tr>
</tbody>
</table>

Complete data was not obtained for all pupils at the end of the second year of study. Data in the statistical summary includes 156 pupils in Basal reading and 203 pupils in Individualized reading.

Two facts are worthy of special mention. During the second year, there were only 13 teachers in the experimental group and 15 in the control group. Numbers of pupils decreased as children moved out of the school districts over the years and thus were lost to the study.

At the beginning of the study, an inquiry was made to determine if there were significant differences in average pupil age, average size of classes and/or length of school year for the two groups. No differences were observed in
the average age of pupils in the groups. The average class size in the first grade in the Basal group was 25.0 while the average class size in the first grade in the Individualized group was 25.86. Classes were selected at random without regard to the number or sex of pupils within a given class.

Although more than eighty classroom teachers actively participated in this study and more than 700 pupils were enrolled in these classes at one time or another, complete records for the full three-year period of the study were obtained for 359 pupils.

This attrition rate of less than 50% over a three-year period is quite remarkable when the urban character of the participating school districts and the grade levels are considered. The high mobility of persons living in urban settings is a well known phenomenon of modern life; estimates have been made that one family in four move during the period of a year. This mobility rate is even higher for young families in urban settings.

An analysis of the attrition data indicates that a significantly higher number of subjects were lost from the Basal groups (187) than from the Individualized group (162). Unfortunately, no data was collected which would indicate the reasons for leaving. The data reported in Tables II,
III, and IV suggest that the intellectual character of the two populations was very comparable at the beginning and end of the experiment. However, the possibility is recognized that the differing attrition rates for the two groups may have influenced the results reported here.

In the Johnson extension of this study, data regarding the socio-economic status (SES) was generated by converting the occupation of the father or head of the household of each child to an index in accordance with the Duncan Socio-Economic Index for Occupation (Reiss, 1961). SES data was available for 343 subjects. This discrepancy in population size (359 vs. 343) resulted in some minor differences in the data analysis presented in Chapter IV and the results reported in Johnson's dissertation.
CHAPTER IV
RESULTS OF THE STUDY

The data reported in this chapter was analyzed primarily to compare the results of the Individualized and Basal reading approaches and secondarily to ascertain certain boy-girl comparisons and the interactions between sex and the two reading approaches. Comparisons between teachers, classes, schools and systems were not planned for and have not been made. Analysis of the data was facilitated by the use of the University of Wisconsin computing facilities in Milwaukee and Madison.

Except where indicated, the results pertain to the 359 students who finished the three years of the experiment rather than the larger group which started first grade at the beginning of the project. In analyzing the achievement test results, an analysis of variance was performed with each of the tests used as a dependent variable. In this report, only the levels of significance are reported. Complete data and analysis is available from the author on request.

Pre-Experiment Test Results

The SRA Primary Mental Abilities Test was administered at the beginning of the study to determine the
intelligence and reading readiness levels of performance for the Individualized and Basal groups. The results of this test are summarized in Table II.

TABLE II
EARLY FIRST GRADE TEST RESULTS

<table>
<thead>
<tr>
<th>MEAN SCORES</th>
<th>Individualized (N=203)</th>
<th>Basal (N=156)</th>
<th>Mean Difference</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence (IQ)</td>
<td>110.4</td>
<td>110.2</td>
<td>.20</td>
<td>N.S.*</td>
</tr>
<tr>
<td>Reading Readiness (Raw Scores)</td>
<td>257.6</td>
<td>260.8</td>
<td>3.20</td>
<td>N.S.*</td>
</tr>
</tbody>
</table>

*N.S. indicates that the differences were not significant at the .05 level.

Table II indicates that no statistically significant differences existed in the I.Q. scores or the Reading Readiness scores for the groups at the beginning of the experiment.

Achievement Test Results

The first research hypothesis of this study was, "Children in Individualized reading programs will show significantly higher standardized test performance than children in Basal reading programs." This hypothesis was tested in
several ways. Near the end of each school year, standardized tests were administered. Table II presents a summary of performance obtained at the end of the first grade by both groups on the Metropolitan Achievement Tests.

### TABLE III

**ACHIEVEMENT TEST PERFORMANCE AT THE END OF THE FIRST GRADE**

<table>
<thead>
<tr>
<th>Metropolitan Achievement Sub-Test</th>
<th>Maximum Possible Score</th>
<th>Individualized Mean (N=156)</th>
<th>Basal Mean (N=203)</th>
<th>Mean Difference</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Knowledge</td>
<td>35</td>
<td>30.75</td>
<td>28.85</td>
<td>1.90</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>Word Discrimination</td>
<td>35</td>
<td>30.26</td>
<td>29.03</td>
<td>1.22</td>
<td>p&lt;.05</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>45</td>
<td>34.60</td>
<td>32.22</td>
<td>2.38</td>
<td>p&lt;.05</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>63</td>
<td>52.73</td>
<td>50.06</td>
<td>2.67</td>
<td>p&lt;.05</td>
</tr>
</tbody>
</table>

The data in Table III indicates that the Individualized reading groups performed significantly higher on all sub-tests at the end of the first year of the study.

