A Study of the Effect of Youth Tutoring Upon Attitude & Achievement of Tutors & Tutees

Sarah Harrison
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A STUDY OF THE EFFECT OF YOUTH TUTORING
UPON ATTITUDE AND ACHIEVEMENT
OF TUTORS AND TUTEES

A Project
Presented to
the Faculty of the Department of Counselor Education
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In Partial Fulfillment
of the Requirements for the
Educational Specialist Degree

by
Sarah L. Harrison
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A STUDY OF THE EFFECT OF YOUTH TUTORING
UPON ATTITUDE AND ACHIEVEMENT
OF TUTORS AND TUTEES

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# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................ iii
LIST OF TABLES ........................................ vii

Chapter
I. INTRODUCTION ....................................... 1
   Significance of the Study .......................... 2
   Rationale .......................................... 8
   Purpose of the Study ............................... 13
   Objectives of the Study ............................ 13
   Statement of the Problem ........................... 14
   Limitations of the Study ........................... 15
   Summary ........................................... 16

II. REVIEW OF RELATED LITERATURE ....................... 17
   Historical Perspectives ............................ 17
   Research Literature of the Past Ten Years  .......... 22
       Related to Studies in Tutoring ................ 22
   Summary ........................................... 41

III. THE DESIGN OF THE STUDY ............................ 43
   Introduction ........................................ 43
   Restatement of the Purpose ........................ 43
   Hypotheses ......................................... 43
   Selection and Definition of the Sample ............. 46
   Instruments ........................................ 48
   Obtaining the Data ................................ 54
   Treatment of the Data ................................ 55
   Summary ............................................ 55

IV. DATA ANALYSIS AND INTERPRETATION ................... 56
   Introduction ........................................ 56
   Statistical Method .................................. 56
   Report and Discussion of Findings ................... 57
   Summary ............................................ 97
Chapter
V. SUMMARY, CONCLUSIONS, IMPLICATIONS
AND RECOMMENDATIONS ........................................ 98

Purpose of the Study ........................................... 98
The Research Design ............................................ 99
Summary of Results ............................................ 100
Implications and Recommendations ......................... 105

APPENDIX A—Student Self-Evaluation of Study Habits and Attitudes ........................................ 113
APPENDIX B—Teacher Evaluation of Student Study Habits and Attitudes ................................... 116
APPENDIX C—Tutor Evaluation of Tutorial Program ................................................................. 118
APPENDIX D—Teacher Evaluation of Tutorial Program ................................................................. 120
APPENDIX E—Parent Evaluation of Tutorial Program ................................................................. 122
APPENDIX F—Tutorial Program Data Collection Checklist ......................................................... 125
APPENDIX G—Data Collection Checklist—Tutorial Program Final Evaluation ................................ 127
SELECTED BIBLIOGRAPHY ............................................... 129
LIST OF TABLES

1. Reading Achievement for 1971-72 in the Owensboro, Kentucky School System ........ 4

2. Gains in Reading Grade Placement Scores During a Six-Week One-to-One Tutorial Program ........ 29

3:01. Student Self-Evaluation Survey Items Keyed to Attitude Toward Teachers ........ 49

3:02. Student Self-Evaluation Survey Items Keyed to Attitude Toward School ........ 50

3:03. Student Self-Evaluation Survey Items Keyed to Working With Others ........ 50

3:04. Student Self-Evaluation Survey Items Keyed to Study Habits ........ 51

4:01. Teacher Evaluation Survey Items Keyed to Attitude Toward Teachers ........ 52

4:02. Teacher Evaluation Survey Items Keyed to Attitude Toward School ........ 52

4:03. Teacher Evaluation Survey Items Keyed to Study Habits ........ 53

4:04. Teacher Evaluation Survey Items Keyed to Attitude Toward Working With Others ........ 53

5. Comparison of Improvement in Attitude Toward School of Tutors vs. the Control Group as Rated by Themselves ........ 58

6. Comparison of Improvement in Attitude Toward School of Tutors vs. the Control Group as Rated by Teachers ........ 58

7. Comparison of Improvement in Attitude Toward Teachers of Tutors vs. the Control Group as Rated by Themselves ........ 60
8. Comparison of Improvement in Attitude Toward Teachers of Tutors vs. the Control Group as Rated by Teachers .......................... 60

9. Comparison of Improvement in Attitude Toward Working With Others of Tutors vs. the Control Group as Rated by Themselves ........................................... 62

10. Comparison of Improvement in Attitude Toward Working With Others of Tutors vs. the Control Group as Rated by Teachers .................................................. 62

11. Comparison of Improvement in Study Habits of Tutors vs. the Control Group as Rated by Themselves .............................................................. 64

12. Comparison of Improvement in Study Habits of Tutors vs. the Control Group as Rated by Teachers .............................................................. 64

13. Comparison of Reading Gains of Tutors vs. the Control Group .............................................................. 66

14. Comparison of Improvement in Attitude Toward School of Tutors vs. Tutees as Rated by Themselves .............................................................. 68

15. Comparison of Improvement in Attitude Toward School of Tutors vs. Tutees as Rated by Teachers .............................................................. 68

16. Comparison of Improvement in Attitude Toward Teachers of Tutors vs. Tutees as Rated by Themselves .............................................................. 70

17. Comparison of Improvement in Attitude Toward Teachers of Tutors vs. Tutees as Rated by Teachers .............................................................. 70

18. Comparison of Improvement in Attitude Toward Working With Others of Tutors vs. Tutees as Rated by Themselves .............................................................. 72

19. Comparison of Improvement in Attitude Toward Working With Others of Tutors vs. Tutees as Rated by Teachers .............................................................. 72

20. Comparison of Improvement in Study Habits of Tutors vs. Tutees as Rated by Themselves .............................................................. 74

21. Comparison of Improvement in Study Habits of Tutors vs. Tutees as Rated by Teachers .............................................................. 74
22. Comparison of Reading Gains—Tutors vs. Tutees ........................................ 76

23. Comparison of Improvement in Attitude Toward School of Achieving Tutors vs. Underachieving Tutors as Rated by Themselves ............................ 78

24. Comparison of Improvement in Attitude Toward School of Achieving Tutors vs. Underachieving Tutors as Rated by Teachers ........................................ 78

25. Comparison of Improvement in Attitude Toward Teachers of Achieving Tutors vs. Underachieving Tutors as Rated by Themselves ............................ 80

26. Comparison of Improvement in Attitude Toward Teachers of Achieving Tutors vs. Underachieving Tutors as Rated by Teachers ........................................ 80

27. Comparison of Improvement in Attitude Toward Working With Others of Achieving Tutors vs. Underachieving Tutors as Rated by Themselves ............................ 82

28. Comparison of Improvement in Attitude Toward Working With Others of Achieving Tutors vs. Underachieving Tutors as Rated by Teachers ........................................ 82

29. Comparison of Improvement in Study Habits of Achieving Tutors vs. Underachieving Tutors as Rated by Themselves ............................ 84

30. Comparison of Improvement in Study Habits of Achieving Tutors vs. Underachieving Tutors as Rated by Teachers ........................................ 84

31. Comparison of Reading Gains—Achieving Tutors vs. Underachieving Tutors ........................................ 86

32. Improvement in Tutees' Attitude Toward School as Rated by Themselves ........................................ 88

33. Improvement in Tutees' Attitude Toward School as Rated by Teachers ........................................ 88

34. Improvement in Tutees' Attitude Toward Teachers as Rated by Themselves ........................................ 90

35. Improvement in Tutees' Attitude Toward Teachers as Rated by Teachers ........................................ 90
36. Improvement in Tutees' Attitude Toward Working With Others as Rated by Themselves

37. Improvement in Tutees' Attitude Toward Working With Others as Rated by Teachers

38. Improvement in Tutees' Study Habits as Rated by Themselves

39. Improvement in Tutees' Study Habits as Rated by Teachers

40. Tutees' Reading Gains

41. Behavior Modifications Perceived by Parents
A STUDY OF THE EFFECT OF YOUTH TUTORING UPON ATTITUDE AND ACHIEVEMENT OF TUTORS AND TUTEES

Sarah L. Harrison July 1974 134 pages
Directed by: Emmett D. Burkeen, D. Mitchell, and J. A. Scarborough
Department of Counselor Education Western Kentucky University

Problem

The general problem to which this study was directed was the effect upon attitude and achievement of eighth, eleventh, and twelfth grade students, some of whom were underachievers themselves, tutoring other underachieving elementary school students.

In order to analyze this general problem, answers were sought to the following questions:

1. Will the tutors demonstrate greater improvement than pupils in the control group in specific attitudinal and achievement areas?

2. Will the tutors demonstrate greater improvement than the tutees in specific attitudinal and achievement areas?

3. Will the tutors who are underachieving at the outset of the program demonstrate greater improvement than the tutors achieving on or above grade level at the outset in specific attitudinal and achievement areas?

4. Will the tutees demonstrate significant improvement in specific attitudinal and achievement areas?

This investigation was limited to the following attitudinal and achievement areas:

1. Attitude toward school
2. Attitude toward teachers
3. Attitude toward working with others

4. Study habits

5. Reading achievement

Design of the Study

Based upon ability, achievement, and attitude, thirty-four eighth, eleventh, and twelfth grade students were chosen in matched pairs to serve in the tutor group. After receiving the regular high school curriculum during the school day, seventeen of the tutor group were salaried to serve as after-school tutors in two middle schools and two elementary schools. The remaining seventeen served as the control group.

The tutee group consisted of sixty-one students in grades three through eight who were experiencing some type of academic difficulty.

The three evaluative instruments used on a pre- and post-test basis for statistical analysis were: (1) Student Self-Evaluation of Study Habits and Attitudes, (2) Teacher Evaluation of Student Study Habits and Attitudes, and (3) Wide Range Achievement Test (vocabulary section). The following three devices were used solely for descriptive purposes: (1) Tutor Evaluation of the Tutorial Program, (2) Teacher Evaluation of the Tutorial Program, and (3) Parent Evaluation of the Tutorial Program.

Methodology

The statistical procedure known as analysis of variance for correlated scores was used to statistically analyze changes in attitude and achievement. The computer program known as RO43, a package designed at the computer center at Western Kentucky University, was employed for statistical analysis of the data.
Conclusions

The investigation statistically revealed that tutoring provided significant gains in the following areas: (1) tutee attitude toward teachers based upon student self-evaluations, (2) tutee study habits based upon teacher evaluations, and (3) tutee reading achievement.

From the three aforementioned instruments employed for descriptive purposes, the following implications have been drawn:

1. The possibility of utilization of a tutorial program as a deterrent to excessive school absenteeism might be worthy of consideration.

2. Both tutors and the tutees experienced a minimal increase in the tendency toward dropping out of school. However, this deterioration in attitude may have been a result of: (a) the increasingly less-than-desirable quality of work exhibited by tutors and the master teacher in one center, and (b) the majority of the post-testing being conducted late in the school year when student attitudes quite naturally deteriorate.

3. It seems safe to assume that serving as a tutor often assists youth in planning for the future.

4. Tutoring assists youth in accepting responsibility more effectively.
Educators are becoming increasingly concerned with the underachievement of students at all levels of the educational process. The inability of students to reach acceptable levels of achievement is a universal problem of long duration. One needs look no further than the average classroom to determine that it contains a considerable number of students who are achieving below expectancy (what can be expected of an individual).

Although it has been extensively used and voluminously researched, the concept of underachievement is still ill-defined. Allen suggested that the reason appears to be that underachievers are so designated only in terms of discrepancy between their predicted and earned grades. So classified, the groups are too heterogeneous to be psychologically significant. He contended that there are different types of achievers and underachievers who need to be identified and different educational settings that need to be studied, if the concept of underachievement is to become fruitful in our thinking about students.\(^1\) Part of this lack of achievement can be attributed to the teacher's inability to deal successfully with the large number of students he is assigned. Total individualization of instruction is very difficult, if not impossible.

The proven difficulty of combating underachievement is not just the burden of administrators and teachers. It carries implications which call for the concern of guidance personnel as well, due to the very fact that guidance counselors concern themselves with social, emotional, and physical, as well as academic adjustment. They must concern themselves with the problem of underachievement which, by its very nature, carries with it adjustment problems of a social and emotional nature.

**Significance of the Study**

The determination of the consequences of the use of eighth, eleventh, and twelfth grade students as peer tutors for younger students experiencing academic and attitudinal deficiencies would seem to be exceedingly significant at this point in time when so much emphasis is being placed upon underachievement. Significance would seem to lie in three major areas: (1) a potentially significant approach to a national, state, and local concern; (2) a potentially effective method of improving students' academic performance and personal development in general; and (3) a potentially effective manner of economizing both monies and time of students and teachers.

**Underachievement, a National, State and Local Concern**

The major benchmark of success in school is a student's ability to read. The number of tasks to function effectively in a free society which do not require at least minimal reading skills is practically nil. Most writers would contend that the goal of education is to prepare a child for worthwhile citizenship and a productive existence in our
society—this is extremely difficult to achieve without the ability to read and comprehend.

Hill and Tolman commented on the reading crisis in stating that: "Reading has moved from a national pastime to a national crisis."²

To further support the need for improvement in reading, Janowitz stated that most failures coming to the attention of counselors, teachers, psychologists, and the courts involve reading inability, just as most failures begin in first and second grade. She further stated that: "...only the most blatant are flunked. Thousands of children are 'socially promoted' every year because the inner-city schools would never dare to fail all nonachieving children. This in effect amounts to a majority of their students."³

That underachievement is a problem across the entire nation, as well as state and local school systems, can be attested to in several other ways. Schwartz found from the Dyslexia Report of 1969 that, while eight million school children require special reading remedies, one in twenty are not promoted to the next grade due to reading deficiencies. An even more significant finding by Schwartz was the fact that thirty to fifty percent of junior college students are in need of reading assistance.⁴

Lack of success for students is an increasing concern in Kentucky. Englebright stated that twenty-eight percent of the ninth graders in


Kentucky in 1972 were found to be reading two or more years below grade level.\textsuperscript{5}

The data on reading achievement in the Owensboro, Kentucky school system for the 1971-72 school year very aptly support a need for special emphasis on underachievement. Table 1 presents the percentage of students reading one or more years below grade level for both system-wide and Title I students. These findings are presented in grade levels for grades three through six, as well as the eighth grade.

\begin{table}
\centering
\begin{tabular}{lcccc}
\hline
Grade Level & 3rd Year & 4th Year & 5th Year & 6th Year & 8th Year \\
\hline
System-Wide & 47.72\% & 49.42\% & 45.51\% & 47.87\% & 58.13\% \\
Title I & 51\% & 61\% & 57\% & 60\% & 76\% \\
\hline
\end{tabular}


It is obvious, without question, that a critical problem exists. Most assuredly, no rebuttal can be offered to the argument that one of the nation's greatest concerns today should be that of seeking a solution to the problem of limited success in the field of education.

Potentially Effective Method of Improving Students' Academic Performance and Personal Development

For the last several years educators have searched diligently for

\textsuperscript{5}Curtis Englebright, "Determining Instructional Levels of Students at the Middle School Level," speech presented to middle school teachers of the Owensboro Independent School System, Owensboro, Kentucky, 29 August 1973.
a weapon to use in the ever-increasing battle of underachievement. But this search has apparently been to no avail.

