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A Comparative Study of the Joplin Reading Plan and the Traditional Reading Plan in the Northshore School District

Steven J. Gimurtu
Central Washington University

78

A COMPARATIVE STUDY OF THE JOPLIN READING PLAN AND THE TRADITIONAL READING PLAN IN THE NORTHSHORE SCHOOL DISTRICT

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Steven J. Gimurtu

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Alan R. Bergstrom, COMMITTEE CHAIRMAN

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William G. Gaskell

_____

Donald G. Goetschius

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS

I. INTRODUCTION

Reading is one of the most valuable means of communication man has at his disposal. In a world where man has accumulated a vast amount of information, he has found it necessary to read in order that he might become intelligently informed about the environment in which he lives. If the individual in a society is to keep abreast of the current information, and have some knowledge of the past, he must glean much of his information from the printed page.

The pupil in the classroom today is being educated on the premise that he will eventually live in a democratic society. If this democratic society is to function effectively, the citizenry must accept the responsibility of becoming well informed, thereby enabling it to make wise decisions regarding how that society will function.

McKim (15:15) states:

> To teach children to meet the varied demands of today's world is at once a crucial task for education and an undertaking calling for a high level of skill, insight, and resourcefulness. . . .

Obviously, the teaching of reading constitutes one of the most crucial responsibilities of the elementary school. The child must be taught to read so that he can live

intelligently and with pleasure in our complex civilization, and so he can learn whatever the school has to teach through the medium of reading (14:vii).

In education today there is much research and experimentation being undertaken to determine how to help pupils work closer to the optimum of their capacities. Non-grading, team-teaching, and different organizational patterns of grouping, are just a few areas being evaluated.

Nila Banton Smith (20:10) relates:

> As the world changes so must reading change. Indications of reading change may be found in the emerging trends of our rapidly moving civilization. The winds of change are blowing with hurricane like force, uprooting established tradition, sweeping away old practices, and opening new pathways.

Even more significant than specific changes in teaching procedures has been the increasing awareness of the importance of individual differences as a factor in reading (10:95). In addition, new methods, techniques, and procedures in reading are constantly being researched and evaluated so that pupils may be given the opportunity to develop their individual capacities in reading skills as efficiently and effectively as possible.

The teaching staff and administration of Kenmore Elementary School, Kenmore, Washington decided to evaluate the reading program at their school. As a result of this evaluation, the following areas were found to be a source of dissatisfaction:

1. There was usually a range of from five to eight years difference in reading ability in a given classroom. The teachers felt they could do a more effective job of teaching if the range in reading abilities was decreased.
2. The reading program, as it existed, gave evidence of having little provision for sequential development of skills. This led to the feeling that students were not receiving exposure to their basic reading skills.
3. A large portion of the teacher's time was utilized in providing for individual differences and the many groups for which preparation of materials was necessary.
4. There was a consensus of opinion among the teachers that too often the reading skills of comprehension, word analysis, context clues, and dictionary use were being taught in the content subjects without strong emphasis that might have been given in the reading period.

Because of the dissatisfaction concerning the existing reading program and upon studying the various organizational patterns of grouping, agreement among the teachers was reached, to group the pupils in a specific homogeneous type of group, commonly known as the "Joplin Plan" for reading

instruction. This plan was instituted for the intermediate grades.

The Joplin Plan is an interclass organizational form of grouping for reading. It is a procedure by which the individual differences of pupils are acknowledged and as such, the pupils are grouped to narrow the spread of differences in any one group.

Since 1961, when the modified Joplin Plan of reading was instituted at Kenmore Elementary School, there has been only cursory examination of the program and its possible effectiveness. It was therefore felt that a study to evaluate its effectiveness was necessary.

II. THE PROBLEM

Statement of the problem. It was the purpose of this study to compare the effectiveness of two reading programs, one using the Joplin Plan of reading, and the other, the Traditional plan of grouping for reading instruction. A comparison of the results of reading achievement test scores was made between the groups.

