

## INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.
2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.
3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.
4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.
5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

### **Xerox University Microfilms**

300 North Zeeb Road  
Ann Arbor, Michigan 48106

76-2040

MULLER, Gale Doren, 1944-

THE EFFECT OF A PROGRAM OF POSITIVE HUMAN  
RELATIONS ON ACADEMIC ADVANCEMENT AND ACHIEVEMENT.

The University of Nebraska • Lincoln, Ph.D., 1975  
Education, psychology

**Xerox University Microfilms**, Ann Arbor, Michigan 48106

**THIS DISSERTATION HAS BEEN MICROFILMED EXACTLY AS RECEIVED.**

THE EFFECT OF A PROGRAM OF POSITIVE HUMAN RELATIONS ON  
ACADEMIC ADVANCEMENT AND ACHIEVEMENT

by

Gale D. Muller

A DISSERTATION

Presented to the Faculty of  
The Graduate College in the University of Nebraska  
in Partial Fulfillment of Requirements  
for the Degree of Doctor of Philosophy  
Department of Educational Psychology  
and Measurements

Under the Supervision of  
Professor DeLoss Friesen  
Lincoln, Nebraska

May, 1975

**TITLE**

THE EFFECT OF A PROGRAM OF POSITIVE HUMAN RELATIONS

ON ACADEMIC ADVANCEMENT AND ACHIEVEMENT

**BY**

Gale D. Muller

**APPROVED**

**DATE**

DeLoss Friesen

4-24-75

Dewaine, Alcorn

4-24-75

Robert Brown

4-24-75

Erwin Goldenstein

4-24-75

Earl Wilson

4-24-75

**SUPERVISORY COMMITTEE**

**GRADUATE COLLEGE**

**UNIVERSITY OF NEBRASKA**

## ACKNOWLEDGEMENTS

The writer would like to express his appreciation to those individuals who made this study possible.

To my graduate committee, Dr. Robert Brown, Dr. Erwin Goldenstein, Dr. Earl Wilson, Dr. Dwaine Alcorn, and especially to my advisor, Dr. DeLoss Friesen for his patience and persistence in helping me complete the study.

To the Nebraska Human Resources Research Foundation and to those there who were a part of the overall planning for the study: Dr. William Hall, past Director of the Foundation, Dr. Galen Dodge, Director, and to the many counselors and friends who did the important day-to-day work of the project. A special thanks to Dr. Earl Dredge for his part in the preparation and implementation of the study.

To Dr. Donald O. Clifton for his constant support and encouragement.

To Mr. William Bogar, Principal and the Lincoln High School staff for their excellent professional support.

To the many students who were a part of the study -- many of whom have been an important part of my life.

To my family, my parents, Mr. and Mrs. Earl Muller, my son, Edward, and daughter, Kelly, and especially my wife, Kay, who have made many sacrifices and investments for me.

## TABLE OF CONTENTS

CHAPTER		PAGE
I.		
I.	INTRODUCTION . . . . .	1
	A. Theoretical Derivation . . . . .	3
	B. Statement of the Research Problem. . . . .	6
	C. Importance of the Study. . . . .	8
II.	THE HYPOTHESES AND RESEARCH QUESTIONS. . . . .	9
III.	DEFINITION OF TERMS. . . . .	11
IV.	THE TREATMENT, A PROGRAM OF POSITIVE HUMAN RELATIONS . .	13
	A. Purpose. . . . .	13
	B. Members of the Program . . . . .	13
	C. Individual and Group Activities. . . . .	14
	D. Conclusion . . . . .	16
V.	LIMITATIONS OF THE STUDY . . . . .	17
VI.	SUMMARY. . . . .	18
VII.	ORGANIZATION OF THE REMAINDER OF THE STUDY . . . . .	19
II.	A REVIEW OF THE LITERATURE	
I.	VARIABLES RELATED TO ASPIRATION TO COLLEGE ATTENDANCE. .	20
	A. Socioeconomic Status of Family . . . . .	20
	B. Peer Influence . . . . .	22
	C. Parental and Family Influence. . . . .	25
	D. Academic Ability . . . . .	26
	E. Other Considerations . . . . .	26
II.	VARIABLES RELATED TO COLLEGE-GOING BEHAVIOR. . . . .	27