At the end of the third year of the study, the appropriate level of the Metropolitan Achievement Battery was administered. The results are summarized in Table IV below.
## TABLE IV

**Achievement Test Performance at the End of the Third Grade**

<table>
<thead>
<tr>
<th>Metropolitan Achievement Sub-Test</th>
<th>Maximum Possible Score</th>
<th>Individualized Mean (N=203)</th>
<th>Basal Mean (N=156)</th>
<th>Mean Difference</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Knowledge</td>
<td>50</td>
<td>35.09</td>
<td>34.00</td>
<td>1.09</td>
<td>N.S.</td>
</tr>
<tr>
<td>Word Discrimination</td>
<td>36</td>
<td>28.24</td>
<td>27.30</td>
<td>.94</td>
<td>N.S.</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>44</td>
<td>30.96</td>
<td>29.44</td>
<td>1.52</td>
<td>p&lt;.05</td>
</tr>
<tr>
<td>Spelling</td>
<td>40</td>
<td>30.41</td>
<td>29.99</td>
<td>.42</td>
<td>N.S.</td>
</tr>
<tr>
<td>Total Language</td>
<td>60</td>
<td>38.65</td>
<td>36.86</td>
<td>1.79</td>
<td>p&lt;.05</td>
</tr>
<tr>
<td>Arithmetic Computation</td>
<td>47</td>
<td>29.44</td>
<td>26.71</td>
<td>2.73</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>Arithmetic Problem Solving</td>
<td>35</td>
<td>21.39</td>
<td>19.41</td>
<td>1.98</td>
<td>p&lt;.01</td>
</tr>
</tbody>
</table>

The data in Table IV indicates that the Individualized group scored significantly higher on four of the seven sub-tests. On the other three sub-tests, the differences favored the Individualized group but they were not large enough to be statistically significant.
For further interpretation of these data, raw scores were converted to grade equivalent scores for all subjects as indicated in Table V.

<table>
<thead>
<tr>
<th>Metropolitan Achievement Sub-Test</th>
<th>MEAN GRADE EQUIVALENTS</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Individualized</td>
<td>Basal</td>
</tr>
<tr>
<td>Word Knowledge</td>
<td>4.71</td>
<td>4.60</td>
</tr>
<tr>
<td>Word Discrimination</td>
<td>4.62</td>
<td>4.46</td>
</tr>
<tr>
<td>Reading</td>
<td>4.45</td>
<td>4.34</td>
</tr>
<tr>
<td>Spelling</td>
<td>4.87</td>
<td>4.85</td>
</tr>
<tr>
<td>Language</td>
<td>4.61</td>
<td>4.34</td>
</tr>
<tr>
<td>Arithmetic Computation</td>
<td>4.24</td>
<td>4.08</td>
</tr>
<tr>
<td>Arithmetic Reasoning</td>
<td>4.33</td>
<td>4.13</td>
</tr>
</tbody>
</table>

Comparable statistical analysis would be redundant and was not performed, but inspection indicates that the Individualized group means were consistently higher than the Basal group means on all sub-tests. The grade equivalent means for the Individualized groups indicate achievement between approximately the 70 - 80th percentiles on the publisher's national norms.
In addition to the Metropolitan Test Battery, the SRA Primary Mental Abilities Test, the SRA Reading Comprehension Test and the SRA Reading Vocabulary Test were administered at the end of the third grade. No significant differences were found in the intellectual ability scores for each group on the Primary Mental Abilities Test. The Reading Comprehension and Vocabulary Test results shown in Table VI were supportive of the trends established on the Metropolitan Achievement Tests. The mean scores for the Individualized reading group were slightly higher but the differences were not large enough to be statistically significant.

TABLE VI

READING TEST PERFORMANCE AT THE END OF THE THIRD YEAR

<table>
<thead>
<tr>
<th>Test</th>
<th>Individualized (N=203)</th>
<th>Basal (N=156)</th>
<th>Mean Difference</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRA Reading Vocabulary</td>
<td>32.56</td>
<td>31.96</td>
<td>.60</td>
<td>N.S.</td>
</tr>
<tr>
<td>SRA Reading</td>
<td>28.82</td>
<td>28.35</td>
<td>.47</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

Thus, on the basis of the data obtained at the end of the first and third grades, the first research hypothesis was considered upheld ... the Individualized groups performed
significantly better on 8 of 13 standardized tests of reading and other achievements. The performance of the Individualized group was consistently higher on the other five tests but did not reach statistical significance.