Hill and Tolman commented on the attempted remedies to the widespread reading deficiency. They remind educators that: "The nation and the schools have, in the last two tension-ridden decades, been washed repeatedly by vindictives against methods of teaching reading and waves of panacea proclaiming fads. With massive financial aid, the federal government has spurred numerous compensatory, experimental, and remedial programs." Numerous studies have found that, despite this implementation of the newest and most elaborate reading programs, the rate of instructional success has not been significantly increased.

Janowitz made some rather profound inferences about the current status of education for the less successful student. She stated:

Present approaches aimed at improving . . . education, involving higher teacher salaries, lower class size, and piecemeal federal programs which are often merely an extension of the regular program, are not working. There is no evidence that the traditional in-school programs are effective either in teaching basic skills or in developing a sense of self-respect and self-esteem. Only massive input of labor power can help children who are now failing early in their school careers.

The authorities agree that a low achiever usually possesses a depressed self-image. He sees little worth in himself, as well as in the entire educational process itself. Janowitz found that the self-images of students improved along with academic progress through the use of volunteers. She stated: "Teachers supportive of volunteer efforts say that it is not only the academic progress which is real and measurable,

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6 Hill and Tolman, p. 19.
8 Janowitz, p. 81.
but more impressive, the confidence that children seem to gain from extra help by someone outside the classroom."  

If the massive attempts of educators in recent years to upgrade basic skills have been fruitless, the answer must be sought elsewhere. It is likely that Janowitz was alluding to an alternative when she advocated a "massive input of labor," because she further expressed support of volunteer service in schools. If volunteers can be an asset to an educational program, it naturally follows that a quite feasible alternative might be that of another form of volunteer service, youngsters tutoring fellow students.

Potentially Effective Manner of Economizing Both Monies and Time of Students and Teachers

Public school educators have often contended that a prerequisite to the solution of problems faced by educators is increased financial assistance. Support of this contention can be found in the use of ESEA Title I funds for remedial and enrichment programs.

In reference to providing for the needs of the disadvantaged and other special groups, the Honorable Senator Javits from New York advocated increased funding. He stated:

. . . even these problems can be solved. The enactment of the Elementary and Secondary Education Act in the spring of 1965 illustrates that the "impossible" can be overcome. But it cannot be overcome with rhetoric or well-written formulations which do not involve the spending of money.

While money is assuredly not the whole answer, the fact remains that there is no cheap ticket to educational excellence, no discount fare to the future.  

9 Ibid., pp. 81-82.
10 Ibid.
Many educators agree with Javits that the problems of public education can not be combatted without increasing financial investment to hire additional personnel and to purchase better materials.

In times such as these when the cost of education is escalating so rapidly and the citizenry is unwilling to assume greater tax burdens, it seems logical to assume that educators must seek some alternative other than increased funding to problems such as underachievement of students. In discussing cost-effectiveness of various teaching methods, Grayson stated: "The question should be . . . whether the achievement will increase more if the same amount of money is spent on other alternatives . . ."\(^{12}\) One such possibility in overcoming the stifled achievement currently being experienced by public school students seems to be that of students tutoring other students.

The economic potential of such use of students seems evident in terms of money, as well as student achievement. Research evidence seems to indicate the inherent benefits of tutorial services, not only to increasing academic achievement of students, but also to their improved personal development. Further, the limited research evidence seems to suggest that teachers can serve more students more effectively through the use of student tutors. Therefore, an alternative to the problem of underachievement which seems to have considerable potential is that of student tutors, as it approaches the problem in a manner which would more effectively utilize present financial resources and produce significant improvement in student achievement.

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In brief, this study is significant in that underachievement is a recognized problem. Further, it is significant in that tutoring seems to have potential for improving achievement and attitudes of students by means which do not necessitate excessive financial investment, but which make more effective use of teacher and student time.

**Rationale**

As one examines the literature on how children learn or fail to learn, several important factors emerge, forming a pattern to serve as the rationale undergirding this study. Among these are:

1. Most children appear to be capable of learning at a level higher than they attain.
2. Children can often stimulate other children effectively.
3. Children usually communicate more effectively with other children than do adults with children.
4. Chronic underachievement carries correlative less-than-desirable attitudes toward the educational process.
5. Sharing what one has learned or the application of what one has learned is a critical factor in learning.
6. Recognition and reward are critical factors in learning.
7. The feeling of having worth and importance contributes to the learning process.
8. Self-confidence in one's own ability to learn is a crucial factor in learning.
9. In attempting to help another, the helper is likely to develop resources which will benefit himself.
10. Students tutoring students makes possible a massive attack on a basic problem where a shortage of trained personnel exists.
The relationships of the above factors to this study are apparent while the rationale behind the use of student tutors is predicated upon the above factors. This rationale is also supported by the findings of Bell, Garlock, and Colella in a project involving high school volunteer tutors and elementary underachievers. Bell, Garlock, and Colella concluded from the results of a questionnaire administered to teachers of the tutees that the tutees demonstrated considerable academic improvement as well as more positive attitudes toward school and their studies. But they further discovered that the most obvious and immediate impact of the study was on the tutors. The writers attributed reinforced qualities of self-reliance and self-confidence to participation in the experiment.

Squires reported some significant results from a study using high school freshmen, identified as having some academic deficiency, tutoring underachievers. He drew some important conclusions which support the rationale for this study. He stated:

Advantages for the tutor included:
- Becoming aware and tolerant of individual differences.
- Building a positive self-image because he or she is a "teacher."
- Through in-service training sessions, becoming more aware of himself and his own personal "hang-ups" when it comes to dealing with people.
- Becoming knowledgeable of the importance of budgeting time.
- The ability to deal wisely when it comes to budgeting money.

Advantages to the tutee included:
- A positive attitude toward older boys and girls.
- An opportunity for self-expression.
- An opportunity to work at his own level without the pressure of grade level standards.

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A feeling of being individually worth more because he has his own teacher.

The prestige of being uniquely involved in something which is a positive and pleasant deviation from "school."14

Anderson also supported the rationale as she stated: "The role of a respected and admired model seems to move the high school student to use ingenious and imaginative ways of improving his own basic communication skills."15 She further found that some students gained a greater understanding of the problems encountered by teachers in educating undermotivated and culturally deprived children.16

Chronic lack of academic success in most cases results in ill-adapted attitudes. A child who constantly fails to find success in the classroom will soon lose all hope. This will only nourish his maladaptive attitude as it continues to grow and develop. If one accepts this as possible, he must also search for some remedy to the growing problem.

Low achieving students demonstrating attitudinal deficiencies often have difficulty identifying with a teacher due to a lack of trust for teachers. Geiser perceived the child's distrust of teachers partially as resulting from the child's having played a role "as a passive recipient of what the adult has to give."17 He further stated:

In the past, for abused and neglected children, this has meant being victims of unpredictable whims of immature, depriving, and sometimes

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16 Ibid., p. 1121.

brutal adults. Many "learning" problems stem not from disruptions of the learning process, but from negative attitudes and emotions which prevent the learning process from ever getting under way. Making the student the active teacher is sometimes enough to start the learning process moving again. 18

Unwholesome attitudes in young male students are often the product of a deficiency in models in their environment. Many have no masculine figures in their homes. Dahlem, along with Hogan and Green, found a strong asset to a child's personality to be that of providing this much-needed masculine image in the life of the child.19,20 A considerable number of classroom teachers are females, which again deprives children of masculine images. For these reasons, the tutorial program could be extremely beneficial if it provides this basic need for a male model.

The first inclination for many educators is to react negatively to the suggestion of using underachievers as tutors for younger students. Actually, some factors in their background and personality make the less successful student a greater asset in a tutoring situation than better students or even professionals. One important factor is that the difficulties which plague the youngster being tutored are not foreign to the underachieving tutor. As a result, Stauffer and Groff contend that the child who has had some trouble learning is often more sympathetic with a tutee than a child who learns easily. 21

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18 Ibid.


20 Ermon O. Hogan and Robert L. Green, "Can Teachers Modify Children's Self-Concepts?" Teacher's College Record 72 (February 1971): 425.

Perhaps the type of underachiever most readily recognized by educators is the culturally disadvantaged child. In the past, disadvantaged children have been unable to effectively compete with middle class children. According to Cairns, their lack of success is due to the fact that culturally disadvantaged children generally demonstrate less potential for acquiring basic educational skills and consequently achieve less academically. He pointed up the fact that the inner-city child, whose basic skills are often less advanced, drops further behind as he grows older. Cairns further stated: "... few programs are directed toward changing the basic attitudes and academic skills of high school pupils who have a history of underachievement." 22

Another obvious advantage in favor of the child who is tutored by a fellow underachiever is that of more effective communication between two students. In attempting to communicate with a middle-class teacher, which the majority of them are, the disadvantaged child is just that—at a disadvantage. There is a communications gap between the middle-class teacher and his underachieving student. Norris and Wantland perceived the underachieving tutor as the solution to that problem. They stated: "The little boy, who had a low I. Q., understood his tutor's 'lingo' when told he must concentrate and learn to read." 23 It would follow, then, that an underachiever would probably be very effective in working with a fellow underachiever.


A survey of the literature and studies done in the area of youth tutoring is a partial method of determining the aforementioned criteria. The employment of students tutoring each other would seem to be a quite practical method of accomplishing the criteria in facing the challenge of underachievement. Therefore, if this is true, it can be tested by a controlled experiment. This, in turn, then leads to the purpose of the study stated in the following section.

**Purpose of the Study**

The purpose of this study was to determine the effect of a youth-tutoring-youth program upon the reading achievement and attitudes of eighth, eleventh, and twelfth grade tutors and underachieving elementary tutees in grades three through eight.

**Objectives of the Study**

1. To determine the effect of a youth-tutoring-youth program upon the attitudes and achievement of eighth, eleventh, and twelfth graders, some of whom were underachievers, when they acted as tutors for underachieving elementary school students in grades three through eight.

2. To determine the effect that being tutored by eighth, eleventh, and twelfth graders had upon the attitudes and achievement of elementary school students in grades three through eight.

3. To establish a tutor-tutee program which could serve as a model for instituting other tutor-tutee programs in the Owensboro, Kentucky School System.
Educators are confronted daily with the extremely difficult task of upgrading the skills of an increasing number of underachievers. As previously stated, this difficulty may be largely due to the student load teachers often have today. Consequently, because of an unusually large number of students, most teachers do not have enough time to assist children—regardless of ability level—to develop their potential. Thus, it appears that learning is constantly losing ground to the problem of underachievement.

Present conditions indicate that one method of attack on the problem of underachievement may be to assure that youngsters receive more individual attention. A promising approach seems to be that of allowing youngsters to teach each other. This idea seems to be educationally sound as well as financially feasible.

Some research studies of student tutoring report statistical findings which indicate impressive progress for both tutors and tutees. Others have compiled no substantial data. Yet, nearly all studies dealing with youth-tutoring-youth describe casual observations which may be statistically unreliable but which point to success for tutors as well as tutees. Several researchers encourage further investigation into the feasibility of such a plan in other settings, under differing conditions, using different methods.

The specific problem investigated in this study was the effect of eighth, eleventh, and twelfth grade students, some of whom were underachievers, tutoring underachieving elementary school students in grades three through eight upon attitude and achievement for both groups.
This investigation was limited to the following attitudinal and achievement areas:

1. Attitude toward school
2. Attitude toward teachers
3. Study habits
4. Attitude toward working with others
5. Reading achievement

The following related questions were explored:

1. Does serving as a tutor assist one in planning for the future?
2. Does a tutoring program help to alter tendencies of participants toward dropping out of school?
3. Are middle school and high school students better able to accept responsibility after working as tutors?
4. Does participation in a tutorial program decrease absenteeism from school for tutors and tutees?

Limitations of the Study

This study did not include a tutee control group because it would have excluded a large number of students who were in need of the services of the tutorial program.

A further limitation of this study was the development of the instrument that was used to determine the change in attitude of the respondents. This instrument was a composite of selected items from three other validated attitudinal survey instruments. The composite instrument was submitted to a panel of experts in the field of attitudinal survey instruments for examination and recommendations. Their suggestions were incorporated into the instrument that was used. No attempt was made to field test the instrument.
An additional limitation of this study was that of considering the attitudes and achievement of tutors and tutees only in selected grade levels.

Generalizations of the findings cannot be made except within the framework of these limitations.

The definition of terms used in the study presents certain limitations. As used in the study, the terms are defined as follows:

**Tutor**—A student who teaches or instructs a younger student

**Tutee**—A student who is taught or instructed by an older student

**Underachiever**—A student who has average or above-average intelligence as measured by an intelligence test but is performing below grade level on achievement tests and below teacher expectancy according to his intellectual ability

**Achievement**—Expected level of performance as measured by a standardized achievement test

**Achiever**—A student who has average or above-average intelligence as measured by an intelligence test and is performing at or above grade level on achievement tests and at or above teacher expectancy for him according to his intellectual ability

**Summary**

This chapter has presented the significance of the study; the theoretical rationale of the study; purpose; general objectives of the study; and the specific problem, to evaluate the effect of a youth-tutoring-youth program upon the attitude and achievement of both tutors and tutees. Limitations and definitions of terms are discussed.
CHAPTER II

REVIEW OF RELATED LITERATURE

**Historical Perspectives**

The basic principle of man helping his fellow man has its roots in the early Christian era. It could be found with Dorcas, the Biblical seamstress; the Big Brother organization; Boys Clubs; the United Way; and our national alliances. Helping one another has influenced our behavior in many aspects. Tutoring has been and is simply another type of helping situation.

Although monitorial systems have been alluded to in the past, present-day approaches are quite variant from their predecessors. Nevertheless, similar practices and underlying principles may serve as models for establishing programs which have as their primary objective the facilitation of learning.

Boyd wrote of one such historical development in France during the Restoration instituted primarily for the monetary advantages attributed to it. He stated: "... the monitorial method of mutual instruction was borrowed from England ... and employed for its cheapness." 24

Mention has been made of current concern for reading deficiencies in the present student population. The same concern in Tudor England was

described by Charlton as the major point of emphasis for tutoring. He stated: "By the end of the century, most grammar schools of any size would have [a tutor] at least adept enough to teach the simple elementary skills giving special attention to reading. More attention was being given to the Three R's with arithmetic not yet receiving as much attention as the other two." 25 Charlton described the schools as having a master and a tutor, then referred to as an usher. 26 With the limited literature which was certain to have existed four centuries ago in England, if progress in reading was worthy enough of concern to make it a major point of emphasis in tutoring then, with the vast array of literature available in our time, should reading not be vested with at least equal importance?