CHAPTER	PAGE
A. Academic Ability . . . . .	28
B. Socioeconomic Status . . . . .	28
C. Parental Influence . . . . .	30
D. Peer Influence . . . . .	31
E. Other Influences . . . . .	32
III. SELECTED VARIABLES RELATED TO ACADEMIC ACHIEVEMENT . . .	36
A. Social Relationships . . . . .	36
B. Socioeconomic Status . . . . .	37
C. Parental Influence . . . . .	38
D. School Influence . . . . .	39
IV. EVALUATIVE RESEARCH OF INTERVENTION PROGRAMS TO INCREASE COLLEGE-GOING BEHAVIOR . . . . .	41
A. Upward Bound . . . . .	41
B. Other Programs . . . . .	44
V. BACKGROUND AND SUPPORTING RESEARCH CONCERNING THIS STUDY'S SPECIFIC INTERVENTION TECHNIQUE. . . . .	46
VI. SPECIFIC INTERVENTION STUDIES. . . . .	55
III. METHODS AND PROCEDURES FOR THE STUDY	
I. POPULATION AND SAMPLE. . . . .	62
A. Population . . . . .	62
B. Sample . . . . .	62
II. METHODS. . . . .	67
III. PROCEDURES . . . . .	68
IV. TESTING THE HYPOTHESES AND STATISTICAL METHODS . . . . .	70
IV. RESULTS AND DISCUSSION OF THE STUDY	
I. THE RESULTS. . . . .	75

CHAPTER	PAGE
A. Comparison Data for Control and Experimental Subjects . . . . .	75
B. Major Hypotheses Investigated. . . . .	79
II. DISCUSSION OF RESULTS. . . . .	107
A. Research Designs Employed. . . . .	107
B. Treatment Effects in Terms of Educational Advancement. . . . .	108
C. Treatment Effects in Terms of Educational Achievement. . . . .	110
D. Treatment Effect in Terms of Other Measures. . . . .	110
E. Experimental Subjects' Perceptions of the Treatment. . . . .	112
V. SUMMARY, CONCLUSIONS, AND IMPLICATIONS	
I. SUMMARY OF THE STUDY . . . . .	114
A. The Problem. . . . .	114
B. Review of the Literature . . . . .	115
C. Methods and Procedures . . . . .	119
II. CONCLUSIONS. . . . .	122
III. IMPLICATIONS AND FURTHER RESEARCH. . . . .	124
A. Implications . . . . .	124
B. Criticism of the Methodology . . . . .	125
C. Basic Strengths of the Study . . . . .	126
D. Suggestions for Future Research. . . . .	127
SELECTED BIBLIOGRAPHY. . . . .	130
APPENDICES . . . . .	139



## CHAPTER I

### I. INTRODUCTION

There has been much new interest and effort directed toward the problem of providing the best possible education for teenage youngsters of various socioeconomic groups. It appears that young people from homes of low income often do not receive the amount of reinforcement for educational achievement that is received by young people from homes of high or middle income. If this is true, it seems worthwhile to attend to such problems of deprivation and differences in educational achievement, and try to help those youngsters that traditionally have lacked the needed reinforcement for optimal educational achievement.

In addition, during the past few years, public schools have come under close scrutiny and often been criticized for being irrelevant and unresponsive to the needs of young people in general. In an effort to do the best possible job, a number of "innovative" approaches have been developed by public school educators. Mini courses, programmed materials, modular scheduling, and individualized instruction are illustrative of the attempts currently being made to provide a relevant curriculum for each individual student regardless of economic background.

The current study, initiated in 1965, was a unique attempt at providing for individual needs for young people from low economic and low educational advancement homes within the context of the traditional school curriculum. Subjects participated in individualized extracurricular activities and special one-to-one relationships that were directly aimed

at increasing the subjects' educational achievement and educational advancement. It is hypothesized in this paper that young people with high academic potential and from low socioeconomic homes where high educational achievement has not been a common behavior, often drop out of school or at least do not go on to higher education or training, because, although well above average academically, the young people do not "see themselves" as being successful in advanced educational endeavors. Theoretically, then, such students do not attain a high degree of educational advancement because of the limited amount of exposure to models who have been highly successful and because of the lack of social reinforcement for such educational advancement in the home.

