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DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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* * * * * *

The Ohio State University
1966

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CONTENTS

ACKNOWLEDGMENTS ................................................................. ii
VITA ....................................................................................... iii
TABLES .................................................................................. vi

Chapter

I. INTRODUCTION AND STATEMENT OF THE PROBLEM ........ 1

Statement of Problem
Hypotheses for the Study
Importance of the Study
Definitions
Limitations
Organization of the Study

II. REVIEW OF LITERATURE .............................................. 20

Changing Attitudes of Counselors in
Preparation
Attitude as a Function of Change
The Nature of the Relationship
Dogmatism and the Counselor
Programmed Instruction and Human Relations
Skills

III. PROCEDURES ............................................................. 59

The Population
The Instruments
   The Relationship Inventory
   The Dogmatism Scale
   The General Relationship Improvement Program
   The Human Development Institute Program
   Evaluation Scale
Procedures for Collection of the Data
Analysis of Data

iv
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV. RESULTS AND DISCUSSION</td>
<td>80</td>
</tr>
<tr>
<td>Hypothesis 1</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td></td>
</tr>
<tr>
<td>Human Development Institute Program Evaluation</td>
<td></td>
</tr>
<tr>
<td>V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>118</td>
</tr>
<tr>
<td>Purposes of the Study</td>
<td></td>
</tr>
<tr>
<td>Summary of Procedure</td>
<td></td>
</tr>
<tr>
<td>Instruments of the Study</td>
<td></td>
</tr>
<tr>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>Conclusions and Implications</td>
<td></td>
</tr>
<tr>
<td>Recommendations for Further Research</td>
<td></td>
</tr>
<tr>
<td>APPENDIXES</td>
<td>133</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>153</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>1. Comparison of Experimental and Control Groups on the Relationship Inventory Pre-Test</td>
<td>81</td>
</tr>
<tr>
<td>2. Comparison of Experimental and Control Groups on the Dogmatism Scale</td>
<td>82</td>
</tr>
<tr>
<td>3. Comparison of Experimental and Control Groups on the Relationship Inventory Post-Test</td>
<td>85</td>
</tr>
<tr>
<td>4. Comparison of Experimental and Control Groups on the Relationship Inventory Pre- to Post-Test Differences</td>
<td>86</td>
</tr>
<tr>
<td>5. Comparison of Growth in Human Relations Skills by Experimental and Control Groups as Measured by Relationship Inventory Pre- to Post-Test Difference Scores</td>
<td>87</td>
</tr>
<tr>
<td>6. Comparison of Experimental and Control Groups on the Relationship Inventory Delayed Post-Test</td>
<td>89</td>
</tr>
<tr>
<td>7. Comparison of Experimental and Control Groups on the Relationship Inventory Pre- to Delayed Post-Test Differences</td>
<td>90</td>
</tr>
<tr>
<td>8. Range and Means of Dogmatism Scale Scores for Subjects Classified as Low, Medium, and High</td>
<td>93</td>
</tr>
<tr>
<td>9. Comparison of Low, Medium, and High Groups on the Relationship Inventory Pre-Test</td>
<td>94</td>
</tr>
<tr>
<td>10. Comparison of Low, Medium, and High Groups on the Relationship Inventory Post-Test</td>
<td>95</td>
</tr>
<tr>
<td>11. Comparison of Low, Medium, and High Groups on the Relationship Inventory Pre- to Post-Test Differences</td>
<td>96</td>
</tr>
<tr>
<td>12. Comparison of Low, Medium, and High Group Relationship Inventory Pre-Test Scores for the Experimental Group</td>
<td>98</td>
</tr>
</tbody>
</table>
Table

13. Comparison of Low, Medium, and High Group Relationship Inventory Pre-Test Scores for the Control Group ........................................ 98

14. Comparison of Low, Medium, and High Group Relationship Inventory Pre- to Post-Test Differences for the Experimental Group ........................................ 99

15. Comparison of Low, Medium, and High Group Relationship Inventory Pre- to Post-Test Differences for the Control Group ........................................ 100

16. Growth in Human Relations Skills by Low Group Subjects as Measured by Relationship Inventory Pre- to Post-Test Difference Scores ........................................ 101

17. Growth in Human Relations Skills by Medium Group Subjects as Measured by Relationship Inventory Pre- to Post-Test Difference Scores ........................................ 102

18. Growth in Human Relations Skills by High Group Subjects as Measured by Relationship Inventory Pre- to Post-Test Difference Scores ........................................ 103

19. Comparison of the Relationship Inventory Pre-Test Scores of Medium and High Group Subjects as Rated by Low Group Subjects ........................................ 105

20. Comparison of the Relationship Inventory Pre-Test Scores of Low and High Group Subjects as Rated by Medium Group Subjects ........................................ 106

21. Comparison of the Relationship Inventory Pre-Test Scores of Low and Medium Group Subjects as Rated by High Group Subjects ........................................ 106

22. Comparison of Medium and High Group Relationship Inventory Pre- to Post-Test Differences as Rated by Low Group Subjects ........................................ 108

23. Comparison of Low and High Group Relationship Inventory Pre- to Post-Test Differences as Related by Medium Group Subjects ........................................ 108
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. Comparison of Low and Medium Group Relationship Inventory Pre- to Post-Test Differences as Rated by High Group Subjects</td>
<td>109</td>
</tr>
<tr>
<td>25. Comparison of Low, Medium, and High Group Scores on the Human Development Institute Program Evaluation Scale</td>
<td>112</td>
</tr>
<tr>
<td>26. Rank-Order of Positive Item Means on the Human Development Institute Program Evaluation Scale</td>
<td>114</td>
</tr>
<tr>
<td>27. Coefficients of Correlation Between Human Development Institute Program Evaluation Scale Scores and Trainees' Relationship Inventory Pre- to Post-Test Difference Scores</td>
<td>116</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

In spite of all similarities, every living situation has, like a newborn child, a new face that has never been before and will never come again. It demands of you a reaction which cannot be prepared beforehand. It demands nothing of what is part. It demands presence, responsibility; it demands you (11:14).

Guidance is for all pupils and extends into all phases of the educational program. It is a developmental process rather than a series of unrelated events. The objectives of this process are to provide a thread of continuity in the life of a pupil and to promote self-understanding, motivation, and decision-making (48:14).

As the need for such a program becomes more and more apparent in the schools of our nation, the need for more and better prepared counselors becomes a vital concern for those who are responsible for educational planning. There are two aspects to this problem: one of a quantitative nature and the other of a qualitative nature.

The quantitative problem must be resolved if schools are to establish the type of guidance program outlined above. One of the questions that must be answered is, "How many more counselors will be needed in the future than are
presently available?"  Another is, "Will there be enough
counselor education facilities available to prepare the
needed counselors?"  A third is, "How many counseling posi-
tions will be created by the institution of educational pro-
grams not yet visualized?"  These are but a few of the ques-
tions which will need to be answered promptly if enough
counselors are to be prepared to meet the current and future
educational needs of our nation. These problems are impor-
tant ones which educational planners must take into consid-
eration as projections are made concerning the number of
professionally educated counselors needed.

The second aspect of this discussion concerning the
need for "more and better prepared counselors" poses an
entirely new problem. Contrasted with the logistics problem
posed by the "more," the phrase "better prepared counselor"
introduces philosophical questions dealing with what a
counselor is; what behavior one expects of him; and what
implications the answers to these two questions will have for
educating the prospective counselor.

At this point it becomes necessary to take a look at
what the counselor is and what behaviors are expected of him.

In a society where freedom of choice by the individual
is an accepted fact, school counselors must have a responsi-
bility to help children to:

1. Mature in understanding of themselves and an
   acceptance of responsibility for this understanding.
2. Mature in understanding of the changing world of education and the world of work.

3. Mature in the ability to make their own choices and to solve their own problems.

4. Mature in their sense of moral values, their character.

5. Mature in understanding of human nature, of human relations, of the applied psychology of personal and social adjustment (27:20-25).

These behavioral objectives are not, of course, the sole concern of school counselors, but they are objectives to which each counselor must be particularly sensitive because these are the changes which need to take place if the child is to develop maximally in self-understanding and responsibility, in understanding the world of education and the world of work, in ability to make decisions and solve problems for himself, in a sense of moral values and a concern for others, and in understanding human nature and interpersonal relationships.

One of the problems that arise as the counselor attempts to help pupils realize the above considerations is that, as a counselor, he is often involved in a great variety of functions in the school. All educational efforts are conditioned both by a deep concern for the individual child and by a sense of responsibility to the society which gives the school certain important commissions. If guidance efforts are to succeed, the counselor must be sure that the individual child is reached.
Some contend that the major issue facing the counseling profession, and especially the school counseling profession, is the counselor himself. Farwell (20) believes that the counseling profession has ignored the counselor himself and has focused its studies on such things as

1) the techniques the counselor uses, 2) the amount of teaching experience the counselor possesses, 3) the counselor's teacher orientation, 4) the prostitution of the counselor's role, 5) counselor certification, and 6) whether or not the counselor gets along well with youth. A deeper look at the counselor himself is imperative if the counseling profession is to realize success in its task of assisting youth in maximizing their potential for growth and learning.

Farwell goes on to state that the counselor needs to be warm and understanding—to develop an expertise in the area of human relationships. He says that the most meaningful counseling cannot take place unless a sound relationship has been established between the counselor and the counselee. He contends that counselor educators have spent too little time personally promoting a depth of warm understanding. As a result many counselors in preparation become "fearful of letting themselves give to such a relationship" (20:29). This is a sad state of affairs—for potential counselors to be fearful of being and doing the very things that they have been prepared to do. Farwell believes that this apparent
lack of trust of the counselor in preparation for an involvement in a relationship inhibits his full development as an expert in the area of human relationships (20).

The point now arises—what do we as professional counselors look for in persons in preparation if they are to become effective counselors? Is there any agreement concerning the qualities that effective counselors should possess?

There does seem to be some rather general agreement on the qualities the profession deems necessary for its candidates preparing to become counselors. A brief look at the literature on this subject will reveal this general agreement.

Rogers says, "if the counselor can create a relationship permeated by warmth, understanding, safety from any type of attack, no matter how trivial, and basic acceptance of the person as he is, then the client will drop his natural defensiveness and use the situation..." (51:419). In another article, Rogers discusses the characteristics of the counselor as he participates in a successful relationship with a counselor:

The therapist has been willing to be his real feelings, has been willing to be genuine, in the relationship with the client. He has been able to enter into an intensely personal and subjective relationship with the client—relating not as a scientist to an object of study, not as a physician expecting to diagnose and cure, but as a person to a person (15:22).

Robinson indicates that persons who go to counselors want someone who accepts them as they are, who is interested
in their problems, and who is willing to go along with their approach to these problems. They appreciate a warmth in their relationship (50:43).

Other authors have similar ideas concerning the importance of the establishment of a proper relationship in the counseling setting. Brammer and Shostrom state that the counselor's effectiveness hinges on the quality of the relationship between counselor and client, and that the basic attitudes of the counselor are highly significant. This relationship will be influenced by additional counselor characteristics of warmth, intelligence, flexibility, and a willingness to share the responsibility (8:169).

After reviewing studies by five researchers on the various personal qualifications considered important for the successful counselor, Peters and Farwell conclude that a counselor must "be himself" and that to be effective he must exhibit an "outgoingness... that conveys acceptance, understanding, forthrightness, fairness, and sincerity" (48:37).

Lastly, Patterson emphasizes the importance of the counselor respecting the client as a unique, autonomous individual, worthy of acceptance as a human being, a person. Patterson states that the client's "right to freedom of choice, to self-determination of his behavior, to live his own life, is recognized and respected" (46:113). Patterson believes that the atmosphere in which this can take place "is
more dependent on the attitudes and feelings of the counselor toward the client than upon the techniques he uses" (46:113). The attitudes which Patterson lists as part of the counselor's basic philosophy about people are:

1. Genuine respect for the client.
2. An attitude of acceptance on the part of the counselor.
3. A relationship from which threat is absent. Respect for the client, interest in and acceptance of him as a person, absence of evaluative attitudes, and understanding of him by seeing his point of view all contribute to an atmosphere devoid of threat (46:112-16).

There does appear to be some consensus concerning what a counselor is and what behaviors he is expected to exhibit. This is evidenced by the views indicated in the preceding section by some leaders in the guidance and counseling field. Unfortunately, there is no consensus concerning how the counselor is to achieve these attitudinal states, or under what conditions their development can be stimulated. The lack of knowledge concerning the development of these important counseling attitudes is the basis for the research to be conducted in this study. However, before the problem to be researched is defined, several other considerations will be mentioned.

As one attempts to look at individual behavior, he needs to be aware that an individual's perception determines the quality of his behavior—that how one perceives a certain situation, idea, person, or event will determine his
resultant behavior. "Perception is a guide to action. We react to situations and to one another in terms of our perceptions. What we perceive a situation to be is not necessarily what it is in reality" (41:482).

Combs (15:60) believes that people get their perceptions as a result of their experiences. He believes that rich and extensive perceptual fields are a product of the kinds of opportunities to which an individual has been exposed. Other things being equal, the richer the opportunity, the more likely there will be the development of a rich and extensive field.

Combs emphasized: "Something more than confrontation with events is necessary to insure inclusion of perceptions in the field and their availability on later occasions" (15:60).

Another author, Kelley, has this to say about the importance of perception:

One of the most revealing facts about perception is that it is selective. We do not see everything in our surroundings. There are thousands of coincidences in the situation in which we find ourselves at any point of time. To perceive them all would cause pandemonium. We therefore choose that which the self feeds upon. The direction of the growth of the self depends upon those choices.

The choices seem to be on the basis of experience and unique purpose. We all have a background of experience upon which perception is in part based. We cannot see that which we have no experience to see. But experience is not enough to account for what happens, for there are many objects in our surroundings with which we have had experience, but which we do not perceive (15:14).
What a person does, what a person learns, is thus a product of what is going on in his unique and personal field of awareness. People behave in terms of the personal meanings (perceptions) existing for them at the moment of action.

Rokeach (57) has proposed that a person's belief-disbelief system both affects and affects his perception of the experience he is having. The more open-minded the person, the more he is able to perceive experiences as they actually occur. Kemp believes the more closed-minded one becomes the less he considers experience in terms of its intrinsicness. Instead, he examines and evaluates information and reaches decisions in accordance with early acquired beliefs and disbeliefs, and in relation to some authority figure(s) (38:431).

Thus it may be seen that the counselor's behaviors will be a function of his perception. The degree to which counselors will be able to assist counselees will be, at least in part, a function of the counselor's past experiences and how these experiences are perceived. The task that counselor education faces then, is one of attempting to provide experiences for counselors in preparation that will enable them to increase their own personal fields of awareness in such a way that they will be able to work with students and, through these interpersonal contacts, to facilitate maximal student growth.
Perception is crucial as to the type of relationship one person can have with another. The type of relationship that exists between the counselor and counselee is crucial if the counselor is to facilitate maximal student growth.

Statement of the problem

As individuals receive their preparation in counselor education institutions, an attempt is made to insure that each prospective counselor receives a rich field of experience. This is done in the belief that a wide and rich field of experiences will enable prospective counselors to realize maximal professional and personal growth.

Different counselor education programs have different goals for the types of counselors they hope to prepare. Several of the more frequently mentioned desired counselor behaviors in almost every program are, that the counselor will be able to empathize with the problems and concerns of others, have unconditionally positive regard for other persons, and be congruent themselves.

The problem of this study then, is one of attempting

1. To determine whether or not persons participating in intensive counseling preparation programs become more empathic, more congruent, and more unconditionally positive in their regards for others,

2. To determine whether or not programed instructional materials (The General Relationship Improvement Program of
the Human Development Institute) are effective in improving a counselor's level of regard, empathy, congruence, and positiveness of regard for others,

3. To determine the effects of dogmatism (as measured by the Dogmatism Scale) on the learning of human relations skills,

4. To determine the effects of dogmatism on the way class members rate their classmates on the Relationship Inventory, and

5. To determine the attitudes of counselors in preparation concerning the usefulness and desirability of using programed human relations materials in counselor education programs.

More specifically, the null hypotheses to be tested are listed in the following section.

Hypotheses for the study

This study is designed to test the following general null hypotheses and the sixteen specific null hypotheses.

1. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the sub-tests of the Relationship Inventory.

   a. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the Level of Regard sub-test of the Relationship Inventory.
b. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the **Empathy sub-test** of the Relationship Inventory.

c. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the **Congruence sub-test** of the Relationship Inventory.

d. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the **Unconditionality of Regard sub-test** of the Relationship Inventory.

2. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the sub-tests of the Relationship Inventory.

a. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the **Level of Regard sub-test** of the Relationship Inventory.

b. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the **Empathy sub-test** of the Relationship Inventory.

c. Experimental and control groups will not differ with respect to pre- to delayed post-test difference
scores on the **Congruence sub-test** of the Relationship Inventory.

d. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the **Unconditionality of Regard** sub-test of the Relationship Inventory.

3. Subjects scoring in the first, second, and third groups ranges of the Dogmatism Scale (for this population) will not differ with respect to their pre- to post-test difference scores on the sub-tests of the Relationship Inventory.

   a. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the **Level of Regard** sub-test of the Relationship Inventory.

   b. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the **Empathy** sub-test of the Relationship Inventory.

   c. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the **Congruence** sub-test of the Relationship Inventory.
d. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the Unconditionality of Regard sub-test of the Relationship Inventory.

4. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale (for this population) will not rate members of their triadic training groups differently as measured by pre- to post-test difference scores of the Relationship Inventory.

   a. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups differently as measured by pre- to post-test difference scores on the Level of Regard sub-test of the Relationship Inventory.

   b. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups differently as measured by pre- to post-test difference scores on the Empathy sub-test of the Relationship Inventory.

   c. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups
differently as measured by pre- to post-test difference scores on the Congruence sub-test of the Relationship Inventory.

d. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups differently as measured by pre- to post-test difference scores on the Unconditionality of Regard sub-test of the Relationship Inventory.

**Importance of the study**

The relationship between counselor and counselee is certainly very crucial. McGowan and Schmidt (44) note that a planned and gradual introduction into the personal involvement required in the counseling relationships, as well as an increased need for self-awareness on the part of the counselor, is an essential part of the counselor's preparation. A counselor who has not freed himself of his own problems in relationship to the counselee, who has not learned to understand his own personality needs, is not likely to be able to assume his responsibilities as a counselor.

These are some of the reasons counselor educators hold that counselors in preparation should attempt to become more congruent, more empathic, and more positive and unconditional in their regard for others.
The training of counselors is so important that continuous research is needed concerning avenues for counselor improvement. This study will shed light on (1) the effectiveness of programed human relations training in improving the human relations skills of counselors in preparation—that is, these materials should help counselors become more empathic, congruent, and unconditionally positive in their regard for others, (2) the attitudes of counselors in preparation concerning the usefulness and desirability of using programed human relations materials in counselor education program, and (3) the effects of dogmatism on the learning of human relations skills and on the ratings by these prospective counselors.

Definitions

For the purposes of this study the following definitions of terms apply:

Level of regard: This refers here to the effective aspect of one person's response to another. This may include various qualities and strengths of "positive" and "negative" feeling. Positive feelings include respect, liking, appreciation, affection, and any other affectively adient response. Conversely, negative feelings include dislike, impatience, contempt, and in general affectively abient responses. Level of regard is the general tendency (at a given time) of the various affective reactions of one person in relation to another (sic). More specifically, it may be considered the composite "loading" of all the distinguishable feeling reactions of one person toward another, positive and negative, on a single abstract dimension. The "lower"
extreme of this dimension represents maximum predominance and intensity of negative-type feeling, not merely a lack of positive feeling (5:4).