Another basic principle of education in general and of tutoring in particular, that of individualizing instruction, has its origin in the annals of history. Cubberly wrote that the importance of "individual treatment" 27 was one of the essentials of Montessori's approach to the training of mentally-deficient children, which she had also used with the normal child. 28

Boyd considered Montessori's theory a lasting contribution to education. Montessori's system of education, he stated: "... has exercised a widespread influence, directly through the apparatus and indi-

26Ibid., pp. 105-106.
28Ibid.
rectly by the demonstration of the practicability of educating large numbers of children as individuals by means of a series of properly graded activities." 29 He further stated: "This has been an enduring contribution to educational theory and practice." 30

Mark H. Curtis described the extent of the responsibilities of the tutor for his pupils during the seventeenth century. He noted that in the seventeenth century the tutor was the product of an economic and social compromise by the schools. His job was not only a demanding one with responsibilities to his college, but also a complex one with responsibilities to his pupils as well as to their parents. Thus, the tutor of the past functioned in a manner which exceeds the role usually associated with today's teacher. The tutor was, according to Curtis, even as late as 1850 the least expensive option of the gentry for educating their children, and his work was successful enough that the children were able to effectively engender acceptance into the prevailing social system. Throughout the years the tutorial method has received acceptance to the extent that it has survived in spite of its changes from era to era. 31

Cubberly reported that one of the earliest published accounts of an educational program utilizing tutors was written by Bell (1797). Dr. Bell, a minister in the Church of England, described the method he had devised of using monitors in an orphanage in Madras, India. 32

29 Boyd, p. 414.
30 Ibid., p. 415.
32 Cubberly, p. 132.
According to Boyd, in 1798, which would have been about the same time as Bell's program, Lancaster hit upon the monitorial method independently of Bell. Lancaster, a youth only twenty years old, opened a school for underprivileged children in London with a hundred pupils. By sending those pupils who had learned a little to teach it to those less knowledgeable than themselves, he soon increased his enrollment to a thousand.

The differences in practice between the systems of Bell and Lancaster were found by S. J. Curtis to be "comparatively slight." Curtis further stated: "Both made use of the 'factory' idea in their attempt to instruct large masses of children . . . , and both were affected by the taint of cheapness." Thus, the economic assets of a tutorial program were recognized as early as the days of Lancaster and Bell.

The idea, broadly accepted from the start, was introduced into the United States in New York City with the opening of the first Lancasterian School in 1806. The tutorial method reached Kentucky by 1829, when the Lancasterian School was established in Louisville.

Brickman commended the monitorial approach for its monetary feasibility and for its provision of conclusive evidence that private enterprise can facilitate public education. He wrote:

For at least four to five decades this procedure for the education of many children at a trifling cost constituted a step toward universal education. As a private experimental venture, it showed,
by contrast, that better forms of education under public control were possible. As in other instances in the history of American education, private effort showed the way to the public schools.

A less charitable and differing view of the monitorial system was posited by Burgess and Borrowman in their views of educational doctrines. They maintained that:

Among other novel plans the Lancasterian or monitorial movement was soon to enjoy a modest vogue, largely because it could train large numbers of students inexpensively, a distinct virtue. But in addition to the system's failure to consider the "individual differences" to which modern educational psychology pays such careful attention, monitorial learning failed on two other counts. First, it bore the stigma of being devised to train "the lower classes," and now Americans with their freshly won freedoms and great social mobility were little inclined to lend sustained support to class education, however low the cost.

From the reflections of Burgess and Borrowman upon the monitorial system, it would seem apparent that this historical form of tutoring possessed certain qualities which resulted in its failure to be viewed with universal acceptance by the entire field of education. Yet, at the same time, the two expressed some very positive aspects of this educational innovation.

A plan similar to the monitorial systems of Lancaster and Bell instituted by Robert Raikes was described by S. J. Curtis. Curtis stated that Raikes taught a prisoner to read and then sent him to teach a fellow prisoner. In carrying his monitorial scheme a bit further, Raikes later introduced a kind of monitorial approach into his Sunday School.

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Sunday School was a movement originating in England shortly after the middle of the seventeenth century which was designed to provide a minimal education for the children of the poor. 39

In the Netherlands the use of older students to assist the teacher has not been overlooked. The organization of the school established by Hegius in Denventer served as a model for the one instituted by the Brethren at Leige in 1496. This, too, had eight classes with specified programs of work. A rector had charge of the whole school. He prescribed the work to the several classes and cared for the moral and intellectual well-being of the students. A staff of teachers for all the classes worked under him. Since the classes were too large for any teacher to manage single-handedly, they were grouped into decurries or companies of ten. An older pupil was in charge of these companies. 40

This review of the history of tutoring has been selective rather than exhaustive. The review supports the contention that tutoring historically has been resorted to primarily to increase the effectiveness of the teacher, i.e., to enable the teacher to serve more students through different means at different times.

Research Literature of the Past Ten Years Related to Studies in Tutoring

Overview

In the past, the privileged class could afford to place their children in exclusive private schools or to hire tutors to teach them. Tutors and governesses were looked upon as status symbols. With the rapid

39J. Curtis, p. 207.

40Boyd, p. 172.
growth of both public and private schools, there was a decline in the use of tutors. However, lately there is a revival in tutoring. Instead of prevalence among the wealthy, it is becoming prevalent among the underprivileged. Instead of representing an abundance of money, today the free tutoring in the ghetto, while it represents status for the children, also represents the conviction that until conditions change, constructive action can be taken within substandard conditions to bring about growth. This concept represents a viable solution to an urgent situation. 41

Using the non-professional in the education of youngsters does not necessitate the investment of large sums of money into expensive materials, additional rooms, or hiring highly trained specialists. In fact, many programs use volunteers. Authoritative sources have advocated the use of parents, 42, 43, 44, 45, 46, 47 college undergraduates, 48, 49 students from


44 Sister Gerald Lausinger, "Mothers as Teaching Aides—Yes, Indeed!" Catholic School Journal 78 (September 1968): 50.


49 Hill and Tolman, pp. 19-23.
higher grades, 50, 51, 52, 53, 54, 55, 56, 57, 58 and interested adults from the community.


51 Bell, Garlock, and Colella, pp. 242-44.


55 Elizabeth J. Wright, "Upper-Graders Learn by Teaching," The Instructor 75 (October 1965): 102-103.


59 Stauffer and Groff, p. 35.


Gartner, Kohler, and Frank Reissman reported on the cross-cultural experimentation which has been and is being conducted with the children-teach-children concept. They found various derivatives of this type of program: in the Soviet Union, where one class of pupils adopts another class; in Britain, where increasing numbers of infant schools and junior schools are applying the idea of "family grouping"; and in Cuba, where the Each One Teach One approach is being used.⁶⁴

Studies Supportive of Tutoring as an Aid to Achievement

It is evident from the findings of numerous studies that, contrary to popular belief, in order to successfully assist a fellow student in the learning process, one does not necessarily have to possess intellectual superiority and prior academic success. In fact, some of the most successful tutorial programs have utilized underachievers, potential dropouts, and youngsters demonstrating disruptive behavior in the classroom.

The most comprehensive program to have employed youthful tutors has been the Mobilization for Youth (MFY) program which was part of the New York City antipoverty program. This program involved high school students tutoring elementary school children. At the outset, twenty-two percent of the tenth- and eleventh-grade tutors were reading below the eighth grade level. Its educational, sociological, and psychological characteristics were examined by Robert D. Cloward in his Studies in Tutoring. His investigation was carried out between November 4, 1963,

and June 5, 1964. His studies dealt with effects of the differing tutorial treatments on the students, as well as their high school tutors. Some pupils attended the program for two four-hour sessions per week and some participated once a week for two hours. The median four-hour pupil received ninety-two hours of tutoring, while the median two-hour pupil received only half as much, forty-six hours.

Tutee reading achievement in Cloward's investigations was evaluated with pre- and post-tests using the New York Test of Growth in Reading, Level C. Form 1. The four-hour pupil demonstrated an average of six months' reading improvement in a period of five months, while the control pupils only experienced a three and a half months' gain during the same period. In a manner likened to that of the four-hour group, the two-hour group gained five months in reading in the five-month period. The control group continued to experience increased retardation while the four-hour group not only checked their retardation but also began to catch up.

Cloward also measured tutor reading achievement on a pre- and post-test basis. The Iowa Silent Reading Test was utilized to measure specific reading skills and verbal aptitude was measured by the Quick Word Test. The experimental group showed a mean growth of 3.4 years as compared with 1.7 years for the control group. The experimental group of tutors demonstrated twice as much improvement as the control subjects.

Cloward's studies indicated that the major impact of the tutorial venture was on the tutors themselves. He attributed the success of the tutors in the program to the newly-discovered pride in assuming the role of a teacher by youngsters who, heretofore, had experienced ridicule and
humiliation in the classroom. Cloward asserted that: "The average high school student can learn to be a tutor." 65

Lane, Pollack, and Sher investigated tutoring designed to assist youngsters in seeking strategies which would cause them to improve their inadequate, usually unrealistic, self-images. Their project was developed at Maimonides Community Health Center in Brooklyn with credible results. Eight adolescents who reportedly displayed maladaptive behavior and were reading below grade level were used as the tutors. They served as reading tutors to eight younger students, third and fourth graders, poor or nonreaders from neighboring elementary schools. The younger students were patients at the community health center. In spite of the fact that the older students in the project by Lane, Pollack, and Sher were themselves reading below grade level, they were successfully trained in a programmed phonic-linguistic reading approach which incorporated the teaching of reading, writing, and spelling. Each disruptive adolescent tutor was assigned a poor-reading third or fourth grade boy who had been sent to the center for treatment of learning and behavior problems.

The investigations by Lane and his associates produced significant results. The tutees showed a mean reading gain of fourteen months. A mean reading gain of fourteen months in a seven-month period would be considered significant when produced by professionals; therefore, it certainly could be considered worthy of recognition for students who had failed to learn to read in their first two or three years of school.

Brought about by adolescents with problems who themselves were under-

achievers, Lane and his associates attributed the outstanding growth in reading, in part, to the positive nature of the one-to-one relationships of the tutors to their tutees.

The researchers described the nineteen-month reading growth experienced by the tutors as "... phenomenal and a serendipitous gain since they were not being taught reading on their own level other than their usual program at school—in which they had done poorly." Apparently, while teaching the "younger" phonic analysis and synthesis, they themselves simultaneously learned a new skill.

Likewise, Hassinger and Via (1969) reported on a tutorial program using a similar caliber of tutor personnel. This pilot project, during the summer of 1967 in Los Angeles County, had one hundred high-school-age tutors working on a one-to-one basis for a six-week period with fourth-, fifth-, and sixth-grade students in two-hour blocks. Requirements for employment of the high school tutors were: the family income fell below the poverty line, two or three years below grade level in reading, and/or two or more "D" or "F" grades, and poor school attendance. Hired also were dropouts and graduates who were unemployed. The elementary school tutees were also experiencing reading deficiencies.

The project by Hassinger and Via demonstrated some positive returns. The mean gain in reading scores for the entire tutor group after six weeks of participation was eight months. Although his reading progress was not as great as that of the tutor, the elementary school tutee made reasonable gains. The mean growth for the six-week period for all

tutors was 4.6 months. Hassinger and Via declared their gains to be supportive of popular hypotheses concerning proposed tutor progress which is found to be far superior to that of their tutees.67

A similar study initiated by Landrum and Martin produced outstanding gains. This Los Angeles County Schools project which opened during the summer of 1967, like the six previously cited projects, employed low achievers from low-income families who were also dropouts or dropout prone. Cases were described of individuals demonstrating significant decreases in absenteeism from school, tremendous improvement of attitude toward self and school, and completion of high school by individuals who were formerly potential dropouts.

The Los Angeles County program consistently experienced greater gains in reading achievement scores than were expected. Table 2 illustrates the gains of tutors and tutees during both summers of the program.

| TABLE 2* |
| GAINS IN READING GRADE PLACEMENT SCORES DURING A SIX-WEEK ONE-TO-ONE TUTORIAL PROGRAM |

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<th>Tutors</th>
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<td>N</td>
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<td>Months Gain</td>
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<td>Summer 1967</td>
<td>69</td>
<td>8</td>
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<td>Summer 1968</td>
<td>343</td>
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McWhorter and Levy investigated the premise that reading competency can be achieved by teaching reading in their tutorial program established in 1969 in Buffalo, New York. The rationale of this study focused upon the fact that students with reading problems often have a negative attitude toward the reading process. Further, students with reading problems often have low self-concepts and possess little faith in their own ability to improve.

The tutors in the project by McWhorter and Levy were high school graduates enrolled at a Cooperative College Center but not yet in college. They possessed reading deficiencies prior to involvement in the tutorial situation. The tutors demonstrated greater gains in reading skill than their tutees as measured by pre- and post-test forms of an Informal Reading Inventory and Durkin's Phonics Test for Teachers. During the first semester, an average gain of 2.4 years in instructional level was found in the tutors. For the second semester, the tutors showed an average gain of 1.1 years. If the expected gain for a four-month period from a pattern of regular growth without special instruction is .4 years, then the tutors gained nearly six times (during the first semester) and three times (during the second semester) the normal expectancy.

The tutee progress of the McWhorter and Levy project, though it was not as great as that of the tutors, is still worthy of consideration. In addition to the Temple University Word Recognition Test, the Informal Reading Inventory also served as the evaluative instrument for the tutees on a pre- and post-test basis. During the first semester, the tutees experienced an average gain of 1.1 years in instructional level. During the second semester, they demonstrated the same gain of 1.1 years.
Though the children had not been previously achieving to the expected level, the expected gain for a four-month period could be considered to be .4 years. If this is accepted, the children gained 2.7 times the normal expectancy.  

McWhorter and Levy found the benefits of the tutorial program to be greater for the tutors than for their tutees as they stated: "... the most significant result of the tutoring program is the improvement in the tutor's reading ability, which improved as much or more than that of the children who were tutored."  

One program which shifted the emphasis to the process of socialization among the older children and assistance to the younger children was conducted in Detroit, Michigan. Here, Peggy and Ronald Lippitt investigated the effect of making older elementary and junior high school students tutors for younger elementary grade children.  

The Lippitts found that, in situations where fourth grade pupils with reading problems were tutored by sixth grade pupils who were also having reading difficulties, not only did the fourth graders progress significantly but the sixth graders also learned from the experience to the extent that their progress was even greater.  

A study conducted by Porter in Columbus, Ohio, had as one of its purposes to improve reading achievement and engender interest in reading in middle grade students from the inner city. For this purpose high

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69 Ibid., p. 224.

70 Peggy Lippitt, "Children Can Teach Other Children," *The Instructor* 78 (May 1969): 41.
school juniors were employed to serve as readers for middle grade elementary school children.

Tests in reading achievement were administered to the tutors before and after their classroom visitations. Gains in both comprehension and vocabulary were demonstrated by fifteen of the twenty-one readers (tutors). 71

Anderson, in like manner, instituted an innovative high school language arts program in Spokane, Washington, in 1970. High school achievers as well as underachievers and students regarded as discipline problems served as tutors for culturally deprived elementary school students. Results from pre- and post-tests of all participants in the project showed significant gains in the basic skills. 72

The effects of a tutor-tutee relationship on the reading achievement and achievement motivation of black male children were investigated by Liette. Both the tutors and tutees were randomly selected from lower socio-economic areas. All subjects were pre- and post-tested on reading achievement. The results of the achievement testing demonstrated significantly greater gains for both the tutors and the tutees than for their control groups. 73

Successful tutorial experiences are not limited to those under the direction of persons in their teens and older. Some utilizing youngsters

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72 Anderson, pp. 1119-1121, 1127.
below their teen years as tutors, too, have proved to be significantly rewarding.

