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AN EVALUATION OF A SHORT-TERM IN-SERVICE
REHABILITATION TRAINING PROGRAM

DISSERTATION

Presented to the Graduate Council of the
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This study investigated the effects of a short-term in-service training program for rehabilitation practitioners. Specifically, cognitive, attitudinal, and behavioral changes were measured. Also examined with respect to the observed changes were the effects of age, sex, education and other variables.

The training group attended a five-day institute on the placement and follow-up of disabled clients. The control group, selected from the same population, did not have this training. Both groups were drawn from a population of rehabilitation workers who specialize in job placement of the handicapped. These workers are employed at approximately eighteen rehabilitation facilities throughout HEW Region VI.

Tests over content material were administered before and after training. A semantic differential on attitude toward aspects of the subjects' work was also administered before and after training. A dogmatism scale and a questionnaire were administered. Supervisors of each person in both groups rated each individual on information, professional attitude, and placement behaviors.

The research design used was the "nonequivalent control group" design, Number 10, in Experimental and Quasi-Experimental Designs for Research by Donald T. Campbell and Julian C. Stanley. The statistical methods used were the analysis of covariance and correlation (Pearson product-moment, biserial, and point biserial).

Significant information gain was made by the participants of the training program in comparison with the control group. When the program participants reported their attitudes, no significant difference was found between them and the control group. Judging from the supervisors' ratings, the participants of the program seemed to benefit significantly in terms of information gained, attitudes changed, and placement behaviors exhibited. There was a significant positive correlation between the age of an individual and his or her positive attitude change. The higher the level of education of an individual, the more positive the attitude change that occurred. The higher the level of education of an individual, the less the amount of dogmatism that was measured. Persons who had been trained in the non-helping professions showed more positive attitude change than those who had been trained in the helping professions. The questionnaire, answered anonymously by the trainees, indicated that virtually all of them found the training program very worthwhile. When the trainees rated their

own perceived change after the training program (on a scale of "none," "slight," "moderate," "much," or "great") the group averaged "moderate" or more change in information, attitude, and behavior, and "much" change in motivation.

It was concluded that the training program was effective in advancing the academic achievement of the participants. Judging from the supervisors' ratings, participants benefited significantly in terms of professional growth. The participants were supportive to the training program and expressed the belief that it was of value.

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CHAPTER I

INTRODUCTION

Rehabilitation is a concept which has assumed an increasingly influential role within the helping professions over the past several decades. More than one million (1,361,800) persons were served by state vocational rehabilitation agencies in 1976, and over a third of that number were successfully rehabilitated and gainfully employed (11). Each state agency operates under a grant program, with the federal government providing eighty per cent of the funds and the states providing the remaining twenty per cent.

The federal government also spends many millions of dollars each year to provide short-term in-service training to rehabilitation practitioners, in order to improve their knowledge, attitudes, motivation, and skills in their task of rehabilitating clients. These in-service training programs are offered by Rehabilitation and Research Training Centers and by universities funded under several different types of Rehabilitation Services Administration grants. The Center for Rehabilitation Studies at North Texas State University serves Region VI, a five-state region comprised of Texas, Arkansas, Louisiana, Oklahoma, and New Mexico. Since July, 1967, the Rehabilitation Services Administration

has provided short-term training programs at North Texas State University, for rehabilitation personnel. The ultimate goal of these programs is to provide more effective rehabilitation services to the handicapped. Browning states that

The extent to which effective rehabilitation services are delivered to the handicapped, is, in part, a function of the extent to which short-term training is effective (2, p. 1).

The present study was undertaken to investigate the impact of a short-term in-service training program on rehabilitation workers, through the assessment of the effectiveness of the program in terms of informational, attitudinal, and behavioral changes on the part of the participants.

Statement of the Problem

This study was undertaken in order to determine the effectiveness of a short-term in-service training program.

Purpose of the Study

One purpose of this study was to determine whether significant informational, attitudinal, and behavioral changes take place on the part of the participants in the training program. The second purpose was to attempt to determine whether there are significant relationships between selected independent variables of the rehabilitation workers and the observed changes. The third purpose

was to provide information that might be useful in a constructive revision of the present training program.

Background and Significance

Vocational rehabilitation is defined as the restoration, preservation, or development of the ability to function in productive activity (11). This process is centered around the problems of the handicapped person. It begins with the initial casefinding or referral, and ends with the successful placement of the individual on a job. What differentiates this process from other types of counseling is the primary goal, which is the realistic and permanent vocational adjustment of the handicapped person.

The growth of the profession of rehabilitation has been enormous; especially since World War II. It is still considered to be an "emerging" profession, and its professional standards are still in the process of being shaped by its leaders. According to Hunt, "The rehabilitation program is people--handicapped people who want to overcome their problems and the trained rehabilitation workers who provide their services which handicapped people need" (5, p. 10).

It is believed by Hunt (5) and others (1, 3, 6) that a large measure of the success of this process in recent years is due to the Rehabilitation Services Administration of the federal government. Since 1954, the federal training grant

program has been an integral part of the program's growth. In 1968, short-term courses and training institutes reached over 9,000 rehabilitation practitioners, and this number has increased each year since that time.

In-service training has been a crucial factor in the field of rehabilitation. The rapid growth of the field has made it essential for rehabilitation workers to keep up with current practices. Perhaps even more important is the fact that many persons working in the field of rehabilitation received their education and training in other areas.

In-service training is a well-accepted educational practice with a long history, and is found by Struening (9) and others to be directly related to competence. The federal government deems it important enough to provide funding for continuous in-service training programs for rehabilitation workers. Through its division of Rehabilitation Services Administration within the Department of Health, Education and Welfare, the federal government allocates funds for Regional Training Centers throughout the United States, to provide both pre-service and in-service training programs in rehabilitation (10). The Center for Social and Rehabilitation Studies at North Texas State University is one such Regional Training Center. This center provides both pre-service and in-service training for the Rehabilitation Services Administration. The center

is oriented toward rehabilitation facilities practitioners but also includes others working in the field of rehabilitation. The goal is to improve and make more professional the knowledge, attitudes, and skills of those who are working in rehabilitation and those who are preparing themselves for a career in this field. To attempt to reach this goal, both on-campus and off-campus, pre-service and in-service training programs are provided in accordance with federal guidelines. There are ten federal regions, with the other centers having similar goals.