**Empathy:**
The state of empathy, or being empathic, is to perceive the internal frame of reference of another with accuracy, and with the emotional components and meanings which pertain thereto, as if one were the other person, but without ever losing the "as if" condition (53:210).

**Congruence:**
The individual appears to be revising his concept of self to bring it into congruence with his experience, accurately symbolized. Thus, when self-experiences are accurately symbolized from, then the state is one of congruence of self, and experience, such as the individual's experience in a given moment of time, then we can say that the individual is to this degree in a state of congruence (53:206).

**Unconditional Positive regard:** If the self-experiences of another are perceived by me in such a way that no self-experience can be discriminated as more or less worthy of positive regard than any other, then I am experiencing unconditional positive regard for this individual. To perceive oneself as receiving unconditional positive regard is to perceive that of one's self-experiences none can be discriminated by the other individual as more or less worthy of positive regard (53:208).

**General Relationship Improvement Program:** The programmed human relations material to be used in this study will be the General Relationship Improvement Program (32) developed by the Human Development Institute (HDI). These materials involve a series of step by step instructions and exercises which increase the individual's understanding of himself and others. It is the purpose of this program to teach
people to be open in their relationships with others and to show empathic understanding, congruence and unconditionality of regard. This is accomplished in part through developing a greater awareness and acceptance of self.

The course is designed to be taken by individuals working together; the participants thus learn from each other as they go along. The participants go through the entire ten sessions of the course together. Each session takes about an hour, and should be spaced no closer than two, nor more than fourteen days apart.

Belief System: The belief system of an individual is conceived to represent all the beliefs, sets, expectancies, or hypotheses, conscious and unconscious, that a person at a given time accepts as true of the world in which he lives (57:33).

Open and Closed Belief Systems: The extent to which a person's belief system is open or closed is determined by the extent to which the person can receive, evaluate, and act on relevant information received from the outside on its own intrinsic merits, unencumbered by irrelevant factors in the situation arising from within the person or from the outside... Also, the more open the belief system, the more should the person be governed in his actions by internal self-actualizing forces and less by irrational inner forces. Conversely, the more closed the belief system, the more difficult should it be to distinguish between information received about the world and information received about the source (57:57-58).

Limitations

This study was limited to thirty enrollees participating in the National Defense Education Act Counseling and
Guidance Training Institute conducted at a midwestern university during the academic year 1965-66. The institute preparation program represents the concept of paid, full-time scholarship and as such differs from other programs of counselor preparation.

Because the sample is selective and limited in number, one must be careful not to generalize the findings beyond the limits of the data but rather to use these findings to generate hypotheses for further research.

Limitations are also inherent in all tests and measurement devices and in all statistical methods available for use, and therefore, limitations exist in those used in this study.

Organization of the study

This present chapter has included an introduction, a statement of the problem, the hypotheses, the importance of the study, the definitions of terms, and the limitations of the study. Chapter 2 includes a review of the literature pertinent to this study. Chapter 3 presents a description of the procedures, a discussion of the study instruments, and a description of the statistical methods used. Chapter 4 presents the results of the study and an accompanying discussion. Chapter 5 presents the summary, conclusions, and recommendations.
CHAPTER II

REVIEW OF THE LITERATURE

The hypotheses to be tested in this study deal with changes of important counselor attitudes and the effects of dogmatism on the learning of programed instructional materials. A review of the literature concerning the above areas, as well as a review of research conducted utilizing instruments similar to the ones employed in this study, will be presented in five sections of this chapter. These topics are (1) Changing Attitudes of Counselors in Preparation; (2) Attitude as a Function of Change; (3) The Nature of the Relationship; (4) Dogmatism and the Counselor; (5) Programed Instruction and Human Relations Skills.

Changing Attitudes of Counselors in Preparation

The counselors involved in this present study were participating in an intensive National Defense Education Act (NDEA) Guidance and Counseling Institute at the time that the data for this study were collected. There are several research studies which attempted to determine what, if any, attitude changes occurred as counselors participated in intensive counselor education institutes. The result of
these studies are considered important even though the set-
tings were different, because the intent of these researchers,
only, that of measuring counselor attitude change as a
result of counselor education programs, was the same as that
for this research.

Jones (35) studied the attitudes of thirty counselors
to determine what kinds of attitude change had taken place
during a Summer NDEA Guidance and Counseling Institute in
1963, and the degree to which these changes were retained six
months later after the counselors had returned to their jobs.
The instrument used to measure attitudes was constructed
locally and consisted of 16 multiple-choice items, 28 alter-
nate response items, 10 mixed type, 6 brief open-end ques-
tions, and 1 essay-type question.

Jones made the following observations six months after
the close of the Institute experience:

1. No changes were found in the attitudes of the guid-
ance counselors toward matters affecting the adminis-
trative framework of their jobs.

2. A shift found in the direction of an attitude of
accepting and understanding the counselee as a per-
son as contrasted to one of informing or advising him.

3. There was a change away from primary concern with
the immediate problem of the counselee and toward an
empathetic comprehension of the total setting in which
the immediate problem existed.

4. There was a change in the direction of an attitude
of greater listening and permissiveness in the coun-
selor's role and manner of approach.

5. A changed and improved attitude of self-confidence
was found on the part of the guidance counselors in
their use of certain professional techniques, and it is possible that this increased confidence favorably affected the counselor's self-concepts and efficiency with counselees, parents, and fellow educators (35:392).

Munger and others (45) investigated counselor attitude changes resulting from a Summer NDEA Guidance and Counseling Institute in 1959 and found that regardless of the length of the preparation program, changes recorded were more persistent for trainees who were later employed as counselors than for those who were not. This conclusion suggests that, if attitude changes initiated during a training program are to persist, they must be reinforced by relevant post-preparation experiences.

Winkler and others (69) compared the attitudes and attitude changes of twenty-nine 1961-1962 NDEA Guidance and Counseling Institute participants with thirty-nine members of the 1961-1962 National Science Foundation Institute held at the University of North Dakota and found that, as measured by the Butler-Haigh Q sort, the Guidance Institute members were significantly greater initially in acceptance of others and similarity to others than the students of the Science Foundation Institute. Another extremely interesting finding of this study was that both Institute groups followed a similar trend during the academic year. Both groups gained the most in perceiving themselves similar to how others perceived them in the first half of the year, and gained the most in acceptance of others in the second half of the year. The
researchers proposed that the participants in the Guidance Institute changed in self-acceptance in a manner similar to that in clients who are assumed to have profited from counseling.

Clark (13) conducted a pilot project at an NDEA Guidance and Counseling Institute held during the summer of 1959 at The Ohio State University to evaluate guidance training programs by actuarial methods. Unlike previous researchers, Clark concentrated upon the changes which occurred in the traits of the trainees during training and not upon the selection of trainees who possessed certain traits before they entered the counselor education program. The Minnesota Multiphasic Personality Inventory, Edwards Personal Preference Schedule, Guilford-Zimmerman Temperament Survey, Educational Interest Inventory, and an instrument designed especially for the study, an Opinionnaire for Counselors, were administered to the four female and twenty-six male subjects at the beginning and end of the institute and six months later. An interview was recorded for each person at the beginning and end of the institute and six months later. These recorded interviews were rated by two judges on the Performance Rating Scale. The statistical analysis of the data indicated that no significant changes occurred in the response patterns of the counselors in preparation during or after the Institute. In addition, there were no statistically
significant changes in the performance of the subjects
evidenced by the group in counseling interviews.

Brown (9) investigated possible significant relationships between personal characteristics of counselors in
preparation and their performance in counseling interviews
at a NDEA Guidance and Counseling Institute during the summer
of 1959. The personal characteristics of these subjects were
identified through the use of the Educational Interest Inven-
tory, the Ohio State Psychological Examination, and the
Strong Vocational Interest Blank, Psychologist Scale. The
criterion measure of performance was the rating by judges on
a seven item rating scale designed to measure performance in
an interview situation. The institute emphasized the prepar-
ation of counseling and guidance personnel to work with able
secondary school students.

The findings were as follows:

1. A relationship existed between verbal ability as
measured by the Ohio State Psychological Examination and the
criterion of performance.

2. No relationship existed between the Strong Voca-
tional Interest Blank, Psychologist Scale, standard scores,
and the criterion.

3. No relationship existed between interest in coun-
seling as measured by the Educational Interest Inventory and
the criterion.
4. No relationship existed between the lengths of teaching experience and the criterion.

Horger (29) studied the thirty participants of the University of Texas 1962-1963 NDEA Guidance and Counseling Institute to determine the association of the structure and the content of personal construct systems of counselor candidates with the effectiveness of counselor candidates in performing the function of a school counselor. The Kelly Role Construct Repertory Test (RCRT) was administered to the 18 male and 11 female graduate students participating in this academic-year institute. The results of the RCRT for each person were subjected to a factor analysis. Measures of cognitive complexity and capacity for empathic understanding were obtained from the resulting factor protocols. Criterion measures were obtained from the ratings of the 29 subjects by four supervisors on Global Counselor Effectiveness.

The findings revealed that cognitive complexity was significantly and negatively associated with global counselor effectiveness (p. 05). A significant positive association was found between capacity for empathic understanding and global counselor effectiveness (p. 05).

Caves' (12) evaluation of a Summer NDEA Guidance and Counseling Institute in 1959 is the last study to be discussed in this section. The population for this study consisted of thirty-five counselors, most of whom had not yet
attained certification. The method of obtaining the data in this study was through the use of an informational test, a recorded constant-role interview, and a Q-sort. The achievement test measured factual knowledge about guidance and counseling; the constant-role interview measured performance in the counseling interviews, and the Q-sort measured attitude toward counselor role. The measures were administered pre-course and post-course. Analysis of variance was applied to the data obtained from these measures to determine what significant change may have taken place during the Institute. In addition to the above procedures, other data were obtained by test interaction, and by using rating scores given to each Institute enrollee by principal staff members. Each participant was also rated for promise as a counselor. These data from participation and promise were correlated with the test data and presented in the study.

The findings in this study indicated a significant gain in factual knowledge at the 1 percent level as measured by the achievement test. Also, the data demonstrated that the achievement test correlated highly with the other two measures and with participation and promise. Significant improvement at the 1 percent level was found to exist in counseling competency by the end of the Institute, as measured by the constant-role interviews. The constant-role interview proved to correlate most highly with the achievement
test and least highly with the Q-sort. Moderate correlations were found between the constant-role interview and participation and promise. There was a greater change in actual self than in ideal self on the Q-sort.

Summary

The research reported in this section reveals that, for the most part, persons participating in intensive guidance and counseling training institutes do register measurable attitude changes. As one would expect, counselors increased their knowledge of counseling and guidance facts, and made significant improvement in the counseling and guidance skills they performed. One study (35) revealed that counselors in preparation were more accepting, understanding, and empathic in their contacts with students, and displayed more self-confidence in their use of certain professional techniques as a result of having attended a counselor education program. Another study (29) revealed a significant positive association between the counselor's capacity for empathic understanding and his effectiveness as a counselor as rated by four counseling supervisors. One group of researchers (69) compared institute students majoring in another graduate area to guidance institute students and found that the guidance students were significantly greater initially in acceptance of others than were the students majoring in another area. Two other reports (9,13) indicated minimal
attitude change on the part of counselors participating in brief summer institutes, and a last report (45) concluded that, if attitude changes initiated during a training program are to persist, they must be reinforced by relevant post-preparation experiences.

**Attitude as a Function of Change**

This section will contain a report of research dealing with how the presence of empathy, congruence, and unconditional positive regard on the part of the counselor appear to facilitate change in the counselee.

Heine (26) studied the way in which persons in a counseling relationship perceived the help that they received from the counselor. This research centered around individuals who had gone for psychotherapeutic help to psychoanalytic, client-centered, and Adlerian therapists. Regardless of the orientation of the therapist, the clients reported similar changes in themselves. When asked what elements had helped them most, they again responded in a similar fashion. They indicated that the following attitudinal elements in the relationship between themselves and the therapist were the most helpful: having a therapist they could trust, having a therapist who understood them and knew how they felt, and having a situation where they felt free to make choices and decisions. The therapists who were perceived as having attitudes such as a lack of interest, a remoteness or
distance, and an over-degree of sympathy, were perceived as least helpful. The above counselors who realized the greatest success were those whom the counselee perceived as being warm and real. It has often been stated that before one can help others in a counseling relationship he must first understand himself.

Dittes (16) investigated the delicacy of the relationship between the client and therapist using a physiological measure, the psychogalvanic reflex, to ascertain various anxiety states in the client during a counseling situation. He found that, whenever the therapists' attitudes toward the client changed even a small degree toward a lesser degree of acceptance, the number of galvanic skin reflex deviations increased significantly. Apparently, clients are able to perceive the counselor's attitude changes quite readily. The organism seems to organize against threat, even at the physiological level.

Fiedler (21) looked closely at expert therapists of differing orientations. Although the orientation of a therapist is considered to be crucial by many, Fiedler found that these expert therapists formed similar relationships with their clients regardless of their own orientations. The elements characterizing these relationships, differentiating them from the relationships developed by less expert therapists, were as follows: an ability to understand the client's
feelings and meanings; a sensitivity to the attitudes of the client; and a warm interest without any emotional over-involvement.

Betz and Whitehorn (7,68) attempted to determine the differences between the cases of a number of schizophrenics that were judged to be making positive improvement in therapy and of those cases where little or no improvement was noted. The researchers chose two groups of young physicians and divided them into two groups—one group whose patients had made positive improvements, and another group whose patients had demonstrated the least degree of improvement. Betz and Whitehorn analyzed all available information about these cases to determine the differences between the successful group and the non-successful group. Several significant differences were found. The successful physicians tended to see each patient as a special person rather than a case history. They were less likely to use procedures such as interpretation, instruction, or emphasis upon the practical care of the patient. They were much more likely to develop a warm relationship in which the patient felt trust and confidence in the physician.

In another study Halkides (24) started from Roger's theoretical formulation regarding the necessary and sufficient conditions for therapeutic change (52). She hypothesized that there would be a significant relationship between the
extent of constructive personality change in the client and four counselor variables: (a) the degree of empathic understanding of the client manifested by the counselor; (b) the degree of unconditional positive regard manifested by the counselor toward the client; (c) the extent to which the counselor was congruent; and (d) the extent to which the counselor's response matched the client's expression in the intensity of affective expression.

To test these aspects of the counselor-client relationship, Halkides inspected by objective criteria ten cases considered by a panel of judges to be "most successful" and ten considered to be "least successful." From an early and late interview in each case, she randomly selected nine interaction units—a client statement and a counselor response. She then placed these units in a random order and had judges rate each unit as to degree of empathy, counselor's positive attitude toward the client, the counselor's congruence, and the degree to which the counselor's response matched the emotional intensity of the client's expression. Judges were able to achieve high reliability, in fact, most of the inter-judge correlations were in the high 0.80's or 0.90's, except on the last variable. The findings were surprising. A high degree of empathic understanding was significantly associated, at a .001 level, with the more successful cases. Also significant, at the .001 level, was the association between
the successful cases and the counselor's unconditional positive regard and congruence. Only in the investigation of the matching intensity of affective expression were the results equivocal.

The last two studies, although not research concerning counselors themselves, shed light upon the question of how the presence of certain attitudes facilitate change.

Baldwin and others (4) conducted a study on parent-child relationships and found that the parents possessing a cluster of attitudes classified as "acceptant-democratic" seemed to facilitate more growth in their children than other parents. Children in these homes also showed increased intellectual development, more creativity, less excitability, and more emotional security and control. Children in homes classified as "actively rejectant" were less creative, did not work up to their potential, and showed decreased intellectual development. These children were also found to be emotionally unstable, rebellious, aggressive and quarrelsome.

Bills (22:171) has demonstrated recently that factors such as congruence, empathic understanding, positiveness of regard, and unconditionality of regard are equally important in the success of teachers. Those teachers who are rated as most successful by their principal and superintendent are also those who are seen by students as more empathic, more congruent, more positive in their regard, and less conditional in their regard.
The two studies above are reported here to show that the attitudes considered important by many counselor educators in facilitating maximal counselee growth also appear to be important for parents and teachers in their work with children. The need for good human relations on the part of persons involved in helping others seems imperative if the most beneficial results are to accrue.

Summary

A number of the studies (7, 21, 24, 26, 68) presented in this section supported Rogers' contention that "it is the attitudes and feelings of the therapist, rather than his theoretical orientation, which is important. His procedures and techniques are less important than his attitudes" (54:44). Rogers continued, "It is also worth noting that it is the way in which his attitudes and procedures are perceived which makes a difference to the client, and that it is this perception which is crucial" (54:44). The counselors who were judged to be the most successful in the foregoing studies were those who were able to establish a warm, understanding, and meaningful relationship with the counseelee.

One researcher (16) used a physiological measuring device and was able to detect physiological changes on the part of the counseelee as he perceived counselor attitude changes.

Finally, two studies (4, 22) outside of the field of guidance and counseling were presented to demonstrate the
need for good human relation skills on the part of persons in relationships with youth, other than counseling.

### The Nature of the Relationship

One of the instruments used in this study was the Relationship Inventory. The studies reviewed in this section all used the Relationship Inventory as a measuring instrument. This section will demonstrate the uses of this instrument in various research settings.

Barrett-Lennard (5) conducted a study to attempt to show the effect of the counselor variables represented by Rogers' necessary and sufficient conditions (52). Rogers' theory was transposed into operational form at the data-gathering level. Barrett-Lennard hypothesized that each of five aspects of the therapist's attitudes and responses, as experienced by his client, were influential in the process of therapeutic change. Two of the variables were empathic understanding and congruence. In addition, he used "level of regard" and "unconditionality of regard," which represents a division of the concept of unconditional positive regard into two separate components. The fifth relationship variable was "willingness to be known."

Barrett-Lennard explained that level of regard referred to the affective aspects—either positive or negative—of one person's response to another. It may be considered the
"loading" of all the distinguishable feeling reactions of one person toward another, positive and negative, on to a single abstract dimension. The lower extreme of this dimension represented maximum intensity and predominance of negative type feeling, not merely a lack of positive feeling.

Unconditionality of regard is specifically concerned with how much or how little variability there is in one person's affective response to another. It may be defined as the degree of constancy of regard felt by one person for another who communicates self-experience to the first. The more the therapist's regard for the client changes in response to his changes in feeling, the more conditional (less unconditional) he is.

The following two hypotheses were tested by Barrett-Lennard: (1) The extent of a client's therapeutic personality change depends partly on the level, implied in the client's perceptions of this therapist, of each of the five therapist-response variables. (2) More successful therapists facilitate more therapeutic change in their clients because they respond in ways that lead their clients to experience them as more positive and unconditional in their regard, and as more empathic, understanding, congruent, and willing to be known in relation to their clients. Barrett-Lennard developed an instrument called the Relationship Inventory to test these hypotheses. The scores on this device were compared with
measures of client change and with therapist expertness. The results supported both of the hypotheses in each of four of the five variables. Empathic understanding, level of regard, unconditionality of regard, and congruence were each significant at the .01 level.