One such project using younger tutors was that of Moon and Wilson (1968) in Brooklyn. The tutor subjects were an entire fifth grade class heterogeneously composed of bright, average, and slow learners. It also included students who had been retained and a number who had formerly been labeled as discipline problems. The tutees were selected first graders suffering from problems in adjusting to school.

The tutors made extraordinary gains. The fifth grade class experienced an average gain in reading scores of one year nine months over the previous year. Those children formerly described as discipline problems demonstrated marked improvement in classroom behavior. Moon and Wilson described this fifth grade class as a more cohesive unit as a result of this cooperative endeavor.74

Studies Supportive of Tutoring as an Aid to Improvement in Attitudes

Educators have long agreed that, in order for a student to be productive in the school environment, he has to be able to perceive some worth in his own being. If he is constantly bombarded with failure, degradation, and humiliation, all of which are concomitants of chronic academic underachievement, his self-esteem may be severely diminished. Extended deprivation of success in the classroom may lead to all of the student's attitudes in general becoming maladapted.

According to Mager, the types of conditions, consequences, and models presented to the student influence the attitudes he may have or

74 Moon and Wilson, pp. 364-66.
develop toward learning.  

It is, therefore, imperative that attempts be made to develop healthier attitudes toward self, others, and school, in general, on the part of unsuccessful students before any type of academic success can be expected. Said modification of unhealthy attitudes, as well as academic success, has been the basic goal of tutorial programs in recent years.

Thelen, referring to the success of a tutoring relationship in strengthening the ego and self-esteem of tutors, stated:

Adults who have watched tutoring are impressed with the serious behavior of even generally irrepressible tutors, and with the sense of adequacy and inner strength that develop in these students when their tutoring is successful. Clearly, tutoring builds on strengths children have rather than continually exacerbating their weaknesses. In a sense, the tutoring experience is a validation of a child as a member of a family—and this is a deep and fundamental belongingness.

Gross, in a study involving high school students tutoring elementary school children in Cleveland, Ohio, found that the greatest reward from the program came in the form of enthusiasm generated by the tutor to the student. He pointed out that: "It has been a rare experience for the intern who has come back to school with a new outlook on education. Not only has the elementary youngster been motivated to work harder, but so has his 'teacher intern,' and this has helped our school."

Success has been experienced in utilizing older elementary students as tutors with "youngers", as was evidenced in a study by Robertson with fifth grade students helping first graders. The results indicated that

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77 Gross, p. 21.
tutors developed significantly different and more positive self-concepts.78

Likewise, the investigations by Majors in New York with bright, service-oriented sixth graders tutoring first graders generated some profound conclusions about modification of tutor attitudes. Pre-test and post-test results from the SAM (School Apperception Method) test indicated more positive attitudes toward authority, teaching, and learning on the part of the tutors at the close of the experiment.79

Exposure to tutoring can bring about changes in attitude, surprisingly enough, even to achieving youngsters. Norris and Wantland related just such an incident with an extremely intelligent sixth grade boy acting as a tutor. The child was seen by his peers as a "snob" and was uncooperative with his teachers. His self-centered attitude gave way to a more generous attitude toward others and their feelings after working with a younger student on reading problems.80

In reflecting upon the significant outcome of their peer leader treatment study, Engle, Davis, and Mazer (1962) advanced two possible reasons. They suggested that:

The peer leader may have had an effect equivalent to that of a personal tutor and/or may have induced the underachiever to accept the ultimate value of a satisfactory scholastic record. The indicated

80 Norris and Wantland, p. 46.
changes in attitude toward authority figures on the part of the underachiever as evidenced in fewer disciplinary referrals supports the latter contention.\textsuperscript{81}

It would seem that if peer leader treatment could produce significant gains in teachers' grades earned by underachievers, then surely gains of at least equal magnitude could be produced by a cross-age tutoring approach.

During the summer of 1967, the public schools of Newark and Philadelphia instituted a program utilizing fourteen- and fifteen-year-olds tutoring disadvantaged elementary school children. Both tutors and tutees were underachieving, considered as classroom adjustment problems, and categorized as disadvantaged.

Statistically, both tutors and tutees made significant progress over the summer. But what proved even more worthy of recognition was the ingenuity the young tutors demonstrated in concocting learning tools and games for their children. A major outcome of the program was the confidence and pride acquired by the tutors as they developed an understanding of the hard work of learning.\textsuperscript{82}

Response by the tutors to their tutoring experience was described in the report. It stated:

What they enjoyed most, an overwhelming majority stated, was not the field trips or the money they earned, but discovering "the fun of helping others," of helping younger children to learn. And the most


\textsuperscript{82}"Who Teaches Best? Teachers or Kids?" \textit{Reading Newsreport} 3 (February 1969): 10-15.
important thing they learned, the tutors said, was an understanding and ability to get along with other people—adults, tutees, each other.\textsuperscript{83}

A previously cited study by Anderson in a Spokane, Washington high school involved underachievers and discipline problems along with some adequate achievers serving as tutors with culturally deprived first and second grade students. From casual observations, some students apparently experienced changes of attitude in that they were found to have grown in their understanding of the problems confronting teachers in educating undermotivated and culturally deprived children. Another positive contribution to the attitudes of tutors was found in the fact that some potential dropouts finished high school.\textsuperscript{84}

Moreover, Hassinger and Via, from an aforementioned tutorial program, observed some noteworthy modification of poor attitudes. At the beginning of the program, the underachieving high school tutors came to class wearing beards, hair curlers, and dressed extremely informally. They were instructed in no manner concerning their appearance. Yet, within a short time shaving became the style, most girls chose to wear hose, and one group of five male tutors began wearing white shirts and ties. Hassinger and Via reported this evidence of change in tutor attitude as noticeable after the second week of the program.

Further, Hassinger and Via found results from a tutorial relationship in favor of the tutees. They stated: "Perhaps more important than the measured reading growth was the positive attitude observed in

\textsuperscript{83}Ibid., p. 15

\textsuperscript{84}Anderson, pp. 1119-1121, 1127.
the tutees, not only toward reading but in relation to their own self-esteem as well."  

Pfeil established a program in Baltimore with institutionalized junior high school students working as tutors with institutionalized youngers. This project was initiated as a result of disciplinary problems which occurred during the previous summer. Due to the fact that standardized test results were being analyzed at the time of her report, Pfeil was unable to cite any statistical data. However, like some of the previously cited programs, she reported commendable personal observations of extraordinary changes from disruptive behavior and attitudes on the part of the tutor. Many tutors were able to successfully develop a feeling of worth in their young charges.

The results of Geiser's project also supported the postulate concerning modification of tutor attitudes. Eighth graders with the most serious behavior and learning problems tutored in subject areas with which they were experiencing the most difficulty, which were generally math or reading.

One obvious advantage of the tutorial program was demonstrated when the tutors began to positively identify with the role of the teacher. When the tutors taught, they conducted themselves in a dignified manner. Another result of the identification with the teacher was greater empathy for the teacher in dealing with students who suffer from learning deficiencies. Finally, the teachers and tutors began enjoying more positive attitudes toward each other.

85 Hassinger and Via, p. 44.

Further, Geiser stated: "Probably the most noticeable benefit from the tutorial program was the tremendous boost it gave to the self-esteem of the tutors. Children who had been labelled as slow, troublemakers, disturbed, and hostile to teachers suddenly encountered something that made them question their poor self-images."^{87}

Much can be learned about changes in student attitudes from verbal reflections of the students themselves. This is the case as Geiser quoted an overheard conversation by one boy. The child stated: "I can't be so dumb if they think I'm smart enough to be a teacher."^{88}

In an innovation with high school students serving as volunteer tutors for elementary underachievers in the Oneida (New York) Consolidated School District, Bell, Garlock, and Colella made some important conclusions from a questionnaire administered to teachers of the tutees. The teacher indicated that the tutees showed considerable academic improvement as well as more positive attitudes toward school and their studies. But the investigators further found that the most obvious and greatest impact of the study was on the tutors. Participation of the tutors in the experiment seemed to reinforce in them qualities of self-reliance and self-confidence.^{89}

Finally, a previously cited study involving eight disruptive adolescents as tutors with eight disruptive elementary school students further attests to the potential of a tutoring relationship in modifying attitudes. Lane, Pollack, and Sher used an evaluation of the adolescents'  

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^{87}Geiser, p. 19.  
^{88}Ibid.  
^{89}Bell et al., pp. 242, 244.
behavior on a pre- and post-test basis by the guidance counselors and teachers. The results showed a decrease in disruptive behavior in all eight tutors. Four of the eight demonstrated outstanding modification of maladaptive behavior on the post-evaluation.

Reports from the guidance counselors and teachers listed such behavioral changes as the following: "... greater motivation to achieve in class; less hostility toward authority figures; exhibition of more mature and goal-oriented behavior; fewer antisocial acts in school."

The tutors' self-evaluations suggested that they had profited from the program in ways in addition to achievement. They had more self-confidence, were less angry, and more responsible. They had developed meaningful relationships with their younger children and requested to continue working with their youngsters outside of school after the study ended. Several indicated an interest in becoming teachers.

Studies Supportive of Further Investigation

In spite of the volumes of educational research, Zech, Horner, and Kaufman suggest that many questions still call for further research. They ask whether tutoring alone or individualized instruction alone could increase learning. They point out that, if so, educators are confronted with the obligation of giving individual instruction within the framework of the public school classroom, which, to the present, has existed to a greater degree as a theory than as a practice.

Zech, Horner, and Kaufman have posed two questions as they stated: "Is tutoring the necessary approach? Or is it possible to use other

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90Lane et al., pp. 351-54.

91Ibid.
approaches in the classroom? These are important issues for educational research."\(^{92}\)

In calling for further research Majors stated: "I believe that a similar program would be well worth trying with other groups."\(^ {93}\)

Likewise, McWhorter and Levy in referring to the significant results of their tutorial program stated: "If this result can be substantiated by more closely controlled research, it may lead to a practical approach to reading improvement."\(^ {94}\)

Hill and Tolman also encouraged further investigation of tutoring as a possible solution to the underachievement problems plaguing education today. They stated:

> One of the most pressing research needs of education is a series of well-controlled studies of tutorial programs, especially in comparison with much more expensive and elaborate remedial programs. The result may threaten a few professional egos but encourage an inexpensive alternative . . . \(^{95}\)

**Summary**

This review of the literature has emphasized the potential of youth serving as tutors for their fellow youth as a means of improving attitudes as well as achievement on the part of both tutors and tutees. The literature has been searched particularly for historical perspectives and findings on tutorial investigations during the past ten years. The search of the literature during the past ten years focused


\(^{93}\)Majors, p. 28.

\(^{94}\)McWhorter and Levy, p. 224.

\(^{95}\)Hill and Tolman, pp. 22-23.
upon: (a) studies supportive of tutoring as an aid to achievement,
(b) studies supportive of tutoring as an aid to improvement in attitudes,
and (c) studies supportive of further investigation.
CHAPTER III

THE DESIGN OF THE STUDY

Introduction

The purposes of this chapter are to: (a) restate the purpose of the study, (b) list the hypotheses, (c) explain the methods of obtaining the population, (d) describe the evaluative instruments and their administration, and (e) outline the statistical techniques used in testing the hypotheses.

Restatement of the Purpose

The purpose of this study was to investigate the relative effectiveness of changing attitudes and achievement of eighth, eleventh, and twelfth graders who served as tutors, while students in grades three through eight served as tutees in a youth-tutoring-youth program. The following attitudinal traits and achievement were examined: (a) attitude toward school, (b) attitude toward teachers, (c) attitude toward working with others, (d) study habits, and (e) reading achievement.

Hypotheses

This study was designed to test the following twelve hypotheses in an attempt to assess whether, in actuality, the tutors themselves made significantly greater gains in specific attitudes and reading achievement than did their tutees.
1. Based on the student self-evaluations, the tutors will demonstrate significantly greater improvement than will the pupils in the control group in the following attitudinal areas:

(a) Attitude toward school
(b) Attitude toward teachers
(c) Attitude toward working with others
(d) Study habits

2. Based on the teacher evaluations of students, the tutors will demonstrate significantly greater improvement than will the pupils in the control group in the following attitudinal areas:

(a) Attitude toward school
(b) Attitude toward teachers
(c) Attitude toward working with others
(d) Study habits

3. The tutors will demonstrate significantly greater progress in reading than will students in the control group.

4. Based on the student self-evaluations, the tutors will demonstrate significantly greater improvement than will the tutees in the following attitudinal areas:

(a) Attitude toward school
(b) Attitude toward teachers
(c) Attitude toward working with others
(d) Study habits

5. Based on the teacher evaluations of students, the tutors will demonstrate significantly greater improvement than will the tutees in the following attitudinal areas:
(a) Attitude toward school
(b) Attitude toward teachers
(c) Attitude toward working with others
(d) Study habits

6. The tutors will demonstrate significantly greater progress in reading than will the tutees.

7. Based on the student self-evaluations, the tutors who are underachieving at the outset of the program will demonstrate significantly greater improvement than will the tutors achieving on or above grade level at the outset in the following attitudinal areas:
   (a) Attitude toward school
   (b) Attitude toward teachers
   (c) Attitude toward working with others
   (d) Study habits

8. Based on the teacher evaluations of students, the tutors who are underachieving at the outset of the program will demonstrate significantly greater improvement than will the tutors achieving on or above grade level at the outset in the following attitudinal areas:
   (a) Attitude toward school
   (b) Attitude toward teachers
   (c) Attitude toward working with others
   (d) Study habits

9. The tutors who are underachieving at the outset of the program will demonstrate significantly greater progress in reading than
will the tutors who are achieving on or above grade level at the outset.

10. Based on the student self-evaluations, the tutees will demonstrate significant improvement in the following attitudinal areas:
   (a) Attitude toward school
   (b) Attitude toward teachers
   (c) Attitude toward working with others
   (d) Study habits

11. Based on the teacher evaluations of students, the tutees will demonstrate significant improvement in the following attitudinal areas:
   (a) Attitude toward school
   (b) Attitude toward teachers
   (c) Attitude toward working with others
   (d) Study habits

12. The tutees will demonstrate significant progress in reading.

**Selection and Definition of the Sample**

**Definition of the Sample**

The sample of this study consisted of three types of students in the Owensboro, Kentucky school system: (a) those serving as tutors, (b) those serving in the tutor control group, and (c) those participating as tutees. The thirty-four eighth, eleventh, and twelfth grade students in the tutor group were chosen in matched pairs. Seventeen of the tutor group received the regular high school curriculum during the school day, then they were salaried to work after school as tutors in two middle schools and two elementary schools. The remaining seventeen students in
the tutor group served as a control group receiving only the existing high school curriculum. All thirty-four of the tutor group demonstrated average or above-average intelligence when the program was initiated. When the program began, eight of the salaried tutors were already working on or above grade level in reading and demonstrating wholesome attitudes toward school and school-related tasks. The remaining nine tutors were reading below grade level and demonstrating marginal attitudes in the previously designated areas.

The tutee group consisted of sixty-one students in grades three through eight. All tutees were experiencing some type of academic difficulty.

Selection of the Sample

The selection of the tutor subjects was based upon level of achievement, as well as principal, teacher, and counselor judgments regarding student attitudes. One additional requisite for being selected to serve as a tutor was that of living within the area of the center. The tutors and control group were selected in matched pairs, being matched with regard to: (1) grade level, (2) achievement, and (3) attitude.