Hypotheses. As a result of the data of this study, the following hypotheses were formulated and tested statistically.

1. A comparison of the results of the reading achievement tests will indicate no significant differences between the interclass, Joplin Plan of reading, and the intraclass, Traditional form of grouping for reading instruction.
2. A comparison of the results of the reading achievement tests will indicate no significant differences between the boys in the Joplin plan of reading and boys in the Traditional form of grouping for reading instruction.
3. A comparison of the results of the reading achievement tests will indicate no significant differences between the girls in the Joplin plan of reading and the girls in the Traditional form of grouping for reading instruction.

Importance of the study. Reading proficiency has long been recognized as essential to democracy and the learning process. Despite this recognition, some of our programs of reading instruction may have been unrealistic due to the heterogeneous grouping of pupils in the classroom where the pupils' reading abilities may vary as much as eight years.

Because of an awareness of the great spread in pupils' reading abilities in the self-contained classroom, the administration and staff of Kenmore Elementary School

attempted to decrease the spread through acceptance of an interclass form of grouping pattern for reading.

An attempt to evaluate the interclass, Joplin Plan of reading, through this study has been made. Results of this study will be forwarded to the administration and staff of Kenmore Elementary School for further study.

Limitations of the study. No attempt was made to evaluate the proficiency of the teachers involved in the study, nor was there any attempt made to control the teaching methods used with the pupils. The small number of students involved in the study was also a limitation. The amount of reading by the pupils in both groups in the content fields and recreational reading was not controlled. The scope of this study has been limited to the comparison of the reading achievement test scores.

III. DEFINITIONS OF TERMS

For purposes of this study, these terms were defined as follows:

Heterogeneous grouping. The grouping of pupils for the purpose of forming certain groups having a high degree of dissimilarity. For reading instruction the teacher may divide these pupils into small intra-class groups.

Homogeneous grouping. The grouping of pupils having a high degree of similarity in their reading achievement levels.

Interclass grouping. This is an administrative procedure that involved grouping of pupils across grade lines, enabling the pupil to be grouped with others of similar reading achievement levels regardless of which grade he is in school.

Intraclass grouping. This is a procedure for grouping pupils for reading instruction within a heterogeneous classroom. The reading as well as other subjects are taught in a regular classroom situation by the teacher.

Joplin Plan of Reading. This is an organizational pattern of grouping for reading instruction. Pupils of the intermediate grades are placed in reading classes based upon their reading abilities. Reading classes are composed of pupils from across grade lines. Pupils in this group shall be known as the experimental group.

Traditional reading program. This is a plan of grouping pupils on the intraclass basis. The size of the groups during the reading period will vary depending on the number of students in the classroom and how the teacher wishes to group them. Pupils in this group will be known as the control group.

IV. ORGANIZATION OF THE REMAINDER OF THE STUDY

The remainder of the study has been organized as follows:

Chapter II will present literature relevant to the area of reading, and the importance of individual differences. Also included will be information pursuant to the different organizational patterns of grouping for reading instruction, where the interclass form of grouping will be emphasized.

Chapter III shall deal with the design of the study, how the groups were equated, and a description of the experimental and control groups.

Chapter IV will present an analysis of the data.

Chapter V summarizes the study, and presents conclusions based upon the data. Implications relevant to the study are presented as well as recommendations for further research.

CHAPTER II

REVIEW OF RELATED RESEARCH

I. INTRODUCTION

Reading is considered the most important subject in the curriculum of the modern elementary school. If not the most important, it is certainly one of the most fundamental subjects of study. The widespread use of intelligence and achievement tests has made every educator realize that pupils vary greatly in reading, and that any one school grade contains pupils of an astonishingly wide variety of capacities and achievements. The effective reading program must consider the individual differences, as well as the interests, and the needs of the pupils. How to best provide for these differences is a concern of all educators (13:17).