The evaluation of one short-term, in-service training program is the focus of this study. Among the research questions asked are: Are these training programs effective in improving knowledge, attitudes, and skills? What are the reactions and attitudes of the trainees toward the programs? What is the impact of the program on the trainees, and is there a carryover into actual practice? Are there any unexpected outcomes? What characteristics of participants might help make it possible to predict who might benefit most from training programs such as the one studied here? These are the questions examined in this study.

Hypotheses

The following hypotheses were formulated in order to carry out the purposes of the study.

1. At the conclusion of the training period, the experimental group will have a significantly higher mean achievement test score than the control group.

2. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "The Rehabilitation Client" than the control group.

3. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "The Rehabilitation Process" than the control group.

4. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "The Profession of Rehabilitation" than the control group.

5. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "Myself Working in Rehabilitation" than the control group.

6. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "In-Service Training" than the control group.

7. At the conclusion of the training period, the experimental group will have a significantly higher mean

score on attitude toward "Center for Rehabilitation, North Texas State University" than the control group.

8. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "Welfare" than the control group.

9. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "Work" than the control group.

10. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "Placement" than the control group.

11. At the conclusion of the training period, the experimental group will have a significantly higher mean score on attitude toward "Follow-Up of Client" than the control group.

12. Sixty days after the conclusion of the training period, the experimental group will have significantly higher mean scores on the Supervisor's Rating Scale, both on the composite scale and on each of its subscales, than the control group.

13. There will be a significant positive correlation between the score on the Rokeach Dogmatism Scale and attitude change as measured by the concepts of the semantic differential (given in hypotheses two through eleven, above).

14. There will be a significant positive correlation between a person's age and the following variables: scores on the achievement test, attitude change, dogmatism scale, and supervisor's rating.

15. There will be no correlation between a person's sex and the following variables: scores on the achievement test, attitude change, dogmatism scale, and supervisor's rating.

16. There will be a significant positive correlation between the level of degree held by an individual (bachelor's degree and less or master's degree) and the following variables: scores on the achievement test, attitude change, dogmatism scale, and supervisor's rating.

17. There will be a significant positive correlation between the type of major field of study (helping profession or non-helping profession) of a person and the following variables: scores on the achievement test, attitude change, dogmatism scale, and supervisor's rating.

18. There will be a significant positive correlation between the number of training programs previously attended by an individual and the following variables: scores on the achievement test, attitude change, dogmatism scale, and supervisor's rating.

Definitions of Terms

For the purposes of this study, the following definitions will be used. The first ten definitions are for the concepts used for the semantic differential. These definitions were included on the instruction sheet for the use of the individuals who were using the instrument.

The Rehabilitation Client: A person undergoing the rehabilitation process.

The Rehabilitation Process: "Restoring the handicapped individual to the fullest physical, mental, social, vocational, and economic usefulness of which he is capable" (6, p. 4).

The Profession of Rehabilitation: An established area of skills and techniques of which you are a practitioner.

Myself Working in Rehabilitation: You, as a member of that profession in which you are employed at this time.

In-Service Training: "The continuing development of professional practitioners by means of short programs or institutes in order to improve technical skills or the quality of services which the practitioners provide" (4, p. 2)."

The Center for Rehabilitation Studies, North Texas State University: The site where this training program is taking place, at this time.

Welfare: "Receiving financial aid from the government or from a private organization because of hardship or need" (8, p. 1619).

Work: "Employment, especially as a means of earning one's livelihood" (8, p. 1644).

Follow-Up: "The final phase of the rehabilitation process; determining with the newly employed person his satisfaction with his new job and his employer's satisfaction with the person's performance on the job" (3 p. 136).

Rehabilitation: "The process of restoring the handicapped individual to the fullest physical, mental, social, vocational, and economic usefulness of which he is capable" (6, p. 4).

Attitude: "A learned predisposition to react consistently in a given manner, either positively or negatively, to certain persons, objects, or concepts" (12, p. 34).

Concept: "An idea of something combining all its characteristics or particulars; a construct" (8, p. 304).

Rehabilitation Practitioner: "A person who works with rehabilitation clients directly, on a day-to-day basis with the intention of rehabilitating or restoring them to a social, behavioral, emotional, or vocational state, as contrasted to a rehabilitation academician or rehabilitation supervisor" (13).

Limitations

This study was subject to all the limitations inherent in collecting data by mail, such as failure to respond promptly, loss of materials, and subjects' willingness to cooperate.

The participants of this study were drawn from Region VI, which is composed of Texas, Arkansas, Louisiana, Oklahoma, and New Mexico. Caution should therefore be used in generalizing beyond Region VI.

Assumptions

It was assumed that the subjects cooperated in the study and responded honestly to the instruments.

It was assumed that the instruments have sufficient validity for the study.

It was assumed that the supervisors involved in rating the rehabilitation workers would rate each in an objective manner.

It was assumed that the control group responded to mailed instruments individually, in a manner not significantly different from those responding in a group situation.

It was assumed that those persons who received the training will not have influenced those persons in the control group.

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CHAPTER II

REVIEW OF THE LITERATURE

In order to facilitate the presentation of relevant literature, the material will be presented in several sections. These sections are: (a) general need for and background of in-service training, (b) evaluation and evaluative research, and (c) related research.

Background

In-service training has had a long history in teacher education, about 120 years. Early rehabilitation concepts were rooted in the field of education, so that the growth of in-service education in the field of rehabilitation was a logical outgrowth. Most of the growth of rehabilitation and the resulting growth of rehabilitation in-service training has taken place since World War II. Rehabilitation short-term training programs have flourished, especially since the enactment of the 1954 amendments to the Vocational Rehabilitation Act. This Act, Public Law 565 of the Eighty-third Congress on August 3, 1954 laid the groundwork for a greatly expanded and improved program of services for physically and mentally impaired individuals. To overcome the serious obstacle of the shortage of qualified personnel,

Congress made available several types of grants, one of which was to institutions and agencies, to assist them in conducting short-term courses, workshops, and institutes for rehabilitation personnel. Over the past twenty-two years, these have become an integral part of the rehabilitation education system. Added federal legislation caused the creation of new concepts, rules, procedures, methods, and concerns for rehabilitation personnel. This created added responsibilities on the part of educators in rehabilitation to adjust their in-service training methods to provide effective programs.