Some tutee participants in the program were selected on the following bases:

(1) Recommendations by teachers and counselors
(2) Parental requests
(3) Students volunteered themselves

Some of the guidelines followed in selecting tutees were:

(1) Overall performance—working below grade level
(2) Reading below grade level and/or expectancy
(3) Home situation not suitable for study activity
Even though a student was recommended as being in need of this service, participation was still both his and his parents' option.

**Instruments**

Evaluation of the project focused upon two areas of concern, change in attitude and reading achievement. Improvement of both tutors and tutees was evaluated with emphasis being placed upon the tutor. Due to the inconsistency in tutee participation, only those tutees who were in attendance for a minimum of six sessions were utilized for evaluative purposes.

Six evaluative instruments were administered, but only three were analyzed statistically. They were: (1) Student Self-Evaluation of Study Habits and Attitudes, (2) Teacher Evaluation of Student Study Habits and Attitudes, and (3) *Wide Range Achievement Test* (vocabulary section).

The Student Self-Evaluation (see Appendix A) and the Teacher Evaluation of Students (see Appendix B) were locally constructed Likert-type attitude scales. Both were instruments assessing attitude toward school, attitude toward teachers, attitude toward working with others, and study habits. Internal validity was insured in the following manners:

1. Items appraising each of the previously noted attitudes were disguised through rewording and repeated throughout the checklist.
2. The questions were phrased so that positive and negative responses were not consistently identified with specific ends of the five-point scale.

Both checklists were adapted from three existing survey instruments:

1. *Attitude Toward School, Grades K—12*, from Instructional Objectives Exchange; (2) *Survey of Study Habits and Attitudes*, Form H, by Brown and Holtzman from the Psychological Corporation; and (3) *Student Affective Response Inventory—Grade 7*, from Kentucky Educational Needs Assessment.
The following three sub-sections describe the construction and use of the three instruments.

Student Self-Evaluation of Study Habits and Attitudes

The Student Self-Evaluation had four scales structured within the twenty-item questionnaire. The scales were the Attitude Toward Teacher Scale, the Attitude Toward School Scale, the Attitude Toward Working With Others Scale, and the Study Habits Scale. Tables 3:01, 3:02, 3:03, and 3:04 list the specific items as they are keyed to each of the four scales.

<table>
<thead>
<tr>
<th>TABLE 3:01</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT SELF-EVALUATION SURVEY ITEMS KEYED TO ATTITUDE TOWARD TEACHERS</td>
</tr>
</tbody>
</table>

1. I think that teachers understand the needs and interests of students.
2. My dislike for certain teachers causes me to sometimes not do my school work.
3. My teachers make their classes interesting to me.
8. I think that teachers like to show who's boss too much.
9. When I am having trouble with my school work, I feel free to talk it over with my teachers.
10. I think teachers are too narrow-minded and set in their ways.
16. I think teachers try to give the same amount of attention and help to all their students.
### TABLE 3:02

**STUDENT SELF-EVALUATION SURVEY ITEMS KEYED TO ATTITUDE TOWARD SCHOOL**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>I get discouraged in school.</td>
</tr>
<tr>
<td>6.</td>
<td>Even though I don't like a subject, I still work hard to make a good grade.</td>
</tr>
<tr>
<td>7.</td>
<td>Even though an assignment is dull and uninteresting, I stick to it until it is finished.</td>
</tr>
<tr>
<td>12.</td>
<td>Unless I really like a subject, I believe in doing just enough to get a passing grade.</td>
</tr>
<tr>
<td>17.</td>
<td>I believe that having a good time and getting one's full share of fun out of life is more important than studying and school.</td>
</tr>
<tr>
<td>18.</td>
<td>I think that it might be best for me to drop out of school and get a job as soon as I can.</td>
</tr>
</tbody>
</table>

### TABLE 3:03

**STUDENT SELF-EVALUATION SURVEY ITEMS KEYED TO ATTITUDE TOWARD WORKING WITH OTHERS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.</td>
<td>A person learns a lot from working with someone else on school problems.</td>
</tr>
</tbody>
</table>
TABLE 3:04
STUDENT SELF-EVALUATION SURVEY
ITEMS KEYED TO STUDY HABITS

4. My teachers say my written work is poorly planned and hurriedly written.

11. I correct mistakes on the papers my teachers have graded and returned to me.

13. It takes a long time for me to get warmed up to the job of studying.

15. It is hard for me to pick out the important points of a reading assignment—points that I find later on tests.

18. After reading several pages of an assignment, I can not remember what I have just read.

Items 1, 3, 6, 7, 9, 11, 14, 16, and 20 were designed so that when a student checked AA (Almost Always), that response was scored as five points. VO (Very Often) was scored as four points. O (Often) was scored as three points. S (Sometimes) was scored as two points. AN (Almost Never) was scored as one point. The higher the total on any set of items, the more positive was that attitude. Items 2, 4, 5, 8, 10, 12, 13, 15, 17, 18, and 19 were designed so that when a student checked AN (Almost Never), that response was scored as five points. S (Sometimes) was scored as four points. O (Often) was scored as three points. VO (Very Often) was scored as two points. AA (Almost Always) was scored as one point. The higher the total on any set of items as listed in Tables 3:01, 3:02, 3:03, and 3:04, the more positive was that attitude. For Tables 3:01 and 3:02, there was a theoretical range of from seven to thirty-five points. Table 3:03 had a range of from one to five points. The range for Table 3:04 was from five to twenty-five points.
The Teacher Evaluation also had four scales structured within the questionnaire. These were the Attitude Toward Teachers Scale, the Attitude Toward School Scale, the Study Habits Scale, and the Attitude Toward Working With Others Scale. Tables 4:01, 4:02, 4:03, and 4:04 list the specific items as they are keyed to each of the four scales.

**TABLE 4:01**

<table>
<thead>
<tr>
<th>TEACHER EVALUATION SURVEY ITEMS KEYED TO ATTITUDE TOWARD TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. The student resents teacher authority.</td>
</tr>
<tr>
<td>10. He demands undue attention from me as a teacher.</td>
</tr>
</tbody>
</table>

**TABLE 4:02**

<table>
<thead>
<tr>
<th>TEACHER EVALUATION SURVEY ITEMS KEYED TO ATTITUDE TOWARD SCHOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. The student seems to work hard only in subjects he likes.</td>
</tr>
<tr>
<td>8. The student does poor work—often only enough to get a passing grade.</td>
</tr>
<tr>
<td>11. The students exhibits a wholesome attitude toward school in general.</td>
</tr>
</tbody>
</table>
### TABLE 4:03
**TEACHER EVALUATION SURVEY ITEMS KEYED TO STUDY HABITS**

1. The student's written work is poorly planned and hurriedly written.
2. The student does not complete assignments.
4. Daydreaming distracts his attention from studying.
6. The student asks for help when he is having trouble with school work.
7. He corrects errors on papers that have been graded and returned to him.
9. It is difficult for him to get warmed up to the job of studying.

### TABLE 4:04
**TEACHER EVALUATION SURVEY ITEMS KEYED TO ATTITUDE TOWARD WORKING WITH OTHERS**

12. The student typically works with and gets along well with other students in the classroom.

Items 1, 2, 3, 4, 5, 8, 9, and 10 were designed so that when a teacher checked **R** (Rarely), that response was scored as five points. **S** (Sometimes) was scored as four points. **F** (Frequently) was scored as three points. **G** (Generally) was scored as two points. **A** (Almost Always) was scored as one point. Items 6, 7, 11, and 12 were designed so that when a teacher checked **A** (Almost Always), that response was scored as five points. **G** (Generally) was scored as four points. **F** (Frequently) was scored as three points. **S** (Sometimes) was scored as two points. **R** (Rarely) was scored as one point. The higher the total on any set of items listed in Tables 4:01, 4:02, 4:03 and 4:04, the more positive was that attitude. Table 4:01 had a theoretical range of from two to ten
points. Table 4:02 had a range of three to fifteen points. The range for Table 4:03 was from six to thirty points. Table 4:04 had a range of from one to five points.

Wide Range Achievement Test

The vocabulary section of the Wide Range Achievement Test was utilized to measure progress in reading.

Other Instruments

The three other evaluative devices were purely for descriptive purposes. No statistical evaluation was attempted with these. These instruments were: (1) Tutor Evaluation of the Tutorial Program (see Appendix C), (2) Teacher Evaluation of the Tutorial Program (see Appendix D), and (3) Parent Evaluation of the Tutorial Program (see Appendix E).

Obtaining the Data

In order to statistically analyze changes in attitude and achievement the data was obtained on a pre- and post-test basis from: (1) the Student Self-Evaluation of Study Habits and Attitudes, (2) the Teacher Evaluation of Student Study Habits and Attitudes, and (3) the reading section of the Wide Range Achievement Test. Descriptive evaluation was obtained from: (1) the Tutor Evaluation of the Tutorial Program, (2) the Teacher Evaluation of the Tutorial Program, and (3) the Parent Evaluation of the Tutorial Program. The master teachers from the four centers were trained by the program coordinator to administer the evaluative instruments. The master teachers, in turn, tested their tutors and tutees individually. The members of the tutor control group were also tested individually by the program coordinator.
Each master teacher received: (1) a Tutorial Program Data Collection Checklist (see Appendix F) designed to assist him in the collection of the data during the normal course of the program and (2) a Data Collection Checklist for the Tutorial Program Final Evaluation (see Appendix G) designed to assist him with the closing of the program in the collection of the data for the final evaluation. To insure accurate returns of data, a "Tutorial Program Data Collection Checklist" was also kept on each center by the researcher.

**Treatment of the Data**

The statistical procedure known as analysis of variance for correlated scores was used to statistically analyze changes in attitude and achievement. The computer program known as RO43, a package designed at the computer center at Western Kentucky University, was employed for the statistical analysis of the data.

**Summary**

This chapter has presented discussions of the restatement of the purpose, the hypotheses, selection and definition of the sample, instruments, obtaining the data, and treatment of the data. The next chapter will discuss the analysis of the data with its interpretation.
CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

Introduction

Reported in this chapter are the results from testing the hypotheses as set forth in Chapter III. Included are: (1) a citation of the statistical procedures employed; (2) a presentation of the findings in tabular form; and (3) a verbal statement of the findings in each table.

Statistical Method

The statistical procedure referred to as analysis of variance for correlated scores was utilized to statistically analyze modifications of attitude and achievement. The computer program known as RC43, a package designed at the computer center at Western Kentucky University, was utilized for the statistical analysis of the data.

This study investigated the twelve hypotheses listed in Chapter III.

The region of rejection consists of all values of the $f$-statistic that are so large that the probability of their occurrence under $H_0$ is equal to or less than the .05 level for a two-tailed test.
Report and Discussion of the Findings

Hypothesis 1A

Based on the student self-evaluations, the improvement in attitude toward school demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

Hypothesis 2A

Based on the teacher evaluations of students, the improvement in attitude toward school demonstrated by tutors will be significantly greater than will that demonstrated by pupils in the control group.

Findings: Tables 5 and 6

According to the student self-evaluations of attitude toward school, the tutors had a lower post-test mean than their pre-test mean, while the control group had a slight increase on its post-test mean. However, the difference of mean gain scores was not statistically significant. The research hypothesis ($H_{1A}$) was not supported at the .05 level of confidence.

From the teacher evaluations of attitude toward school, both the tutors and the control group had lower post-test means than their pre-test means with the tutors demonstrating a slightly greater decrease in scores. However, the difference of mean gain scores was not statistically significantly. The research hypothesis ($H_{2A}$) was not supported at the .05 level of confidence.
### TABLE 5
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD SCHOOL OF TUTORS VS. THE CONTROL GROUP AS RATED BY THEMSELVES

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>27.8235</td>
<td>27.7059</td>
<td>-.1176*</td>
</tr>
<tr>
<td>Controls</td>
<td>28.7647</td>
<td>29.4118</td>
<td>.6471</td>
</tr>
</tbody>
</table>

Critical ratio .184; p > .05 (.6744)

* - indicates a decrease from pre-test to post-test mean

### TABLE 6
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD SCHOOL OF TUTORS VS. THE CONTROL GROUP AS RATED BY TEACHERS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>11.8235</td>
<td>11.4706</td>
<td>-.3529*</td>
</tr>
<tr>
<td>Controls</td>
<td>12.4118</td>
<td>12.1176</td>
<td>-.2942*</td>
</tr>
</tbody>
</table>

Critical ratio .003; p > .05 (.9593)

* - indicates a decrease from pre-test to post-test mean
Hypothesis 1B

Based on the student self-evaluations, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

Hypothesis 2B

Based on the teacher evaluations of students, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

Findings: Tables 7 and 8

According to the student self-evaluations of attitude toward teachers, the tutors showed mean gains that were greater than those made by pupils in the control group. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H1B) was not supported at the .05 level of confidence.

From the teacher evaluations of attitude toward teachers, the tutors' post-test mean was slightly lower than the pre-test mean while the control group demonstrated a slight increase in the post-test mean. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H2B) was not supported at the .05 level of confidence.
### TABLE 7

**Comparison of Improvement in Attitude Toward Teachers of Tutors vs. the Control Group as Rated by Themselves**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>24.4118</td>
<td>24.8823</td>
<td>.4705</td>
</tr>
<tr>
<td>Controls</td>
<td>25.2941</td>
<td>24.8235</td>
<td>-.4706*</td>
</tr>
</tbody>
</table>

Critical ratio .212; $p > .05$ (.6525)

* - indicates a decrease from pre-test to post-test mean

### TABLE 8

**Comparison of Improvement in Attitude Toward Teachers of Tutors vs. the Control Group as Rated by Teachers**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>8.9412</td>
<td>8.4118</td>
<td>-.5294*</td>
</tr>
<tr>
<td>Controls</td>
<td>9.5294</td>
<td>9.8824</td>
<td>.3530</td>
</tr>
</tbody>
</table>

Critical ratio 2.200; $p > .05$ (.1443)

* - indicates a decrease from pre-test to post-test mean
Hypothesis 1C

Based on the student self-evaluations, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

Hypothesis 2C

Based on the teacher evaluations of students, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

Findings: Tables 9 and 10

According to the student self-evaluations of attitude toward working with others, both the tutors' and the controls' post-test means were lower than their pre-test means. The controls demonstrated a slightly greater decrease in the post-test mean than did the tutors. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H1C) was not supported at the .05 level of confidence.