II. PROVIDING FOR INDIVIDUAL DIFFERENCES

Tinker and McCullough (21:258) say:

> To a large degree the success of any teacher depends upon her ability to provide for the individual differences of pupils through the adjustment of materials and instructional guidance to their abilities.

Good teachers have always adapted their teaching procedures to fit the needs of individual pupils in their classes. Sometimes the procedures have been concerned largely with organization; at other times they have involved changes in

teaching methods and materials (3:29). Besides the problem of differentiating instruction, the teacher is also faced with the problem of grouping pupils in the classroom. The mere practice of just grouping pupils does not automatically provide better learning or improve instruction (7:14). Grouping should, therefore, be a meaningful approach of providing for individual differences and should not be ". . . an end in itself, but an operative technique to be used in the interest of the learner's growth" (23:90).

Durrell says, ". . . if the schools that use the homogeneous grouping will work out ways of adjusting to individual needs, pupil's reading skills may be well served" (8:133).

III. ORGANIZATIONAL PATTERNS OF GROUPING FOR READING INSTRUCTION

Interclass grouping is an administrative procedure that places pupils of similar reading ability together for reading instruction in the intermediate grades. The primary purpose of grouping pupils in this manner is to decrease the reading range within the reading group. Tinker and McCullough explain the procedure in this way:

> Each day during the reading period, all pupils who read at a given level will go to one teacher who teaches that level (21:333).

Non-graded homogeneous grouping may make it possible for all children at all levels of advancement and ability to achieve more. Under this arrangement there are no built-in barriers to rapid progress by the able pupil, likewise, the pressure to pace instruction beyond the level of the less able pupils is reduced (2:193). According to Harris there is little doubt that grouping pupils into reading classes on the basis of reading ability produces classes which are more homogeneous for the teaching of reading than when grouping is based on general intelligence (10:108).

A plan which has produced favorable results in graded elementary schools involves assigning pupils to reading classes that are relatively homogeneous, while keeping classes heterogeneous for other activities. In the following studies, Floyd, Tunley, and others report successful results in improving the reading performance of children on whom the plans have been tried.

A homogeneous type of ability grouping was started in 1953 in Joplin, Missouri, by Cecil Floyd, an elementary principal in the Joplin system. The plan was instituted in one elementary school for purposes of experimentation and the results were analyzed for their merits. At the end of the first semester, the limited data seemed to indicate that the pupils had progressed at about twice the usual rate.

The program was then begun in another local school system and soon spread to encompass all elementary schools in Joplin. Preliminary statistical reports seemed to show that the pupils had progressed as well as or better than the first experimental group.

While Floyd was still waiting to test his plan completely, Tunley (22:110) said:

> Floyd didn't have the ultimate answer until last Spring (1957) when Joplin's 500 top students who had been exposed to the reading program for three years, graduated into junior high school. Although they were ready to begin seventh grade, tests revealed that their average reading level was approximately ninth grade. Previous tests made in 1950 showed the top 500 students at the time averaged only slightly above the beginning seventh grade level.

Floyd (9:100) indicated:

> . . . that the child in the reading groups formed by interclass grouping is better able to understand what he has read. The child is placed in a group where the range of reading grade levels is much less than the average heterogeneous classroom. Therefore, the teacher has more time to provide for individual differences within the classroom because she has fewer daily reading lesson plans to prepare. With this arrangement, the superior student, as well as the average and the poor reader, can be challenged commensurate with his abilities. The study reports a mean average gain of 6.5 months in fourth grade, 8.7 months in the fifth grade, and 13.5 months in the sixth grade, for a four month instructional period of time.

Enthusiasm toward homogeneous grouping has been reflected in the interest demonstrated by parents, teachers, and pupils. According to Barbe (4:103) the traditional lack of attention in reading can be overcome with this program.

Floyd (9:103), Barbe (4:104), and Dominy (6:17), generally agree that this enthusiasm is due in part to the favorable acceptance and additional effort on the part of the teachers and parents. A report on the schools in Fayettville, Missouri, where the Joplin Plan was adopted, indicates ". . . that there is a new emotional climate in the classroom since the program was adopted" (22:27).