Barrett-Lennard concluded that the results of a split-half reliability assessment and inter-correlation of the relationship scales were consistent with viewing each measures as a distinct aspect of the perceived relationship. Support of the first experimental hypothesis would seem to mean that four of the relationship measures were indices of primary change-producing influences. Support of the second hypothesis indicated that constructive personality change depended on how much the therapist's actual response caused his client to experience him as empathic, congruent, and positive and unconditional in his regard. This study seems to lend strong support to Rogers' theoretical formulations of the effect of counselor attitudes on the nature of a relationship and the effect of this relationship on positive client change.

Emmerling (18, 22:19) attempted to determine the relationship between the process characteristics of teachers and the way in which they were seen in relationships by girls and boys. He hypothesized that teachers identified as being concerned with problems which are positive, central, self-
related, and related to the future would be more effective in providing an instructional climate characterized by (1) freedom of communication, (2) empathic understanding, (3) positive regard, (4) unconditionality of regard, and (5) congruence, as perceived by their pupils. Emmerling tested fifty-six teachers attending the June 1960 Summer Workshop at Auburn University, sponsored by the Cooperative Program for Instructional Improvement. Of this number, two teacher groups of ten each were selected. Each group represented one of the extreme ends of the scoring range on the Teacher Problems Q-sort. In November and December, five and six months later, he selected students of these teachers and asked them to describe the congruence, empathy, and positive-ness and unconditionality of regard of their teachers, using a modification of Barrett-Lennard's Relationship Inventory. The differences found between the way students perceived the two teacher groups were analyzed by means of an analysis of variance. Emmerling's findings were not difficult to understand. The more open the teacher was to his experience, the more he was perceived as congruent, empathic, and positive and unconditional in his regard.

Thornton (64) studied certain dimensions of the perceived relationship as related to marital adjustment, using the Relationship Inventory and the Marriage Adjustment Schedule. He found that there was a positive and significant relationship between the level of marital adjustment and the
level of regard, empathic understanding, congruence and unconditionality of regard that each marriage partner perceives in the other's response. He also found a significant inverse relationship between adjustment in marriage and the degree to which each marital partner feels that he is responding more positively in the four ways measured by the Relationship Inventory to the other partner than the other is to him; and that he is responding more positively than the other partner feels he is responding. The results suggest that the Relationship Inventory may itself be an adequate measure of marital adjustment.

Hansen (25) demonstrated the extent to which the level of the supervisor-trainee relationship in a supervised counseling practicum is related to the trainee's self-awareness and the trainee's level of experiencing. The population for this study consisted of twenty-eight graduate students enrolled in The Ohio State University NDEA Counseling and Guidance Institute during the academic year 1962-1963. The institute members were randomly divided into three groups and assigned to a supervisor for their practicum experience. Each of the twenty-eight students were asked to rate the supervisory relationship with their supervisor utilizing the Relationship Inventory. Using the same Inventory, each supervisor was asked to rate his relationship with each student. Each institute member also described himself on the Stern
Activities Index and the Counselor-Self-Questionnaire. The similarity of these self-estimates were utilized as self-awareness. The same procedure was conducted at the close of the practicum experience. Supervisor-supervisee interview tapes were analyzed by a panel of judges using the Gendlin Experiencing Scale. The results indicated that each supervisor established different relationships with his group of trainees and that these relationships appeared to be related to differences in trainee behaviors. Trainees who perceived their supervisory relationships less favorably achieved lower experiencing scores, while the group of trainees who reported the least favorable perceptions achieved the lowest experiencing scores. The implications for action stated by Hansen as a result of this study supported the importance of the supervisor-supervisee relationship. Hansen stated that supervisors should aim toward a more clear and sensitive awareness of the trainees' inner being and toward a greater ability to understand their own moment-to-moment feelings and experiences. Hansen also believed that supervisors should focus more directly on establishing good working relationships with each trainee in an effort to foster relationship oriented counseling, rather than to reinforce technique oriented counseling (25:95-96).
Summary

The above studies have demonstrated the use of the Relationship Inventory as a criterion measure in research projects in various settings. Barrett-Lennard (5) showed how the Relationship Inventory subscores were indices of primary change-producing influences. He also demonstrated, on the basis of a split-half reliability assessment and inter-correlation of the Relationship Inventory scales, that the relationship scales may each be viewed as a distinct aspect of the perceived relationship.

Emmerling (18) found that the more open the teacher was to his experience, the more he was perceived by his students as congruent, empathic, and positive and unconditional in his regard. Thorton (64) found the Relationship Inventory to be valuable in appraising marital adjustment; Hansen (25) found it valuable in supervisor-supervisee relations appraisal; and Hollenbeck (28) used the same scale for appraising student-parent relationships.

Barrett-Lennard's research (5) and that of the other researchers in this section, supports the position that the Relationship Inventory discriminates Rogers' necessary and sufficient conditions (52) at the operational data-gathering level.
Dogmatism and the Counselor

The studies discussed in this section deal with reported research on one's openness to new experience with an emphasis on how one's belief and disbelief systems effect and affect behavior. The extent to which a person's system is open is "the extent to which that person can receive, evaluate, and act on relevant information on its own intrinsic merits and unencumbered by irrelevant factors in the situation, arising from within the person or from the outside" (57:57). On the other hand, "the closed-minded do not approach a new experience openly; they are defensive, insecure, and threatened. They are inclined to ignore, rationalize, project, distort, or narrow in their attempts to deal with it" (37:662). The following studies have been selected to emphasize research on dogmatism that focuses on the counselor.

Kemp (39) attempted to determine behavior differences on the part of open-minded and closed-minded participants in group guidance (socio process) and group counseling (psyche process) settings. Ninety graduate students participated in this study. There were three groups of thirty and each group was sub-divided into five groups of six students each. The membership of the sub-groups was determined by Dogmatism Scale scores. In this study, members with scores below 120 were considered to have open belief systems and those with scores above 150 were considered to have closed belief systems.
Each six-student sub-group met for a total of fifteen 50-minute periods. The first three meetings were used to permit group members to become better acquainted. In each of the next six meetings, a problem was chosen requiring a socio process, and for each of the remaining six meetings it was planned to use the psyche process in discussing personal concerns. The findings revealed that in the socio process group guidance there was no significant difference between those with open and closed belief systems with reference to the number of socio process and psyche process behavior indices, while in the psyche process there was a significant difference at the .001 level between those with open and those with closed belief systems. In the group counseling setting those with open belief systems had a larger number of psyche process behavior indices. The findings were the same for open and closed leaders. It was noted that the closed-minded groups felt the need for more structure. They did not listen as frequently to get the covert meaning of responses, and much less frequently accepted strong expressions of personal feeling of other members.

The implications of this study were:

In socio process (group guidance) members respond more in accordance with the demands of the situation than in psyche process (group counseling).

In psyche process those with "open minds" can be expected to benefit more than those with "closed minds."
Those with "closed minds" apparently avoid the necessary personal involvement for beneficial results from group counseling (39:377).

Russo, Kelz, and Hudson (68) tested the statement of the Association of Counselor Education and Supervision (3) that counselors should be open-minded. The Association listed open-mindedness as one of the five particularly important counselor qualities and defined it as

... the flexibility of outlook toward others that makes it possible to appreciate individuality, to be receptive to new research findings, new ideas and achievements, and to have respect for a wide range of attitudes and beliefs. He must have the curiosity to investigate the unusual (3).

Utilizing the Counselor Performance Rating Scale, six trained judges rated two interviews by each of thirty counselors in The Pennsylvania State University 1960-1961 NDEA Guidance and Counseling Institute. Observation by means of closed-circuit television of the counselors interviewing each of two coached clients was the basic technique of data collection. The use of the Counselor Performance Rating Scale enabled the researchers to obtain a relatively constant assessment of counselors working with clients in interview situations.

Eighteen months later twenty-nine of the thirty counselors completed the Rokeach Dogmatism Scale. Twelve items were found to be significant at the 5 percent level when the population was dichotomized on the basis of judges' ratings secured a year and a half previously. A score based on these
twelve items produced a rank-order correlation with judge ratings of .64. Russo, Kelz, and Hudson found that the high positive correlation of expert judge rating of counselors obtained using coached clients and a rating scale with an open-mindedness measure secured a year and a half later appears to lend support to the statement that open-mindedness is an important counselor quality.

The next six studies were conducted by Kemp and involved the use of the Dogmatism Scale. Kemp (36) studied the relationship between open-and closed-mindedness and the character of counselor responses in hypothetical and real life situations. Fifty graduate students participated in the study, 25 in the control group and 25 in the experimental group. The control group did not participate in a counseling practicum. Each group was administered the Dogmatism Scale and Porter's Test of Counselor Attitudes before and at the close of the college quarter. A comparison was made of the results on this test for the control and experimental groups in terms of the degree of dogmatism. The experimental group then participated in a counseling practicum and responses from these interviews were compared with those given on the Porter Scale to determine whether or not any difference existed on actual and hypothetical situations.

As a result of their training, both groups became more supportive and permissive in their responses in the hypothetical situations. In actual counseling situations, the group
low in dogmatism (open belief system) did not change significantly in the character of their responses from the hypothetical to the actual situations, but the group high in dogmatism (closed belief system) made significant changes. The direction of change for the latter was toward fewer supportive and understanding responses and toward more interpretive, evaluative, and probing or diagnostic responses. It was determined that the more closed-minded the counselee, the more likely the possibility that he would simulate change in accordance with the expectancies of the situation.

The next study (43) was designed to gain knowledge of the degree of self-awareness in relation to the openness of the belief system. Is there a difference in the character of the perception of those with open and closed belief systems? Kemp administered the Rokeach Dogmatism Scale and the Zuckerman Affect Adjective Check List (for measurement of anxiety), the latter just prior to a midterm examination. After both instruments were thoroughly explained to the class, each student was asked to estimate his own degree of open-mindedness and anxiety. The research results enabled the author to conclude that a person is unable by introspection to determine whether or not he is closed-minded.

The open-minded perceive themselves to be more closed-minded, and the closed-minded perceive themselves to be more open-minded. With reference to anxiety, . . . the open-minded perceive their degree of anxiety with some accuracy. The closed-minded do not. Almost
two-thirds of the closed-minded overestimate and almost one-third underestimate their degree of anxiety (43:343).

In this third study (37) the researcher studied two groups (84 each) of college freshmen. The Dogmatism Scale and the Mooney Problem Check List was administered to each member of both groups. The 25 with the highest and the 25 with the lowest scores on the scale in the experimental group were arbitrarily selected for study. The 25 with the highest and the 25 with the lowest scores in the second group became the control group. During the following ten weeks, each member in the experimental group participated in four counseling interviews of one-half hour each. At the end of the ten-week period, both groups again took the Mooney Problem Check List. The conclusions were as follows:

1. Dogmatism is a factor which influences the number of personal problems of freshmen college students.

2. The high dogmatics have more personal problems than the low dogmatics.

3. One college quarter and four counseling interviews reduce significantly the number of problems of the low dogmatics.

4. One college quarter and four counseling interviews do not reduce significantly the number of problems of the high dogmatics.

5. In one college quarter neither the low nor the high dogmatics significantly reduce their problems without counseling (37:664-65).

The fourth study (40) compared the improvement in critical thinking of those persons low in dogmatism with those who were highly dogmatic. The population consisted of 80 freshmen
students (40 control, 40 experimental). The two groups were matched in intelligence and in degree of open and closed-mindedness. Both groups took the Watson-Glaser Critical Thinking Appraisal. The experimental group was sub-divided into five groups, with four high and four low in dogmatism in each subgroup. Each subgroup participated in ten one-hour meetings where critical thinking problems were discussed and analyzed. The findings indicated that the greatest improvement in critical thinking skills (as reflected by changes on the Watson-Glaser Critical Thinking Appraisal) was made by the persons with low (open) dogmatism scores.

Kemp's fifth study (41) on open and closed belief systems attempted to determine if those persons with open belief systems would perceive authority figures differently than those with closed belief systems. The population consisted of 150 graduate students, each having the same instructor. Each student was administered the Dogmatism Scale and the Zuckerman Affect Adjective Check List for the Measurement of Anxiety. The findings indicated that those persons with closed belief systems tended to idealize authority. They seemed to endow authorities with qualities which fit their stereotype of expectancy for a particular situation. On the other hand, persons with open belief systems perceived those in authority more realistically. They saw authority figures as having both positive and negative characteristics. They
experienced little need to perceive authority figures in accordance with a stereotype.

Lastly, Kemp (42) studied the manifest needs of open- and closed-minded persons. He found that an open-minded person's expectation of a particular task can be expected to vary markedly from that of a person with a closed belief system. The chief conditions needed by closed-minded persons in order that they might satisfy their needs seemed to be conditions such as explicit directions, encouragement, the completion of the task undertaken, and benevolent authoritarian leaders or supervisors. The conditions found to be necessary for the open-minded person to satisfy his needs appeared to be opportunity to make independent decisions, to plan his method of work, to observe and try to understand others from their point of view, to analyze his own motives and to engage in social activities.

Kemp concluded that—

1. A different psychological climate is required for open- and closed-minded persons if optimum satisfaction of needs is to be realized.

2. It is reasonable to expect that some tasks may be done with satisfaction to all by those with open minds which would be more difficult to accomplish by those with closed minds, and vice-versa.

3. Since efficiency in the learning and performance of a task is directly related to need satisfaction, the degree
The openness of the belief systems should be considered in relation to the demands of the situation by teachers, students, employers, and employees (42:108).

Rokeach (57:190) compared the dogmatism scores of thirty open-minded students and thirty closed-minded students with their scores on the American Counsel on Education Test. The correlation was -.02. Kemp (36:59) found no relationship between dogmatism scores and the Otis Test of Intelligence of 104 college seniors. Ehrlich (17:148) correlated dogmatism scores for 100 college students with their scores on the Ohio State Psychological Examination. He obtained a correlation of -.001. The research reported in this paragraph demonstrates that closed- or open-mindedness is not a function of intelligence.

In another study (The Chessboard Experiment) Rokeach concluded (57:222) that when the task to be learned is familiar, those with open and closed minds synthesize equally well, but when it is unfamiliar, those with closed minds apparently resist the formation of new systems.

The last study to be reported in this section was conducted by Engle (19, 22:180) whose purpose was to investigate the relevance of the "openness" of teachers and administrators to the extent of change which occurred during a workshop sponsored by the Cooperative Program for Instructional Improvement at Auburn University during the summer of 1960. Engle
predicted that the more open a person is to his experience, the more readily he can change and thus the more he can profit from an educational experience. At the beginning of a workshop, he divided a group of teachers, principals, supervisors, librarians and superintendents from twenty Alabama public school systems into two equal groups according to the open- or closed-mindedness of each person as shown by the Teacher Problems Q-sort. Engle found no significant difference in the attitudes toward self and others or the role descriptions of the ideal teacher given by either of the groups at the beginning of the workshop. Nor did he find any difference in factors such as age, sex, amount of educational experience, and amount of teaching experience. The instruments used were the (1) Index of Adjustment and Values, (2) Semantic Differential, (3) Teacher Role Concept Q-sort, and (4) Teacher Problems Q-sort. These instruments were used respectively to (1) measure change in acceptance of self and others, (2) measure change in connotative meanings of certain educational concepts, (3) identify change in descriptions of an "ideal" teaching role in a democratic society, and (4) identify the relative degree of "openness" of workshop participants. Engle analyzed statistically significant differences which occurred between the two groups by (1) chi-square techniques, (2) Pearson product-moment correlations with composite Q-sort descriptions, and (3) Analysis of Variance, using
simple-randomized and treatments by subject designs. At the end of the six-week workshop experience, Engle retested his subjects. He found that the fifty-five people in the more open group had changed significantly in their attitudes towards themselves and other people and in the descriptions they gave of an ideal teacher. For this group, attitudes toward self and others were more positive and role descriptions were more variable representing a less stereotype concept of the "ideal." On the other hand, he found no reason to believe that the less open group had changed at all in regard to these same variables. As far as these variables were concerned, this group had been unaffected by the workshop. Thus, he concluded that the more open a person, the more he can profit by a workshop experience.

Summary

The above research studies provide much valuable information about persons with open- and closed belief systems. The first study (39) reviewed pointed out that closed-minded groups felt a need for more structure in group settings than did open-minded groups. It pointed out that persons with closed belief systems apparently avoided the personal involvement necessary for beneficial results from group counseling.

Another study (58) showed that counselors judged to be most successful on the job scored significantly lower (more open) on the Dogmatism Scale than those who were
considered less successful. The conclusion of another study (36) was that the more closed-minded the counselee, the more likely the possibility that he would simulate change in accordance with the expectancies of the situation. Other studies demonstrated that people cannot adequately judge whether or not they are open or closed-minded (43); that dogmatism is a factor which influences the number of personal problems of college students (37); that the greatest improvement in critical thinking skills was made by persons with low dogmatism scores (40); and that there is no correlation between a person's mental ability scores and his dogmatism scores (17, 36, 57). It was also noted (42) that the need systems of open-and closed-minded persons are different—open people need more freedom and closed people more structure. The last study (19) reported that persons with open belief systems profited more from workshop experiences than did persons with closed belief systems.

Programed Instruction and Human Relations Skills

This section includes a review of research which centers around the use of the General Relationship Improvement Program developed by the Human Development Institute. Before proceeding with a review of pertinent skills training literature, it might be well to answer the question—Do students learn from programed instruction?
The research leaves no doubt as to whether or not students learn from programed instruction. They do indeed.

They learn from linear programs, from branching programs, built on the Skinnerian model, from scrambled books of the Crowder type, from Pressey review tests with immediate knowledge of results, from programs on machines or programs in texts. Many kinds of students learn—college, high school, secondary, primary, preschool, adult, professional, skilled labor, clerical employees, military, deaf, retarded, imprisoned—every kind of student programs have been tried on (59:5-6).

Hough (30, 31) studied two hundred and thirty pre-service teachers in ten sections of an introductory teacher education course to determine the effects that the General Relationship Improvement Program (HDI) would have on the development of the human relations skills of these pre-service teachers. Hough also attempted to determine the effects of dogmatism on the learning of human relations skills.

Three primary hypotheses were tested in this study:

1. Subjects experiencing programed human relations training will evidence growth in human relations skills.

2. Subjects experiencing programed human relations training will evidence growth in human relations skills which exceeds the growth evidenced by subjects who experience ten hours of dyadic discussions of related educational case studies.

3. Subjects with a relatively closed belief-disbelief system will evidence less growth in human relations skills than subjects with a relatively more open belief-disbelief system (30:1).

The procedure consisted of randomly pairing the students in the ten classes making a total of one hundred and
fifteen pairs. (Note: Seventeen pairs were later eliminated from the study because complete data were not available on both members of the pair.) Each of these students was pre-tested on the Relationship Inventory the day prior to the initiation of the experimental or control treatment used in his class. This was accomplished by having each pair of students discuss a series of "What Would You Do" classroom control problems for one hour. Immediately following the discussion, each student filled out the Relationship Inventory on his partner. Upon completion of the experimental or control treatment (three to eight weeks later, depending on the group) the same pairs again discussed that "What Would You Do" situation and each student again rated his partner by using the Relationship Inventory. All students were pre-tested on the Dogmatism Scale during the first week of the quarter. Of the ten classes, seven served as experimental groups and used the HDI program. Three classes served as control groups. The findings revealed that in thirty of the forty analyses, groups using HDI programs made significant positive change in human relations skills. It should also be noted that in the control groups where no human relations training of dyadic discussion was used that no significant changes were found. Hough stated that hypothesis number one could be tentatively accepted.