From the teacher evaluations of attitude toward working with others, the tutors' post-test mean was lower than their pre-test mean, while the pupils in the control group demonstrated a slight increase in their post-test mean. This was one of the five instances of significant findings in the present study. However, the gains made by the control group were significantly greater than those shown by the tutors; therefore, the research hypothesis (H2C) was not supported at the .05 level of confidence.
TABLE 9
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD WORKING WITH OTHERS OF TUTORS VS. THE CONTROL GROUP AS RATED BY THEMSELVES

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>3.8235</td>
<td>3.5882</td>
<td>-.2353*</td>
</tr>
<tr>
<td>Controls</td>
<td>4.0588</td>
<td>3.7059</td>
<td>-.3529*</td>
</tr>
</tbody>
</table>

Critical ratio .050; p > .05 (.8190)
* - indicates a decrease from pre-test to post-test mean

TABLE 10
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD WORKING WITH OTHERS OF TUTORS VS. THE CONTROL GROUP AS RATED BY TEACHERS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>4.4706</td>
<td>4.1765</td>
<td>-.2941*</td>
</tr>
<tr>
<td>Controls</td>
<td>4.0588</td>
<td>4.4118</td>
<td>.3530</td>
</tr>
</tbody>
</table>

Critical ratio 4.481; p < .05 (.0398)
* - indicates a decrease from pre-test to post-test mean
Hypothesis 1D

Based on the student self-evaluations, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

Hypothesis 2D

Based on the teacher evaluations of students, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

Findings: Tables 11 and 12

According to the student self-evaluations of study habits, the tutors made larger gains than students in the control group. However, the difference of mean gain scores was not statistically significant. The research hypothesis \( H_{1D} \) was not supported at the .05 level of confidence.

From the teacher evaluations of study habits, the tutors post-test mean was lower than their pre-test mean, while the control group demonstrated a slight increase on its post-test mean. However, the difference of mean gain scores was not statistically significant. The research hypothesis \( H_{2D} \) was not supported at the .05 level of confidence.
<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>18.8235</td>
<td>19.6470</td>
<td>.8245</td>
</tr>
<tr>
<td>Controls</td>
<td>19.1176</td>
<td>19.2358</td>
<td>.1182</td>
</tr>
</tbody>
</table>

Critical ratio .573; p > .05 (.5389)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>23.1765</td>
<td>21.9412</td>
<td>-1.2353*</td>
</tr>
<tr>
<td>Controls</td>
<td>22.4118</td>
<td>22.5294</td>
<td>.1176</td>
</tr>
</tbody>
</table>

Critical ratio .629; p > .05 (.5607)

* - indicates a decrease from pre-test to post-test mean
Hypothesis 3

The tutors will demonstrate significantly greater gains in reading than will the pupils in the control group.

Findings: Table 13

According to the *Wide Range Achievement Test*, the tutors made larger gains in reading than students in the control group. However, the difference of mean gain scores was not statistically significant. The research hypothesis ($H_3$) was not supported at the .05 level of confidence.
<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre- Test</th>
<th>Mean Post- Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>10.2*</td>
<td>10.8*</td>
<td>.6*</td>
</tr>
<tr>
<td>Controls</td>
<td>9.2*</td>
<td>9.3*</td>
<td>.1*</td>
</tr>
</tbody>
</table>

Critical ratio 2.162; p > .05 (.1478)

* Scores are based on grade level
Hypothesis 4A

Based on the student self-evaluations, the improvement in attitude toward school demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Hypothesis 5A

Based on the teacher evaluations of students, the improvement in attitude toward school demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Findings: Tables 14 and 15

According to the student self-evaluations of attitude toward school, the tutors had a post-test mean which was lower than their pre-test mean, while the tutees showed an increase in their post-test mean over the pre-test mean. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H₄ₐ) was not supported at the .05 level of confidence.

From the teacher evaluations of attitude toward school, the tutors had a post-test mean which was lower than their pre-test mean, while the tutees showed an increase in their post-test mean over the pre-test mean. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H₅ₐ) was not supported at the .05 level of confidence.
### Table 14

**Comparison of Improvement in Attitude Toward School of Tutors vs. Tutees as Rated by Themselves**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>27.8235</td>
<td>27.7059</td>
<td>-.1176*</td>
</tr>
<tr>
<td>Tutees</td>
<td>25.0328</td>
<td>25.8197</td>
<td>.7869</td>
</tr>
</tbody>
</table>

Critical ratio .435; p > .05 (.5186)

* - indicates a decrease from pre-test to post-test

### Table 15

**Comparison of Improvement in Attitude Toward School of Tutors vs. Tutees as Rated by Teachers**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>11.8235</td>
<td>11.4706</td>
<td>-.3529*</td>
</tr>
<tr>
<td>Tutees</td>
<td>9.8689</td>
<td>10.2131</td>
<td>.3442</td>
</tr>
</tbody>
</table>

Critical ratio .659; p > .05 (.5753)

* - indicates a decrease from pre-test to post-test
Hypothesis 4B

Based on the student self-evaluations, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Hypothesis 5B

Based on the teacher evaluations of students, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Findings: Tables 16 and 17

From the student self-evaluations of attitude toward teachers, the tutees demonstrated greater mean gains than did the tutors. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H_{4B}) was not supported at the .05 level of confidence.

According to the teacher evaluations of attitude toward teachers, the tutors had a post-test mean which was lower than their pre-test mean, while the tutees showed an increase in their post-test mean over the pre-test mean. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H_{5B}) was not supported at the .05 level of confidence.
TABLE 16
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD TEACHERS
OF TUTORS VS. TUTEES AS RATED BY THEMSELVES

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>24.4118</td>
<td>24.8823</td>
<td>.4705</td>
</tr>
<tr>
<td>Tutees</td>
<td>24.4262</td>
<td>26.0000</td>
<td>1.5738</td>
</tr>
</tbody>
</table>

Critical ratio .615; p > .05 (.5585)

TABLE 17
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD TEACHERS
OF TUTORS VS. TUTEES AS RATED BY TEACHERS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>8.9412</td>
<td>8.4118</td>
<td>-.5294*</td>
</tr>
<tr>
<td>Tutees</td>
<td>8.6557</td>
<td>8.6885</td>
<td>.0328</td>
</tr>
</tbody>
</table>

Critical ratio 1.577; p > .05 (.2105)

* - indicates a decrease from pre-test to post-test
Hypothesis 4C

Based on the student self-evaluations, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Hypothesis 5C

Based on the teacher evaluations of students, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Findings: Tables 18 and 19

According to the student self-evaluations of attitude toward working with others, both the tutors and tutees had lower post-test means than their pre-test means with the tutors demonstrating a greater decrease in the mean than the tutees. However, the difference of mean gain scores was not statistically significant. The research hypothesis \((H_{4c})\) was not supported at the .05 level of confidence.

From the teacher evaluations of attitude toward working with others, the tutors had a lower post-test mean than their pre-test mean, while the tutees demonstrated no change in means. However, the difference of mean gain scores was not statistically significant. The research hypothesis \((H_{5c})\) was not supported at the .05 level of confidence.
### TABLE 18

COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD WORKING WITH OTHERS OF TUTORS VS. TUTEES AS RATED BY THEMSELVES

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>3.8235</td>
<td>3.5882</td>
<td>-.2353*</td>
</tr>
<tr>
<td>Tutees</td>
<td>3.5738</td>
<td>3.4918</td>
<td>-.0820*</td>
</tr>
</tbody>
</table>

Critical ratio .089; p > .05 (.7643)

* - indicates a decrease from pre-test to post-test

### TABLE 19

COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD WORKING WITH OTHERS OF TUTORS VS. TUTEES AS RATED BY TEACHERS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>4.4706</td>
<td>4.1765</td>
<td>-.2941*</td>
</tr>
<tr>
<td>Tutees</td>
<td>3.6230</td>
<td>3.6230</td>
<td>.0000</td>
</tr>
</tbody>
</table>

Critical ratio 1.047; p > .05 (.3103)

* - indicates a decrease from pre-test to post-test
Hypothesis 4D

Based on the student self-evaluations, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Hypothesis 5D

Based on the teacher evaluations of students, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

Findings: Tables 20 and 21

According to the student self-evaluations of study habits, the tutors demonstrated greater mean gains than did the tutees. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H4D) was not supported at the .05 level of confidence.

From the teacher evaluations of study habits, the tutees demonstrated a significant gain, while the tutors had a lower post-test mean than their pre-test mean. This was one of the five instances of significant findings in the present study. The difference of mean gain scores was significant at the .01 level of confidence. However, due to the fact the tutees demonstrated significantly greater improvement than the tutors, the research hypothesis (H5D) was not supported at the .05 level of confidence.
### TABLE 20

**COMPARISON OF IMPROVEMENT IN STUDY HABITS OF TUTORS VS. TUTEE AS RATED BY THEMSELVES**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>18.8235</td>
<td>19.6470</td>
<td>.8235</td>
</tr>
<tr>
<td>Tutees</td>
<td>15.8197</td>
<td>16.0656</td>
<td>.2459</td>
</tr>
</tbody>
</table>

Critical ratio .390; p > .05 (.5415)

### TABLE 21

**COMPARISON OF IMPROVEMENT IN STUDY HABITS OF TUTORS VS. TUTEE AS RATED BY TEACHERS**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>23.1765</td>
<td>21.9412</td>
<td>-1.2343*</td>
</tr>
<tr>
<td>Tutees</td>
<td>16.6885</td>
<td>19.1147</td>
<td>2.4262</td>
</tr>
</tbody>
</table>

Critical ratio 7.610; p < .01 (.0073)

* - indicates a decrease from pre-test to post-test
Hypothesis 6

The tutors will demonstrate significantly greater gains in reading than will the tutees.

Findings: Table 22

The tutors demonstrated slightly greater mean gains in reading than did the tutees. However, the difference in mean gain scores was not statistically significant. The research hypothesis ($H_6$) was not supported at the .05 level of confidence.
TABLE 22
COMPARISON OF READING GAINS
TUTORS VS. TUTEES

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutors</td>
<td>3.7*</td>
<td>4.4*</td>
<td>.7*</td>
</tr>
<tr>
<td>Tutees</td>
<td>10.2*</td>
<td>10.8*</td>
<td>.6*</td>
</tr>
</tbody>
</table>

Critical ratio .048; p > .05 (.8219)  
* Scores are based on grade level
Hypothesis 7A

Based on the student self-evaluations, the improvement in attitude toward school demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

Hypothesis 8A

Based on the teacher evaluations of students, the improvement in attitude toward school demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

Findings: Tables 23 and 24

From the student self-evaluations of attitude toward school, both the achievers and the underachievers had post-test means which were lower than their pre-test means with the achievers demonstrating a slightly greater decrease on post-test means than the underachievers. However, the difference of mean gain scores was not statistically significant. The research hypothesis ($H_{7A}$) was not supported at the .05 level of confidence.

According to the teacher evaluations of attitude toward school, the achieving tutors had post-test means which were lower than their pre-test means, while the underachievers had the same pre-test and post-test means. However, the difference of mean gain scores was not statistically significant. The research hypothesis ($H_{8A}$) was not supported at the .05 level of confidence.
TABLE 23
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD SCHOOL OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY THEMSELVES

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>29.1250</td>
<td>29.0000</td>
<td>-0.1250*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>26.6667</td>
<td>26.5555</td>
<td>-0.1112*</td>
</tr>
</tbody>
</table>

Critical ratio .01; p > .05 (1.0000)
* - indicates a decrease from pre-test to post-test

TABLE 24
COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD SCHOOL OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY TEACHERS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>13.1250</td>
<td>12.3750</td>
<td>-0.7500*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>10.6667</td>
<td>10.6667</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Critical ratio .171; p > .05 (.6875)
* - indicates a decrease from pre-test to post-test
Hypothesis 7B

Based on the student self-evaluations, the improvement in attitude toward teachers demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

Hypothesis 8B

Based on the teacher evaluations of students, the improvement in attitude toward teachers demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

Findings: Tables 25 and 26

From the student self-evaluations of attitude toward teachers, the underachievers had an increase on the post-test means, while the achieving tutors demonstrated a decrease in post-test scores. However, the difference of mean gain scores was not statistically significant. The research hypothesis \( (H_{7B}) \) was not supported at the .05 level of confidence.

According to the teacher evaluations of attitude toward teachers, the underachieving tutors made a small mean gain, while the achieving tutors had post-test means which were smaller than their pre-test means. However, the difference of mean gain scores was not statistically significant. The research hypothesis \( (H_{8B}) \) was not supported at the .05 level of confidence.
### TABLE 25

**COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD TEACHERS OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY THEMSELVES**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>26.0000</td>
<td>25.5000</td>
<td>-.5000*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>23.0000</td>
<td>24.3333</td>
<td>1.3333</td>
</tr>
</tbody>
</table>

Critical ratio .306; p > .05 (.5941)

* - indicates a decrease from pre-test to post-test

### TABLE 26

**COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD TEACHERS OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY TEACHERS**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>8.8889</td>
<td>7.6667</td>
<td>-1.2222*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>9.0000</td>
<td>9.2500</td>
<td>.2500</td>
</tr>
</tbody>
</table>

Critical ratio 2.255; p > .05 (.1510)

* - indicates a decrease from pre-test to post-test
Hypothesis 7c

Based on the student self-evaluations, the improvement in attitude toward working with others demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than that demonstrated by the tutors who are achieving on or above grade level at the outset.

Hypothesis 8c

Based on the teacher evaluations of students, the improvement in attitude toward working with others demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than that demonstrated by the tutors who are achieving on or above grade level at the outset.

Findings: Tables 27 and 28

From the student self-evaluations of attitude toward working with others, the underachieving tutors demonstrated mean gains, while the achieving tutors had post-test means which were lower than their pre-test means. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H7c) was not supported at the .05 level of confidence.

According to the teacher evaluations of attitude toward working with others, both the underachieving tutors and the achieving tutors had post-test means which were smaller than their pre-test means. The underachieving tutors demonstrated a greater decrease in post-test scores than did the achievers. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H8c) was not supported at the .05 level of confidence.
### TABLE 27

**COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD WORKING WITH OTHERS OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY THEMSELVES**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>4.5000</td>
<td>3.5000</td>
<td>-1.0000*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>3.2222</td>
<td>3.6667</td>
<td>.4445</td>
</tr>
</tbody>
</table>

Critical ratio 3.659; p > .05 (.0722)

* - indicates a decrease from pre-test to post-test

### TABLE 28

**COMPARISON OF IMPROVEMENT IN ATTITUDE TOWARD WORKING WITH OTHERS OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY TEACHERS**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>4.7500</td>
<td>4.5000</td>
<td>-.2500*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>4.2222</td>
<td>3.8889</td>
<td>-.3333*</td>
</tr>
</tbody>
</table>

Critical ratio .033; p > .05 (.8532)

* - indicates a decrease from pre-test to post-test
Hypothesis 7D

Based on the student self-evaluations, the improvement in study habits demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

Hypothesis 8D

Based on the teacher evaluations of students, the improvement in study habits demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

Findings: Tables 29 and 30

From the student self-evaluations of study habits, the underachieving tutors demonstrated greater mean gains than did the achieving tutors. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H7D) was not supported at the .05 level of confidence.

According to the teacher evaluations of study habits, both the underachieving tutors and the achieving tutors had post-test means which were lower than their pre-test means. The underachievers demonstrated a greater decrease in post-test means than did the achievers. However, the difference of mean gain scores was not statistically significant. The research hypothesis (H8D) was not supported at the .05 level of confidence.
### TABLE 29

**COMPARISON OF IMPROVEMENT IN STUDY HABITS OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY THEMSELVES**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>20.0000</td>
<td>20.2500</td>
<td>.2500</td>
</tr>
<tr>
<td>Underachievers</td>
<td>17.7778</td>
<td>19.1111</td>
<td>1.3333</td>
</tr>
</tbody>
</table>

Critical ratio .891; p > .05 (.6373)

### TABLE 30

**COMPARISON OF IMPROVEMENT IN STUDY HABITS OF ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS AS RATED BY TEACHERS**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>24.7500</td>
<td>24.3750</td>
<td>-.3750*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>21.7778</td>
<td>19.7773</td>
<td>-2.0000*</td>
</tr>
</tbody>
</table>

Critical ratio .399; p > .05 (.5431)

* - indicates a decrease from pre-test to post-test
Hypothesis 9

The tutors who are underachieving at the outset of the program will demonstrate significantly greater gains in reading than will the tutors who are achieving on or above grade level at the outset.