Dominy (6:16) reported the results of the Joplin Reading Plan as it was used in a Texas school. Standardized test results indicated an average gain of 7.2 reading grade months for a period of time covering four months. As would be expected, some pupils made little or no gain. On the other hand, individual gains of from one month to as high as thirty months were recorded.

In the fifth and sixth grades of a rural school, Morgan and Stucker (16:73) equated a control and experimental group by using I.Q. and the average of two reading achievement tests. The experimental groups used the Joplin Plan and the control group was taught reading in the self-contained classroom. "The test results at the end of one year indicated that the Joplin Plan is a more effective plan of teaching reading than the traditional plan."

Rothrock (17:234) in a controlled experiment compared a heterogeneous, homogeneous, and an individualized grouping procedure for the teaching of reading. Fourth and fifth

graders were selected for the experiment, which ran from September to May. The Iowa Every-Pupil Tests of Basic Skills, Test A, Reading Comprehension, and Test B, Work-Study Skills were used to measure reading achievement of the pupils. In an analysis of the results it was found ". . . that at the 1 per cent level of confidence the homogeneous approach had made significant gains in three of four divisions." In both fourth and fifth grades in the study skills area, the homogeneous approach had made superior gains. "It was also significantly superior in reading comprehension at the fourth grade level."

At the University of Chattanooga, Barbe (4:102) reported the results of the Joplin Plan in the Highland Park Schools in Chattanooga. One hundred and eighty fourth through sixth graders participated in the study. The results revealed a mean increase of .9 reading grade years in the fourth grade, 1.2 reading grade years in the fifth grade, and .9 reading grade years in the sixth grade for a six month period of time. However, homogeneous grouping is an organizational pattern of grouping which permits, but does not guarantee, better differentiation of curriculum, teaching methods, and materials than is possible in heterogeneous classes (1:195). Some studies offer evidence that the Joplin Plan is not a more effective procedure for grouping for reading instruction.

One of the first studies that evaluated the effectiveness of homogeneous grouping for grades four, five, and six in the San Francisco city schools is reported by Russell (19: 468). A comparative study was made of 278 pupils in an experimental group, (homogeneous grouping), and 248 pupils in a control group (heterogeneous grouping). Test results at the end of two years indicated ". . . that there were no significant gains for the homogeneous group over the original heterogeneous group within the single classroom."

In a study by Carson and Thompson (5:42) the results do offer clear support that ". . . the Joplin Plan is a more effective organizational plan than the traditional plan in the self-contained classroom." However, the attitude toward the Joplin Plan was positive and should be considered as an important factor.

Anastasiow (1:496) points out that

> . . . frequently gains of experimental programs are attributed to a Hawthorne or placebo effect. That is, the excitement engendered by a new program creates a situation where gains are made due to the novelty, not to the instructional procedure.

While there is no consistent evidence to indicate conclusively that the Joplin Plan of grouping is one of the most effective organizational patterns of grouping for reading instruction, schools using the plan report increases in reading achievement which they attribute to the plan.

CHAPTER III

PROCEDURES USED IN THE STUDY

I. INTRODUCTION

The study was conducted in the Northshore School District No. 417, Bothell, Washington, during the 1966-67 school year. The experimental group was at Kenmore Elementary School, where the Joplin Plan of reading has been in use since the 1960-61 school year. Arrowhead Elementary School, also in the Northshore School District provided the control group, where the Traditional form of grouping for reading instruction was used.

The size of the population at Kenmore Elementary School was 90 fourth grade pupils, and at Arrowhead Elementary School there were 57 fourth grade pupils. Twenty pupils, 10 boys and 10 girls, were used from each of the schools for purposes of matching pairs. These pupils were equated by sex, I.Q., and reading grade level scores taken from the Metropolitan Achievement Test (Form B). This test was administered in September of 1966.

The I.Q. and Metropolitan Achievement Tests that were administered to the pupils were already in use in the school district.