Further inspection of the data showed that although the HDI groups were superior to the discussion group in only
two of the five areas of the Relationship Inventory, that the HDI groups had higher mean scores in all five areas of human relations skills. Hypothesis number two was supported. Lastly, hypothesis number three was accepted with some reservation. Although subjects scoring in the upper third in dogmatism tended to make less gain in human relations skills, there was no indication that those persons who received low dogmatism scores made greater gains than those who received medium scores. In fact, there was some indication that "subjects scoring in the middle third of the range of the Dogmatism Scale make greater gains in human relations skills than people in either the upper or lower third" (30:7).

Brown and Campbell (11) investigated changes in the personalities of students enrolled in an applied psychology course compared with those participating in the General Relationship Improvement Program of the Human Development Institute. All subjects were unmarried female students at the University of Alabama who had completed at least one introductory course in psychology. Control and experimental subjects were matched on the basis of age and Shipley-Hartford Vocabulary Scale scores. There were ten subjects in each group. The experimental group completed the HDI program in ten sessions, each approximately one hour in length and spaced about four days apart. The control group attended thirty class sessions, each of one and one-half hours in duration.
The lectures were presented by the senior author. The Saslow Expression of Feelings Checklist, the Who Do You Know Inventory, and the Minnesota Multiphasic Personality Inventory (MMPI) were used in pre, post, and follow-up testing sessions.

Brown and Campbell found significant differences between the experimental and control groups on five of the MMPI scales and concluded that the HDI program is capable of producing measurable personality changes. They stated:

Consequently, it appears that the HDI program is an effective method of enhancing the awareness of one's own and others' feelings as well as increasing flexibility of response to both internal and environmental stimulation, through what is essentially a teaching machines exercise designed to resemble an interpersonal relationship. To the degree that enhanced awareness and increased flexibility generalize to the environment at large, the HDI program may also be said to effect improvements in interpersonal relationships (10:4).

The last study reviewed in this section was by Pluckham (49) whose purposes were (1) to determine the effectiveness of one published program in helping students develop knowledge and understanding of the principles of interpersonal relationships, (2) to give a selected group of nursing students an opportunity to experience a particular program of programmed instruction as a teaching method, and (4) to obtain the opinion of a selected group of students regarding the method of conducting this particular program (49:1). The population consisted of all nursing students enrolled in Team Nursing and Ward Administration Practice and Principles of Administration Applied to Nursing Care during the spring
semester, 1964, at the University of Colorado-School of Nursing. Of these twenty-seven students, twenty-two were seniors and five were post-baccalaureate students. Each student participated in the study of General Relationship Improvement Program materials, designed to increase the students' understanding of interpersonal relationships and to create an experience which will enable them to be better prepared to take advantage of the opportunity for growth-producing relationships. Before and after the utilization of the HDI materials a knowledge test prepared and validated by Pluckham, concerning the concepts and principles of relationships was given to each student. A follow-up test was also given three months later.

Pluckham stated that the General Relationship Improvement Program was found to be an effective teaching technique in helping the students develop knowledge and understanding of principles of interpersonal relationships. The HDI materials were also found to be extremely effective in relation to the students' retention rate. A very high 92 per cent of the material learned was retained by the portion of the population tested after an eleven-week interval. The students' reactions to the Program and to programed instruction as a teaching technique were generally favorable.
Summary

The results of the above studies demonstrate that Human Development Institute materials have aided students to become more understanding of themselves and of others. Hough (30,31) found these materials to be helpful in the training of prospective teachers. Brown and Campbell (10) found that persons completing the General Relationship Inventory Program changed more on personality measuring devices than did their matched partners who completed thirty one and one-half hour sessions of an applied psychology course. Lastly, Pluckham (49) determined that the General Relationship Improvement Program was found to be an effective teaching technique in helping students develop knowledge and understanding of principles of interpersonal relationships.
CHAPTER III

PROCEDURES

Chapter III presents a description of the procedures used in the study. A discussion of the subjects, the instruments, and the statistical processes are offered.

The purpose of this study was to investigate whether or not certain programmed materials can be beneficial to counselors in training— that is, can these materials help counselors become more empathic, congruent, and unconditionally positive in their regard for others? This study also sheds light on (1) the effectiveness of programmed human relations training in improving the human relations skills of counselors in training, (2) the attitudes of counselors in training concerning the usefulness and desirability of using programmed human relations materials in counselor education programs, and (3) the effects of dogmatism on the learning of human relations skills and on the ratings of counselors in training on their classmates.

The population

The population for this study consisted of thirty (30) National Defense Education Act Guidance and Counseling Institute Students being educated at a midwestern university
during the 1965-66 academic year. The training period extended from September, 1965 to June, 1966.

The guidance and counseling staff at the university recruited and selected the trainees for the program based upon the following criteria:

A. Eligibility

To be eligible for admission to the Institute, and applicant must meet the following criteria:

1. Be a full-time employee of an institution of elementary, secondary or higher education, including junior colleges and technical institutes.

2. Be engaged in such an institution on at least a half-time basis in the
   a. Counseling and guidance of students therein or
   b. Classroom teaching of students therein and preparing to engage in the counseling and guidance of students in such institutions.

3. Be able to furnish satisfactory evidence of the opportunity for future employment in the counseling and guidance of students within grades 7 through 12 on at least a half-time basis upon the completion of this Institute.

B. Selection Criteria

1. Meet admission requirements of the University. These include a 2.5 undergraduate and a 3.0 graduate grade point average.
2. A combined score of 900 on the Graduate Record Examination

3. Written recommendations
   a. a recommendation from a counselor educator under whom the applicant has studied or a faculty member in an allied field in cases where a counselor educator's recommendation is unobtainable.
   b. a recommendation by employing official and certification of employment in at least half-time counseling and guidance for the year following the Institute.
   c. a recommendation from a school counselor with whom the applicant has worked.

4. The applicant must have completed a minimum of three semester hours but no more than twelve hours of professional preparation and evidence a need for the proposed special courses and training.

5. Interviews by the Director or his designee for the applicant who successfully complete the initial screening process.

After being selected for the institute the trainees undertook a counselor education program organized into six foundational area, a professional development seminar, and optional special study groups structured around enrollee background deficiencies. The six foundational areas of the institute were: The Sociological-Philosophical-Educational
Foundations of Guidance; Psychological Foundations; Measurement Foundations; Group Process; Counseling and Vocational Development Theories; and a Supervised Counseling Core which incorporated counseling and testing practicums and appropriate field experiences. All of these curricular areas were maintained throughout the Institute year to facilitate the acquisition of broad, integrated, developmental guidance concepts by the enrollees and to permit and facilitate the individual professional growth of each enrollee at a rate in keeping with his readiness for the various phases of the program.

The group consisted of twenty-one males and nine females. The ratio of males to females enrolled in Institutes throughout the nation has varied. The thirty per cent ratio of females in the present study would appear to be slightly above average when compared to other institute groups. The mean age for the group was 29.0 and the average number of years of teaching experience for each was 3.8 years.

In the experimental group there were twelve males and three females. Their average age was 31.1 and their average number of years of teaching experience was 4.5. There were nine males and six females in the control group. The average age of this group was 26.8 and the average number of years of teaching experience was 3.1 years.
The Instruments

1. Relationship Inventory

The Relationship Inventory (Appendix A) was used to measure a person's ability to demonstrate to another person his capacity for (1) level of regard, (2) empathy, (3) congruence, (4) unconditionality of regard, and (5) willingness to be known. (The last factor correlated highly with the congruence factor and was subsequently eliminated by Barrett-Lennard.)

Barrett-Lennard (5) developed the Relationship Inventory using Rogers' conditions of therapy paper (52) as a starting point for the development of specific items. The preparation of items involved constant interaction between theory and operational expression, and resulted in a continuous growth and progressive refinement of meaning relating to each concept.

The specific questionnaire consists of items that can be responded to on a six point continuum from strong agreement (+3) to strong disagreement (-3). Each of the four sections includes eighteen items. It was desired to obtain answers that reflected how certain the respondent felt about the item statement being correct or incorrect and also how important it was to him that it was true or false. The group of items representing each variable (level of regard, empathy, congruence, and unconditionality of regard) is
dispersed throughout the Inventory so as to obtain maximum independence of answers to them.

Content validation was carried out by the use of ratings by a panel of five judges and by a formal item analysis. The detailed procedures used may be studied by consulting Barrett-Lennard (5:6-7).

The split-half reliability coefficients of the Relationship Inventory as reported by Barrett-Lennard (5:12) were: Level of regard .93, Empathic understanding .86, Congruence .89, and Unconditionality of regard .82. Hough (30, 31) reported similar high reliabilities: Level of regard .91, Empathic understanding .91, Congruence .91, and Unconditionality of Regard .82.

Barrett-Lennard concludes in this research that the obtained reliabilities and intercorrelations of the relationship measures, taken together, give some indirect evidence concerning the validity of the scales. The mean intercorrelation of the scales (not including the total score measures) from the client data was .45 as against a mean split-half reliability (or intracorrelation) of .86. "Clearly the scales are measuring different things and are not for example, merely reflecting the client's general satisfaction or dissatisfaction with the relationship" (5:13).

2. The Dogmatism Scale (57)

The Dogmatism Scale (Appendix B) was developed by Rokeach. A discussion of the validating procedures for this
instrument may be found in *The Open and Closed Mind* (57).

Rokeach has suggested that a person's belief-disbelief system may function in such a way as to distort or screen out potentially available stimuli. He hypothesizes a relationship between openness of a person's belief-disbelief system and the person's ability to be aware of and accurately perceive stimuli.

The Dogmatism Scale has gone through five editions. A total of 89 items were tried on the first scale and in the four successive revisions. The aim of these revisions was to continue refinements in theoretical formulations and to increase test reliability. The fifth and final form, form E, contains forty items, embedded in twenty neutral items and is the form used in this study. The forty items are responded to on a six-point continuum ranging from strong agreement (+3) to strong disagreement (-3). A high score on this test represents a relatively closed belief-disbelief system; i.e., the dogmatic person.

Reliabilities, means, and standard deviations of Form E were reported by Rokeach (57:90) as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of cases</th>
<th>Reliability</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>22</td>
<td>.85</td>
<td>142.6</td>
<td>27.6</td>
</tr>
<tr>
<td>B</td>
<td>28</td>
<td>.74</td>
<td>143.8</td>
<td>22.1</td>
</tr>
<tr>
<td>C</td>
<td>21</td>
<td>.74</td>
<td>142.6</td>
<td>23.3</td>
</tr>
<tr>
<td>D</td>
<td>29</td>
<td>.68</td>
<td>141.5</td>
<td>27.8</td>
</tr>
<tr>
<td>E</td>
<td>58</td>
<td>.71</td>
<td>141.3</td>
<td>28.2</td>
</tr>
</tbody>
</table>

A corrected split half reliability of .86 for the Dogmatism Scale is reported by Hough (30) in a study that
involved a population and testing procedures similar to the ones used in this study.

3. Human Development Institute Program Evaluation Scale

This scale (Appendix C) was developed by the writer to obtain the attitudes of students in the experimental group concerning their use of the Human Development Institute General Relationship Improvement Program. The items were selected to represent many different attitudes a person might have as he worked with, and subsequently completed these programmed materials. One-half of the items included were stated positively and the remaining one-half represented the same concepts stated negatively. An example of positive items would be this:

2. HDI programs are interesting and fun to work with.

The same idea stated negatively would be the following:

22. I was bored and disinterested during most of the time we used the HDI program.

The items dealt with the student's attitude toward the program, how he believed it helped him learn more about human relations skills, how he felt about his partners in this study, how he believed these materials could be helpful to others, and how valuable these materials could be for use in the future with counselors in preparation.

The instrument was submitted to three Professors of Education and they judged it to have face validity and
confirmed that the twenty negative and twenty positive items were in fact positive and negative statements of the same concept. All judges stated that this instrument would permit the person completing it to show a wide variety of attitude concerning his work with the Human Development Institute programed materials.

Each student was asked to respond to each of the statements in this instrument by placing the number (+3, I strongly agree to -3, I strongly disagree) that best described his feelings regarding that statement. All responses were subsequently converted to positive numbers for scoring purposes.

Items 1-21, 2-22, . . . 20-40 were matched (positive and negative) in random order so that a split-half reliability could be obtained. A rank-difference coefficient was obtained using the formula (64:13-14):

\[ r = 1 - \frac{6 \sum d^2}{N(N^2 - 1)} \]

\[ = 1 - \frac{930}{3360} \]

\[ = .723 \text{ (uncorrected)} \]

This uncorrected split-half reliability was then submitted to the Spearman-Brown formula for correction of the split-half reliability. The Spearman Brown formula is:

\[ r_{tt} = \frac{2r_{hh}}{1 + r_{hh}} \]
Where \( r_{tt} \) = corrected split-half reliability

and \( r_{hh} \) = uncorrected split-half reliability

\[
\frac{1.446}{1.723} = .839 \quad (\text{corrected split-half reliability for the Human Development Institute Program Evaluation Scale})
\]

4. **General Relationship Improvement Program** (6) (32)

One of the questions heard most often since the advent of programed instruction is whether operant methods could be used to teach other than systematic objective material. At the Human Development Institute the question was phrased more specifically; using programed learning techniques would it be possible, on a mass basis, to significantly influence behavior so as to create in individuals the increased ability for more meaningful and enhancing relationships?

The first step in answering the above question was the defining the desired behavior. This extends from general statements to more specific behaviors. The general aims of the relationship program are as follows:

1. to deepen one's ability to be more aware of his own feelings and the feelings of others.
2. to enhance one's appreciation of his own potential.
3. to increase flexibility in both the emotional and cognitive aspects of behavior.
4. to develop the ability to apply these new behavior patterns to the real-life situation.

The second step was to develop through theory, hunch and past research a series of stimuli which hypothetically would bring about the previously defined behavior.

The HDI program contains two different sets of stimuli. The first is the more conventional type of didactic frame where bits of pertinent information are presented to the participants. These take the form of frames with a blank, multiple choice frames, question frames, and informational frames requiring no answer. The second set of stimuli are interactive frames and include instructions for discussion, script reading, role-playing and some less directive frames inserted to bring the participants into freer communication with each other.

These two sets of stimuli were combined so as to have the participants intellectually understand the behaviors in addition to actually putting them into practice.

The third step was testing the stimuli and observing the responses. Subjects for the tests were obtained from local schools, industries and social and civic organizations. The sessions were tape recorded and personal reaction sheets were obtained from the participants after each session. In addition to the Institute staff, outside clinicians were used for the analysis of the clinical aspects of the interactions.
One of the important reasons for this was to minimize the chances that any destructive behavior was being programmed.

The data obtained from these observations were used for the fourth step—revising and adding to the program until the desired behaviors were obtained. This step involved the insertion of new frames, variation of sequences, and other revisions of the stimuli presented to the participants. It was found that in actual practice the desired behaviors were never fully obtained from all participants; presumably, better stimuli and reinforcements could always be found with additional testing. The decision to solidify the programs at any given time was thus a compromise.

The fifth step was the outcome and field testing which further defined the effectiveness and limitations of the program. In addition to controlled studies being done at the Human Development Institute, other investigations have been conducted at the university level. (For a review of additional studies utilizing the General Relationship Improvement Program, see Chapter II.)

The following is a brief summary of the contents of the ten sessions of the General Relationship Improvement Program.

**Session 1-3**

In the first three sessions of the program it is pointed out that each participant is responsible in some
measure for what the others will get out of his participation, and the main emphasis of the content of these sessions centers on things that the individual can do which will help his partner to get the most out of it. Attention is immediately focused on feelings as contrasted to facts, opinions, problems, and on ways that one may respond to another person's feelings in ways which will not make him feel foolish, ashamed or inferior, but that such responses are neither common nor easy to learn. They are also shown that it is possible to allow another to have his feelings even when you do not agree with his opinions and that in such cases hiding your disagreement and your true feelings is not necessary and often not desirable.

It is also pointed out that a person can become more aware of the feelings of others by being alert to the feelings that lie behind the questions and statements of other persons.

Each of these points is developed in detail through multiple illustrations, practice at making the necessary distinctions, and through various exercises ranging from examination of their own conversation to enacting short dramas in role-playing exercises.

One of the main objectives of these first three sessions is to begin to create an atmosphere in which the participants can examine and appreciate some of their own reactions in an interpersonal situation on a feeling level.
Sessions 4-6

Beginning in the third session and continuing through the following three sessions the material is concerned with the crucial and complex relationship between expression of feelings and self-awareness and self-understanding. It is emphasized throughout that open expression of feeling is not always appropriate, but that advances in self-understanding do not occur in situations where you feel that most of your true feelings must be kept hidden.

A relationship which gives participants the freedom to see and appreciate their own feelings is identified as a growth-producing relationship. This kind of relationship requires not only awareness and suitable responses to the other's feelings, but also an openness of expression of one's own feelings. There is a kind of openness which is an integral part of respect and trust of others and more important, respect for one's self. It can be identified with forthrightness and spontaneity. This is not the same thing as revealing secret thoughts nor as indiscriminate thrusting forth of opinions. It is not only different from but quite incompatible with being argumentative or insensitive to the feelings of others. It is more the willingness to share immediate emotional responses here and now as well as the feeling of security and freedom to do so.

The program next explores, in layman's language, the common but often unfortunate mixture of openness and caution
which psychologists refer to as "projection." This is seen when people express their own feelings but make it sound as if they were talking about the other person or something else outside themselves. If the feelings involved are negative, this kind of expression takes what the program defines as the Accusative form.

The development of these points includes fairly extensive treatment of the elements of self-esteem and self-acceptance and of the causes and effects of arguments. In this connection it is demonstrated that one need not hide or deny his own beliefs and feelings in order to avoid argument, and that to do so is to pay an unnecessary and costly price in self-respect.

Again each of these points is developed in detail through illustrations, practice at making new distinctions, and through various exercises involving interaction between the partners. In general as the program progresses there is an increasing amount of time spent on interactions and a decreasing amount on the more academic type of instruction.

Sessions 7-9

In these three sessions, a series of concepts are presented which are designed to stimulate the participants to look at themselves and their relations with others from a new viewpoint. In each case they are prompted to stop and look at themselves and at each other in the light of the particular concepts involved.
Definitions of self-concept and self-ideal are introduced and a distinction is made between the motivations for self-preservation and for self-actualization. It is demonstrated that more than one feeling can be experienced at the same time and that one can even experience feelings which seem to be opposites at the same time.

It is pointed out that in any conversation the topic may be close or distant in time or space. It may also be close to or remote from direct personal experience or may be close or distant in many combinations of these ways. Abstractions and generalities are examples of topics remote from direct personal experience.

It is also pointed out that there are many things that we do which serve the purpose of shifting the conversation in the direction of greater distance. These are identified as being protective reactions. Examples given include talking about something far away, "lecturing," and sticking unnecessarily close to the concepts in the program itself. Protective reactions serve a useful purpose, but they can also retard the development of a growth-producing relationship.