Dickerson and Roberts (13) point out that less than thirty per cent of rehabilitation personnel functioning in the field can be identified as fully qualified by academic training and experience. They make the point that in an effort to improve the overall training of rehabilitation personnel, agencies have resorted to training after the personnel were employed; that is, through in-service training. They comment also on the variability of the practice of actual utilization of such training. Emphasis on the type and amount of training varies, and they conclude that the number of individuals who do actually participate is difficult to determine. Some state agencies and supervisors encourage this activity, while others discourage it; therefore, it is impossible to know the nature and extent of

in-service training. They state that "The literature on the form, rationale, and effectiveness of in-service training is conspicuous by its meagerness," (p. 134).

Dickerson and Roberts (12) surveyed in-service training procedures in three states over a one-year period. They found that one-third of rehabilitation workers received no in-service training at all, while two-thirds averaged five or less training experiences during the one-year period. The frequency and type of training varied widely in the different states, and in general, it appeared that little planning went into existing programs. It was suggested that universal goals be developed which could be applicable to all rehabilitation agency personnel, as well as specific goals for particular agencies. It was also suggested that professional organizations have a role in developing objectives and in evaluating training activities.

In a related study, Dickerson (11) found that many state agencies selectively require their personnel to attend workshops and other training. In evaluating the effectiveness of pre-packaged instruction for the conceptual training of rehabilitation personnel, they report that for a program to be considered highly effective, the material must be technically precise and well-constructed, and especially must motivate counselor participation if involvement in such training is to be voluntary.

Corthell (10) studied the attitudes of members of the National Rehabilitation Counseling Association toward the in-service training they had received. Using an instrument patterned after a Likert scale, he found that counselors, although averaging about six in-service training days per year, felt that they should receive in excess of eleven days of such training yearly. Only supervisors were found to approach that amount, averaging over nine days yearly. Counselors reported a significantly less positive opinion of the effectiveness and relevance of in-service training they had received than did the supervisors. In addition, they perceived their agency as having a more negative attitude toward in-service training than did the agency supervisors or administrators. The counselors did not believe that their agency had a policy for in-service training participant selection and they did not believe that their agency expected them to use on the job what they learned in the training conferences.

Warren and Sanford (34) surveyed six short-term training institutes conducted in New York City during the summer of 1955. The following conclusions were drawn regarding this subject and have held up consistently through the years:

1. The short-term institute is a training device which varies widely in program objectives and organization.

2. The institute is a popular training medium which appeals to a large audience.
3. The flexibility of the institute enables ready adaptation to the needs of the participants as well as the community.
4. The institute as a training aid in rehabilitation is a development which is admirably suited to the needs of the rapidly expanding program in this field.
5. The institute is effectively implementing the legislation which supports it by contributing to the improvement in quality and increase in supply of rehabilitation personnel.
6. Gradual improvement in institute methods and techniques will result from present experimentation and longer range planning.
7. The total contributions of the institute as a supplementary training device has yet to be explored completely (p. 32).

At the end of this article, James F. Garrett, of the Office of Vocational Rehabilitation commented on the evaluation of such programs and asked a number of related questions:

How does one evaluate the effectiveness of a program? . . . In what period of time after completion of the institute do we judge our results? Six months? Years? Many of the answers to these questions depend on the purpose and nature of the training program itself, but . . . we must face the fact that we have to date evaluated our training by the most rudimentary means rather than in depth (p 33).

Although thousands of rehabilitation in-service training institutes have taken place since the statement above was written, the statement is as true today as it was in 1955. Although many such training programs include some

type of evaluation, even if only a measure of reaction to the training, a search of the literature revealed very few which attempted an evaluation in depth, and even fewer which included any follow-up measures.

Summary

Short-term in-service training programs are widely used in the field of rehabilitation, particularly in the past twenty-four years. There exists, however, very little in the literature on the form, or format, or effectiveness of such programs, nor do there seem to be any rigorous, in-depth attempts to evaluate such programs.

Evaluation and Evaluative Research

Browning and McGovern (6), in a national survey in 1974, collected information on the technology of rehabilitation short-term training. They assessed the opinions and practices of training personnel who were responsible for this type of rehabilitation education. One of the major ways suggested for improving these programs was through program evaluation. Although there has been some attention directed toward the evaluation of short-term training in the field of rehabilitation (1, 6, 23, 26, 28), as Browning and McGovern put it, "The literature is sparse, especially when one considers the millions of dollars which

have been allotted for rehabilitation short-term training programs" (p. 121).

The distinction between evaluative research and the more traditional basic research is widely debated. Suchman (30) distinguishes between the two by stating that evaluative research utilizes scientific research methods and techniques for the purpose of making an evaluation; evaluative research therefore refers to those procedures utilized for collecting and analyzing data. He further states that "evaluative research is still research and it differs from nonevaluative research more in objective or purpose than in design or execution" (p. 32).

In comparing evaluation and other research, Weiss (37) stated that principles and methods that apply to all other types of research apply to evaluative research as well. She claims that it is not the method or subject matter that distinguishes evaluative research, but rather the purpose for which it is done.

Trantow (32) treats this matter in a slightly different way when he describes program evaluation as "essentially an effort to determine what changes occur as the result of a planned program by comparing actual changes (results) with desired changes (goals) and by identifying the degree to which the activity (planned program) is responsible for the changes" (p. 3).

Hemphill (19) defends evaluative research by pointing out that the differences between evaluative studies and research studies are not in the subject or in the methods of the evaluator, but in the way in which the outcomes of the two types of studies are used.

Evaluation theory has evolved mainly from the field of education, and there are at least three different definitions of evaluation.

One way evaluation can be approached is as measurement. Following World War I, it was known as the equivalent of measurement. Good measuring instruments and techniques are the focus of this approach, which leads to a rather narrow view of evaluation.

A second definition defines evaluation as professional judgment; the opinions of experts are used to support judgments. This is a usable and practical approach, although criteria and data are unclear. It is expedient, but not precise.

A third definition defines evaluation as performance of objectives. This concept emerged from Tyler's work (33); he used several instruments to gather information about the achievement of educational objectives, and he characterized evaluation as the process of comparing performance data with clearly specified objectives stated in behavioral terms. This approach is often used in current evaluation

studies; that is, the main emphasis of the evaluation is on the measurement of comparison between behavioral performance and stated objectives.