Findings: Table 31

Achieving tutors demonstrated mean gains in reading that were greater than those made by underachieving tutors. However, the difference of mean gain scores was not statistically significant. The research hypothesis ($H_0$) was not supported at the .05 level of confidence.
TABLE 31
COMPARISON OF READING GAINS—ACHIEVING TUTORS VS. UNDERACHIEVING TUTORS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievers</td>
<td>13.2*</td>
<td>14.0*</td>
<td>.8*</td>
</tr>
<tr>
<td>Underachievers</td>
<td>7.5*</td>
<td>8.0*</td>
<td>.5*</td>
</tr>
</tbody>
</table>

Critical ratio .228; p > .05 (.6440)

* Scores are based on grade level
Hypothesis 10A

Based on the student self-evaluations, the tutees will demonstrate significant improvement in attitude toward school.

Hypothesis 11A

Based on the teacher evaluations of students, the tutees will demonstrate significant improvement in attitude toward school.

Findings: Tables 32 and 33

From the student self-evaluations of attitude toward school, the tutees demonstrated a mean gain. However, the mean gain was not statistically significant. The research hypothesis \( H_{10A} \) was not supported at the .05 level of confidence.

According to the teacher evaluations of attitude toward school, the tutees demonstrated a mean gain. However, the mean gain was not statistically significant. The research hypothesis \( H_{11A} \) was not supported at the .05 level of confidence.
**TABLE 32**

IMPROVEMENT IN TUTEES' ATTITUDE TOWARD SCHOOL
AS RATED BY THEMSELVES

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>25.0328</td>
<td>25.8197</td>
<td>.7869</td>
</tr>
</tbody>
</table>

Critical ratio 1.632; p > .05 (.2037)

**TABLE 33**

IMPROVEMENT IN TUTEES' ATTITUDE TOWARD SCHOOL
AS RATED BY TEACHERS

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>9.8689</td>
<td>10.2131</td>
<td>.3442</td>
</tr>
</tbody>
</table>

Critical ratio .815; p > .05 (.6266)
Hypothesis 10B

Based on the student self-evaluations, the tutees will demonstrate significant improvement in attitude toward teachers.

Hypothesis 11B

Based on the teacher evaluations of students, the tutees will demonstrate significant improvement in attitude toward teachers.

Findings: Tables 34 and 35

From the student self-evaluations of attitude toward teachers, the tutees demonstrated a mean gain. This was one of the five instances of significant findings in the present study. The research hypothesis ($H_{10B}$) was supported at the .05 level and at the .01 level of confidence.

According to the teacher evaluations of attitude toward teachers, the tutees had a mean gain. However, the mean gain was not statistically significant. The research hypothesis ($H_{11B}$) was not supported at the .05 level of confidence.
### TABLE 34
IMPROVEMENT IN TUTEES' ATTITUDE TOWARD TEACHERS AS RATED BY THEMSELVES

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>24.4262</td>
<td>26.0000</td>
<td>1.5738</td>
</tr>
</tbody>
</table>

Critical ratio 6.992; p < .05; p < .01 (.0101)

### TABLE 35
IMPROVEMENT IN TUTEES' ATTITUDE TOWARD TEACHERS AS RATED BY TEACHERS

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>8.6557</td>
<td>8.6885</td>
<td>.0328</td>
</tr>
</tbody>
</table>

Critical ratio .028; p > .05 (.8610)
Hypothesis 10C

Based on the student self-evaluations, the tutees will demonstrate significant improvement in attitude toward working with others.

Hypothesis 11C

Based on the teacher evaluations of students, the tutees will demonstrate significant improvement in attitude toward working with others.

Findings: Tables 36 and 37

From the student self-evaluations of attitude toward working with others, the tutees demonstrated a post-test mean which was lower than their pre-test mean. However, the difference in means was not statistically significant. The research hypothesis ($H_{10C}$) was not supported at the .05 level of confidence.

According to the teacher evaluations of attitude toward working with others, the tutees demonstrated no gain. The research hypothesis ($H_{11C}$) was not supported at the .05 level of confidence.
### TABLE 36

**IMPROVEMENT IN TUTEES' ATTITUDE TOWARD WORKING WITH OTHERS AS RATED BY THEMSELVES**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>3.5738</td>
<td>3.4918</td>
<td>-.0820*</td>
</tr>
</tbody>
</table>

Critical ratio .110; p > .05 (.7400)

* - indicates a decrease from pre-test to post-test

### TABLE 37

**IMPROVEMENT IN TUTEES' ATTITUDE TOWARD WORKING WITH OTHERS AS RATED BY TEACHERS**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>3.6230</td>
<td>3.6230</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Critical ratio 0.0; p > .05 (1.0000)
Hypothesis 10D

Based on the student self-evaluations, the tutees will demonstrate significant improvement in study habits.

Hypothesis 11D

Based on the teacher evaluations of students, the tutees will demonstrate significant improvement in study habits.

Findings: Tables 38 and 39

According to the student self-evaluations of study habits, the tutees demonstrated a small mean gain. However, the difference of means was not statistically significant. The research hypothesis (H_{10D}) was not supported at the .05 level of confidence.

From the teacher evaluations of study habits, the tutees demonstrated a significant mean gain. This was one of the five instances of significant findings in the present study. The difference of the means was significant at the .01 level. The research hypothesis (H_{11D}) was supported at the .01 level of confidence.
### TABLE 38

**IMPROVEMENT IN TUTEES' STUDY HABITS AS RATED BY THEMSELVES**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>15.8197</td>
<td>16.0656</td>
<td>.2459</td>
</tr>
</tbody>
</table>

Critical ratio .285; p > .05 (6021)

### TABLE 39

**IMPROVEMENT IN TUTEES' STUDY HABITS AS RATED BY TEACHERS**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>16.6885</td>
<td>19.1147</td>
<td>2.4262</td>
</tr>
</tbody>
</table>

Critical ratio 15.972; p < .01 (0004)
Hypothesis 12

The tutees will demonstrate significant gains in reading.

Findings: Table 40

The tutees demonstrated significant mean gains in reading. This was one of the five instances of significant findings in the present study. The difference of the means was significant at the .01 level. The research hypothesis (H₁₂) was supported at the .01 level of confidence.
### TABLE 40
TUTEES' READING GAINS

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutees</td>
<td>3.7*</td>
<td>4.4*</td>
<td>.7*</td>
</tr>
</tbody>
</table>

Critical ratio 36.593; p < .01 (.0001)

* Scores are based on grade level
Summary

This chapter, Data Analysis and Interpretation, consisted of the findings in tabular form and a verbal statement of the findings in each table. The statistical procedure employed was again cited. In the next chapter the summary of conclusions, recommendations, and implications will be discussed.
CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS
AND RECOMMENDATIONS

Included in this chapter are an overview of the study, a summary of the procedures utilized in the collection and analysis of data, a summary of results, and subsequent recommendations.

**Purpose of the Study**

This study attempted to determine the effectiveness of pupil tutors. More specifically, the present investigation was conducted to ascertain the effects upon specific attitudes and reading achievement resulting from utilizing both achieving and underachieving eighth, eleventh, and twelfth grade tutors with underachieving elementary and middle school students in grades three through eight as tutees in an after-school tutoring program. The students were tutored in any academic area in which they showed a deficiency with emphasis given to reading. The consequences of the program were determined by comparing gains from pre-tests to post-tests on student self-evaluations as well as teacher evaluations in the specified attitudinal areas and reading achievement of elementary and middle school students who were tutored. The effects of the program were determined in the same manner for low-achieving and achieving eighth, eleventh, and twelfth grade students who served as tutors and their control group.
The review of the literature, presented in Chapter II, provided support of the rationale undergirding the study. The literature was organized under the following headings: (1) historical perspectives and (2) research literature of the past ten years related to studies in tutoring, divided into four general segments: an overview, studies supportive of tutoring as an aid to achievement, studies supportive of tutoring as an aid to improvement in attitudes, and studies supportive of further investigation.

The Research Design

This experimental design involved pre-testing and post-testing of both the experimental and the control groups.

The research hypotheses to be tested stated that there would be significant differences in the mean gain scores in specific attitudinal and achievement areas between the following: (1) the tutors and their corresponding control group, (2) the tutors and the tutees, and (3) the low-achieving tutors and the tutors achieving on or above grade level. A fourth hypothesis stated that there would be a significant difference in the pre-test and post-test scores of tutees in specific attitudinal and achievement areas.

The evaluative devices selected for use for both the pre-tests and post-tests were the following: (1) the Student Self-Evaluation and the Teacher Evaluation of Students, both of which were locally constructed Likert-type attitude scales, and (2) the vocabulary section of the Wide Range Achievement Test.

The test of significance was to be analysis of variance for correlated scores. The value of "f," or "critical ratio," was the .05 level of
confidence. Since the tutoring was not super-imposed on the usual academic program for all pupils, a two-tailed test of significance was deemed appropriate.

Summary of Results

Thirty-six hypotheses were stated in Chapter I and were statistically treated in Chapter IV. Thirty-three of these hypotheses were rejected; three were accepted. Within the thirty-three rejections, there were four cases of somewhat nearly significant gains in attitude and achievement as hypothesized. However, the mean gains were not large enough for them to be considered statistically significant and, therefore, the research hypothesis was rejected.

Hypotheses Rejected

1A. Based on the student self-evaluations, the improvement in attitude toward school demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

1B. Based on the student self-evaluations, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

1C. Based on the student self-evaluations, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

1D. Based on the student self-evaluations, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.
2A. Based on the teacher evaluations of students, the improvement in attitude toward school demonstrated by tutors will be significantly greater than will that demonstrated by pupils in the control group.

2B. Based on the teacher evaluations of students, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

2C. Based on the teacher evaluations of students, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

2D. Based on the teacher evaluations of students, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by pupils in the control group.

3. The tutors will demonstrate significantly greater gains in reading than will the pupils in the control group.

4A. Based on the student self-evaluations, the improvement in attitude toward school demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

4B. Based on the student self-evaluations, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

4C. Based on the student self-evaluations, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.
4D. Based on the student self-evaluations, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

5A. Based on the teacher evaluations of students, the improvement in attitude toward school demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

5B. Based on the teacher evaluations of students, the improvement in attitude toward teachers demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

5C. Based on the teacher evaluations of students, the improvement in attitude toward working with others demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

5D. Based on the teacher evaluations of students, the improvement in study habits demonstrated by the tutors will be significantly greater than will that demonstrated by the tutees.

6. The tutors will demonstrate significantly greater gains in reading than will the tutees.

7A. Based on the student self-evaluations, the improvement in attitude toward school demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

7B. Based on the student self-evaluations, the improvement in attitude toward teachers demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.
7C. Based on the student self-evaluations, the improvement in attitude toward working with others demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

7D. Based on the student self-evaluations, the improvement in study habits demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

8A. Based on the teacher evaluations of students, the improvement in attitude toward school demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

8B. Based on the teacher evaluations of students, the improvement in attitude toward teachers demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

8C. Based on the teacher evaluations of students, the improvement in attitude toward working with others demonstrated by the tutors who are underachieving at the outset of the program will be significantly greater than will that demonstrated by the tutors who are achieving on or above grade level at the outset.

8D. Based on the teacher evaluations of students, the improvement in study habits demonstrated by the tutors who are underachieving at the
outset of the program will be significantly greater than will that
demonstrated by the tutors who are achieving on or above grade level at
the outset.

9. The tutors who are underachieving at the outset of the program
will demonstrate significantly greater gains in reading than will the
tutors who are achieving on or above grade level at the outset.

10A. Based on the student self-evaluations, the tutees will
demonstrate significant improvement in attitude toward school.

10C. Based on the student self-evaluations, the tutees will
demonstrate significant improvement in attitude toward working with
others.

10D. Based on the student self-evaluations, the tutees will
demonstrate significant improvement in study habits.

11A. Based on the teacher evaluations of students, the tutees
will demonstrate significant improvement in attitude toward school.

11B. Based on the teacher evaluations of students, the tutees
will demonstrate significant improvement in attitude toward teachers.

11C. Based on the teacher evaluations of students, the tutees
will demonstrate significant improvement in attitude toward working
with others.

Hypotheses Not Rejected

11D. Based on the teacher evaluations of students, the tutees
will demonstrate significant improvement in study habits.

12. The tutees will demonstrate significant gains in reading.
Implications and Recommendations

The findings of this study indicate that certain implications for education can be drawn. This study has implications, however, beyond the findings accruing from the data. Consequently, this section contains implications based upon the data as well as informal inventories and the researcher's own experience.

Implications for the Tutorial Program's Effect upon Absenteeism from School

Information on school attendance was amassed for the tutors, their controls, and the tutees. The information was obtained for the school year prior to the one during which the tutorial program was instituted as well as the school year during which the program was in operation.

Although the findings in the area of school attendance for the tutees, the tutors, and the pupils in the tutor control group may not have been statistically significant, there was a difference in improvement in school attendance. Three of the pupils in the tutor control group demonstrated improvement in school attendance in the year 1972-73 as compared with that of the 1971-72 school year, while six of the tutors had improved attendance during the same year. Seventeen of the fifty-seven tutees on whom accurate attendance records could be obtained showed an increase in school attendance in the year 1972-73 as compared with that of the year prior to the tutorial program.

As was previously stated, the data on improved attendance is empirical evidence and has not been statistically analyzed. However, based upon this evidence, the possibility of utilization of a tutorial program as a deterrent to excessive school absenteeism seems worthy of consideration.
Implications for a Tutorial Program's Effect upon Tendencies toward Dropping Out of School

The only information on dropout tendencies was secured through incorporating such an item into the Student Self-Evaluation. The question was as follows: "I think it might be best for me to drop out of school and get a job as soon as I can." This item also served in the evaluation of a student's attitude, in general, toward school.

Based on a five-point scale, the higher the mean the more positive was that attitude. In this case, higher means signified less tendency toward dropping out of school. The tutors had a pre-test mean of 4.88 and a post-test mean of 4.71, while their controls demonstrated a greater decrease in means with a pre-test mean of 4.38 and a post-test mean of 3.65. The tutees had a pre-test mean of 4.38 and a post-test mean of 4.30. These findings imply that both tutors and tutored experienced only minimal increase in the tendency toward dropping out of school when compared with that of the tutor control group.