People often fall into fairly fixed patterns of relating, but different ways of responding are always available, and the participants are encouraged to try variations on their typical modes of responding for the sake of experience. Specific suggestions are offered.
Everyone has opportunities for growth-producing experiences. Some situations are more promising than others, and the conditions which are more favorable are examined. It is made clear that such opportunities are not limited to lifelong intimate friendships. It is pointed out that conditions are not favorable for a growth-producing relationship when urgent objectives are involved other than simply relating. For example, conditions are not favorable when you are trying to influence the other person, even "for his own good."

Session 10

In the final session of the program the learning process through which individual change takes place is discussed. A distinction is made between acquiring knowledge and an intellectual understanding of a concept on one hand, and internalizing or assimilating the new knowledge into habitual ways of responding in a new way without thinking about it before hand. It is acknowledged that some of the concepts presented in this program may have been internalized by the time the final session is reached, but that others probably have not. This is seen as a gradual process which will continue long after the program is finished.

Participants are warned that, whatever changes they may feel they have achieved, there will be times when they will revert to older habits, but that this is to be expected and that anything learned is never entirely lost. They are
also given an opportunity to discuss the feelings they may have on approaching the end of the program.

**Procedures for collection of the data**

The data were gathered over a period of six months. During the first two weeks of the guidance and counseling institute each institute member completed the Dogmatism Scale under the title "Opinionnaire" (Appendix B). The trainees were ranked from the lowest score (least dogmatic) to the highest score (most dogmatic). The entire class was then separated into five experimental triads and five control triads in the following manner. Person 1 (lowest dogmatism score) to Experimental 1, Person 2 to Control 1, Person 3 to Experimental 2, Person 4 to Control 2 . . . Person 29 to Experimental 5, Person 30 to Control 5. Thus, each triad consisted of one person who scored in the lower third of the class on the Dogmatism Scale, one person who scored in the middle third of the class on the Dogmatism Scale, and one person who scored in the highest third of the class on the Dogmatism Scale.

After the entire class was together for a period of four weeks and they had had ample opportunity to relate with one another, each person was asked to complete a Relationship Inventory on the other two persons in his triad.

After six weeks of the institute had been completed the experimental groups commenced their use of the General
Relationship Improvement Program. Each member of the experimental group was contacted individually by his adviser to ascertain his willingness to participate in the use of these triadic programmed instructional materials. All consented willingly. The experimental groups completed the ten one hour sessions during the following six week period. All sessions were conducted in a private conference room at the university at a time agreed upon by members of each triad. All experimental members completed all sessions of the experimental treatment.

The twelfth week each triad was again asked to complete a Relationship Inventory on the other two persons in his triad. The members of the experimental group were asked to complete the Human Development Institute Program Evaluation Scale one week later.

Three months later, each person was again asked to complete a Relationship Inventory on the other two persons in his triad. Following this administration all members of the institute were informed of the purposes and structure of this study.

Within the exception of the General Relationships Improvement Program, all institute members had, as much as was possible, similar experiences in this institute training experience. They were together approximately forty hours each week in classes and discussion group settings. Each person
had excellent opportunities to relate with all other persons in this unique academic setting.

**Analysis of data**

After the data were compiled they were analyzed relative to the purposes of the study.

Hypotheses 1, 2, and 4 were analyzed using the Mann Whitney U test (64:89-90). This test is applicable to observations on two independent random samples capable of being combined into a single ordered series. After the $N_1$ and $N_2$ observations were combined in order of size, they were ranked from 1, lowest, to $N_1+N_2$, highest, and the sum of ranks $T$ or $T_1$ (whichever was smaller), was computed. Under the null hypothesis that there is no difference between the sampled populations, the ratio of the sum of ranks $T$ in the smaller sample to that in the larger would be expected to be approximately equal to the ratio of $N_1$ to $N_2$. If $T$ was either significantly smaller or significantly larger than the expected value, the null hypothesis was rejected. Table L (64) was used to determine the significance of $T$ or $T_1$.

Hypothesis 3 was analyzed using the Kruskal-Wallis H test (64:109-110). This is the nonparametric analogue of the variance-ratio test of differences among means of three or more samples in a single classification. The scores of the three groups were ranked from 1, smallest, to N, largest, and combined into an ordered series of observations. If the
sampled populations were identical, the total sum of ranks would be expected to be divided proportionately among the samples in accordance with sample size. If the \( k \) sums of ranks were markedly disproportionate there would be reason to suspect that the populations were different. The null hypothesis that the populations would not differ was tested by comparing the observed sum of ranks with their expected values.

The test statistic \( H \) is defined by

\[
H = \left[ \frac{12}{N(N+1)} \right] \left[ \frac{\sum R_i^2}{N} \right] - 3(N+1)
\]

Where \( R_i \) and \( n_i \) are respectively the sum of ranks and the number in the \( i \) sample, and \( N \) is the total, i.e., \( N = \sum n_i \). Critical values of \( H \) were listed in Table Q (64:142).

Wilcoxon T tests (64:89-91) were also used to determine the significance of the growth made by subjects on the Relationship Inventory from pre-test measures to post-test and delayed post-test measures.

Statistical significance was noted if it was at the .10 level or below.
CHAPTER IV

RESULTS AND DISCUSSION

This investigation was undertaken to test four hypotheses and their accompanying sub-hypotheses. These will be restated prior to the presentation of the analysis of data which relates to each hypothesis. In addition to a presentation of the four major hypotheses, data will also be presented regarding the perception of experimental subjects concerning their use of programed instructional materials. A brief discussion will follow the presentation and analysis of data for each hypothesis.

Introduction

The experimental and control group pre-test scores for the Relationship Inventory and the Dogmatism Scale are presented in the first two tables. These tables provide the reader with pertinent information concerning the means and ranges of the pre-test measures. Levels of significant differences between experimental and control groups are also reported. The first two tables serve as references against which to project subsequent post-test and delayed post-test scores to measure changes that have taken place within and between experimental and control groups.
Table 1 reveals the means and ranges of the trainees' Relationship Inventory pre-test measures for the experimental and control groups. From this table it can be seen that there is very little difference between the mean scores of the experimental group and those of the control group. Although the group means were quite similar it was decided to determine statistically what differences, if any, existed between these two groups. The data were subjected to the Mann Whitney U test and the results reported in Table 1. The experimental and control groups did not differ significantly on any sub-test of the Relationship Inventory except the Unconditionality of Regard sub-test, where a .10 level of significant differences was recorded.

**TABLE 1**

**COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON THE RELATIONSHIP INVENTORY PRE-TEST**

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>Ua</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N, Range, Mean</td>
<td>N, Range, Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Regard</td>
<td>15, 83, 93.8</td>
<td>15, 107, 91.5</td>
<td>212</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>15, 63, 78.9</td>
<td>15, 95, 76.2</td>
<td>219</td>
<td>n.s.</td>
</tr>
<tr>
<td>Congruence</td>
<td>15, 80, 90.1</td>
<td>15, 102, 89.8</td>
<td>223</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>15, 65, 80.6</td>
<td>15, 90, 75.4</td>
<td>188</td>
<td>.10</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>15, 301, 343.4</td>
<td>15, 391, 332.9</td>
<td>207</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

*aValues of U: .10 = 192, .05 = 184, .01 = 171.*
Table 2 shows the range and means of Dogmatism Scale scores for subjects in the experimental and control groups. The Dogmatism Scale scores for experimental and control groups were tested statistically to determine if these two groups differed significantly. The Mann Whitney U test was used for this purpose and the results included in Table 2. It was found that the experimental and control groups did not differ significantly as measured by the Dogmatism Scale.

**TABLE 2**

**COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON THE DOGMATISM SCALE**

<table>
<thead>
<tr>
<th>Text</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>U^a</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Range</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>Dogmatism Scale</td>
<td>15</td>
<td>91</td>
<td>128.4</td>
<td>15</td>
</tr>
</tbody>
</table>

^aValues of U: .10 = 192, .05 = 184, .01 = 171.

Before discussing the following data concerning the experimental and control groups the assumption can be made that the scores recorded by each of these two groups on the Relationship Inventory and the Dogmatism Scale are essentially the same. One slight difference was recorded on the Unconditionality of Regard sub-test where a .10 level of significant difference was recorded. The fact that these two groups did not differ significantly on the pre-test measures enabled the researchers to more readily determine changes that occurred due to the experimental treatment.
Findings

The introductory section of this chapter presented pertinent information needed by the reader before the commencement of the study and analysis of data for each of the following hypotheses. The following is a presentation of each hypothesis to be tested, the data analysis used in the testing of each hypothesis, and an accompanying discussion of the findings.

Hypothesis 1. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the sub-tests of the Relationship Inventory.

a. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the Level of Regard sub-test of the Relationship Inventory.

b. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the Empathy sub-test of the Relationship Inventory.

c. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the Congruence sub-test of the Relationship Inventory.

d. Experimental and control groups will not differ with respect to pre- to post-test difference scores on the Unconditionality of Regard sub-test of the Relationship Inventory.

The development of human relations skills by members of the experimental and control groups was measured by
comparing the Relationship Inventory scores each student received four weeks after the commencement of the institute experience and again eight weeks later after the experimental group had completed the General Relationship Improvement Program. Hypothesis 1 questions whether or not the scores received by the experimental and control groups will differ with respect to pre- to post-test differences. The reader is reminded that no significant differences existed between experimental and control groups on the Relationship Inventory pre-test, except on the Unconditionality of Regard sub-test, where a .10 level of significant difference was recorded. This hypothesis was tested using the Mann Whitney U test.

Table 3 provides the Relationship Inventory post-test scores for the experimental and control groups. Significant differences between experimental and control groups can be noted at the .10 level of Empathic Understanding and Total Relationship Inventory Score, and at the .01 level for the Congruence score. On all three sub-tests the experimental group scored more positively than the control group. The difference between the experimental and control groups on the Unconditionality of Regard pre-test measure was no longer present on the post-test. The gain registered by the control group on this sub-test was greater than that of the experimental group.
Table 3 reveals the amount of change, both positive and negative, that was registered by experimental and control groups from the pre-test to the post-test. It can be noted that the most positive change in every case favors the experimental group with the exception of the Unconditionality of Regard sub-test where the control group gained slightly more. Overall, the experimental group gained three times as much as the control group as indicated by the Total Relationship Inventory means. The significant differences between experimental and control groups on the pre- to post-test differences are also reported in Table 4. It may be noted that the two groups differ significantly at the .10 level for the Empathic
Understanding sub-test and at the .01 level on the Congruence sub-test. Although growth trends are apparent in four of the five Relationship Inventory difference scores favoring the experimental group, only the Congruence and the Empathic Understanding sub-tests reveal differences great enough to be accepted as statistically significant.

TABLE 4

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON THE RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCES

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>U^a</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Range</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>Level of Regard</td>
<td>15</td>
<td>-19</td>
<td>4.8</td>
<td>20</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>15</td>
<td>-6</td>
<td>9.5</td>
<td>20</td>
</tr>
<tr>
<td>Congruence</td>
<td>15</td>
<td>-23</td>
<td>6.3</td>
<td>23</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>15</td>
<td>-20</td>
<td>3.2</td>
<td>24</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>15</td>
<td>-49</td>
<td>23.8</td>
<td>90</td>
</tr>
</tbody>
</table>

^aValues of U: .10 = 192, .05 = 184, .01 = 171.

Discussion

Hypotheses l.a (Level of Regard) and l.d (Unconditionality of Regard) cannot be rejected on the basis of the findings. Hypothesis l.b (Empathic Understanding) is tentatively rejected and hypothesis l.c (Congruence) is rejected on the basis of the findings and accompanying statistical
tests presented in Table 4. The mean gains registered by the experimental group were superior to the control group on every sub-test of the Relationship Inventory except the Unconditionality of Regard sub-test.

Table 5 reveals that while the experimental group made only slightly more gain than the control group when pre- to post-test difference means were compared, it was determined by use of the Wilcoxon T test that the growth made by the experimental group was significant at the .05 level while the growth made by the control group was not determined to be significant. It was assumed that much change took place in both experimental and control groups because of their involvement in an intensive counselor preparation institute, but that the significant changes in pre- to post-test difference scores on the part of the experimental group were a function of the experimental subjects' involvement in the General Relationship Improvement Program.

**TABLE 5**

**COMPARISON OF GROWTH IN HUMAN RELATIONS SKILLS BY EXPERIMENTAL AND CONTROL GROUPS AS MEASURED BY RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCE SCORES**

<table>
<thead>
<tr>
<th>Test</th>
<th>EXPERIMENTAL</th>
<th></th>
<th>CONTROL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Range</td>
<td>Mean</td>
<td>T</td>
</tr>
<tr>
<td>Total Relationship Inventory Score</td>
<td>15</td>
<td>90</td>
<td>23.8</td>
<td>23</td>
</tr>
</tbody>
</table>

*aValues of T: .10 = 30, .05 = 25, .01 = 16.*
Hypothesis 2. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the sub-tests of the Relationship Inventory.

a. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the Level of Regard sub-test of the Relationship Inventory.

b. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the Empathy sub-test of the Relationship Inventory.

c. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the Congruence sub-test of the Relationship Inventory.

d. Experimental and control groups will not differ with respect to pre- to delayed post-test difference scores on the Unconditionality of Regard sub-test of the Relationship Inventory.

In an effort to determine if additional attitude changes would occur and if measured attitude change would persist, a delayed post-test was administered three months after the completion of the post-test. Hypothesis 2 questions whether or not the scores received by the experimental and control groups will differ with respect to the pre- to delayed post-test difference. This hypothesis was tested by using the Mann Whitney U test.

Table 6 provides the Relationship Inventory delayed post-test results for the experimental and control groups.
TABLE 6

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON THE RELATIONSHIP INVENTORY DELAYED POST-TEST

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>Ua</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Range</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>Level of Regard</td>
<td>15</td>
<td>77</td>
<td>94.8</td>
<td>109</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>15</td>
<td>66</td>
<td>84.2</td>
<td>106</td>
</tr>
<tr>
<td>Congruence</td>
<td>15</td>
<td>64</td>
<td>90.3</td>
<td>101</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>15</td>
<td>59</td>
<td>81.7</td>
<td>62</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>15</td>
<td>97</td>
<td>351.0</td>
<td>266</td>
</tr>
</tbody>
</table>

aValues of U: .10 = 192, .05 = 184, .01 = 171.

The experimental group results were still more positive than the control group in every instance, but the two groups did not differ significantly on any sub-test of the Relationship Inventory. The sub-test mean scores for the experimental and control groups were almost identical, the largest difference being on the Unconditionality of Regard sub-test where a difference of three points was recorded.

Table 7 reveals the amount of change, both positive and negative, that was registered from the pre- to the delayed post-test. It should be noted that the most positive change measured on every sub-test but one (Congruence) favored the control group. This table also reveals that no significant
TABLE 7
COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON THE RELATIONSHIP INVENTORY PRE- TO DELAYED POST-TEST DIFFERENCES

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>(U^a )</th>
<th>(p )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Range</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>Level of Regard</td>
<td>15</td>
<td>-23</td>
<td>1.0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>15</td>
<td>-10</td>
<td>5.3</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congruence</td>
<td>15</td>
<td>-24</td>
<td>0.2</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>15</td>
<td>-21</td>
<td>1.1</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total RI Score</td>
<td>15</td>
<td>-77</td>
<td>7.6</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Values of \(U\): \(\cdot10 = 192\), \(\cdot05 = 184\), \(\cdot01 = 171\).

differences exist between experimental and control groups concerning the amount of change registered between the Relationship Inventory pre-test and delayed post-test. It should be mentioned that from the pre-test to the delayed post-test that the control group continued to make a slight gain in Total Relationship Inventory Score of 2.4 points, while the experimental group showed a loss in Total Relationship Inventory Score of 16.2 points.

**Discussion**

Hypothesis 2.a, 2.b, 2.c, and 2.d cannot be rejected on the basis of the findings. The statistical tests used to
examine these data indicated that no significant differences existed between experimental and control groups with respect to pre- to delayed post-test difference scores on the sub-tests of the Relationship Inventory. The significant gains made by the experimental group from pre- to post-test were erased during the three months that followed the post-test. A Wilcoxon T test was conducted to determine if significant growth had occurred between the pre-test and the delayed post-test for either the experimental or the control group. The results indicated that neither the experimental nor the control group had changed significantly between the pre-test and the delayed post-test.

**Hypothesis 3.** Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale (for this population) will not differ with respect to their pre- to post-test difference scores on the sub-tests of the Relationship Inventory.

a. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the Level of Regard sub-test of the Relationship Inventory.

b. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the Empathy sub-test of the Relationship Inventory.
c. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the Congruence sub-test of the Relationship Inventory.

d. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not differ with respect to their pre- to post-test difference scores on the Unconditionality of Regard sub-test of the Relationship Inventory.

Table 8 shows the range and means of Dogmatism Scale scores for persons in low, medium, and high groups. It should be noted that the mean Dogmatism Scale scores of this group were approximately twelve points below those reported in the Rokeach studies (57:90). This group tends to be slightly less dogmatic, as measured by the Dogmatism Scale, than the groups studied by Rokeach. The standard deviation for this group was 20.9. The mean of the medium group was almost identical to the total group mean and the means of both low and high groups were slightly greater than one standard deviation from the total group mean.

Table 9 reveals the Relationship Inventory pre-test scores for subjects in low, medium, and high groups. On the pre-test measures the low group means were higher than the medium or high group means on every sub-test. The high group means were also higher than the medium group means on
TABLE 8

RANGE AND MEANS OF DOGMATISM SCALE SCORES FOR SUBJECTS CLASSIFIED AS LOW, MEDIUM, AND HIGH

<table>
<thead>
<tr>
<th>Classification</th>
<th>Range</th>
<th>Mean</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>91-120</td>
<td>106.5</td>
<td>10</td>
</tr>
<tr>
<td>Medium</td>
<td>124-138</td>
<td>130.2</td>
<td>10</td>
</tr>
<tr>
<td>High</td>
<td>145-174</td>
<td>155.0</td>
<td>10</td>
</tr>
<tr>
<td>Total Population</td>
<td>91-174</td>
<td>130.6</td>
<td>30</td>
</tr>
</tbody>
</table>

every sub-test. A Kuskal Wallis H test was conducted to determine whether or not significant differences existed among the three groups on the pre-test data and the findings are reported in Table 9. There were no significant differences among the three groups except on the Unconditionality of Regard sub-test where a significant difference of .05 was recorded.

Table 10 lists the Relationship Inventory post-test results for the three groups. The low group still received the most positive mean scores in all categories except Unconditionality of Regard, but both medium and high groups registered considerable gains over the pre-test measures. The statistical test conducted on the post-test data revealed that the three groups no longer differed significantly on any sub-test of the Relationship Inventory.