A different model is provided by Stufflebeam et al., (29) in a model of evaluation known as the CIPP model (context, input, process, product). Decisions are classified as to whether they pertain to ends or means, and as to whether they pertain to intentions or actualities. Thus, all decisions can be totally and clearly classified as pertaining to: intended ends (goals); intended means (procedural designs); actual means (procedures in use); and actual ends (attainments). Corresponding to these four decision types are four types of evaluations: context, input, output, and product. The CIPP model specifies six steps in the evaluation procedure to implement an evaluation after the design has been chosen. These six steps are

1. Focusing the evaluation
2. Collection of information
3. Organization of information
4. Analysis of information
5. Reporting of information
6. Administration of the evaluation

This model represents a broad approach to the evaluation of broad educational systems, but parts of it are relevant to the evaluation of short-term training; it is not wholly dependent upon the technique of comparing behaviorally-stated objectives with outcome data.

Aside from the centrality of evaluation in any format of in-service education, the one point on which virtually all the literature agrees is the lack of adequate evaluation systems. Wehmeyer (35), after surveying evaluation methods, concluded that there is simply no systematic, generally applicable method of evaluation yet developed. There are many descriptive studies using various tools such as the questionnaire, self-report, behavioral objectives, testing, etc. This review addressed mainly teacher in-service training, but the same can certainly be said for rehabilitation training.

Short-term programs usually have objectives that are general rather than specific, especially since the programs usually service participants who are widely differing in their education and experience. The impact of the training therefore also differs widely among them. It is even difficult at times to predict just what the training outcomes might be. As Atkin points out, "A broadened conception of evaluation suggests that there are diverse and extremely sophisticated ways of securing qualitative as well as quantitative indices of learner performance"(p. 242). He then leaves it up to short-term training personnel to develop appropriate means of assessing the impact of their programs in terms of general objectives and varied outcomes.

Perry (22) feels that the main contributing factor in the inactivity in evaluating rehabilitation short-term training programs has been the "lack of appropriate theoretical framework and conceptual scheme to direct and coordinate such studies" (p. 20). She attempted to develop an evaluation model for the assessment of any type of rehabilitation short-term training program. Based on decision-oriented definitions of evaluation which stress that the purpose of evaluation is to provide information which will be of use to decision-makers in selecting among alternatives, her approach outlines stages of input-process-output and focuses on the collection of evaluative information. It also lists possible research questions and suggests appropriate methods for each stage of the evaluation. Her data also provide a basis for decision-making regarding program modification.

Weiss (36) recommends defining evaluation in its broadest sense and points out that, in agency training programs, it is very seldom possible to approximate true experimental conditions, and such research does not tell much about the effectiveness of the total program. She specifically mentions the opinions of trainees as an example of how not to evaluate. Rather, she suggests,

1. Changes in trainees' knowledge by means of tests before and after
2. Changes in trainees' attitudes

3. Predisposition to practice--does he or she put the training into practice?
4. Changes in job performance
5. Effect on clients

As with the other critics, Weiss does not make suggestions as to the instrumentation nor methodology to be followed. She does not offer a way of determining how a worker puts training into practice nor does she tell how to measure changes in job performance or the effects on clients.

Summary

Evaluation is seen as critical for both assessing the degree of success of past in-service training programs and for guiding the direction of future programs. A review of the literature indicates that neither adequate evaluative studies nor the tools for such studies exist at this time. As a result, training programs of all types have lacked satisfactory evaluation.

Related Research

A search of pertinent literature reveals few rigorous studies pertaining to the formal evaluation of in-service training programs for rehabilitation practitioners. While thousands of articles and dissertations can be located on knowledge gained, attitude change, and/or behavioral change after various educational and managerial treatments or

programs, very few address themselves to the area of rehabilitation. Further, most of those studies which may be found relating to rehabilitation are pre-experimental in design and did not use a control group.

Criteria for inclusion in this review are as follows:

1. No study older than twelve years will be included.
2. The studies must pertain to in-service training.
3. The studies must have as criteria either information gain, attitude change, behavioral change, reaction to training, supervisor's rating of participants, or some combination of these.

Two studies evaluated rehabilitation short-term training programs without the use of control groups. Knowledge, attitude, or behavioral changes were measured, but in each case, the instruments were not described. Cochran (9) evaluated an in-service training program to gauge knowledge gained about retardation. He found by examination of means of pre-test and post-test data that after a basic survey course, attendants working with retarded individuals gained significant knowledge about mental retardation. He also found that younger attendants with less job tenure had more knowledge about mental retardation than older attendants or those with longer job tenure. Buckland (7), on the other hand, evaluating a two-day institute for nurses, found learning to be slightly correlated with age, as well as with post-academic nursing education, nursing experience,

and with employment in larger agencies. He also found that ninety-one per cent of the participants perceived changes in their job behavior and sixty-two per cent perceived changes in their attitudes. He found that learning changes were perceived by seventy-six per cent of the participants and that over half perceived changes in all three areas. He also concluded that the credibility of the respondents was acceptable.

In an evaluation that included a control group, Tipton and Wenger (31) examined a short-term program for field counselors in psychiatric rehabilitation. The experimental group was exposed to two and a half days of a training experience, while the control group did not have this training. Findings indicated that as a result of the training experience, counselors were significantly more capable of dealing with emotionally disturbed clients and were more understanding of those with mental problems and those with physical handicaps. On the basis of these results, it was concluded that the training best served as a means of motivating counselors to work with mentally disturbed persons.

Of importance to the present study is Stude's (28) evaluation of a short-term training program for rehabilitation workers. Stude's study used a control group, and it is similar to the present study in that trainee change

was assessed in the areas of knowledge, attitude, and behavior. An important difference is that Stude's study focused on epilepsy, while the present study deals with persons who work in the placement of individuals with a wide variety of disabilities. Stude's results indicated that the two-day institute on epilepsy significantly changed the informational level of the trainees, but no significant attitude or behavioral changes were documented.

Several studies show conflicting findings when attitude change is used as a criterion after short-term training programs. Friesen et al. (18) used a semantic differential technique to assess changes in attitude toward data processing in education, which was the goal of a 1968 conference. Conference participants completed a pre-test and a post-test given on the final day of training and the results revealed a significantly more favorable attitude toward data processing in education after training than prior to training. However, a follow-up test indicated an almost complete regression to the original attitude. The authors concluded that although a single conference might be a start toward attitude change, it does not appear to be a potent force for permanent change.

Welch (38) found that in-service programs of three to five days' duration had a higher probability of producing significant attitude change than those of two days or less,

or those of two to six weeks. He used a semantic differential technique and found that the shorter the in-service program, the greater the probability of gaining significant attitude change, if the program lasted more than two days. He recommends that the three-day program continue to be used in programs where change of attitude is sought.