The socio-economic levels of both schools were approximately the same. In an interview with Mr. Julian Karp, Superintendent of the Northshore School District, he indicated

"The average family income for Kenmore Elementary School was $8100.00 and for Arrowhead Elementary School $8000.00 during the 1965 school year."

Following is a resume of the tests administered, and the dates when given.

During the Spring of 1966, when the pupils in the control and experimental groups were in the third grade, the Lorge Throndike Intelligence Test (Level Two) was administered. The I.Q.'s were determined by using the raw score and converting this to an I.Q. score.

The Metropolitan Achievement Test (Form B), the pre-test, was administered to the pupils in the control and experimental groups in September of 1966. The test was administered by the developmental reading teachers in each of the schools to minimize the teacher variable.

The post-test, which was Form A of the above achievement test was administered to both the control and experimental groups on the same day in the month of May, 1967. The individual who administered the pre-test also administered the post-test, thereby negating any possible variance that could be attributed to the test administrator. The variable of time was also reduced by the post-tests being given the same day to both groups.

From the time of the administration of the pre-test to the post-test, the teachers and pupils in both the control

and experimental groups were not aware of the study. This was done to insure more reliable results for the study by eliminating the "Hawthorne Effect."

A statistical analysis was conducted on the results of the post-test achieved by the control and experimental groups by using a t-test for matched pairs at the .05 level of confidence. This was done to either accept or reject the hypotheses of the study. An example of the t-test for matched pairs may be found in Appendix D.

II. EQUATING THE TWO GROUPS

The pupils in the experimental and control groups were equated by using the matched pairs technique on the basis of sex, I.Q. and reading grade level scores from the Metropolitan Achievement Test (Form B). The coded pupils were designated by a numeral and a letter (C) for control, and a numeral and a letter (E) for experimental.

The intelligence quotients were obtained by using the Lorge Thorndike Intelligence Test (Level Two). This test was administered to the pupils in the Spring of 1966.

Appendix A, page 35, shows the I.Q. and reading grade level scores for the matched pairs. The range of the I.Q. scores was from 106-124 for the girls in the control group and 103-126 for the girls in the experimental group. This same table shows that the range of the reading grade level

scores for the control and experimental girls was 3.4 to 7.9. The range of the I.Q. scores was from 96-117 for the control boys and 100-118 for the experimental boys. The reading grade level shows a range of 3.1 to 5.7 for both the control and experimental boys.

Appendix B, Page 36, shows the means and standard deviations on the I.Q. and pre-test reading grade level scores. As noted in this table, the mean I.Q. was 115 for both the control and experimental girls. However, it is to be noted that the standard deviations for the I.Q. scores for the control girls and the experimental girls was different. When the reading grade level pre-test scores were examined there was a mean of 5.7 for both control and experimental girls. The standard deviation of these same scores was 1.67 for both groups of girls. The means and standard deviations of the control and experimental girls were identical showing the original pairing of scores to have been quite satisfactory. In addition the table displays the means and standard deviations for the males. The mean I.Q. was 109 for the boys in the control group, while the experimental boys had a mean of 108. The standard deviations were 6.63 for the boys in the control group and 5.56 for the boys in the experimental group.

The pre-test reading grade level column in Appendix C depicts a mean of 4.1 for both boys in the control and

experimental groups. The standard deviation was .87 for the boys in the control group and .85 for the boys in the experimental group. The means and standard deviations of the control and experimental boys were quite similar showing the original pairing of scores to be quite satisfactory.

Appendix C, Page 37, shows the mean I.Q. of 112 for the control group and 111 for the experimental group. The standard deviations were 7.21 for the control group and 7.56 for the experimental group. The table further shows the mean for the pre-test reading grade level score for both control and experimental groups at 4.9. The standard deviations were 1.52 for the control and 1.51 for the experimental group. These two factors substantiate to some extent that the matching process led to equal groups.