Range of Achievement

The second hypothesis was, "Children in Individualized reading programs will have a greater range of standardized achievement scores than children in Basal reading programs." This hypothesis was based on the assumption that the greater flexibility of procedures and the facilitation of individual student progress in the Individualized approach would increase the range of performance by the students. Conversely, the greater restriction imposed in the Basal approach would result in more homogeneous achievement patterns.

The standard deviation (S.D.) was used to describe variability within the distribution of test scores. In general, the larger the standard deviation is, the greater is the range of scores. Table VII reports the standard deviations on standardized sub-tests at the end of the third grade. It is apparent that the Basal reading group, contrary to the predictions of the researchers, displays larger standard deviations in all but one case. These differences are significant for the SRA tests. The differences on the Metropolitan
tests are not statistically significant, but the trend is toward a greater range of scores in the Basal group.

<table>
<thead>
<tr>
<th>Test</th>
<th>Standard Deviations f</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Individualized (N=156)</td>
<td>Basal (N=203)</td>
</tr>
<tr>
<td>Metropolitan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word Knowledge</td>
<td>8.6</td>
<td>8.5 1.02 N.S.</td>
</tr>
<tr>
<td>Word Discrimination</td>
<td>6.7</td>
<td>7.4 1.30 N.S.</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>8.0</td>
<td>8.7 1.18 N.S.</td>
</tr>
<tr>
<td>Spelling</td>
<td>8.4</td>
<td>9.2 1.20 N.S.</td>
</tr>
<tr>
<td>Language</td>
<td>8.0</td>
<td>8.5 1.13 N.S.</td>
</tr>
<tr>
<td>Arithmetic Computation</td>
<td>7.2</td>
<td>8.1 1.27 N.S.</td>
</tr>
<tr>
<td>Arithmetic Problem Solving</td>
<td>6.8</td>
<td>7.3 1.15 N.S.</td>
</tr>
<tr>
<td>SRA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>4.9</td>
<td>6.0 1.50 p&lt;.01</td>
</tr>
<tr>
<td>Reading Vocabulary</td>
<td>6.2</td>
<td>7.2 1.35 p&lt;.05</td>
</tr>
</tbody>
</table>

On the basis of these data, the second research hypothesis is considered rejected. The students in the Individualized group did not display a greater range of standardized test achievement at the end of the experiment.
Oral Reading

The third hypothesis was, "Children in Individualized reading programs will show significantly higher oral reading ability than children in Basal reading programs." Testing this hypothesis required an objective evaluation of the oral reading skills of the subjects.

The research design provided that a random sample of pupils would be selected from each classroom to be interviewed and tested by reading specialists who traveled from school to school to interview and test the selected pupils. During the first year of the study, the reading specialists visited each classroom at least three times. The reading specialists met with 252 pupils during the first year of the study. They interviewed and tested five or six pupils each time they visited a class. Each individual child interview required 25 - 30 minutes. They interviewed and tested five or six pupils each time they visited a class. The first visit was scheduled in the fall, the second in winter, and the third in spring.

During the second year of the study, the reading specialists visited each classroom twice (in fall and spring) to retest as many as possible of the same pupils they had tested the previous year. Near the end of the third year of the study, all pupils from both the Basal and the Individualized groups, who had been tested individually in grades one and two, were retested a third time.
The reading specialists constructed four tests (See Appendix C) to assess (1) oral reading ability, (2) comprehension, (3) word attack skills, and (4) vocabulary. The maximum raw score on each test was 30 points; the total possible score was 120 points. Each year the tests were revised in what the specialists felt was an appropriate manner for the grade level of the pupils being tested, while the testing procedures and the scoring system remained consistent.

The mean oral reading performance scores of 57 pupils in each group near the end of the first grade and near the end of the third grade are included in Table VIII.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Individualized Mean (N=57)</th>
<th>Basal Mean (N=57)</th>
<th>Mean Difference</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>21.3</td>
<td>22.4</td>
<td>1.1</td>
<td>N.S.</td>
</tr>
<tr>
<td>3rd</td>
<td>27.3</td>
<td>27.7</td>
<td>.3</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

The slight and statistically insignificant differences between the oral reading score supports the conclusion that these two sample groups did not differ in oral reading ability.
The scores on the other three sub-tests used by the reading specialists also did not reveal any significant differences between the groups. Mean scores on these tests administered by the reading specialists at the end of the third grade are included in Table IX.