It was the purpose of this study to determine the value of using a program of positive human relationships in improving such educational achievement. This evaluation included the use of a structured questionnaire and school records.

The structured questionnaire included items measuring the students' self-reported academic advancement, aspirations, and future goals. For experimental subjects, it also measured the subjects' self-reported closeness of relationship with their counselor, and the influence that counselors had on their lives. Educational achievement was measured in terms of grades that the subjects received during high school. Such scores acted as a measure of the effectiveness of the treatment variable, a program of positive human relationships. Educational advancement was measured by ascertaining the total credit hours of education beyond high school, and number of years of education beyond high school. Differences in educational advancement between experimental and control subjects are

deemed to be the most important measure of the success of the treatment variable.

#### A. Theoretical Derivation

The problem was generated from two theoretical bases. Maslow's (1965, p. 326) hierarchy of needs indicates that motivation is based on the assumption that needs are arranged along a hierarchy of priority or potency. This hierarchial order from most important to least is:

"... physiological needs such as hunger and thirst, safety needs, needs for belongingness and love, esteem needs, needs for self-actualization, cognitive needs such as a thirst for knowledge, and finally aesthetic needs such as the desire for beauty."

This would mean that before young people can develop a "thirst for knowledge," needs for belongingness, love and self-esteem must be met. In this present study college students functioning as counselors attempted to fulfill student needs for love, acceptance, and belongingness through the development of a close personal relationship and the development of group activities to increase feelings of belonging. In addition, self-esteem needs were to be met through personal recognition of the subject, his positive characteristics, and through developing special successful activities in which either the subject or the subject and counselor were involved. Theoretically, when the needs of belongingness, love, and self-esteem have been met, only then can the person attend to the cognitive needs such as a thirst for knowledge. If, then, the University of Nebraska student counselor can help the subject meet these needs of belongingness, love, and self-esteem, the subject can begin to attend to the thirst for knowledge need, and, hence, a higher educational achieve-

ment and educational advancement will result.

The second theoretical orientation comes from the Skinnerian positive reinforcement theory specifically stated by Bandura as Observational Learning Theory. As Hilgard and Bower (1966, p. 538) state:

"... By having the person observe a model, we increase the initial probability that a response pattern resembling the one desired will occur. After it occurs, the response can be further refined or differentiated and its rate stepped up by reinforcement."

In the present study, the counselors acted as models of educational achievement and advancement and have been in contact with high school student subjects so that the high school students observed them. When the subjects verbalized desires to obtain greater educational advancement (i.e., "go on to college," etc.) or performed well academically (good grades, honors, etc.), the college student model rewarded the student by using verbal praise, telling peers, special gifts, or recognizing him publicly.

According to Bandura's theory, the subjects should be more apt to imitate their college student models and receive reinforcement for such imitation and, therefore, gain higher academic achievement and advancement than would students who did not have college student models.

A more specific orientation of human relations developed by Hall (1951) uses aspects of both of these two theoretical orientations. Two basic assumptions underlie this orientation: (1) the greatest resource available to man is the human resource, man himself, and (2) the development of good human relations is the best method for the development of this human resource.

Three postulates or principles of Hall's orientation are:

1. The study of good behavior. The first goal principle states that in order to achieve good positive behavior good behavior must be studied and identified. Good behavior is defined as the best function an individual can make in accordance to his own design. It is believed that the best function is expressed in its highest form when an individual is aiding and developing someone else.

2. The recognition of good behavior. The second goal principle holds that one of the best ways to produce good behavior is to give adequate recognition of good behavior when it occurs. Thus, determination of an individual's strengths provides that frame of reference for such recognition. Thus, to promote better behavior, the individual's strengths should be the area which has received such recognition.