Attitude change was measured by Clos (9) in the evaluation of a mental-health workshop for teachers, who participated in a three-week workshop on mental health. Attitudes toward mental health were assessed with the Minnesota Teacher Attitude Inventory at the beginning and at the end of the workshop and again nine months later. Positive attitude changes were retained over nine months, and greater attitude change was observed among younger and less experienced teachers than among older, more experienced teachers. Also, those attending longer, four-month workshops showed more attitude change than those attending shorter ones, which is contrary to Welch's findings.

Moriarty (21) in a study designed to evaluate the effects of short-term training on the attitudes of newly employed rehabilitation workers, focused on attitude change, and an attempt was made to identify personality characteristics associated with positive attitudes toward the handicapped. Pre-test and post-test attitude measurements were administered to the trainees and the resulting scores

correlated with personality variables, although the variables were not specified. It was also reported that the training resulted in significantly improved attitudes toward the handicapped.

The Opinions about Mental Illness Scale was administered before and after training to thirty-nine newly hired psychiatric attendants by Distefano, Pryer, and Marr (17). The scale was also given to thirty attendants who had been employed for four to seven months before a basic training course. There was evidence that certain mental health attitudes were amenable to change through training, while other attitudes were not. Authoritarianism was shown to be a personality feature that did not change. It was also shown that if the attitudes in which change is desired is closely associated with basic personality traits, it is doubtful that they can be changed through a conventional short-term training program. This study was particularly relevant in view of the fact that one of the instruments used was the Rokeach Dogmatism Scale, a scale which correlates very highly with the F scale for authoritarianism, and which was also used in the present study. Rokeach (27) states that "people who score high on the one tend to score relatively high on the other"(p. 121).

In a replication of the above, Distefano and Pryer (16) made another study with a larger sample of psychiatric attendants. The Opinions about Mental Illness Scale was

again used to assess attitudes of attendants immediately after training, again at six months and at twelve months. Results offered further evidence that certain mental health attitudes measured by the OMI are amenable to change by means of training; while these attitudes were found to be consistently amenable to change, authoritarianism was found to be consistently resistant to change. Longitudinal follow-ups were suggestive that the OMI attitudes appeared stable up to twelve months after training. The authors concluded that the potential impact of training on OMI attitudes is important because these attitudes have been found to be related to job performance and hospital effectiveness.

Poley (24) evaluated a workshop for armed service personnel which focused on attitude change and also on the role of authoritarianism. It is the possible application of this sort of finding that is an object of the present research. Poley found that questionnaire responses at the start of the workshop appeared to be strongly determined by authoritarianism. Contrary to the findings of Distefano and Pryer (16) that this trait is resistant to change, Poley found that the workshop apparently disrupted this pattern of responding, in this group of twenty-three male substance-abuse workers.

Zurhellen (39) measured attitude change occurring among science teachers during the course of extended year-long in-service institutes, using a semantic differential technique. One of her hypotheses was that as a result of the in-service training there would be no significant attitude change. Another hypothesis was that there would be no significant relationships between attitude change and age, sex, open-mindedness, etc. Results showed significant attitude change on three of the semantic differential concepts. Several correlation techniques failed to produce relationship patterns between attitude changes and physiological or personality variables. She concluded that there could be some harmful effects of long in-service programs and that several highly concentrated short-term programs might have produced more change.

Robinson (26) evaluated the effectiveness of a short-term workshop for vocational teachers of the disadvantaged. He used a semantic differential to measure changes in attitude; he also attempted to evaluate and identify the elements of the workshop considered to be of value by the participants. Non-significant positive changes in the attitudes of the participants toward the concept of the disadvantaged student were found. The total sample failed to support a persistent change in attitude; the majority

of the sample was found to possess opinions and attitudes that were relatively fixed and resistant to change.

Carr (8) measured changes in attitudes and values toward psychological services on the part of teachers who participated in a psychological in-service model, and he also measured changes in knowledge of psychological content. His reasoning was that the knowledge of these services might have an effect on the attitudes and values toward them. Carr concluded that no significant changes in attitude on the part of the teachers participating in the workshop was found. He found, however, that with increased knowledge of psychological content, the teachers valued psychological services more highly.

The following studies used supervisor's ratings as a criterion after training programs. Distefano and Pryer (15) evaluated the effects of two types of psychiatric attendant training using supervisor's ratings of job performance as the criterion. No significant differences in supervisor's ratings were found between the training class and a control group. Richardson (25) studied the relationship between selected characteristics of rehabilitation workers and supervisor's ratings of their job performance, using six criteria of effectiveness. Using six predictor instruments and using as criteria five rating scales representing five dimensions of performance, he

concluded that the selected instruments designed to measure the rehabilitation workers' characteristics could be expected to predict moderately well certain logically derived criteria of the rehabilitation workers' effectiveness on the job. Unfortunately, the instruments used were not named.

Barnes (3) tested the relationship between a score on a standardized examination (The American Public Health Association Professional Examination for Rehabilitation Counselors) and a supervisory rating scale. He found no significant relationship between the scores on the information tests and the supervisory rating scale, which was administered annually by the supervisors.

Four studies examine the reactions of the trainees. Broskowski (5) evaluated a twelve-week seminar for middle-management staff in a state mental hospital. A weekly evaluation process was considered useful by all forty participants. In a follow-up questionnaire, eighty per cent of the respondents reported that some positive changes had occurred in work behavior, attitude, or expectations. Broskowski discussed the limitations of this sort of self-report format.

Leary and Wolf (20) evaluated the effectiveness of a short-term institute on educational innovations. An inventory was administered prior to, immediately after, and

six months after the program. No relationship was found between the participants' reactions to the program, assessed immediately after the program, and their subsequent behavior as reported on the follow-up.

In another follow-up, Perry (23) sent a questionnaire to 154 trainees at a mental retardation training program. She requested their perceptions in the areas of reaction to training, utilization of the training center's resources, dissemination of information, and the impact of training. In general, it was found that the trainees perceived training to be worthwhile and effectual in producing changes in all four dimensions: informational, attitudinal, behavioral, and motivational.

Baroff (4) followed-up rehabilitation workers of HEW Regions III and IV who completed an in-service training course for the retarded. This was a follow-up after sixteen months. Five questions asked for information regarding the results of the training, and one asked for general feedback. While the results in all areas put a favorable light on the short-term program, only in the area of turnover rate were the former trainees compared with rehabilitation workers in general. The rate of turnover for the workers who had undergone the training was less than the general regional rate, but this difference was not significant.