Table 11 looks at the Relationship Inventory pre- to post-test differences of low, medium, and high groups. The greatest gains recorded were made by the medium group and the
TABLE 9
COMPARISON OF LOW, MEDIUM, AND HIGH GROUPS ON THE RELATIONSHIP INVENTORY
PRE-TEST (N = 30, 10 IN EACH GROUP)

<table>
<thead>
<tr>
<th>Trainee RQ Measures</th>
<th>Low Group</th>
<th></th>
<th>Medium Group</th>
<th></th>
<th>High Group</th>
<th></th>
<th>Ha</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>Mean</td>
<td>RI</td>
<td>Range</td>
<td>Mean</td>
<td>RI</td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>Level of Regard</td>
<td>82</td>
<td>95.0</td>
<td>184</td>
<td>78</td>
<td>89.9</td>
<td>122.5</td>
<td>83</td>
<td>93.1</td>
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<tr>
<td></td>
<td>106</td>
<td></td>
<td></td>
<td>103</td>
<td></td>
<td></td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>66</td>
<td></td>
<td></td>
<td>55</td>
<td></td>
<td></td>
<td>63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>81.2</td>
<td>192</td>
<td>87</td>
<td>73.6</td>
<td>118</td>
<td>91</td>
<td>77.8</td>
</tr>
<tr>
<td></td>
<td>84</td>
<td>90.7</td>
<td>151</td>
<td>73</td>
<td>88.7</td>
<td>151.5</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>Congruence</td>
<td>102</td>
<td></td>
<td></td>
<td>93</td>
<td></td>
<td></td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>83</td>
<td>82.6</td>
<td>207.5</td>
<td>61</td>
<td>73.8</td>
<td>111.5</td>
<td>68</td>
<td>77.6</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td></td>
<td></td>
<td>89</td>
<td></td>
<td></td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Total RI Score</td>
<td>315</td>
<td>349.5</td>
<td>191</td>
<td>267</td>
<td>326.0</td>
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<td>391</td>
<td></td>
<td></td>
<td>376</td>
<td></td>
<td></td>
<td>372</td>
<td></td>
</tr>
</tbody>
</table>

*Values of H: (Chi² Table 2° o.f.) .10 = 4.61, .05 = 5.99, .01 = 9.21.
TABLE 10

COMPARISON OF LOW, MEDIUM, AND HIGH GROUPS ON THE RELATIONSHIP INVENTORY POST-TEST
(N = 30, 10 IN EACH GROUP)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low Group</th>
<th>Medium Group</th>
<th>High Group</th>
<th>Ha</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range Mean</td>
<td>Mean RI</td>
<td>Range Mean</td>
<td>Mean RI</td>
<td>Range Mean</td>
</tr>
<tr>
<td>Level of Regard</td>
<td>82</td>
<td>98.2 162.5</td>
<td>109</td>
<td>95.0 156.0</td>
<td>79</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>62</td>
<td>96.2 132.5</td>
<td>102</td>
<td>83.7 170.5</td>
<td>65</td>
</tr>
<tr>
<td>Congruence</td>
<td>83</td>
<td>93.7 178.5</td>
<td>107</td>
<td>92.2 176.5</td>
<td>68</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>65</td>
<td>79.0 136.5</td>
<td>96</td>
<td>81.3 157.5</td>
<td>69</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>307</td>
<td>357.1 162.0</td>
<td>307</td>
<td>352.2 152.0</td>
<td>307</td>
</tr>
</tbody>
</table>

*Values of H: (Chi² Table 20 d.f.) .10 = 4.61, .05 = 5.99, .01 = 9.21.
<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low Group</th>
<th>Medium Group</th>
<th>High Group</th>
<th>H</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>Mean</td>
<td>RI</td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>Level of Regard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-4</td>
<td>3.2</td>
<td>139.5</td>
<td>-19</td>
<td>5.1</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>-6</td>
<td>5.0</td>
<td>137.0</td>
<td>-2</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Congruence</td>
<td></td>
<td></td>
<td></td>
<td>-10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>3.0</td>
<td>156.0</td>
<td>-11</td>
<td>3.5</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td></td>
<td></td>
<td></td>
<td>-20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>-3.6</td>
<td>99.5</td>
<td>-12</td>
<td>7.5</td>
</tr>
<tr>
<td>Total RI Score</td>
<td></td>
<td></td>
<td></td>
<td>-39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>7.6</td>
<td>132.0</td>
<td>16</td>
<td>26.2</td>
</tr>
</tbody>
</table>

\[a\] Values of H: \(\chi^2\) Table 20 d.f. \(n.p. = 4.61, .05 = 5.99, .01 = 9.21.\}
least gain was made by the low group. A significant difference at the .05 level existed among the three groups on the Unconditionality of Regard sub-test. No other significant differences with regard to Relationship Inventory pre- to post-test differences were recorded.

Tables 9, 10, and 11 presented information which could be used to accept or reject hypothesis 3, but did not make allowances for differences in growth on the part of experimental and control groups. Tables 12, 13, 14, and 15 present pertinent information in the investigation of differences between experimental and control groups for low, medium, and high groups.

Tables 12 and 13 present the Relationship Inventory pre-test data for lows, mediums, and highs in the experimental group, and for lows, mediums, and highs in the control group.

Table 12 shows that in the experimental group there were significant differences among the lows, mediums, and highs on the pre-test data for Level of Regard (.05), Empathic Understanding (.10), Unconditionality of Regard (.10), and Total Relationship Inventory Score (.10). Only on the Congruence sub-test did the experimental group lows, mediums, and highs appear to be similar.

Table 13 shows that in the control group there were no significant differences among the lows, mediums, and highs on the Relationship Inventory pre-test data.
TABLE 12
COMPARISON OF LOW, MEDIUM, AND HIGH GROUP RELATIONSHIP INVENTORY PRE-TEST SCORE FOR THE EXPERIMENTAL GROUP (N = 15)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Hª</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean R1</td>
<td>Mean R1</td>
<td>Mean R1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Regard</td>
<td>99.1</td>
<td>57.0</td>
<td>88.1</td>
<td>22.5</td>
<td>94.3</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>85.3</td>
<td>59.0</td>
<td>76.0</td>
<td>31.5</td>
<td>71.5</td>
</tr>
<tr>
<td>Congruence</td>
<td>92.7</td>
<td>43.5</td>
<td>88.7</td>
<td>40.0</td>
<td>88.9</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>85.6</td>
<td>57.0</td>
<td>76.1</td>
<td>24.5</td>
<td>80.1</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>362.7</td>
<td>57.0</td>
<td>328.9</td>
<td>27.5</td>
<td>334.8</td>
</tr>
</tbody>
</table>

ªValues of H: .10 = 4.56, .05 = 5.66, .01 = 7.98.

TABLE 13
COMPARISON OF LOW, MEDIUM, AND HIGH GROUP RELATIONSHIP INVENTORY PRE-TEST SCORES FOR THE CONTROL GROUP (N = 15)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Hª</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean R1</td>
<td>Mean R1</td>
<td>Mean R1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Regard</td>
<td>91.0</td>
<td>39.0</td>
<td>91.7</td>
<td>41.0</td>
<td>91.9</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>77.0</td>
<td>41.0</td>
<td>71.3</td>
<td>31.0</td>
<td>80.2</td>
</tr>
<tr>
<td>Congruence</td>
<td>88.7</td>
<td>33.0</td>
<td>88.7</td>
<td>42.0</td>
<td>92.2</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>79.5</td>
<td>51.0</td>
<td>71.5</td>
<td>32.5</td>
<td>75.1</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>336.2</td>
<td>42.0</td>
<td>323.2</td>
<td>35.0</td>
<td>339.4</td>
</tr>
</tbody>
</table>

ªValues of H: .10 = 4.56, .05 = 5.66, .01 = 7.98.
Tables 14 and 15 reveal that there are no significant differences between low, medium, and high Relationship Inventory pre- to post-test difference scores when they are studied in terms of belonging to experimental or control groups. A study of the H values for both experimental and control groups does indicate that the most change was registered by the experimental group. This change, it may be noted, was registered largely in the medium and high groups. The post-test mean scores for the experimental group were superior to those of the control group in every instance.

TABLE 14

COMPARISON OF LOW, MEDIUM, AND HIGH GROUP RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCES FOR THE EXPERIMENTAL GROUP (N = 15)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low Mean RI</th>
<th>Medium Mean RI</th>
<th>High Mean RI</th>
<th>H&lt;sub&gt;a&lt;/sub&gt;</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>3.6 32.0</td>
<td>7.2 50.0</td>
<td>3.5 38.0</td>
<td>1.68</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>6.5 30.0</td>
<td>13.7 52.0</td>
<td>8.3 38.0</td>
<td>2.48</td>
<td>n.s.</td>
</tr>
<tr>
<td>Congruence</td>
<td>2.1 36.5</td>
<td>8.6 43.5</td>
<td>4.5 40.0</td>
<td>0.24</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>-5.5 24.0</td>
<td>8.4 51.0</td>
<td>6.6 45.0</td>
<td>4.02</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>6.7 29.0</td>
<td>37.9 51.5</td>
<td>22.9 39.5</td>
<td>2.54</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

<sup>a</sup>Values of H: .10 = 4.56, .05 = 5.66, .01 = 7.98
TABLE 15
COMPARISON OF LOW, MEDIUM, AND HIGH GROUP RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCES FOR THE CONTROL GROUP (N = 15)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low Mean</th>
<th>Low Ri</th>
<th>Medium Mean</th>
<th>Medium Ri</th>
<th>High Mean</th>
<th>High Ri</th>
<th>Hα</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>2.7</td>
<td>40.0</td>
<td>3.0</td>
<td>40.0</td>
<td>2.3</td>
<td>40.0</td>
<td>0.00</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>3.5</td>
<td>38.0</td>
<td>6.3</td>
<td>47.0</td>
<td>1.6</td>
<td>35.0</td>
<td>0.78</td>
<td>n.s.</td>
</tr>
<tr>
<td>Congruence</td>
<td>0.2</td>
<td>46.0</td>
<td>-1.7</td>
<td>40.5</td>
<td>-4.3</td>
<td>33.5</td>
<td>0.78</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>-1.5</td>
<td>26.5</td>
<td>6.7</td>
<td>48.0</td>
<td>6.0</td>
<td>45.5</td>
<td>2.76</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>4.9</td>
<td>38.0</td>
<td>14.3</td>
<td>43.0</td>
<td>5.6</td>
<td>39.0</td>
<td>0.14</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Values of H: .10 = 4.56, .05 = 5.66, .01 = 7.98

Discussion

Hypotheses 3.a, 3.b, and 3.c cannot be rejected on the basis of the findings in this study. Hypothesis 3.d may be rejected on the basis of the .05 level of significant difference found on the Unconditionality of Regard sub-test for low, medium, and high groups. On the Unconditionality of Regard sub-test the medium group made a 7.5 point gain from pre-to post-test while the low group registered a mean loss of 3.6.

Although not a direct part of this hypothesis, the experimental and control groups were studied (Tables 14 and 15) to determine if significant differences were present among the low, medium, and high groups. No significant
differences were present although the mean gains made by the experimental group were greater.

Even though only one significant difference was found among the low, medium, and high groups this is not to say that significant growth was not made on the part of these three groups.

Tables 16, 17 and 18 provide information concerning the growth of low, medium, and high groups as measured by the Relationship Inventory pre- to post-test differences. A Wilcoxon T test was conducted to obtain significant growth changes. Table 16 reveals that the low group made positive growth on the Level of Regard sub-test which was significant at the .10 level. The low group made no other significant gains.

**TABLE 16**

GROWTH IN HUMAN RELATIONS SKILLS BY LOW GROUP SUBJECTS AS MEASURED BY RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCE SCORES (N = 10)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Difference</th>
<th>T&lt;sub&gt;a&lt;/sub&gt;</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>95.0</td>
<td>98.2</td>
<td>3.2</td>
<td>8.5</td>
<td>.10</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>81.2</td>
<td>86.2</td>
<td>5.0</td>
<td>11.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Congruence</td>
<td>90.7</td>
<td>93.7</td>
<td>3.0</td>
<td>17.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>82.6</td>
<td>79.0</td>
<td>-3.6</td>
<td>13.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>349.5</td>
<td>357.1</td>
<td>7.6</td>
<td>17.5</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

<sup>a</sup>Values of T: .10 = 10, .05 = 8, .01 = 3.
TABLE 17

GROWTH IN HUMAN RELATIONS SKILLS BY MEDIUM GROUP SUBJECTS
AS MEASURED BY RELATIONSHIP INVENTORY PRE- TO POST-TEST
DIFFERENCE SCORES (N = 10)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Difference</th>
<th>T²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>89.9</td>
<td>95.0</td>
<td>5.1</td>
<td>14.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>73.6</td>
<td>83.7</td>
<td>10.1</td>
<td>1.0</td>
<td>.01</td>
</tr>
<tr>
<td>Congruence</td>
<td>88.7</td>
<td>92.2</td>
<td>3.5</td>
<td>16.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>73.8</td>
<td>81.3</td>
<td>7.5</td>
<td>8.0</td>
<td>.05</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>326.0</td>
<td>352.2</td>
<td>26.2</td>
<td>7.0</td>
<td>.05</td>
</tr>
</tbody>
</table>

a Values of T: .10 = 10, .05 = 8, .01 = 3.

Table 17 shows that the medium group made significant growth on the sub-tests of Empathic Understanding (.01), Unconditionality of Regard (.05), and on the Total Relationship Inventory Score (.05). It may also be noted that the medium group made the largest mean gain of the three groups (26.2 points).

Table 18 indicates that the high group made significant growth on only the Empathic Understanding sub-test with a .10 level of significant change.

**Hypothesis 4.** Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale (for this population) will not rate members of their triadic training groups differently as measured by pre- to post-test difference scores of the Relationship Inventory.
TABLE 18

GROWTH IN HUMAN RELATIONS SKILLS BY HIGH GROUP SUBJECTS AS MEASURED BY RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCE SCORES (N = 10)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Difference</th>
<th>T^a</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>93.1</td>
<td>96.0</td>
<td>2.9</td>
<td>12.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>77.8</td>
<td>82.8</td>
<td>5.0</td>
<td>10.0</td>
<td>.10</td>
</tr>
<tr>
<td>Congruence</td>
<td>90.6</td>
<td>90.6</td>
<td>0.0</td>
<td>25.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>77.6</td>
<td>83.9</td>
<td>6.3</td>
<td>13.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>339.1</td>
<td>353.3</td>
<td>14.2</td>
<td>17.5</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

^aValues of T: .10 = 10, .05 = 8, .01 = 3.

a. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups differently as measured by pre-to post-test difference scores on the Level of Regard sub-test of the Relationship Inventory.

b. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups differently as measured by pre-to post-test difference scores on the Empathy sub-test of the Relationship Inventory.

c. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups differently as measured by pre-to post-test difference scores on the Congruence sub-test of the Relationship Inventory.
d. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale will not rate members of their triadic training groups differently as measured by pre-to post-test difference scores on the Unconditionality of Regard sub-test of the Relationship Inventory.

Hypothesis 4 was tested to determine whether or not persons classified as lows, mediums, or highs on the basis of their scores on the Dogmatism Scale would rate members in other dogmatism groups differently. A Mann Whitney U test was conducted utilizing data gained on the Relationship Inventory pre-tests and post-tests.

Tables 19, 20, and 21 reveal the Relationship Inventory pre-test scores for low, medium, and high subjects rated by persons classified as low (Table 19), medium (Table 20), and high (Table 21). It can be seen that lows rated highs slightly higher than mediums, that mediums rated lows more positively than highs, and that highs rated lows much more positively than mediums. When looking at the three groups of raters, it should be noted that lows rated mediums and highs very similarly, that mediums rated lows much more positively than highs (14 points on Total Relationship Inventory Score), and that the greatest mean difference on ratings occurred between the lows and mediums as rated by highs. The highs rated the lows much more positively than the mediums (34 points on Total Relationship Inventory Score).
To ascertain exactly how significant the differences between ratings were by persons in a particular classification, a Mann Whitney U test was conducted on the pre-test scores. Tables 19 and 20 demonstrate that the differences in ratings by persons in low and medium categories on persons in other categories, as differentiated by levels of dogmatism, do not appear to be significant. Tables 21 shows that ratings by persons in the high category on persons in low and medium categories differ at the .10 level on Unconditionality of Regard (the lows received the most positive scores) and at the .10 level on the Total Relationship Inventory Score (the lows received the most positive scores).

**TABLE 19**

COMPARISON OF THE RELATIONSHIP INVENTORY PRE-TEST SCORES OF MEDIUM AND HIGH GROUP SUBJECTS AS RATED BY LOW GROUP SUBJECTS (N = 20)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Medium Group RI Scores</th>
<th>High Group RI Scores</th>
<th>Ua</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>92.8</td>
<td>94.5</td>
<td>103.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>75.6</td>
<td>76.4</td>
<td>104.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Congruence</td>
<td>91.6</td>
<td>91.7</td>
<td>104.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>78.9</td>
<td>78.1</td>
<td>99.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>388.9</td>
<td>340.7</td>
<td>102.0</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

*Values of U: 82 = .10, 78 = .05, 71 = .01*
TABLE 20

COMPARISON OF THE RELATIONSHIP INVENTORY PRE-TEST SCORES OF LOW AND HIGH GROUP SUBJECTS AS RATED BY MEDIUM GROUP SUBJECTS (N = 20)

<table>
<thead>
<tr>
<th>Trainee RI measures</th>
<th>Low Group RI Scores</th>
<th>High Group RI Scores</th>
<th>U^a</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>94.9</td>
<td>91.7</td>
<td>97.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>81.5</td>
<td>79.2</td>
<td>99.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Congruence</td>
<td>89.7</td>
<td>89.4</td>
<td>105.5</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>85.0</td>
<td>77.1</td>
<td>84.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>351.1</td>
<td>337.4</td>
<td>95.5</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

^a Values of U: 82 = .10, 78 = .05, 71 = .01

TABLE 21

COMPARISON OF THE RELATIONSHIP INVENTORY PRE-TEST SCORES OF LOW AND MEDIUM GROUP SUBJECTS AS RATED BY HIGH GROUP SUBJECTS (N = 20)

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low Group RI Scores</th>
<th>Medium Group RI Scores</th>
<th>U^a</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>95.2</td>
<td>86.0</td>
<td>83.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>80.7</td>
<td>71.7</td>
<td>83.5</td>
<td>n.s.</td>
</tr>
<tr>
<td>Congruence</td>
<td>91.7</td>
<td>85.8</td>
<td>90.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>79.1</td>
<td>68.7</td>
<td>79.0</td>
<td>.10</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>346.7</td>
<td>312.2</td>
<td>82.0</td>
<td>.10</td>
</tr>
</tbody>
</table>

^a Values of U: 82 = .10, 78 = .05, 71 = .01
Tables 22, 23, and 24 show the pre-test scores, post-test scores, and the pre- to post-test difference scores for subjects in one dogmatism classification as they rated members in other dogmatism classification.

Table 22 demonstrates that while low raters tended to see high subjects more positively than medium subjects on four of the five Relationship Inventory pre-tests, on the post-tests the low raters viewed the medium subjects more positively than high subjects on every category. Lows viewed mediums as making a 38.0 point gain on Total Relationship Inventory Score while the gain made by highs was only 12.2. A Mann Whitney U test was conducted and it was determined that lows viewed mediums and highs significantly different (.10) on only the Level of Regard sub-test.

Table 23 looks at the ratings given by medium raters to low and high group members. On the pre-test the medium raters viewed the high group more positively than low group on three of the five tests of the Relationship Inventory. On the post-test the lows were viewed more positively than highs on every test. A Mann Whitney U test revealed that no significant differences existed when the pre- to post-test difference ratings were compared for the low and high groups.