III. THE EXPERIMENTAL GROUP

Kenmore Elementary School, where the experimental group was located, began using a modified "Joplin Plan of Reading" during the 1960-61 school year. The Joplin Plan was modified for use at Kenmore Elementary in the following ways:

1. The fourth and fifth grade pupils were placed in reading levels crossing grade lines. This would be one section of the plan.

2. The sixth grade pupils were placed in reading levels comprising only these grade pupils. This would be the other section of the plan.
3. The reading time was held in the morning for the fourth and fifth grade section and in the afternoon for the sixth grade section.
4. The developmental reading teacher was available to both sections of reading. This provided for one extra level for each section.
5. The fourth and fifth grade section had seven levels while the sixth grade section had four levels, the number of levels being determined by the number of teachers at the respective grade levels.
6. Groupings within levels was the responsibility of the reading teacher.

After much planning and organization by the staff, the plan was presented to, and accepted by the parents of the pupils of the intermediate grades. The boys and girls were prepared by being told they were going to have reading at a certain hour every day, and that some of them might be in other classrooms with other grade children. They were also told that this would help them because they would be working on materials at their own individual abilities. Teachers continued to develop criteria for the various reading skills to be emphasized at specific reading levels. They also

developed a method of evaluation which is still in use at the school.

The principal indicated that a key factor in the success of the program was the placement of teachers at the reading instructional level where they had either had previous experience or an interest for teaching reading. This policy has remained in effect since the program originated.

Procedures Used to Group the Pupils in the Experimental Group

Placement of the pupils into the various levels of the program was dependent upon a number of factors. The pupil's score on the California Reading Test, performance on informal reading inventories, teacher's observations, and previous school records. The pupils were placed in one of several reading levels. A pupil somehow misplaced would either be moved up or down a level depending upon his performance at the level to which he was first placed. Movements of pupils between levels was possible in the respective sections of the "Modified Joplin Plan."

There were seven teachers participating in the modified Joplin Plan for the fourth and fifth grades in the program, one teacher for each level.

It should also be noted that the pupils of Kenmore Elementary School had access to the school library for a one-half hour period once weekly through their regular classes.

Materials Used

A variety of materials were used by the teachers. The Ginn Basal Reading Series was used throughout the program. Other supplementary reading series were available to the teachers. The Science Research Associates Reading Laboratories were available to all groups. Those pupils in the lower levels had access to the Economy Series for review of basic reading skills. Those pupils working in the accelerated group were given the opportunity to do individual projects, and were exposed to some forms of literature. Readers Digest Skill Builders were also available to most groups. Teachers were also free to bring in materials of their own to use in their reading groups.

IV. CONTROL GROUP

Arrowhead Elementary School, which hosted the control group, has heterogeneously grouped classrooms for all subjects. Reading is taught as one subject of the school routine. Teachers of the heterogeneously grouped fourth grade classrooms conducted reading daily for fifty minutes. In each of the classrooms, pupils were placed in one of three reading groups by their respective teachers. Methods of grouping and placement were left to the teacher's discretion.

The pupils at the control school had an hour library period weekly in their school library.

Materials Used

Many of the materials used by the control group were also used by the experimental group. The Ginn Basal Reading Series was used as it is a district basal reading series. The SRA reading materials, many supplementary reading series, such as the Scott Foresman, were available to the teachers. Enrichment materials, Readers Digest Skill Builders, reference books, and numerous other materials the teacher might bring into the classroom were used.

V. SUMMARY OF THE CHAPTER

The purpose of Chapter III was to present the procedures used in the study.

The two groups were equated by matched pairs on the basis of sex, I.Q., and reading achievement grade level scores. The socio-economic level was also considered. The experimental and control groups were explained.

Tables were presented showing the original pairing of scores to have been quite satisfactory.

CHAPTER IV

DATA OF THE STUDY

The Metropolitan Achievement Test (Form A) was administered to both the control and experimental groups in May, 1967, as a post-test by the developmental reading teachers in each of the elementary schools. It was administered on the same day in May to make the test more reliable.