<table>
<thead>
<tr>
<th>Test</th>
<th>Individualized Mean (N=57)</th>
<th>Basal Mean (N=57)</th>
<th>Mean Difference</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Comprehension</td>
<td>16.37</td>
<td>17.42</td>
<td>1.05</td>
<td>N.S.</td>
</tr>
<tr>
<td>Word Attack</td>
<td>27.23</td>
<td>26.89</td>
<td>.39</td>
<td>N.S.</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>27.07</td>
<td>26.44</td>
<td>.53</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

The performance of the subjects on the tests constructed explicitly for this project results in a rejection of the research hypothesis related to oral reading. There were no significant differences between the two groups on any of the sub-tests. It should also be noted that the reliability of the tests constructed for this project has not been established, so the results must be interpreted cautiously.
Comparison of Boys and Girls

Although sex differences in achievement were not a central concern or a specific hypothesis of this study, the data analysis techniques provide a ready format to determine whether the two different programs had more or less success with boys or girls. Of the 23 separate measures obtained in the first and third grades, there were statistically significant differences on six tests.

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean Scores</th>
<th>Difference</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys (N=175)</td>
<td>Girls (N=184)</td>
<td></td>
</tr>
<tr>
<td>Grade 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan Word Knowledge</td>
<td>29.34</td>
<td>30.48</td>
<td>1.14</td>
</tr>
<tr>
<td>Metropolitan Reading</td>
<td>35.33</td>
<td>31.71</td>
<td>3.12</td>
</tr>
<tr>
<td>Grade 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRA Reading Vocabulary</td>
<td>31.48</td>
<td>33.07</td>
<td>1.59</td>
</tr>
<tr>
<td>Metropolitan Reading</td>
<td>29.34</td>
<td>31.21</td>
<td>1.87</td>
</tr>
<tr>
<td>Metropolitan Spelling</td>
<td>29.36</td>
<td>31.15</td>
<td>1.89</td>
</tr>
<tr>
<td>Metropolitan Language</td>
<td>36.14</td>
<td>39.52</td>
<td>3.38</td>
</tr>
</tbody>
</table>
The data in Table X indicate that on 6 of the 23 dependent variables, girls performed significantly better than boys. On the other 17 variables, there were no significant differences, but the direction of the differences consistently favored the girls.

Interaction Between Treatment and Sex

The analysis of variance performed on the data indicated only one significant interaction between treatment and sex. On the Metropolitan Arithmetic test administered at the end of Grade 1, there was a significant (p < .05) treatment x sex interaction favoring girls in the Individualized treatment.

Supplementary Reading

The fourth hypothesis was, "Children in Individualized programs will read more than children in Basal programs."

The amount of supplementary reading done by students was analyzed using the log books kept by teachers as a source of data. Evidence gathered from teacher logs completed by the first-grade teachers indicated that the average number of pages read per week by pupils in the Individualized group was greater than the average number of pages read per week by pupils in the Basal group. Due to differing data gathering
procedures, specific data is not available for the first year of the study.

The average number of pages read per week in the third grade, however, was greater for pupils in the Basal group. These results are presented in Table XI below:

<table>
<thead>
<tr>
<th>No. of pages per week</th>
<th>Individualized</th>
<th>Basal</th>
<th>Mean Difference</th>
<th>Level of Significance of Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>181</td>
<td>198</td>
<td>17</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>Mean</td>
<td>259.8</td>
<td>322.2</td>
<td>62.4</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>203.4</td>
<td>331.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The log books kept by third-grade teachers revealed a "tremendous" range in the average number of pages read per pupil in a week. As an example, the median number of pages read per pupil in one week in one Basal class was more than 600 while the median number of pages read per pupil in another Basal class was less than 100. The range in class averages was almost as impressive in the Individualized group. Further investigation of this aspect of the study appears to be warranted and necessary.
Non-Achievement Data

The fifth and sixth hypotheses in the study related to social adjustment and self-concept: "Children in Individualized programs will show better adjustment than children in Basal reading programs;" "Children in Individualized reading programs will develop more positive attitudes toward themselves as readers than children in Basal reading programs."

Analysis of sociometric assessment and attitudes toward themselves as learners revealed no significant differences between groups to the extent that the results were able to be subjected to statistical analysis. The sociometric device appeared to be especially reliable and valid. Results indicated few sociometric differences between classes following either reading program; that is, no significant differences were observed in the social adjustment of children in either group as a function of the type of reading program.

Parents' Reactions

The last hypothesis of the study was, "Parents of children in Individualized reading programs will have more positive attitudes toward their children's reading programs than parents of children in Basal reading programs."