Table 24 compares the ratings given by high raters to low and medium group subjects. On the pre-test the low group was viewed more positively than the medium group on all tests
### TABLE 22

**COMPARISON OF MEDIUM AND HIGH GROUP RELATIONSHIP INVENTORY**

**PRE- TO POST-TEST DIFFERENCES AS RATED BY LOW GROUP SUBJECTS (N = 20)**

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Medium RI Scores</th>
<th>High RI Scores</th>
<th>( U^a )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre- Test</td>
<td>Post- Test</td>
<td>Pre- Post- Test Difference</td>
<td>Pre- Test</td>
</tr>
<tr>
<td>Level of Regard</td>
<td>92.8</td>
<td>102.9</td>
<td>10.1</td>
<td>94.5</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>75.6</td>
<td>85.8</td>
<td>10.2</td>
<td>76.4</td>
</tr>
<tr>
<td>Congruence</td>
<td>91.6</td>
<td>97.0</td>
<td>5.4</td>
<td>91.7</td>
</tr>
<tr>
<td>Unconditional-</td>
<td>78.9</td>
<td>91.2</td>
<td>12.3</td>
<td>78.1</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>338.9</td>
<td>376.9</td>
<td>38.0</td>
<td>340.7</td>
</tr>
</tbody>
</table>

\( a^a \) Values of \( U \): \( 82 = .10 \), \( 78 = .05 \), \( 71 = .01 \).

### TABLE 23

**COMPARISON OF MEDIUM AND HIGH GROUP RELATIONSHIP INVENTORY**

**PRE- TO POST-TEST DIFFERENCES AS RATED BY MEDIUM GROUP SUBJECTS (N = 20)**

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low RI Scores</th>
<th>High RI Scores</th>
<th>( U^a )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre- Test</td>
<td>Post- Test</td>
<td>Pre- Post- Test Difference</td>
<td>Pre- Test</td>
</tr>
<tr>
<td>Level of Regard</td>
<td>94.9</td>
<td>98.9</td>
<td>4.0</td>
<td>91.7</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>81.5</td>
<td>89.2</td>
<td>7.7</td>
<td>79.2</td>
</tr>
<tr>
<td>Congruence</td>
<td>89.7</td>
<td>96.2</td>
<td>6.5</td>
<td>89.4</td>
</tr>
<tr>
<td>Unconditional-</td>
<td>85.0</td>
<td>87.4</td>
<td>2.4</td>
<td>77.1</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>351.1</td>
<td>371.7</td>
<td>20.6</td>
<td>377.4</td>
</tr>
</tbody>
</table>

\( a^a \) Values of \( U \): \( 82 = .10 \), \( 78 = .05 \), \( 71 = .01 \).
### TABLE 24

**COMPARISON OF LOW AND MEDIUM GROUP RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCES AS RATED BY HIGH GROUP SUBJECTS (N = 20)**

<table>
<thead>
<tr>
<th>Trainee RI Measures</th>
<th>Low RI Scores Pre-Test</th>
<th>Low RI Scores Post-Test</th>
<th>Medium RI Scores Pre-Test</th>
<th>Medium RI Scores Post-Test</th>
<th>Differ-ence Pre- Post-</th>
<th>Differ-ence Pre- Post-</th>
<th>Ua</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>95.2</td>
<td>97.5</td>
<td>86.0</td>
<td>93.1</td>
<td>7.1</td>
<td>95.0</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>80.7</td>
<td>83.2</td>
<td>71.7</td>
<td>81.5</td>
<td>9.8</td>
<td>94.5</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Congruence</td>
<td>91.7</td>
<td>91.1</td>
<td>85.8</td>
<td>87.4</td>
<td>1.6</td>
<td>81.0</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>79.1</td>
<td>72.7</td>
<td>68.7</td>
<td>71.5</td>
<td>2.8</td>
<td>87.0</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Total RI Score</td>
<td>346.7</td>
<td>344.5</td>
<td>312.2</td>
<td>333.5</td>
<td>21.3</td>
<td>93.0</td>
<td>n.s.</td>
<td></td>
</tr>
</tbody>
</table>

Values of U: 82 = .10, 78 = .05, 71 = .01.

of the Relationship Inventory. On the post-test the low group was still viewed more positively than the medium group on all tests of the Relationship Inventory. However, the significant differences noted between low and medium groups for Unconditionality of Regard (.10) and Total Relationship Inventory Score (.10) on the pre-test were no longer present on the post-test. Based on the loss made by the low group and the gain made by the medium group on the Congruence sub-test, a significant difference of .10 between the low and medium groups was registered when pre- to post-test differences were compared. No significant pre- to post-test differences were registered on any other test when the ratings of high group raters were compared.
Discussion

Hypotheses 4.a, 4.b, 4.c, and 4.d may not be rejected on the basis of the data gathered in this study. Subjects scoring in the first, second, and third group ranges of the Dogmatism Scale (for the population in this study) do not rate members of their triadic training groups differently as measured by pre- to post-test differences on the Relationship Inventory. However, it should be noted that subjects scoring in the three group ranges of the Dogmatism Scale do rate members of their triadic training groups differently when one compares Total Relationship Inventory Scores. The post-test data reveal that in every case where subjects rated members of two other groups of varying dogmatism, the group scoring lowest on the Dogmatism Scale was rated most positively on the Relationship Inventory. It is also interesting to note that the Relationship Inventory scores of subjects in the high category were quite similar when rated by lows and mediums, the scores of mediums were similar when rated by lows and highs, and lastly, that there was considerable difference in the scores of low subjects as rated by mediums and highs. Although not directly a part of this hypothesis, it was decided to compare the Relationship Inventory ratings in the experimental and control groups by raters in one classification on subjects in the other two classifications to see if the raters in the experimental groups responded differently
than raters in the control groups. A Mann-Whitney U test was conducted to determine if significant differences existed. No significant differences existed on the pre-test, post-test, or change scores in either the experimental or control groups. This information was prepared to determine if the raters in experimental and control groups changed significantly in terms of the ratings given to others on the pre-test and post-test. In other words, did the experimental treatment influence changes in the ratings given by persons in the various categories determined by level of dogmatism? It appears quite clear that differences by raters were not influenced by the experimental treatment.

Lastly, the ratings by subjects classified as low, medium, and high in the experimental group were compared to similar ratings in the control group. For example, the ratings of mediums in the experimental group by lows were compared to the ratings of mediums in the control group by lows. The findings indicated that there are no significant differences in any of the categories between the experimental group and the control group.

Human Development Institute Program Evaluation

An evaluation of student attitude concerning the use of the General Relationship Improvement Program was conducted using the HDI Program Evaluation Scale described in Chapter III and enclosed in Appendix C. The purpose of this
evaluation scale was to determine how students who had used this HDI program thought and felt about its use, and to determine if a relationship existed between how positive a person viewed this program and how much he changed on the Relationship Inventory pre- to post-test measures.

Table 25 looks at the differences in the way this program was perceived by persons classified as low, medium, and high on the Dogmatism Scale. Possible scores ranged from 280 (most positive) to 40 (least positive). The data reveals that the lows perceived this program most positively, the mediums next, and that the highs viewed the program least positively. A rank-order correlation was conducted to determine if a relationship existed between Dogmatism Scale scores and the HDI Program Evaluation Scale. A .54 correlation was found indicating that the more open the person, the more positively he viewed the General Relationship Improvement Program.

**TABLE 25**

**COMPARISON OF LOW, MEDIUM, AND HIGH GROUP SCORES ON THE HUMAN DEVELOPMENT INSTITUTE PROGRAM EVALUATION SCALE**

<table>
<thead>
<tr>
<th>Low Group</th>
<th>Medium Group</th>
<th>High Group</th>
<th>Composite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>HDI Program Evaluation Scale Scores</td>
<td>214</td>
<td>233.0</td>
<td>107</td>
</tr>
<tr>
<td>265</td>
<td>254</td>
<td>211</td>
<td>265</td>
</tr>
</tbody>
</table>

*a Computations based on the evaluation scale data obtained from the 15 subjects completing the General Relationship Improvement Program.*
Students were asked to comment on the use of this program in writing if they wished, and a few of their comments are listed below to demonstrate the varied opinions of the experimental subjects concerning their use of the General Relationship Improvement Program.

One high group member stated:

I feel I learned to know and understand the other two members of the group to a greater extent than may have otherwise occurred. Their views, opinions, and feelings became more meaningful because I began to know them as persons rather than as just classmates.

Another high group member stated:

The HDI program might be a profitable experience for a person who hasn't had much training along this line. I found it to be boring and not stimulating in my case. If this were administered to a layman in a factory it might be profitable—to me it seemed too elementary.

A medium group member stated:

The time spent on this program was very valuable time to me—in part, because of my own needs, and also because my partners were good. I'm not really sure that the HDI program would be equally beneficial to everyone.

And lastly, a low group member stated:

I believe I have benefited to a large extent by participating in this program by being able to recognize and understand the feelings of others.

Table 26 lists the positive item means (for differentiation between positive and negative items see Chapter III) on the Human Development Institute Program Evaluation Scale in the order that experimental subjects considered them to be most consistent with their own thinking. The item ranked
number 1 was the item that the total experimental group viewed most positively and the item ranked number 20 was the item that was viewed least positively. A closer look at the most positive and least positive items will follow Table 26.

### TABLE 26

RANK-ORDER OF POSITIVE ITEM MEANS ON THE HUMAN DEVELOPMENT INSTITUTE PROGRAM EVALUATION SCALE

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item Number</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>29</td>
<td>5.67</td>
</tr>
<tr>
<td>2.5</td>
<td>6</td>
<td>5.53</td>
</tr>
<tr>
<td>2.5</td>
<td>14</td>
<td>5.53</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>5.40</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>5.33</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>5.33</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>5.33</td>
</tr>
<tr>
<td>7</td>
<td>19</td>
<td>5.33</td>
</tr>
<tr>
<td>7</td>
<td>27</td>
<td>5.33</td>
</tr>
<tr>
<td>13</td>
<td>18</td>
<td>5.00</td>
</tr>
<tr>
<td>13</td>
<td>32</td>
<td>5.00</td>
</tr>
<tr>
<td>13</td>
<td>33</td>
<td>5.00</td>
</tr>
<tr>
<td>15.5</td>
<td>25</td>
<td>4.93</td>
</tr>
<tr>
<td>15.5</td>
<td>36</td>
<td>4.93</td>
</tr>
<tr>
<td>17</td>
<td>40</td>
<td>4.87</td>
</tr>
<tr>
<td>18</td>
<td>23</td>
<td>4.60</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>4.53</td>
</tr>
<tr>
<td>20</td>
<td>28</td>
<td>4.20</td>
</tr>
</tbody>
</table>

*aComputation based on the evaluation scale data obtained from the 15 subjects completing the General Relationship Improvement Program.

Table 26 shows that the four most positively rated items were:

Item 29. Working through an HDI program is a good way to learn about human relationships.
Item 14. Triadic programed instruction is a good teaching technique as it is used in the HDI programs.

Item 1. HDI programs deal with important content in a respectable way.

The four least positively rated items (in descending order) are:

Item 40. Because of this HDI program I have become more deeply aware of my own feelings.

Item 23. HDI programs should be used as a regular part of at least one guidance and counseling course.

Item 2. HDI programs are interesting and fun to work with.

Item 28. I would like to complete another program similar to the one we just completed.

The above items, as well as a more intensive look at the item rankings in Table 26 indicate that the trainees believed the content of the General Relationship Improvement Program to be excellent and cognitively beneficial, but that the program was not interesting and stimulating enough personally to warrant high ratings.

Table 27 reveals the coefficients of correlation between the HDI Program Evaluation Scale scores and the Relationship Inventory sub-test change scores. This correlation investigation was conducted to determine if a relationship existed between the amount a person changed, as measured by the Relationship Inventory, and how positively he viewed the General Relationship Improvement Program. The Relationship
TABLE 27

COEFFICIENTS OF CORRELATION BETWEEN HUMAN DEVELOPMENT INSTITUTE PROGRAM EVALUATION SCALE SCORES AND TRAINEES' RELATIONSHIP INVENTORY PRE- TO POST-TEST DIFFERENCE SCORES

<table>
<thead>
<tr>
<th>Relationship Inventory Measures</th>
<th>Coefficients of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Regard</td>
<td>- .14</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>.08</td>
</tr>
<tr>
<td>Congruence</td>
<td>- .33</td>
</tr>
<tr>
<td>Unconditionality of Regard</td>
<td>- .41</td>
</tr>
<tr>
<td>Total RI Score</td>
<td>- .27</td>
</tr>
</tbody>
</table>

*Computation based on the evaluation scale data obtained from the 15 subjects completing the General Relationship Improvement Program.

Inventory pre- to post-test sub-test difference scores were ordered from those of most change to those of least, or negative change. This ordering was then compared to an ordering of the HDI Program Evaluation Scale scores ranging from most positive to least positive. A 1.0 positive correlation would have indicated that the person rating the General Relationship Improvement Program most favorably also registered the most change on the Relationship Inventory. The correlations in Table 27 indicate that with the exception of the Empathic Understanding sub-test where a very slight positive correlation was present, that all other correlations were negative. These
negative correlations indicate that the more favorably a person viewed the General Relationship Improvement Program, the less change he made on the Relationship Inventory pre-to post-test difference scores.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purposes of this study were: to determine whether or not persons participating in intensive counseling preparation programs become more empathic, more congruent, and more unconditionally positive in their regard for others; to determine whether or not programed instructional materials (The General Relationship Improvement Program of the Human Development Institute) are effective in improving a counselor's level of regard, empathic understanding, congruence, and positiveness of regard for others; to determine the effects of dogmatism (as measured by the Dogmatism Scale) on the learning of human relations skills; to determine the effects of dogmatism on the way institute class members rate their classmates on the Relationship Inventory; and to assess the attitudes of counselors in preparation concerning the usefulness and desirability of using programed human relations materials in counselor education programs.

Summary of procedure

The data were gathered over a period of six months. During the first two weeks of a midwestern university guidance and counseling institute, each institute member completed the
Dogmatism Scale under the instrument title of Opinionnaire. The entire class was then separated into five experimental and five control triads. Each triad consisted of one person who scored in the lower third of the class on the Dogmatism Scale, one person who scored in the middle third of the class on the Dogmatism Scale, and one person who scored in the highest third of the class on the Dogmatism Scale.

After the entire class was together for a period of four weeks and they had had ample opportunity to relate with one another, each person was asked to complete a Relationship Inventory on the other two persons in his triad.

After six weeks of the institute had been completed, the experimental groups commenced their use of the General Relationship Improvement Program. Each member of the experimental group was contacted individually by his adviser to ascertain his willingness to participate in the use of these triadic programed instructional materials. All persons consented willingly. The experimental groups completed the ten one-hour sessions during the following six-week period. All sessions were conducted in a private conference room at the university at a time agreed upon by members of each triad. All experimental members completed all sessions of the experimental treatment.
At the close of the twelfth week each triad was again asked to complete a Relationship Inventory on the other two persons in his triad. The members of the experimental group were asked to complete the Human Development Institute Program Evaluation Scale one week later.

Three months later, each person was again asked to complete a Relationship Inventory on the other two persons in his triad. Following this administration all members of the Institute were informed of the purposes and structure of this study.

The population for this study consisted of twenty-one males and nine females enrolled in an academic year NDEA Guidance and Counseling Institute at a midwestern university. The mean age for the group was 29.0 years and the mean number of years of teaching experience for each was 3.8 years.

The instruments of the study

The instruments used in this study were: (1) the Relationship Inventory; (2) the Dogmatism Scale; (3) the Human Development Institute Program Evaluation Scale; and (4) the General Relationship Improvement Program. A thorough examination of each instrument is included in Chapter III and sample copies of all but the General Relationship Improvement Program are included in the Appendixes.

The Relationship Inventory was utilized to measure a person's ability to demonstrate to another person his
capacity for (1) level of regard, (2) empathic understanding, (3) congruence, and (4) unconditionality of regard. This instrument was given to the total study population prior to, immediately following, and three months after the experimental treatment to measure any changes that had occurred.

The Dogmatism Scale was used as an objective measure to classify persons on the basis of personal belief-disbelief systems. This factor was included in the study in an attempt to determine the effects of dogmatism on the learning of programed instructional materials and on associated counselor change.

The Human Development Institute Program Evaluation Scale was developed for use in this study to obtain the attitudes of students in the experimental group concerning their use of programed instructional materials. A discussion of the development of this instrument is included in Chapter III.

The General Relationship Improvement Program was used as the experimental treatment in this study. This series of ten programed instructional lessons was designed to deepen one's ability to be more aware of his own feelings and the feelings of others, to enhance one's appreciation of his own potential, to increase flexibility in both the emotional and cognitive aspects of behavior, and to develop the ability to apply these new behavior patterns to a real-life situation.
The statistical analysis

In order to test the hypotheses of this study three statistical processes were used.

Hypotheses 1, 2, and 4 were analyzed using the Mann Whitney U test. This test is applicable to observations on two independent random samples capable of being combined into a single ordered series.

Hypothesis 3 was analyzed using the Kruskal-Wallis H test. This is the nonparametric analogue of the variance-ratio test of differences among means of three or more samples in a single classification.

Wilcoxon T tests were also used to determine the significance of the growth made by subjects on the Relationship Inventory from pre-test measures to post-test and delayed post-test measures.

Statistical significance varied and was noted if it was at the .10 level, .05 level, or .01 level.

The findings

The findings of this study are presented for each of the four hypotheses and for the Human Development Institute Program Evaluation.

The experimental group made growth as measured by the Relationship Inventory pre- to post-test differences that was significant at the .05 level. A significant difference was recorded between experimental and control groups on the
factors of Congruence (.01) and Empathic Understanding (.10) and in both cases the results favored the experimental group. Although not significant, the mean gains registered by the experimental group were superior to the control group on every sub-test of the Relationship Inventory except the Unconditionality of Regard sub-test. This trend toward maximum change by the experimental group points to a need for further investigation of the use of programmed human relations materials. Similar amounts of growth as that recorded above would probably produce more statistically significant results if a larger population were employed for study.

In an effort to determine if additional attitudinal changes would occur, and if measured attitudinal change would persist, a delayed sub-test was administered three months after the completion of the post-test. The experimental group results were still more positive than the control group in every instance, but the two groups did not differ significantly on any sub-test of the Relationship Inventory. It should also be noted that no significant differences existed between experimental and control groups concerning the amount of change registered between the Relationship Inventory pre-test and delayed post-test. The significant gains made by the experimental group from pre- to post-test were erased during the three months that followed the post-test. The results of a Wilcoxon T test indicated that neither the
experimental nor the control group had changed significantly from the pre-test to the delayed post-test.

Hypothesis 3 attempted to determine whether or not subjects scoring in the first, second, and third group ranges of the Dogmatism Scale (for this population) would differ with respect to their pre- to post-test difference scores on the sub-tests of the Relationship Inventory. The pre-test data revealed that the group lowest in dogmatism received the most positive scores on every sub-test, and that the group highest in dogmatism scored more favorably than the medium group on every sub-test. There were no significant differences among these groups, however, except on the Unconditionality of Regard sub-test where a significant difference of .05 was recorded. On this sub-test the most positive scores were received by low group members. On the post-test the low group still received the most positive mean scores in all categories except Unconditionality of Regard, but both medium and high groups registered considerable gains over the pre-test measures. The greatest gains recorded were made by the medium group and the least gain was made by the low group. No significant differences were recorded with regard to Relationship Inventory pre- to post-test differences except on the Unconditionality of Regard sub-test where a .05 level of significant difference was registered. The medium group made the greatest pre- to post-test change on the
Unconditionality of Regard sub-test. A further study of low, mediums, and highs in experimental and control groups (Tables 12, 13, 14, and 15) reveal some very interesting data. Although there were no significant differences between low, medium, and high Relationship Inventory pre- to post-test difference scores when studied in terms of belonging to experimental or control groups, a study of the respective H values for both groups does indicate that the most change was registered by the experimental group. This change, it may be noted, was registered largely in the medium and high groups. The post-test mean scores for the experimental group were superior to those of the control group in every instance.