However, two other factors might certainly have an effect upon the deteriorating attitude. From the researcher's personal observation, the work and enthusiasm of one center on the part of both the master teacher and the tutors seemed to gradually deteriorate as time went on. Another deterrent to attitudes may have lain in the fact that the majority of the post-testing was conducted late in the school year. It is generally an accepted opinion that students tire of school by the close of a year. If so, the seeming increase in tendency toward dropping out, as found in the evaluation of this program, may not be ample basis for a judgment of the worthiness of pupil tutoring as a possible alternative to the problem of underachievement.
Implications for Tutoring as an Aid to Planning for the Future

The information on serving as a tutor as it affected plans for the future was obtained from Item 4 of the Tutor Evaluation of the Tutorial Program (see Appendix C). The question was as follows: "Has it [the tutorial program] in any way helped you to shape your plans for the future? If yes, please explain how." Ten of the seventeen tutors replied positively. One must bear in mind the fact that four of the tutors were students in the eighth grade. These students, in all probability, are yet too immature to give a great deal of thought to the future.

No explanations for negative answers were given, but three typical explanations for positive responses were as follows:

I am now planning to attend college. Wasn't going to at the first of the year, but the tutoring program has helped me to decide to maybe become a social worker.

I was only thinking about majoring in elementary education at college, but now I'm almost positive I will.

At first I was thinking about being a teacher, then I realized how hard teaching really is. But it has made me more serious-minded about my future.

Information on the effect of tutoring upon tutors' plans for the future was also collected from Item 2 of the Parent Evaluation of the Tutorial Program (see Appendix E). The question was as follows: "Has it [the tutorial program] in any way helped to shape his/her [the child's] plans for the future? If yes, please explain how." Of the thirteen parents who responded to this question, seven answered positively. Again, the reader is reminded of the fact that four of the tutors were eighth graders. Consequently, these youngsters might be considered too young to give much thought to the future.
In response to the second segment of the question asked of parents, which dealt with what effect upon future plans the program had, following are three typical positive replies:

May go into a teaching career.

Plans to attend college.

My daughter, . . . , had no definite plans for her future. Since this program she has her sights set on college and being a teacher.

In conclusion, based upon the Tutor and Parent Evaluations of the Tutor Program, it appears to be a safe assumption that serving as a tutor often assists youth in planning for the future.

Implications for Tutoring as it Assists Tutors in Accepting Responsibility

Empirical data on improved ability to accept and carry out responsibility was collected from both the Tutor and Parent Evaluations of the Tutor Program (see Appendixes C and E). Both contained an item which allowed the tutor/parent to check any or all of six ways in which tutoring had changed the youngster's attitude or behavior.

The one item checked most frequently was that having to do with better ability to accept and carry out responsibility. In fact, all parents, with the exception of one, checked this item. Further, all tutors cited this as an area of improvement. Consequently, the researcher must conclude that tutoring surely assists tutors in accepting responsibility.

Implications for Further Research

Previously discussed were four areas of concern which were evaluated empirically. All four types of rationale seem to be inherent benefits which are due careful consideration in a tutorial program.
In weighing the possibilities for replicating this study, those most directly involved with the tutoring program were consulted. Tutors, parents, and teachers were surveyed to ascertain the desire for another tutoring program. Item 4 of the Tutor Evaluation of the Tutor Program (see Appendix C) was used to collect the data from tutors. Of the seventeen tutors, twelve responded positively with a desire to participate.

The same type of question was found in Item 3 of the Teacher Evaluation of the Tutorial Program (see Appendix D). Of the twenty-four teachers questioned, twenty-two replied positively.

This same information was received from parents of both tutors and tutees also in Item 3 of the Parent Evaluation of the Tutorial Program (see Appendix E). Of the sixty-five parents who responded to this item, all had positive replies.

One other form of feedback was found in an item analyzing the extent, if any, of behavior change which took place in both tutors and tutees. Tutors and parents of both tutors and tutees were asked to check any of six types of improved behavior found in themselves or their child. This information was drawn from Item 2 of the Tutor Evaluation of the Tutorial Program (see Appendix C) and Item 1 of the Parent evaluation of the Tutorial Program (see Appendix E).

One type of behavior change, that of accepting responsibility, has previously been discussed. With the exception of the item, "Improved grades," the remaining items as evaluated by teachers and tutors and tutees themselves were analyzed statistically; therefore, these will not be discussed at this point. Table 41 presents the results from the fifty-four parents of both tutors and tutees who responded as they recognized change in each of the five remaining attitudes omitting that
of accepting responsibility. Despite the fact that the results in Table 41 are comprised of empirical data, parental response to behavior change in their children would seem to constitute one more bit of justification for replication of a tutorial program.

TABLE 41
BEHAVIOR MODIFICATIONS PERCEIVED BY PARENTS

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Parental Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved grades</td>
<td>41</td>
</tr>
<tr>
<td>Improved study habits</td>
<td>44</td>
</tr>
<tr>
<td>Improved attitude toward other students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>
| Improved attitude toward school in general |                 | 32
| Improved attitude toward teachers       | 32                |

In addition to these six bases for tutoring, this experiment has shown that tutoring provided significant gains in the following areas: (1) tutee study habits as evaluated by teachers, (2) tutee attitude toward teachers as evaluated by the tutees, and (3) tutee reading. If replication of the study is attempted, the following modifications should be considered:

1. More thorough training in respect to the concept of tutoring for master teachers and tutors.

2. Closer supervision of master teachers by a coordinator and of tutors by master teachers.
3. Emphasizing the training given to master teachers and tutors with more varied materials in the area of reading.

4. Increasing the amount of tutoring each week.

5. Incorporating the tutoring program into the regular school day instead of adding it to the end of the day.

6. Devising an attitude survey which is then proven statistically valid through field testing.

7. Utilizing an achievement test which evaluates other areas of reading achievement, such as comprehension, as well as other areas of academic achievement.

Replication with these changes is more likely to produce significant results, or at least settle the question of significance, with regard to effects on the tutors as well as the tutored.

It would also be desirable to investigate results in different centers in an attempt to discover any unique characteristics which seem to produce particular successes. There are innumerable possible areas for study that should shed light on tutoring as a general method of teaching and learning.
Owensboro Public Schools After-School Tutoring Program

Student Self-Evaluation of Study Habits and Attitudes

Name_________________________ Age_____ Sex (circle one) Boy Girl
School (where a student)________________________ Grade _____
Date__________________________

This is a survey to find out how you feel about school and about
your study habits. This will not be shown to your teachers so please
answer according to how you feel right now.

You will circle your answers in the column beside the question.
There are twenty questions to be answered. Decide how you feel about
each statement and mark your answer. Choose one of the five possible
answers: almost never, sometimes, often, very often, almost always.

Following is an explanation of the letters used for answers to the
statements: AN—almost never, S—sometimes, O—often, VO—very often,
AA—almost always.

Remember, you are asked to rate yourself not as you think you
should do or feel, or as you think others might do or feel, but as you
yourself are in the habit of doing and feeling.

There are no "right" or "wrong" answers to these statements, and
there is no time limit for finishing the survey.

1. I think that teachers understand the needs
and interests of students. AN S O VO AA
2. My dislike for certain teachers causes me
to sometimes not do my school work. AN S O VO AA
3. My teachers make their classes interesting
to me. AN S O VO AA
4. My teachers say my written work is poorly
planned and hurriedly written. AN S O VO AA
5. I get discouraged in school. AN S O VO AA
6. Even though I don't like a subject, I still
work hard to make a good grade. AN S O VO AA
7. Even though an assignment is dull and
uninteresting, I stick to it until it
is finished. AN S O VO AA
8. I think that teachers like to show who's
boss too much. AN S O VO AA
9. When I am having trouble with my school work, I feel free to talk it over with my teachers.

10. I think teachers are too narrow-minded and set in their ways.

11. I correct mistakes on the papers my teachers have graded and returned to me.

12. Unless I really like a subject, I believe in doing just enough to get a passing grade.

13. It takes a long time for me to get warmed up to the job of studying.


15. It is hard for me to pick out the important points of a reading assignment—points that I find later on tests.

16. I think teachers try to give the same amount of attention and help to all their students.

17. I believe that having a good time and getting one's full share of fun out of life is more important than studying and school.

18. After reading several pages of an assignment, I can not remember what I have just read.

19. I think that it might be best for me to drop out of school and get a job as soon as I can.

20. A person learns a lot from working with someone else on school problems.
Owensboro Public Schools After-School Tutoring Program

Teacher Evaluation of Student Study Habits and Attitude

Name of Teacher-evaluator__________________________
Name of Student ____________________________ Date ____________

The purpose of this evaluation is to determine the present study habits and attitude toward school in general of the student listed above as you see him at the present time.

You will circle the appropriate letter in the column opposite the identifying statement. Choose one of the five possible answers: rarely, sometimes, frequently, generally, or almost always.

Following is an explanation of the terms used for answers to the statements: R—rarely, S—sometimes, F—frequently, G—generally, A—almost always.

1. The student's written work is poorly planned and hurriedly written.
   R S F G A

2. The student does not complete assignments.
   R S F G A

3. Student seems to work hard only in subjects he likes.
   R S F G A

4. Daydreaming distracts his attention from studying.
   R S F G A

5. Student resents teacher authority.
   R S F G A

6. Student asks for help when he is having trouble with school work.
   R S F G A

7. He corrects errors on papers that have been graded and returned to him.
   R S F G A

8. Student does poor work—often only enough to get a passing grade.
   R S F G A

9. It is difficult for him to get warmed up to the job of studying.
   R S F G A

10. He demands undue attention from me as a teacher.
    R S F G A

11. The student exhibits a wholesome attitude toward school in general.
    R S F G A

12. Student typically works with and gets along well with other students in the classroom
    R S F G A
Owensboro Public Schools After-School Tutoring Program

Tutor Evaluation of Tutorial Program

Please do not sign this. Just complete it and check your name off the check list when you return it.

Please check one:

____ I am a girl.
____ I am a boy.

1. Have you enjoyed working in the tutor program this year?
   Yes _____ No _____
   a. What about it have you enjoyed?

   b. What about it have you not enjoyed?

2. If it has, check any or all of the ways in which working in the tutor program has influenced or changed your attitude and behavior this year.

   ____ Improved grades.
   ____ Improved study habits.
   ____ Improved attitude toward other students (your friends or younger students).
   ____ Improved attitude toward school in general.
   ____ Improved attitude toward teachers.
   ____ Better able to accept and carry out responsibility.

3. Has it in any way helped you to shape your plans for the future?
   Yes _____ No _____ If yes, please explain how.

4. If you were asked to, would you like to work in the tutor program again next year?
   Yes _____ No _____

5. Please list any suggestions for improving the program if it continues next year.
Teacher Evaluation of Tutorial Program

We would appreciate your help in evaluating the tutorial program in our school this year. It will not be necessary to sign this. Please just complete it, return it to my mailbox, and check your name off the list posted on the bulletin board in the teacher's lounge.

1. Did the tutorial program benefit the student(s) from your classroom who participated?
   Yes  _____  No  _____

2. Do you think the tutorial program, in general, was worthwhile?
   Yes  _____  No  _____
   If yes, what about it seemed beneficial?

   If no, how did it not seem to meet needs?

3. Would you like to see the program continue next year?
   Yes  _____  No  _____

4. Do you feel that these funds could be better utilized in some other manner?
   Yes  _____  No  _____
   If yes, please explain how.

5. Please list any suggestions for improving the program if it should continue next year.
April 30, 1973

Dear Parent,

It has been a pleasure working with your child in our tutor program this year. We hope it was a good experience for him/her, too.

From the enclosed form we would like to find out how you feel about the work of the program with your child.

Would you please complete it and have your child return it to me within the next three days?

Sincerely,

(Master Teacher Signature)
Owensboro Public Schools After-School Tutoring Program

Parent Evaluation of Tutorial Program

Please check one:

_____ I am the parent of a tutor.

_____ I am the parent of a student being tutored.

Please check one:

_____ My child in the tutor program is a boy.

_____ My child in the tutor program is a girl.

1. Has the tutor program in any way changed the behavior or attitude of your child this year?

Yes _____ No _____

If yes, check any or all of the ways in which it has changed his/her attitude or behavior.

_____ Improved grades.

_____ Improved study habits.

_____ Improved attitude toward other students (either his/her friends or younger ones).

_____ Improved attitude toward school in general.

_____ Improved attitude toward teachers.

_____ Better able to accept and carry out responsibility.

2. Has it in any way helped to shape his/her plans for the future?

Yes _____ No _____ If yes, please explain how.

3. Do you believe that this program should continue next year?

Yes _____ No _____

4. Could the money spent for this program be better spent for something else in our school next year?

Yes _____ No _____ If yes, please explain.

5. Please list any suggestions for improving the program next year.
### Tutorial Program Data Collection Checklist

**Center Name**

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Enrollment Date</th>
<th>Withdrawal Date</th>
<th>Program Attendance 1971-72</th>
<th>Days Absent</th>
<th>Tardy Days</th>
<th>Attendance 1972-73</th>
<th>Days Absent</th>
<th>Tardy Days</th>
<th>Parent Evaluation</th>
<th>Pre-Post Test</th>
<th>WRAT Test</th>
<th>Student Self-Evaluation</th>
<th>Pre-Post Test</th>
<th>Teacher Evaluation of Student Test</th>
<th>Post-Test</th>
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Owensboro Public Schools After-School Tutorial Program

Data Collection Checklist—Tutorial Program
Final Evaluation

- Data Return Chart completed
- All tutor post-WRATs
- All tutor post self-evaluations
- All tutor evaluations of the program
- All tutor parent evaluations
- All teacher evaluations
- Master teacher evaluation including recommendations for improving the program if it continues next year
- Master teacher's daily log or anecdotal record

After you have completed all work on this checklist, please sign below and return the checklist along with all items herein requested to Mr. Hanberry.

Master teacher's signature
SELECTED BIBLIOGRAPHY

Books


Unpublished Materials


Periodicals


Lane, Patrick; Pollack, Cecelia; and Sher, Norman. "Remotivation of Disruptive Adolescents." *Journal of Reading* 15 (February 1972): 351-54.


Wright, Elizabeth J. "Upper-Graders Learn by Teaching." The Instructor 75 (October 1965): 102-3.

BIOGRAPHICAL SKETCH

The writer was born on May 17, 1939, in Busseron, Knox County, Indiana. She received the first three years of her elementary education in the public schools of Sullivan, Indiana. The following two years she attended the public elementary schools in the Owensboro City School System. She received the remainder of her elementary and secondary education in the public schools of Daviess County, graduating from Daviess County High School, Owensboro, Kentucky, in 1957.

She attended Kentucky Wesleyan College in Owensboro one year and the remainder of her undergraduate work was done at Western Kentucky University in Bowling Green, Kentucky, where she received a B. S. degree in home economics in 1961. She was awarded the Master's Degree in Education by Western in 1963. She completed thirty hours of post-graduate study in guidance and counseling at Western in 1969.

Her teaching career began in 1961 as an English and science teacher at Foust Junior High School, which has since become Foust Middle School, in Owensboro, Kentucky. All thirteen years of her teaching experience have been at Foust.

She served in a pilot program as English teacher on a four-teacher team in cross-discipline team teaching in 1968. This program served as a model which was later to be adopted school-wide by the other junior high schools in the Owensboro School System.

For three years prior to the present school year she served as half-time counselor and half-time team teacher at Foust.
Her work toward the Specialist Degree began during the summer of 1972 at Western Kentucky University and has continued while assuming a teaching load.

Sarah Louise Harrison
July 1974