Summary

Without question, there is a strong need for well-designed and well-executed evaluation research. Some attempts have been made to evaluate in-service training in general, and rehabilitation in-service training programs in particular. Problems center around a lack of rationale for evaluation, weak design, inadequate instrumentation, and inconclusive findings. The most promising studies appear to be those with clear objectives for evaluation, experimental or quasi-experimental design, and adequate instrumentation.

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CHAPTER III

PROCEDURES, METHODS, AND INSTRUMENTS

The purposes of this study were to determine whether significant cognitive, attitudinal, and behavioral changes took place on the part of participants of a short-term in-service training program, and to attempt to study relationships between certain independent variables of rehabilitation workers and the changes that took place as a result of this program.

This chapter provides an explanation of the design and collection and treatment of the data, as well as a detailed description of the population, the instruments used, and the methods and procedures followed.

Research Design

The research design utilized in this study was the Research Design No. 10, the Nonequivalent Control Group Design from Experimental and Quasi-Experimental Designs for Research by Donald T. Campbell and Julian C. Stanley (2).

It is diagrammed as follows:

$$- \frac{O}{O} - - \frac{X}{X} - - \frac{O}{O} -$$

This is a commonly used experimental design in educational research, and involves an experimental group and a

control group, each of which is given a pre-test and a post-test. The two groups do not have pre-experimental sampling equivalence, but rather ". . . the groups often constitute naturally assembled collectives, such as classrooms. The groups are as similar as availability permits, yet not so similar that one can dispense with the pretest (2, p. 47)." Campbell and Stanley state clearly (2, p. 47) that Design No. 10 should be recognized as well worth using in the many instances in which Designs 4, 5, or 6, true experimental designs, are impossible to apply.

In this study, the experimental group is a non-randomly selected group, and the control group was drawn from the same population as the experimental group.

Population

The experimental and control groups were drawn from a population of rehabilitation practitioners who specialize in job placement of the handicapped, either full-time or as a part of their job responsibilities. These workers practice at approximately eighteen rehabilitation facilities throughout Region VI, which is composed of Texas, Arkansas, Louisiana, Oklahoma, and New Mexico. At some time in their careers, all practitioners in this region receive in-service training.

Selection of the Sample

The selection of the experimental (training) group was done by the customary method of choosing participants for short-term in-service training; that is, on a need basis by the facilities' directors and by the university training directors.

Selection of the nonequivalent control group was originally planned to be drawn randomly from a computerized list of rehabilitation workers in Region VI. These persons were rehabilitation practitioners specializing in job placement for the handicapped, and were just as likely to have been selected for the training as were the participants in the May 1 through May 5, 1978 program. A minimum of twenty-two returns was acceptable to complete the study.

Because it was not possible to determine from the computerized list whether or not the individual actually did work in a rehabilitation facility or a sheltered workshop, as the experimental group subjects did, a different plan was worked out. The packets of instruments were mailed to all the persons on the list, approximately 105, with the added question "Do you work in either a rehabilitation facility or a sheltered workshop?" Of the 105 packets sent out, fifty-four were returned, of which thirty-two responded "yes" to the added question. These thirty-two persons were then sent the post-test packet of

instruments. Of these thirty-two, twenty-four completed the post-test packet and returned them, and these twenty-four made up the control group.

In all, twenty-two persons attended the training program and comprised the experimental group, and twenty-four persons comprised the comparison group. Neither group was randomly drawn, but both were drawn from the same population.

Procedure for Collection of Data

All subjects, both experimental and control group were administered the same instruments. The experimental (training) group received the training at Oak Street Hall, North Texas State University during the week of May 1-5, 1978. All instruments were administered at that time and place. The control group received the same material by mail approximately one week later.

In addition to the tests which the two groups took, both groups were assessed by means of a Supervisor's Rating Scale, both prior to and following the training period. Copies of the scale were administered by mail to the supervisors of the subjects on May 1, 1978 and July 1, 1978.

Experimental group: On the first morning of training, the following instruments were administered:

1. Pre-test on subject matter (content)
2. Pre-test on semantic differential
3. Rokeach Dogmatism Scale

At the end of the last day of the training period, the following instruments were administered:

1. Post-test on subject matter (content)
2. Post-test on semantic differential
3. Personal Data Sheet; Degree of Change Form
4. Questionnaire on reaction to training

Control group: The same instruments were used for the control group, with the exception of the omission of the questionnaire on reaction to training, and the self-reported Degree of Change Form.

The Supervisors Rating Scale was filled out by each training participant and each control group member's supervisor for the period sixty days prior to and sixty days after the training period.

Instruments

To measure acquisition of knowledge, an achievement test on the subject matter or content of the training program was constructed.

To measure attitude change, a semantic differential was constructed, using ten concepts relevant to the training or to the work of the groups. The Rokeach Dogmatism Scale was also administered.

To measure behavioral change, a Supervisors Rating Scale was mailed to the supervisor of each member of each group.

In addition, a personal data sheet was used to gather demographic data; the personal data sheet for the training group included a Degree of Change Form, to include the trainees' evaluation of change. A questionnaire was also given to the training program participants, to invite opinions and reactions to the training. Copies of all instruments are in the Appendix.

The achievement test of information, based on the subject matter or content of the training program, was constructed jointly by the investigator and by the staff of the training program. This test utilized a multiple-choice format, and was designed to measure understanding and application of material, reasoning, and judgment.

Sax (16) states that "content validity is most frequently employed for the evaluation of achievement tests because with this type of examination, test content is essential." Content validity of the test was determined to be adequate by a panel of three judges, all of whom have had experience in the construction and administration of similar achievement tests. Dr. Clinton Wainwright, Dr. Eugenia Bodenhamer and Dr. Ken Miner, all faculty of the Center for Rehabilitation Studies, concurred on the content validity of the achievement test.

Webster (18) states that it is often the case that standardized instruments are not available and it is

necessary to construct instruments designed to measure some specific criterion. He also states that it is desirable that such tests be tried out empirically prior to their use for evaluation purposes, although this empirical try-out is often impossible to accomplish ahead of time.

Although it was not possible to determine the reliability of the achievement test before testing occurred, a plan was devised to assess reliability of the achievement test at a later time. A pilot run of the fifty questions was administered to twenty Dallas-area practitioners, persons who do similar work to that of the experimental and control group members and who were actually eligible for, although not chosen for, this or similar training programs. A Kuder-Richardson Formula 20 alpha coefficient procedure and an item-analysis were carried out with data from this group of pilot tests at the Computer Center, at North Texas State University.