The results of the questionnaire (Appendix C) returned by parents during May of the first and third years are summarized in Table XII.
TABLE XII
RESULTS OF PARENT QUESTIONNAIRE
ADMINISTERED AT THE END OF FIRST AND THIRD GRADES

<table>
<thead>
<tr>
<th>Item</th>
<th>Individualized Group Mean</th>
<th>Basal Group Mean</th>
<th>95% Confidence Interval About ( \bar{I} - \bar{B} )</th>
<th>Individualized Group Mean</th>
<th>Basal Group Mean</th>
<th>95% Confidence Interval About ( \bar{I} - \bar{B} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.83</td>
<td>3.53</td>
<td>.13 to .47*</td>
<td>4.02</td>
<td>3.92</td>
<td>-.12 to .32</td>
</tr>
<tr>
<td>2</td>
<td>2.91</td>
<td>2.89</td>
<td>-.16 to .20</td>
<td>2.09</td>
<td>2.07</td>
<td>-.12 to .34</td>
</tr>
<tr>
<td>3</td>
<td>3.80</td>
<td>3.94</td>
<td>-.31 to .03</td>
<td>2.90</td>
<td>2.98</td>
<td>-.32 to .16</td>
</tr>
<tr>
<td>4</td>
<td>2.43</td>
<td>2.50</td>
<td>-.10 to .24</td>
<td>2.53</td>
<td>2.59</td>
<td>-.34 to .22</td>
</tr>
<tr>
<td>5</td>
<td>2.25</td>
<td>2.32</td>
<td>-.27 to .14</td>
<td>2.01</td>
<td>2.04</td>
<td>-.17 to .11</td>
</tr>
<tr>
<td>6</td>
<td>4.37</td>
<td>4.18</td>
<td>-.05 to .42</td>
<td>4.04</td>
<td>3.99</td>
<td>-.18 to .27</td>
</tr>
<tr>
<td>7</td>
<td>4.52</td>
<td>4.36</td>
<td>-.03 to .36**</td>
<td>4.16</td>
<td>4.08</td>
<td>-.12 to .30</td>
</tr>
<tr>
<td>8</td>
<td>4.63</td>
<td>4.46</td>
<td>.02 to .31*</td>
<td>4.32</td>
<td>4.16</td>
<td>.02 to .31*</td>
</tr>
<tr>
<td>9</td>
<td>4.71</td>
<td>4.61</td>
<td>-.02 to .20**</td>
<td>4.32</td>
<td>4.34</td>
<td>-.32 to .29</td>
</tr>
<tr>
<td>10</td>
<td>4.61</td>
<td>4.52</td>
<td>-.03 to .21</td>
<td>4.38</td>
<td>4.37</td>
<td>-.11 to .14</td>
</tr>
</tbody>
</table>

* Difference between means significant at .05 level.

** Difference between means significant at .10 level.

Results were averaged for each item within each classroom. Confidence intervals and "t" tests were computed using class means as the basic measurements.
In both grades, the parents of students in Individualized reading classes responded with significantly higher agreement with item 8, "I am satisfied with the reading materials provided for my child." In addition, the first grade responses revealed a number of other items on which the parents of students in the Individualized and Basal groups differed. Individualized group parents indicated that their children read to themselves more often than did parents of children in the Basal group; they also expressed greater satisfaction with the child's reading instruction and indicated that their children were happy in school.

SUMMARY OF THE JOHNSON EXTENSION
OF THE LAKESHORE CURRICULUM STUDY COUNCIL PROJECT

As indicated in chapter III, Rodney H. Johnson, a principal in one of the participating project schools, conducted an extension of the Council study in conjunction with his doctoral program at the University of Wisconsin. The complete Johnson dissertation is available on microfilm from the University of Michigan. His study provides additional data which are useful in extending the interpretation of the larger study.

Johnson added to the original data a measure of Socio-Economic Status (SES). Using the Duncan Socio-
Economic Index for Occupations, he categorized each of the original study pupils into Low, Middle and High SES. He used the statistical technique of analysis of covariance which permitted him to study reading achievement differences between groups as though the groups were equivalent with respect to intelligence. He also analyzed the data for his smaller population to determine the difference in reading achievement between boys and girls.

In determining SES, Johnson examined the school records of all children who participated in the first year of the study. Necessary information was not available for all subjects, but 111 were classified as Low SES, 130 as Middle SES, and 102 as High SES. This smaller population, and the differing statistical analyses, do not permit direct comparison of the two sets of results, but they are presented here in light of their general agreement on the effects of the common independent variable --- Individualized and Basal instructional programs.

Results

1. Individualized vs. Basal program.

At the end of the first year, subjects in the Individualized reading program scored significantly higher on their Word Knowledge and Reading tests than did those in the Basal reading programs. However,
no significant differences were found on any of the tests in grades two and three. When the nine tests (three at the end of each year) were grouped by treatment, Individualized group means were higher than Basal group means in every variable but the differences were not large enough to be statistically significant.

2. Sex.
Girls scored significantly higher than boys on seven of the nine tests.

Significant differences favoring subjects of higher levels of SES were observed on seven of the nine tests.

4. Interactions.
No significant differences in test scores could be attributed to any different combinations of treatment, sex, and SES.