The means and standard deviations were computed for the reading grade level scores only. The raw and standard scores were converted to the reading grade level for this test. Comparisons were made between the total control and experimental groups, the control and experimental boys, and the control and experimental girls. A t-test was applied to the mean differences to determine if statistical significance was reached at the .05 level.

Reading Grade Level Scores

Table I presents the differences between the means of the control and experimental groups for reading grade level scores.

Table I indicates that there was a reading grade level mean of 5.77 for the control group, and 5.72 for the experimental group, the difference between the means being .05. Even though the control group had the higher mean, the

t-score of .02 indicates the difference to be statistically insignificant.

TABLE I

MEAN DIFFERENCES FOR CONTROL AND EXPERIMENTAL GROUPS ON READING GRADE LEVEL SCORES

Group	N	Obtained Mean	DM	Obtained t	Required t
Control	20	5.77	.05	.02	1.68
Experimental	20	5.72			

Table II depicts the difference between the means for the boys in the control group and boys in the experimental group on reading grade level scores.

TABLE II

MEAN DIFFERENCES FOR CONTROL AND EXPERIMENTAL BOYS ON READING GRADE LEVEL SCORES

Group	N	Obtained Mean	DM	Obtained t	Required t
Control	10	5.52	.39	.24	1.73
Experimental	10	4.83			

With an obtained mean of 5.52 for the boys in the control group and 4.83 for the boys in the experimental group, there was a difference of .39. The obtained t of .24 proves to be statistically insignificant at the .05 level of confidence.

Table III presents the differences between the means on the reading grade level scores for the girls in the control and girls in the experimental groups.

TABLE III

MEAN DIFFERENCES FOR CONTROL AND EXPERIMENTAL GIRLS ON READING GRADE LEVEL SCORES

Group	N	Obtained Mean	DM	Obtained t	Required t
Control	10	6.32	.29	.21	1.73
Experimental	10	6.61			

As indicated in Table III, the girls in the experimental group had a slight advantage over the girls in the control group. The difference between the obtained means was .29. The obtained t of .21 was not statistically significant when compared to the required t of 1.73.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. SUMMARY

The purpose of this study was to compare the reading achievement results between the Joplin Plan of grouping and the Traditional plan of grouping for reading instruction.

The study was conducted in the Northshore School District No. 417 during the school year 1966-67. Arrowhead Elementary School hosted the control group and Kenmore Elementary School the experimental group.

The control and experimental groups were equated by matched pairs of students from the fourth grades at both schools. They were matched on the basis of sex, I.Q., and reading grade level scores. The socio-economic levels of both schools was approximately the same as reported by the school superintendent.

To evaluate the growth in reading, the control and experimental groups were compared on the basis of reading achievement. The Metropolitan Achievement Test (Form A) was administered to both groups during the month of May, 1967. The differences between the means for the two groups on reading grade level scores were analyzed, as well as the mean differences between the boys in the control and experimental

groups, and the girls in the control and experimental groups. The obtained means were not too divergent with the greatest difference in the means being .39 for the boys in the control and experimental groups. A t-test indicated no statistical difference at the .05 level of confidence in any of the comparisons.

II. CONCLUSIONS

When the interclass and intraclass procedures of grouping were compared using grade level scores of the control and experimental groups, boys control and experimental groups, and girls control and experimental groups, there was no statistically significant difference in the mean achievement of any of the groups.

The data tends to substantiate the original hypotheses of the study that:

1. A comparison of the results of the reading achievement tests will indicate no significant differences between the interclass, Joplin plan of reading and the intraclass, Traditional form of grouping for reading instruction.
2. A comparison of the results of the reading achievement tests will indicate no significant differences between the boys in the Joplin Plan of

reading and the boys in the Traditional form of grouping for reading instruction.

3. A comparison of the results of the reading achievement tests will indicate no significant differences between the girls in the Joplin Plan of reading and the girls in the Traditional form of grouping for reading instruction.