According to Diederich (4), the reported reliabilities for standardized achievement tests are frequently over .90 when Kuder-Richardson formulas are used, and the reliability coefficients for classroom tests typically range between .60 and .80.

An item analysis was performed for the fifty-item test. A "good" item was defined as one with a point biserial coefficient of $+ .20$ or better. Thirty-five of

the fifty questions met that criterion. The reliability when the Kuder-Richardson Formula 21 alpha coefficient was used on these thirty-five questions was .87. The reliability coefficient for the entire fifty questions was .77.

Since, as Gronlund (6) puts it, "validity refers to the appropriateness of the interpretations of test results and reliability refers to the consistency of test results" it was felt that the validity and the reliability of the achievement test were adequate for measuring information gained.

The Rokeach Dogmatism Scale was chosen as a measure of a variable in personality referred to as open-mindedness/closed-mindedness. A person can be placed on a continuum according to the structure of his or her belief system, according to Rokeach (12). The Rokeach Dogmatism Scale also measures authoritarianism and general intolerance independent of ideological content; this helped establish the construct validity for the scale (12). This scale is particularly useful and appropriate for inclusion in this study because it appears to tap a person's ability to deal effectively with people of varying physical, mental, racial, and religious backgrounds. It was hypothesized that the higher the score on this test (that is, the more dogmatism), the less attitude change would take place as a result of a training program. This training program was

designed to some extent to change attitudes in a positive direction, toward people who are almost by definition different in some way from the average.

Construct validity is supported by various studies reported by Rokeach (12, 13, 14, 15). Reliabilities on Form E are reported by Rokeach (12) to range from .68 to .93. Form E is the fifth of five revisions and contains forty of the original eighty-nine items.

Osgood, one of the developers of the semantic differential technique, says that it is a combination of controlled associations and scale procedures, used to measure "connotative" meanings of concepts held by individuals toward objects, events, or ideas. These meanings take the form of what Osgood calls the "dimensionality of semantic space" (10, p. 31). In order to evaluate this semantic space, which is theoretically infinite, Osgood developed a seven-stage scale which is arranged between polar opposites of a given meaning factor. The semantic space takes on meaning or is the expression of meaning in what Osgood has identified as the primary components of meaning, namely, the three factors of evaluation, potency, and activity.

The semantic differential purports to measure a person's evaluation or attitude toward certain concepts by the allocations of the concept in the "multi-dimensional

space of polar items" (10, p. 31). The meaning factor "activity," for example, can be evaluated along the lines of such polar opposites as fast-slow, active-passive, hot-cold, sharp-dull. Osgood claims that each of these factors (activity, potency, and evaluation) is present in any concept that has meaning to us.

The adequacy and usefulness of the semantic differential as a research instrument has been shown by a number of studies (5, 7, 9, 17). In a study reported by Tannenbaum (10), the test-retest reliability coefficients, after a period of five weeks ranged from .87 to .93 with a mean r of .91. It is generally considered to be a valid instrument for the measurement of attitude change; Osgood states that the evaluative factor has good face validity as a measure of attitude (10, p. 140).

There are no standard concepts and no standard scales on this instrument; the concepts and scales used in a particular study depend upon the nature of the research. The investigator simply uses good judgment with respect to the concepts (10).

The process for choosing scales is more structured than that of choosing concepts. As criteria for scales, at least three scales are used to represent each factor (evaluative, potency, and activity). Relevance to the concepts being judged is important, as well as semantic

stability for the concepts and the subjects in a particular study. The bipolar adjectives used in this study were selected from Osgood's published list (10, pp. 53-61). The order of placement of the scales was randomized.

Although single words are most often used as concepts, a unitary semantic concept may require a noun phrase, e.g. MY IDEAL SELF. Even nonverbal concepts can be differentiated (10, p. 77). The objects of judgment should be both relevant to, and representative of, the area of research interest. In exercising "good judgment" here, the investigator will usually try to (a) select concepts for the meanings of which he can expect considerable individual differences, (b) select concepts having a single, unitary meaning for the individual because otherwise the subject may vacillate in what is being judged, and (c) select concepts which can be expected to be familiar to all subjects, because unfamiliar concepts for some subjects will produce a "spurious" regression toward the middle of the scales (10, p. 78).

Osgood states "In conclusion, then, although there are, we believe, standard factors of judgment, the particular scales which may, in any given research problem, best represent these factors, are variable and must be carefully selected by the experimenter to suit his purposes" (10, p. 80).

Dr. Clinton Wainwright, Dr. Eugenia Bodenhamer, and Dr. Ken Miner were asked to judge the appropriateness of the concepts and scales, and the three of them agreed that the concepts and scales were acceptable.

The Rehabilitation Counselor Rating Scale developed by Muthard and Miller was chosen to measure each participant's and each control group member's supervisor's rating during the sixty days prior to and the sixty days after the training period. The scale was developed for use in evaluating rehabilitation workers in agency settings, such as the rehabilitation facilities and sheltered workshops which are the places where the population of this study is employed. Measures of three factors: information, attitude, and placement behavior are included. A fourth factor on the scale, that of interpersonal skills, was not used.

Test-retest reliability for the scale, after three weeks, is reported by the authors (8) to be .92 on the total form. The scale was also found by the authors to be internally consistent, and the rating scale was reported to have significant relationships with other, more global supervisory ratings (8). The Rehabilitation Counselor Rating Scale is believed to be applicable to this study as an experimental tool.

The personal data sheet was used for both groups to collect demographic data such as age, sex, degree(s) earned, major field of study, and number of training programs previously attended.

Attached to the personal data sheet of the training group was a self-reported reaction, or "Degree of Change" form. This is an adaptation of a measure of "direct-indirect impact" of training, designed by Perry (11). It was included as the trainee's own evaluation of change as he or she saw it, to answer the question, "Do you think you have experienced any changes as a result of this training program?" The changes covered the areas of information, attitude, behavior and motivation. In the follow-up study of Perry's (11), seventy-eight of 154 former trainees (fifty-four per cent) reported that as a direct or an indirect result of their training, they had experienced either moderate or much or great change in one or more of the areas mentioned.

A short questionnaire was also devised, consisting of seven multiple-choice items and two open-ended items, to evaluate reaction to the program. Reaction may be defined as how well a trainee liked a particular program; this reaction measures "feelings" and not any learning that might have taken place.