A Wilcoxon T test was conducted to measure the significant growth registered by low, medium, and high groups on various sub-tests of the Relationship Inventory. The low group made positive growth on the Level of regard sub-test which was significant at the .10 level. The medium group made significant growth on the sub-tests of Empathic Understanding (.01), Unconditionality of Regard (.05), and on the Total Relationship Inventory Score (.05). The high group made significant growth on only the Empathic Understanding sub-test with a .10 level of significant change.

Hypothesis 4 was tested to determine whether or not persons classified as lows, mediums, or highs on the basis of their scores on the Dogmatism Scale would rate members in
other dogmatism groups differently. Although hypothesis 4 could not be rejected on the basis of the data collected, the post-test data revealed in every case where subjects rated members of two other groups of varying dogmatism, the group scoring lowest on the Dogmatism Scale was rated most positively on the Relationship Inventory. It was also interesting to note that the Relationship Inventory scores on subjects in the high category were quite similar when rated by lows and mediums, the scores of mediums were similar when rated by lows and highs, but that the scores of low subjects as rated by mediums and highs were different (lows were rated more positively). A test was also conducted to determine if differences existed between experimental group and control group raters and no significant differences were found. It appears quite clear that differences in ratings were not influenced by their participation in the experimental treatment.

Lastly, a Human Development Institute Evaluation Scale was developed to determine how students who had used the General Relationship Improvement Program thought and felt about using it. An attempt was also made to determine if a relationship existed between how positively a person viewed this program and how much he changed on the Relationship Inventory pre- to post-test measures. The data revealed that the lows perceived this program, most positively, the mediums
next, and that the highs viewed the program least positively. A Spearman rank-order correlation of .54 was found indicating that the more open the person, the more positively he viewed the General Relationship Improvement Program. A close look at the trainees' responses to the program evaluation scales revealed that the trainees believed the content of the General Relationship Improvement Program to be excellent and cognitively beneficial, but felt that the program was not personally sufficiently interesting and stimulating. A correlation investigation was conducted to determine if a relationship existed between the amount a person changed, as measured by the Relationship Inventory, and how positively he viewed the General Relationship Improvement Program. The correlations for all sub-tests except Empathic Understanding were negative. These negative correlations indicated that the more favorably a person viewed the General Relationship Improvement Program, the less change he made on the Relationship Inventory pre- to post-test differences.

Conclusions and implications

The conclusions arrived at as a result of an examination of the data are presented in two sections. These sections concern the counselor in preparation and the preparation of the counselor. This is to say that the first conclusions deal with the counselor as a person in preparation,
and the later conclusions deal with certain aspects of the
counselor education program that were investigated in this
study.

The counselor in preparation

1. The objectives outlined by the authors of the
General Relationship Improvement Program are to: (1) deepen
one's ability to be more aware of his own feelings and the
feelings of others, (2) enhance one's appreciation of his own
potential, and (3) increase flexibility in both the emotional
and cognitive aspects of behavior (6). These were certainly
realized in part if one holds that the attainment of a state
of congruence is an important prerequisite for the learning
of other human relations skills. The experimental group
made a positive pre- to post-test change which was significant
at the .01 level. Although a delayed post-test revealed that
the experimental and control groups no longer differed sig-
nificantly in terms of their level of congruence, the fact
that ten one-hour programed instructional sessions did make
measurable differences in a person's ability to be congruent,
as perceived by another person, warrants consideration for
further use of the General Relationship Improvement program.

2. One of the purposes for giving this series a pro-
gramed human relations lessons to a group of counselors was
to expose them to a new, rich, and extensive type of experi-
ence which could assist them to become more effective in
their interpersonal contacts with others. To simply provide experiences for others does not mean that these experiences will be learned. Something more than a confrontation with events is necessary to insure inclusion of perceptions in a field and their availability on later occasions. According to Combs this availability "seems dependent upon at least two factors: (1) the individuals discovery of personal meaning, and (2) the satisfaction of need" (15:60-61). This point helps provide one reason why the significant learning made by the experimental group on the pre- to post-test measures was no longer present on the delayed post-test. The conclusion here, then, is that if these programmed instructional lessons are to be most beneficial to students, they must be personally meaningful and satisfy a personal need. This program should be discussed prior to its inclusion in the program and only volunteers fully aware of the content to be used should use the program. Continued group discussion during these ten one-hour sessions could help this program become a more meaningful part of a person's total educational experience and not merely an isolated educational assignment.

3. The degree to which a person is initially perceived by others as being empathic, congruent, and unconditionally positive in his regard for others appears to be a function of his level of dogmatism. Persons low in dogmatism are viewed most positively, persons high in dogmatism next most positively,
and persons scoring in the middle group in dogmatism least positively. After the experimental treatment was completed, the low dogmatics were still viewed most positively on every Relationship inventory sub-test but Unconditionality of Regard. Highs continued to be viewed more positively than mediums on three of the five Relationship Inventory measures. The research of literature section showed that counselors who are perceived by counselees as being empathic, unconditionally positive in their regard, and congruent are the ones who facilitate the most growth in a counseling relationship. The findings leading to the conclusion that empathic understanding, congruence, and unconditional positive regard may be a function of a person's level of dogmatism have implications for the selection and preparation of counselors.

**The preparation of the counselor**

4. The middle group in this study made the most statistically significant gains on the Relationship Inventory pre- to post-test scores. The same was true in the Hough studies (30) (31). The relationship between dogmatism and the learning of human relations skills does not appear to be linear.

5. The fact that persons completing the General Relationship Improvement Program did not find it interesting and stimulating leads to the conclusion that this program is probably too elementary for use with a counselor in preparation
unless it is used at the very beginning of the counselor education program. Other studies (10) (49) have pointed to the successful use of this programed series in the teaching of content concerning human relations skills. Possibly the greatest use in this series may lie in its instructional values early in the counselor education program. This General Relationship Improvement Program used during class time, with accompanying discussion as proposed in number two above may prove to be an exceptionally fine way to introduce a consideration of human relations skills on the part of counselors in preparation. If the student is able to see a need and meaning for such a program, the probability of greater affective change on the part of the student is more likely.

6. The findings of this study lead to the conclusion that the goals the General Relationship Improvement Program purports to accomplish should not be accepted without further research.

Recommendations for further research

1. Further research should be conducted comparing the affective and cognitive gains made by persons completing the General Relationship Improvement Program.

2. Research similar to that conducted in this study should be attempted utilizing a much larger population. If changes similar to those recorded in this study occurred in
a study with a larger N, the probability of more significant differences occurring would be greatly increased.

3. Research similar to that conducted in this study should be attempted utilizing a population that does not have a background in psychology and personality theory. Many of the concepts covered by the General Relationship Improvement Program are also discussed in counseling theory and psychology courses and therefore many counselors are introduced to these concepts in the course of their academic studies.

4. Additional research should be conducted utilizing other measuring instruments prior to, and following, the administration of the General Relationship Improvement Program to measure changes occurring attributable to the programmed instructional sessions.
APPENDIX A
Please consider each statement with reference to your present relationship with your partner.

Below are listed a variety of ways that one person could feel or behave in relation to another person. Please consider each statement with respect to whether you think it is true or not true in your present relationship with your partner. Mark each statement on the answer sheet according to how strongly you feel it is true or not true. Please mark everyone. Write in +1, +2, +3, or -1, -2, -3, to stand for the following answers.

+3: I strongly feel that it is true.
-3: I strongly feel that it is not true.

+2: I feel it is true.
-2: I feel it is not true.

+1: I feel that it is probably true, or more true than untrue.
-1: I feel that it is probable untrue, or more untrue than true.

1. He respects me.
2. He tries to see things through my eyes.
3. He pretends that he likes me or understands me more than he really does.
4. His interest in me depends partly on what I am talking to him about.
5. He is willing to tell me his own thoughts and feelings when he is sure that I really want to know them.
6. He disapproves of me.
7. He understands my words but not the way I feel.
8. What he says to me never conflicts with what he thinks or feels.
9. He always responds to me with warmth and interest—or always with coldness and disinterest.
10. He tells me his opinions or feelings more than I really want to know them.

11. He is curious about "the way I tick," but not really interested in me as a person.

12. He is interested in knowing what my experiences mean to me.

13. He is disturbed whenever I talk about or ask about certain things.

14. His feeling toward me does not depend on how I am feeling toward him.

15. He prefers to talk only about me and not at all about him.

16. He likes seeing me.

17. He nearly always knows exactly what I mean.

18. I feel that he has unspoken feelings or concerns that are getting in the way of our relationship.

19. His attitude toward me depends partly on how I am feeling about myself.

20. He will freely tell me his own thoughts and feelings, when I want to know them.

21. He is indifferent to me.

22. At times he jumps to the conclusion that I feel more strongly or more concerned about something than I actually do.

23. He behaves just the way he is, in our relationship.

24. Sometimes he responds to me in a more positive and friendly way than he does at other times.

25. He says more about himself than I am really interested to hear.

26. He appreciates me.

27. Sometimes he thinks that I feel a certain way, because he feels that way.

28. I do not think that he hides anything from himself that he feels with me.
29. He likes me in some ways, dislikes me in others.
30. He adopts a professional role that makes it hard for me to know what he is like as a person.
31. He is friendly and warm towards me.
32. He understands me.
33. He tries not to say anything that would hurt my feelings.
34. If I feel negatively toward him he responds negatively to me.
35. He tells me what he thinks about me, whether I want to know it or not.
36. He cares about me.
37. His own attitudes toward some of the things I say, or do, stop him from really understanding me.
38. He does not avoid anything that is important for our relationship.
39. Whether I am expressing "good" feelings or "bad" ones seems to make no difference to how positively--or how negatively--he feels toward me.
40. He is uncomfortable when I ask him something about himself.
41. He feels that I am dull and uninteresting.
42. He understands what I say, from a detached, objective point of view.
43. I feel that I can trust him to be honest with me.
44. Sometimes he is warmly responsive to me, at other times cold or disapproving.
45. He expresses ideas or feelings of his own that I am not really interested in.
46. He is interested in me.
47. He appreciates what my experiences feel like to me.
48. He is secure and comfortable in our relationship.
49. Depending on his mood, he sometimes responds to me with quite a lot more warmth and interest than he does at other times.

50. He wants to say as little as possible about his own thoughts and feelings.

51. He just tolerates me.

52. He evaluates my experiences and feelings from the point of view of an expert.

53. He is playing a role with me.

54. He is equally appreciative or unappreciative of me, whatever I am telling him about myself.

55. His own feelings and thoughts are always available to me, but never imposed on me.

56. He does not really care what happens to me.

57. He does not realize how strongly I feel about some of the things we discuss.

58. There are times when I feel that his outward response is quite different from his inner reaction to me.

59. His general feelings toward me vary considerably.

60. He is willing for me to use our time to get to know him better, if or when I want to.

61. He seems to really value me.

62. He responds to me mechanically.

63. I don't think that he is being honest with himself about the ways he feels toward me.

64. Whether I like or dislike myself makes no difference to the way he feels about me.

65. He is more interested in expressing and communicating himself than in knowing and understanding me.

66. He dislikes me.

67. He considers what I say and do from an impartial uninvolved point of view.
68. I feel that he is being genuine with me.

69. Sometimes he responds quite positively to me, at other times he seems indifferent.

70. He is unwilling to tell me how he feels about me.

71. He is impatient with me.

72. He understands me whether the thoughts and feelings I am expressing are clear or confused.

73. Sometimes he is not at all comfortable but we go on, outwardly ignoring it.

74. He likes me better when I behave in some ways than he does when I behave in other ways.

75. He is willing to tell me his actual response to anything I say or do.

76. He feels deep affection for me.

77. He usually understands all of what I say to him.

78. He does not try to mislead me about his own thoughts or feelings.

79. Whether I feel fine or feel awful makes no difference to how warmly and appreciatively--or how coldly and unappreciatively--he feels toward me.

80. He tends to evade any attempt that I make to get to know him better.

81. He regards me as a disagreeable person.

82. He brings a different point of view to bear on my problems.

83. What he says gives a false impression of his total reaction to me.

84. I can be very critical of him or very appreciative of him without it changing his feelings towards me.

85. He never refuses to tell me what he thinks or feels.

86. At times he feels contempt for me.

87. When I do not say what I mean at all clearly he still understands me.
88. He tries to avoid telling me anything that might upset me.

89. His general feeling toward me (of liking, respect, dislike, trust, criticism, anger, etc.) reflects the way that I am feeling toward him.

90. He is willing for me to know as much or as little about him as I want to.
## RELATIONSHIP INVENTORY ANSWER SHEET

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APPENDIX B
The following is a survey of the opinions of people in general about a number of social and personal questions. Of course there are many different answers. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many other people feel the same as you do.

Mark each statement in the space provided on your answer sheet according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

1. A person who thinks primarily of his own happiness is beneath contempt.
2. The main thing in life is for a person to want to do something important.
3. I wish people would be more definite about things.
4. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
5. Most people just don't know what's good for them.
6. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.
7. In times like these, a person must be pretty selfish if he considers his own happiness primarily.
8. A man who does not believe in some great cause has not really lived.
9. I work under a great deal of tension at times.
10. I'd like it if I should find someone who would tell me how to solve my personal problems.

11. Of all the different philosophies which have existed in this world there is probably only one which is correct.

12. Whether it's alright to manipulate people or not, it is certainly all right when it's for their own good.

13. It is when a person devotes himself to an ideal or cause that his life becomes meaningful.

14. In this complicated world of ours the only way we can know what is going on is to rely upon leaders or experts who can be trusted.

15. If people would talk less and work more, everybody would be better off.

16. There are a number of persons I have come to hate because of the things they stand for.

17. There is so much to be done and so little time to do it in.

18. It is when a person devotes himself to an ideal or cause that he becomes important.

19. It is better to be a dead hero than a live coward.

20. A group which tolerates too much difference of opinion among its own members cannot exist for long.

21. The businessman and manufacturer are much more important to society than the artist and the professor.

22. It is only natural that a person should have a much better acquaintance with ideas he believes in than with ideas he opposes.

23. While I don't like to admit this even to myself, I sometimes have the ambition to become a great man, like Einstein, or Beethoven, or Shakespeare.

24. Plain common sense tells you that prejudice can be removed by education, not legislation.

25. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary at times to restrict the freedom of certain political groups.
26. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."

27. A person must be pretty stupid if he still believes in differences between races.

28. Most people just don't give a "damn" about others.

29. A person who gets enthusiastic about a number of causes is likely to be a pretty "whisky-washy" sort of person.

30. Do unto others as they do unto you.

31. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

32. If given the chance I would do something that would be of great benefit to the world.

33. The trouble with many people is that they don't take things seriously enough.

34. In times like these it is often necessary to be more on guard against ideas put out by certain people or groups in one's own camp than by those in opposing camp.

35. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

36. It bothers me when something unexpected interrupts my daily routine.

37. Once I get wound up in a heated discussion I just can't stop.

38. There are two kinds of people in this world: those who are on the side of truth and those who are against it.

39. What the youth needs is strict discipline, rugged determination, and the will to work and fight for family and country.

40. Man on his own is a helpless and miserable creature.

41. The United States and Russia have just about nothing in common.

42. I set a high standard for myself and I feel others should do the same.
43. In the history of mankind there have probably been just a handful of really great thinkers.

44. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

45. Appreciation of others is a healthy attitude, since it is the only way to have them appreciate you.

46. The present is all too often full of unhappiness. It is the future that counts.

47. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what is going on.

48. People who seem unsure and uncertain about things made me feel uncomfortable.

49. Fundamentally, the world we live in is a pretty lonely place.

50. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

51. In general, full economic security is bad; most men wouldn't work if they didn't need the money for eating and living.

52. The worse crime a person can commit is to attack publicly the people who believe in the same thing he does.

53. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.

54. The American re-armament program is clear and positive proof that we are willing to sacrifice to preserve our freedom.

55. Most of the ideas which get published nowadays aren't worth the paper they are printed on.

56. It is only natural for a person to be rather fearful of the future.

57. Most of the arguments or quarrels I get into are over matters of principle.
58. My blood boils whenever a person stubbornly refuses to admit he's wrong.

59. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.

60. America may not be perfect, but the American way has brought us about as close as human beings can get to a perfect society.
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EVALUATION OF THE HDI PROGRAM

Directions: Respond to each of the statements below by placing the number, which best describes your feelings regarding each of the statements in the space provided on the response sheet.

+3 I strongly agree
+2 I agree
+1 I tend to agree
-1 I tend to disagree
-2 I disagree
-3 I strongly disagree

1. HDI programs deal with important content in a respectable way.

2. HDI programs are interesting and fun to work with.

3. I do not believe HDI programs should be used in guidance and counseling courses.

4. I can think of a number of useful things that I learned as a result of using the HDI program that will be of help to me as a counselor.

5. This HDI program will not help me improve my relationships with my family and friends.

6. HDI programs are an effective means of teaching understandings about human relationships.

7. I cannot see that working with the HDI materials was very profitable for me.

8. If I never see another course like the HDI program I will be happy.

9. Working with partners as one does in the HDI program represents a poor learning situation.

10. My partners in this program did little to make this program more meaningful for me.

11. Using HDI programs in the institute was a profitable experience for me.

12. HDI programs are a poor way of teaching understandings regarding human relationships.

13. I would never recommend this program to one of my friends.
14. Triadic programed instruction (three persons working together) is a good teaching technique as it is used in the HDI programs.

15. This program probably helped me more than I would have been helped by reading for ten hours in the library.

16. Triadic programed instruction is a poor way to learn.

17. Students training to be counselors should not use HDI programs to learn about human relationships.

18. HDI programs are challenging and satisfying to work with.

19. This HDI program has helped me to understand other persons better.

20. The HDI program has not made me more aware of my feelings.

21. HDI programs are elementary and "mickey mouse."

22. I was bored and disinterested during most of the time we used HDI programs.

23. HDI programs should be used as a regular part of at least one guidance and counseling course.

24. I did not learn much as a result of working with the HDI program that will be of use to me in counseling.

25. The HDI program will help improve my relations with my friends and family.

26. HDI programs do not teach very well.

27. I profited from my experience in working with the HDI program.

28. I would like to complete another program similar to the one (HDI) we just completed.

29. Working through an HDI program with partners is a good way to learn about human relationships.

30. The partners I had helped to make the HDI program meaningful for me.

31. The use of HDI programs in this institute was not profitable as far as my experience is concerned.
32. The use of HDI programs is a highly effective teaching technique.

33. I would recommend this program to a friend.

34. Triadic programmed instruction is a poor teaching technique.

35. I would have benefited more by spending ten hours reading some good books than by completing the HDI program.

36. Triadic programmed instruction is a good way to learn.

37. All persons training to become counselors should have a chance to work with an HDI program.

38. Time spent working with HDI programs is largely a waste of time.

39. Work with the HDI program has not helped me to understand other people better.

40. Because of this HDI program I have become more deeply aware of my own feelings.
HDI PROGRAM EVALUATION RESPONSE SHEET

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(Please turn to the reverse side of this sheet and write any statements you might wish to make about your work with the HDI program.)
BIBLIOGRAPHY


154


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