Johnson cites the following implications of his study:

"This study holds a number of implications for educational practice. It supports other studies which have found that early elementary school reading programs favor girls and children of higher Socio-Economic Status levels. It suggests that educators must continue to search for ways of helping certain children to overcome their disadvantages. It suggests that educational opportunities in reading are not equal for all."
This study supports the belief that individualized and basal reading programs are viable alternatives. This suggests that teachers who have personal or professional reasons for employing one or the other ought to be encouraged to exercise that choice, and that pre-service and in-service educational programs for teachers ought to emphasize, to a greater extent than they do, the options which are available to all reading teachers." (p. 107)
<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Children in Individualized reading programs will show significantly</td>
<td>Significant differences favoring the Individualized reading group were obtained on 8 of the 13 standardized tests.</td>
</tr>
<tr>
<td>higher standardized test achievement than children in Basal reading</td>
<td></td>
</tr>
<tr>
<td>programs.</td>
<td></td>
</tr>
<tr>
<td>2. Children in Individualized reading programs will have a greater</td>
<td>Significant differences were obtained. The direction of the difference indicates the Basal group had a greater range of scores.</td>
</tr>
<tr>
<td>range of achievement scores than children in Basal reading programs.</td>
<td></td>
</tr>
<tr>
<td>3. Children in Individualized reading programs will show significantly</td>
<td>No significant differences were obtained.</td>
</tr>
<tr>
<td>higher oral reading ability than children in Basal reading programs.</td>
<td></td>
</tr>
<tr>
<td>4. Children in Individualized reading programs will read more than</td>
<td>Data for the first year tend to substantiate this hypothesis; however, data obtained at the third grade level definitely refute this hypothesis.</td>
</tr>
<tr>
<td>children in Basal reading programs.</td>
<td></td>
</tr>
<tr>
<td>5. Children in Individualized reading programs will show better</td>
<td>No significant differences were obtained.</td>
</tr>
<tr>
<td>social adjustment than children in Basal reading programs.</td>
<td></td>
</tr>
<tr>
<td>6. Children in Individualized reading programs will develop more</td>
<td>No significant differences were obtained.</td>
</tr>
<tr>
<td>positive attitudes toward themselves as readers than children in Basal</td>
<td></td>
</tr>
<tr>
<td>reading programs.</td>
<td></td>
</tr>
<tr>
<td>7. Parents of children in Individualized reading programs will have</td>
<td>On those items on which there were significant differences (5 of 20 items), all differences favored the Individualized groups.</td>
</tr>
<tr>
<td>more positive attitudes toward their children's reading programs than</td>
<td></td>
</tr>
<tr>
<td>parents of children in Basal reading programs.</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER V
IMPLICATIONS OF THE STUDY

The results of this study clearly indicate that pupils in Individualized reading classes achieve at least as well, and probably better than pupils in Basal reading programs in those aspects of the reading program which are now measured by standardized tests. The skeptics and critics who have questioned individualized reading on the basis of skill development and achievement are now placed in a position where they must produce contrary evidence. They may well want to take a new look at the possibilities of individualized reading programs. Even if accepted as being only "as good as" basal reading programs, the use of individualized reading techniques may lead to their application in other classroom activities.

The results of this study are not clear in regard to the non-achievement data collected. Inconclusive findings, due to inadequate measuring devices and other difficulties, leave much unsaid. Additional research, prefaced by the development of new instruments in these areas, is needed and recommended. It is especially disappointing that the hypothesis concerning self-direction was not directly tested, and that an adequate instrument for measuring self-concept was not developed. These are areas of great importance and
certainly warrant considerable effort. There is no reason to believe from this study that hypotheses concerning self-direction and self-concept are less tenable than thought to be at the beginning of the study.

Perhaps the most obvious and heartening benefits of this study, as observed by the researchers, were the in-service activities which stimulated improvements on the part of the classroom teachers who participated in the project. Teachers of both programs looked at their work with new vision for improvement, and, indeed, looked at reading programs not like their own with respect and tolerance for the differences which existed.

The results of this study, and the effort put into it, indicate that the research studies most profitable to local schools, in general, will be those in which teachers are personally involved and play an important role. The Lakeshore Curriculum Study Council, in bringing together teachers, administrators, and professors for a concerted attack on a significant instructional problem, has demonstrated the contributions that effective school study councils can make to the improvement of education.
APPENDIX A

READING RESEARCH COMMITTEE

John Belton - West Allis
Rodney Johnson - South Milwaukee
James Macdonald - University of Wisconsin-Milwaukee
Robert Phelps - Glendale
Alice Sommerfield - West Allis