3. The investment of human relations capital. Hall defines people as having a great deal of human relations capital if they are very understanding, sensitive to the needs of others, empathetic, sensitive to the potentials of others, have a strong belief in people, are able to communicate well with others, and can be objective in their relationships with others. People with this capital can invest it in others and through this process the recipient of such investment of time, energy, and capital can grow in the areas of his potentials. This is only true when that invested meets or surpasses the needs of the recipient. This, of course, assumes that the person investing will have sufficient capital to meet the needs of the recipient. It is theorized by Hall that a person must have received the benefits of investment before he in turn can invest in others.

Following this orientation, the University student counselor was

chosen carefully to make sure he had adequate capital. If this is done correctly and if the subject is chosen carefully to make sure his needs do not surpass the capital available to the University student counselor, and if the University student counselor invests this capital in the subject, then the subject will tend to grow in the areas of his potentials. In this study, the subjects were chosen so that they had a high academic achievement and advancement potential. So, therefore, if the experimental subjects receive the proper investment, they should tend to have higher academic achievement and advancement than the control subjects who did not receive the investment.

B. Statement of the Research Problem

This study attempted to measure the effect of a program of positive human relations on subjects from low income, non-college oriented families, but who had high academic potential. These effects were measured in terms of the subjects' educational achievement and educational advancement. An attempt was also made to investigate the relationship between several specific aspects of the program of positive human relations and the academic achievement and academic advancement of the subjects.

Rossi (1967, p. 51-53) has indicated that two basic types of research need to be conducted in the social sciences today. Rossi's strategy for good evaluation research includes two stages:

"A reconnaissance state--a rough screening in which the soft and correlational design filter out those programs worthwhile investigating further.

An experimental phase--in which powerful controlled experiments are used to evaluate the relative effectiveness of a variety of those programs already demonstrated to be worth pursuing."

(1967, p. 53) Rossi illustrates his strategy in the following statement:

"If a treatment shows no effects with a soft method, then it is highly unlikely that a very precise evaluation will show more than very slight effects. Thus, if children in an ordinary Head Start Program show no gain in learning compared to those who do not participate (initial learning held constant), then it is not likely that a controlled experiment, with children randomly assigned to experimental and control groups, is going to show dramatic differences either.

This means that it is worthwhile to consider soft methods as the first stage in evaluation research, discarding treatments that show no effects and retaining more effective ones to be tested with more powerful, controlled designs."

This paper is a sophisticated "soft" method of global review of a program that professes to make some change with regard to educational achievement and advancement. This study is, however, more than a correlational or nonequivalent control groups study since a randomized sample was selected. However, the intervening variables are not closely controlled and defined well enough for this experiment to meet all of the requirements of Rossi's experimental phase:

More specifically, the study attempted to measure differences in experimental and control subjects concerning educational achievements and attitude and direct behaviors concerning educational advancement beyond high school. The subjects' self-reported perception of their goals in life was also measured. In addition an important part of the study was that correlations were calculated to measure the relationships among experimental group subjects between academic achievement, academic advancement, the subjects' self-report of the "perceived time spent" by the counselor, and the subjects' perception of the closeness of their relationship with the counselors. These correlations may be very helpful in defining antecedent variables and suggesting improvements in

such a program for the future.

Subjects were selected with high academic potential, but from low income and low educational advancement homes where few if any of the members of the family had pursued post high school education. These students, although of high potential, were probable dropouts because of attitudes toward educational achievement. University of Nebraska students were selected to serve as initiators of positive human relationships and other positive academically and socially related experiences. Such University students served as the models of high educational achievement that had been lacking in the homes of the subjects, and also made a special effort to reinforce behaviors that would lead to higher educational advancement.

The present research was concerned with using new techniques within the traditional school structure. Reinforcement, as described above, was done by college students and, as such, the school program was not altered or manipulated directly.

### C. Importance of the Study

The potential value of this study is apparent. If it can be demonstrated that a program of positive human relations improves educational achievement and raises educational advancement, then the program can be adapted to fit similar situations. In line with Rossi, a more sophisticated and more highly controlled study may follow if this initial "soft" study is found to be successful.