III. IMPLICATIONS AND RECOMMENDATIONS

Although the null hypothesis of no difference in mean achievement between the two forms of grouping for reading instruction was statistically substantiated, it would seem that the interclass form of grouping might possibly be considered a better organizational procedure based on the premise that it seems to provide a narrower range of reading levels within any one reading group, thus providing fewer reading levels for which the classroom teacher has to prepare. As indicated in the review of literature, the interclass plan has, in some instances, increased enthusiasm for reading on the part of both the teacher and the student.

It must also be stated that ability grouping does not seem to be a panacea for all our educational ills. Although it appears to make reading an easier task through the reduction of differences in some areas, many teachers oppose

it on other grounds. Further and most important, it does not seem to increase the achievement of the students it was designed to aid. It remains, probably, that the most important element in the classroom for increasing achievement is undoubtedly the teacher; his philosophy and ability are likely more important than any grouping plan however ingenious it may be.

The investigator respectfully presents the following recommendations for further research and study.

1. What effect would the interclass form of grouping for reading instruction have on the content subjects?
2. How would interclass grouping affect the psychological development of the individual child?
3. What effect does the interclass form of grouping have on the teacher's attitudes toward the teaching of reading?

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APPENDIX

APPENDIX A

DATA FOR MATCHING FEMALES AND MALES IN EXPERIMENTAL AND CONTROL GROUPS

	FEMALES		MALES	
Coded Student	I.Q.	Reading Grade Level	I.Q.	Reading Grade Level
C-1	121	7.9	116	5.7
E-1	113	7.9	110	5.7
C-2	124	7.7	105	5.3
E-2	124	7.7	112	5.3
C-3	113	7.2	111	4.7
E-3	110	7.2	104	4.7
C-4	123	6.8	112	4.3
E-4	121	6.8	112	4.3
C-5	123	6.1	115	4.3
E-5	126	6.1	113	4.3
C-6	113	5.7	102	4.2
E-6	117	5.7	103	4.0
C-7	106	4.4	117	3.4
E-7	103	4.4	118	3.6
C-8	113	4.3	96	3.4
E-8	122	4.3	100	3.4
C-9	111	3.7	109	3.4
E-9	107	3.7	106	3.4
C-10	108	3.4	110	3.1
E-10	108	3.4	105	3.1

APPENDIX B

MEANS AND STANDARD DEVIATIONS ON INTELLIGENCE QUOTIENTS AND PRE-TEST READING GRADE LEVEL TEST SCORES FOR MALES AND FEMALES FOR CONTROL AND EXPERIMENTAL GROUPS

GROUP TESTED	LORGE THORNDIKE INTELLIGENCE TEST (LEVEL TWO)		READING GRADE LEVEL METROPOLITAN ACHIEVEMENT TEST (PRE-TEST)	
Control	Mean	S.D.	Mean	S.D.
Males	109	6.63	4.1	.87
Females	115	6.67	5.7	1.67
Experimental				
Males	108	5.56	4.1	.85
Females	115	8.00	5.7	1.67

APPENDIX C

MEANS AND STANDARD DEVIATIONS ON INTELLIGENCE QUOTIENTS AND PRE-TEST READING GRADE LEVEL TEST SCORES FOR TOTAL CONTROL AND EXPERIMENTAL GROUPS

GROUP TESTED	LORGE THORNDIKE INTELLIGENCE TEST (LEVEL TWO)		READING GRADE LEVEL METROPOLITAN ACHIEVEMENT TEST (PRE-TEST)	
Control	Mean	S.D.	Mean	S.D.
	112	7.21	4.9	1.52
Experimental				
	111	7.56	4.9	1.51

APPENDIX D

SELECTED EXPERIMENTAL DESIGNS FOR TREATMENTS BY SUBJECTS OR MATCHING BY PAIRING

$$t = \frac{M_B - M_A}{\sqrt{\frac{\Sigma D^2 - \frac{(\Sigma D)^2}{N}}{N(N-1)}}}$$