RESEARCH CONSULTANTS

Laura Carrithers - University of Wisconsin-Milwaukee
Gerald Gleason - University of Wisconsin-Milwaukee
Wendell Hunt - University of Wisconsin-Milwaukee
Lucille Ingalls - University of Wisconsin-Milwaukee
John McLain - South Milwaukee
James Raths - University of Wisconsin-Milwaukee
Robert Remstad - University of Wisconsin-Milwaukee
Dorothy Rowe - University of Wisconsin-Milwaukee
Jean Walton - University of Wisconsin-Milwaukee
Bernice Wolfson - University of Wisconsin-Milwaukee

INTERVIEW COMMITTEE

Helen Conley - Glendale
Gertrude Endthoff - Cudahy
June Jensen - South Milwaukee
Jessie McKenzie - West Allis

OBSERVATION TEAM

Monica McCabe - West Allis
Thelma Shepherd - Cudahy
Valeska Wollesager - University of Wisconsin-Milwaukee
### APPENDIX B

**PERSONNEL AND SCHOOL SYSTEMS WHO PARTICIPATED IN THE READING RESEARCH PROJECT**

<table>
<thead>
<tr>
<th>SCHOOL SYSTEM</th>
<th>SCHOOL</th>
<th>GRADE</th>
<th>TEACHER</th>
<th>YEAR</th>
<th>GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATERTOWN</td>
<td>Lincoln School</td>
<td>1</td>
<td>Lucille Biege</td>
<td>61-62</td>
<td>Basal</td>
</tr>
<tr>
<td></td>
<td>Melvin Damrow</td>
<td>2</td>
<td>Caroline Luedtke</td>
<td>62-63</td>
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<tr>
<td></td>
<td>L.C.S.C.* Rep. Principal</td>
<td>3</td>
<td>Lenys Dietzman</td>
<td>63-64</td>
<td>&quot;</td>
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<tr>
<td></td>
<td>Douglas School</td>
<td>1</td>
<td>Mildred Nack</td>
<td>61-62</td>
<td>Ind.</td>
</tr>
<tr>
<td></td>
<td>Joseph W. Chetoa Principal</td>
<td>2</td>
<td>Esther Bornitzke</td>
<td>62-63</td>
<td>&quot;</td>
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<tr>
<td></td>
<td></td>
<td>3</td>
<td>Gladys Schultz</td>
<td>63-64</td>
<td>&quot;</td>
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<tr>
<td>WEST ALLIS-</td>
<td>Walker School</td>
<td>1</td>
<td>Esther Steidl</td>
<td>61-62</td>
<td>Ind.</td>
</tr>
<tr>
<td>WEST MILWAUKER</td>
<td>William Rilling Principal</td>
<td>1</td>
<td>M. Christophersen</td>
<td>61-62</td>
<td>Basal</td>
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<tr>
<td></td>
<td></td>
<td>2</td>
<td>Marilyn Wernberg</td>
<td>62-63</td>
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<td></td>
<td></td>
<td>2</td>
<td>Arline Durand</td>
<td>62-63</td>
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<td></td>
<td></td>
<td>3</td>
<td>Sharon Nelson</td>
<td>63-64</td>
<td>Basal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>Marilyn Wernberg</td>
<td>63-64</td>
<td>&quot;</td>
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<td></td>
<td></td>
<td>3</td>
<td>Amelia Janke</td>
<td>63-64</td>
<td>Ind.</td>
</tr>
<tr>
<td>LaFollette School</td>
<td>1</td>
<td>Helen Schwartz</td>
<td>61-62</td>
<td>Basal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.J. Wunrow Principal</td>
<td>2</td>
<td>Judith Jacobs</td>
<td>62-63</td>
<td>&quot;</td>
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<tr>
<td></td>
<td></td>
<td>3</td>
<td>Marion Giencke</td>
<td>63-64</td>
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<td></td>
<td></td>
<td>3</td>
<td>Judith Jacobs</td>
<td>63-64</td>
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<td>Irving School</td>
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<td>Bernice Harper</td>
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<td></td>
<td>James McGurn Principal</td>
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<td>Ruth Reupert</td>
<td>62-63</td>
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<td></td>
<td></td>
<td>3</td>
<td>Suzanne Felan</td>
<td>63-64</td>
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<td>Madison School</td>
<td>2</td>
<td>Adelle Nygaard</td>
<td>62-63</td>
<td>Basal</td>
<td></td>
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<tr>
<td></td>
<td>Harry Polzer Principal</td>
<td>3</td>
<td>Lois Pollnow</td>
<td>63-64</td>
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<tr>
<td>OAK CREEK</td>
<td>Meadowview School</td>
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<td>Pearl Hamilton</td>
<td>61-62</td>
<td>Basal</td>
</tr>
<tr>
<td></td>
<td>George Hafrichter Principal</td>
<td>2</td>
<td>Harriet Knutson</td>
<td>62-63</td>
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<tr>
<td></td>
<td></td>
<td>3</td>
<td>Gale Hoernke</td>
<td>63-64</td>
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</tr>
<tr>
<td></td>
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<td>Betty Kazmierczak</td>
<td>62-63</td>
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<tr>
<td></td>
<td>Verne Kjell Principal</td>
<td>3</td>
<td>Betty Kazmierczak</td>
<td>63-64</td>
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</tr>
</tbody>
</table>

* L.C.S.C. - Lakeshore Curriculum Study Council
## APPENDIX B - cont.