The study can be used as a vehicle for presentation in attracting more funds from various sources. These funds could be utilized to



structure the program so that a larger research project can be carried out. The study can also be used to bring about wider use of this type of program in more and varied settings. Although the sample is restricted to one high school, the nature of the variables would suggest that the results are highly generalizable to students of similar situations in other schools.

## II. THE HYPOTHESES AND RESEARCH QUESTIONS

(1) The experimental group of students who participated in the program of positive human relations will pursue higher educational advancement than will the control group of students who will not have participated in this experimental program ( $p < .05$ ).

(2) The experimental group of students who participated in the program of positive human relations will have greater educational achievement than will the control group of students who will not have participated in the program of positive human relations ( $p < .05$ ).

(3) Differences exist between experimental and control subjects in terms of their self-reported attitudes toward: (a) school, and (b) goals in life. ( $p < .05$ ).

(4) Of those subjects not in college or post secondary training, the experimental group subjects will have a higher rate of employment and better employment than the control group subjects ( $p < .05$ ).

(5) There exists a significant difference ( $p < .05$ ) between experimental subjects and control subjects in terms of:

- a. educational aspirations
- b. educational plans

c. discrepancy between aspirations and plans.

(6) Experimental subjects who have participated in the program of positive human relations will have significantly more ( $p < .05$ ) activity points than will control subjects who have not experienced the program of human relations.

(7) Among the experimental group subjects, there will be a significant ( $p < .05$ ) positive relationship between the self-reported "closeness" of the subject and his/her counselor and the subject's academic achievement.

(8) Among the experimental group subjects there will be a significant positive relationship ( $p < .05$ ) between the self-reported "closeness" of the subject with his counselor and the subject's educational advancement.

(9) Among the experimental group subjects, there will be a significant ( $p < .05$ ) positive relationship between the subject's self-reported "perceived time spent" with his/her counselor and

- a. academic achievement
- b. the subject's self-reported "closeness" of the subject-counselor relationship.

(10) Among the experimental group subjects, there will be a significant positive relationship ( $p < .05$ ) between the subject's self-perceived "level of counselor influence" in his/her life and

- a. academic achievement
- b. the subject's self-reported "closeness" of the subject-counselor relationship
- c. the subject's self-reported "time spent" by counselor with the subject.

(11) Among the experimental group subjects, there will be a significant difference ( $p < .05$ ) between subjects who attended college and those that didn't attend college in terms of:

- a. subject's self-reported "time spent" by counselor with the subject
- b. the subject's perceived "level of influence" of counselors in subject's lives.

### III. DEFINITION OF TERMS

Operational definitions of terms used in the writing of this paper are included below.

Academic Potential will be defined as scores of paper and pencil IQ tests and achievement tests (usually the California Test of Mental Maturity). These tests will have been given to the subjects prior to being selected for the experiment.

High Academic Potential will be defined as test scores above the fiftieth percentile.

Educational Achievement will be defined in terms of the subjects' grade point averages (GPA) and his ability to graduate from high school.

High Educational Achievement would mean that the subject would have a GPA high enough to qualify him for college entrance.

Educational Advancement will be defined as the level of training in terms of years of educational endeavors beyond high school graduation and number of credits earned beyond high school. Having entered college would be defined as higher educational advancement than not having entered college. Having completed college would be defined as higher educational

advancement than going one to three years of college.

Low Income will be defined as reported family income on a graduated scale based on the number of members in the family. The base rate of income for this scale was \$3,000 for 1965 and \$4,500 for every year after that. Additional amounts of \$900 per junior high or high school student in the family and \$600 for each younger person in the family were added to the base rate. Special expenses for medical or other reasons beyond what is normally expected for a family were also added to this amount. If the family income was at or below the base rate plus additions, the student qualified for consideration for the study.

Non-College Family will be defined as one where not more than one member of the family has been in college or post high school training for no more than two years. In most cases this will mean families where no members of the immediate family have attended college.

Positive Human Relations will be defined as the activities and social, educational, and cultural interaction that takes place in the program of human relations. A more complete description of such activities is presented later.