<table>
<thead>
<tr>
<th>SCHOOL SYSTEM</th>
<th>SCHOOL</th>
<th>GRADE</th>
<th>TEACHER</th>
<th>YEAR</th>
<th>GROUP</th>
</tr>
</thead>
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<tr>
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APPENDIX C

INTERVIEW AT END OF GRADE ONE

School ___________________ Date ___________ Teacher ___________

Name _____________________ C.A. ________ (_____) Plan ______

Test Data

________________________________________________________________________

________________________________________________________________________

Reading Level

Name of Book ____________________________ Pages __

I. Quality of oral reading (30 points) __________ (about 100 words)
   A. Teacher pronounces ___________ F. Reversals _____________
   B. Omissions ________________ G. Ignores punctuation __________
   C. Additions ________________ H. Points ________________
   D. Substitutions ______________ I. Loses place ______________
   E. Repetitions ________________ J. Fluency ________________

II. Comprehension (30 points)

________________________________________________________________________

Botel Word Opposite Test ______________________________________________________________________

III. Vocabulary Tests (30 points)

Number correct out of 30 words __________

Wide Range Reading Tests ______________________________________________________________________

IV. Word Attack Skills (30 points)

Consonant - Substitution ____________________________

Compound Words ____________________________

Endings ____________________________

Total __________
APPENDIX C - cont.

INTERVIEW AT END OF GRADE THREE

School __________________________ Date __________ Teacher _________

Name ___________________________ C.A. __________(____) Plan ___

Test Data

________________________________________

Reading Level

Name of Book __________________________ Pages ___

I. Quality of oral reading (30 points) - Dr. Sheldon's Test for 3/2 level.
   A. Teacher pronounces _______ F. Reversals _________________________
   B. Omissions _____________ G. Ignores Punctuation ________________
   C. Additions ______________ H. Points _____________________________
   D. Substitutions ___________ I. Loses Place _________________________
   E. Repetitions _____________ J. Fluency _____________________________

II. Comprehension (30 points) - Dr. Sheldon's Test for 3/2 level

III. Vocabulary Tests (30 points) - Dr. Botel's Vocabulary Test
    Wide Range Reading Test (give grade level) _________________________

IV. Word Attack Skills (30 points)
   A. Vowel Rules - 8 points _________________________________________
   B. Syllabication - 5 points _________________________________________
   C. Root Words - 5 points __________________________________________
   D. Dictionary Skills (alphabetical order) - 10 points _____________
   E. Contradictions - 2 points _______________________________________

  TOTAL
Dear Mother,

During this past school year you have observed the results of your child's third grade reading program in many ways. Your school is interested in improving its instructional program and would greatly appreciate your assistance in completing this questionnaire. Please circle a response for each of the items below and return this sheet to school tomorrow. Thank you for your cooperation.

I. Directions: The first set of questions asks about the frequency with which various reading activities occur. Read the question, decide how often this happens for your child, then mark an answer using the following guides:

Give a score of 1 for "almost never"
Give a score of 2 for "not very often"
Give a score of 3 for "sometimes"
Give a score of 4 for "very often"
Give a score of 5 for "almost always"
Give a score of N for "no chance to observe"

a. Does he read to himself?  
   1 2 3 4 5 N
b. Does he have you read to him?  
   1 2 3 4 5 N
c. Does he ask you to listen to him read?  
   1 2 3 4 5 N
d. Is he easily distracted when reading?  
   1 2 3 4 5 N
e. Does he ask you to help him find something to read?  
   1 2 3 4 5 N

II. Directions: Indicate your own opinion in regard to each of the statements below concerning some aspect of your child's reading program or reading progress.

Give a score of 1 if you "strongly disagree"
Give a score of 2 if you "tend to disagree"
Give a score of 3 if you "are neutral"
Give a score of 4 if you "tend to agree"
Give a score of 5 if you "strongly agree"

a. I am satisfied with the school's policies on reading.  
   1 2 3 4 5
b. I am satisfied with my child's reading instruction.  
   1 2 3 4 5
c. I am satisfied with the reading materials provided for my child.  
   1 2 3 4 5
d. I am satisfied that my child is happy in school this year.  
   1 2 3 4 5
e. I am satisfied that my child will be ready for next year.  
   1 2 3 4 5
APPENDIX D.

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