Successful Academic Models (for students from low income non-college families) will be defined as college students who are successfully advancing through college and who qualify for college work-study. These college students must profess to value high educational advancement (as measured by a structured interview) and will act as activators or counselors in the experiment.

Reinforcement for educational achievement will be defined as being in the presence of successful model with high educational advance-

ment, and as activities and verbal comments that would tend to encourage a student to seek post high school education.

Counselors will be defined as the University students who spend time with the high school students in the program of positive human relations.

#### IV. THE TREATMENT, A PROGRAM OF POSITIVE HUMAN RELATIONS

##### A. Purpose

The purpose of the program of positive human relations was to identify capable low income students and through an intensive program of individual one-to-one relationships and group activities help these high school students attain a favorable attitude toward college or other post high school education.

##### B. Members of the Program

This study was concerned with the students (study and control groups) who graduated from Lincoln High School in each of the years 1968, 69, 70, 71, and 72. The participants were selected from families where little or no contact was made with college students or graduates. The families were also categorized as lower income families. Usually there was little or no means of supporting a college student from the income of the family.

In addition to the high school students that were selected there were college students chosen to act as counselors to the high school students. During the time of this study, the college student was assigned to two high school students. In addition several other graduate

students were hired to work with administrative details and to conduct research. College students worked intensively in developing individual relationships with these students. Various new experiences were provided for the high school students.

The high school and college students were given extensive interviews (see Appendices E and G), and each high school student was matched with a college student according to similar interests. The college students were encouraged to meet regularly to establish a relationship in which the college student became a significant person to the high school student. The relationship began at a basic level, and by continuous contact the college students were able to develop effective relationships. Emphasis was placed upon the high school student's potentials and the college student's responsibility to reinforce these potentials. Usually the potentials related to academic aspirations. There was emphasis, however, on human relations and leadership qualities.

#### C. Individual and Group Activities

The college element was emphasized in most of the activities; yet by establishing the friendships the high school students benefitted in several areas, as mentioned before. Many of the activities were individual in nature since just the college student and his high school students participated in them. This, of course, was up to the individual as to what activities they preferred. Activities used included track meets, ice capades, movies, plays, bowling, church services, and Lincoln High School events. Even more important were the informal conversations the students engaged in as they developed their relationships. All of

this involved personal contact and the attempt of the college student to build an effective relationship.

An earlier study by Smith (1967, p. 36) indicated the following breakdown of counselor time spent:

Personal Contact	43%
Record Keeping	6%
Meetings	19%
Conferences	5%
Library and Personal Research	13%
Operations	13%

The definitions of the terms given above are defined in Appendix A.

The most important aspect of this time was "Personal Contact."

To describe such contact, a condensed log of personal contact activities is given for one counselor in Appendix B.

Several group activities supplemented the individual contact. These activities included both entertainment and academically-oriented activities. Examples of one year's activities are listed in Appendix C. The college students and the high school students were involved in the activities.

A typical two-week period for an active counselor and subjects is given below:

November 1: Counselor called each of his subjects and talked with them about school and personal activities. One of the subjects mentioned that he was having trouble with math. The counselor suggested that they both attend the "Study Night" scheduled for every Thursday evening. This contact would be classified as Personal Contact.

November 5: One subject called the counselor to learn about a money-making project (Slave Day) that is being conducted to raise money for an educational trip to be taken later in the year. This was Personal Contact.

November 6: Counselor and one subject attended "Study Night." This was Personal Contact.

November 9: Counselor attended a special counselor inservice meeting concerning relationship building. This was classified as Meetings.

November 10: The counselor went to a special project party with both subjects. The party was held on the University campus. This was classified as Personal Contact.

November 12: The counselor spent time with one of the leaders of the project planning specific activities for one of the subjects. This was classified as Conferences.

November 13: The counselor went shopping with one of the subjects, and then showed him the University dorm. This was classified as Personal Contact.

#### D. Conclusion

The high school students in this project remained active participants for the three years of high school. Upon graduation, it was hypothesized that the members of the program of human relations will continue their education or find better jobs than they would have had had they not been in this program.