Browning (1) in a guide to evaluating reaction, said that the procedure is to

1. Determine what one wants to find out.
2. Use a written comment sheet covering those items in step one.
3. Design the form so that the results can be tabulated and quantified.
4. Obtain honest reactions by making the form anonymous.
5. Allow the conferees to write in additional comments not covered by the questions that were designed to be tabulated and quantified (1, p. 36).

The questionnaire, using the above as a guide, was adapted from two forms utilized by the University of Wisconsin Management Institute Program (3).

In addition to quantifying the seven questions by simple per cent, the comments were analyzed to locate any possible specific recommendations in professional development or practice as a result of the reactions to training.

Procedure for the Analysis of Data

All computations were performed at the Computer Center, North Texas State University.

Hypotheses one through twelve were tested by means of the analysis of covariance, with the pre-test being the covariate. The .05 level of significance was used.

Hypothesis thirteen was tested by means of a Pearson product-moment correlation.

Hypotheses fourteen through eighteen were tested by correlation, using either Pearson product-moment or biserial or point biserial, depending on the nature of the variable being studied. The .05 level of significance was used.

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CHAPTER IV

PRESENTATION AND DISCUSSION OF DATA

Introduction

The purpose of this chapter is to present the results of the data collected in this study. The study was designed to evaluate the effectiveness of a short-term in-service training program in rehabilitation, with respect to cognitive, attitudinal, and behavioral changes of the participants. A second goal of this study was to study relationships between certain independent variables and criteria for participant change. The participants of the training program and a nonequivalent control group were administered several criterion measures.

The hypotheses given in Chapter I have been reworded in this chapter in order to present them in their null-hypothesis form for testing.

Hypotheses and Data Analysis

Hypothesis 1

Null-hypothesis One states that at the conclusion of the training period there will be no significant difference between the experimental group and the control group mean

achievement test score. The means and standard deviations for this hypothesis are presented in Table I.

TABLE I
MEANS AND STANDARD DEVIATIONS
FOR ACHIEVEMENT TEST

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	53.4545	72.8539	10.0035	8.3762
Con.	24	59.7500	58.3422	9.8874	9.9214

Although the pre-test scores indicate that the control group had a higher pre-test mean, Table I indicates a difference of approximately fourteen points between the adjusted post-test means of the two groups, in favor of the experimental (training) group. The standard deviations from pre-test to post-test indicate that the experimental group scores become somewhat more homogeneous from pre-test to post-test, but the control group data did not change appreciably with respect to variability.

Table II presents the analysis of covariance for the adjusted post-test means on the achievement test.

TABLE II
ANALYSIS OF COVARIANCE DATA FOR
COMPARISON OF SCORES ON
ACHIEVEMENT TEST

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	2188.3494	1	2188.3494	45.5414*	0.0000
Within	2066.2288	43	48.0518	. . . .	. . . .
Total	4254.5781	44	. . . .	. . . .	. . . .

*significant beyond .05 level

The F-ratio given in Table II shows a clear rejection of the null-hypothesis, with virtually no probability of this ratio occurring by chance. The group which received the training had a significantly higher adjusted group mean than the control group, on the achievement test.

Hypothesis 2

Hypothesis Two in the null form states that at the conclusion of the training there will be no significant difference between the experimental group and the control group on attitude toward "The Rehabilitation Client." The means and standard deviations for this hypothesis are presented in Table III.

TABLE III
 MEANS AND STANDARD DEVIATIONS FOR ATTITUDE
 TOWARD " THE REHABILITATION CLIENT"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	47.7273	48.8704	5.8570	7.3704
Cont.	24	49.5000	48.9104	5.2585	5.1324

The post-test means and pre-test standard deviations are quite similar, but the experimental group data show greater variability on the post-test than the control group data.

Table IV presents the analysis of covariance for this hypothesis.

TABLE IV
 ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF
 ATTITUDES TOWARD "THE REHABILITATION CLIENT"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	0.0176	1	0.0176	0.0006	0.9806
Within	1262.9949	43	29.3720	. . .	. . .
Total	1263.0125	44	. . .	. . .	. . .

As shown, in Table IV, there is an insignificant F-ratio, so the null-hypothesis is retained. Thus, the training program apparently did not promote more favorable attitudes toward the rehabilitation client.

Hypothesis 3

Null hypothesis Three states that at the conclusion of the training there will be no significant difference between the experimental group and the control group on attitude toward "The Rehabilitation Process." Table V presents the means and standard deviations for this hypothesis.

TABLE V
MEANS AND STANDARD DEVIATIONS FOR ATTITUDE
TOWARD "THE REHABILITATION PROCESS"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	51.1364	54.7370	5.8089	6.9874
Cont.	24	59.8333	53.6577	5.1809	5.8602

Table V indicates a difference of about one point in the adjusted post-test means for attitudes toward "The Rehabilitation Process." The standard deviations are similar for the pre-tests, with both groups showing

increased variability from pre-test to post-test. Table VI presents the analysis of covariance data for this hypothesis.

TABLE VI
ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF
ATTITUDES TOWARD "THE REHABILITATION PROCESS"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	11.2266	1	11.2266	0.4817	0.4914
Within	1002.1755	43	23.3064	. . .	. . .
Total	1013.4021	44	. . .	. . .	. . .

As indicated in Table VI, there is an insignificant F-ratio, so the null-hypothesis is retained. Apparently the training program did not promote favorable attitudes toward the rehabilitative process.

Hypothesis 4

Hypothesis Four, in the null form states that there will be no significant difference at the end of the training period between the experimental group and the control group on attitude toward "The Profession of Rehabilitation." Table VII presents the means and standard deviations for this hypothesis.

TABLE VII
 MEANS AND STANDARD DEVIATIONS FOR ATTITUDE
 TOWARD "THE PROFESSION OF REHABILITATION"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	51.1364	54.0115	6.0499	6.5500
Cont.	24	53.5000	52.2811	5.1330	5.9728

Table VII indicates that the experimental group gained in attitude on this concept compared to the control group, and showed more variable pre-test and post-test data. The analysis of covariance for this hypothesis is presented in Table VIII.

TABLE VIII
 ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF ATTITUDES
 TOWARD THE "PROFESSION OF REHABILITATION"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	32.8364	1	32.8364	1.9839	0.1662
Within	711.6956	43	16.5511	. . .	. . .
Total	744.5320	44	. . .	. . .	. . .

Although the F-ratio of 1.9839 is not high enough to reject the null-hypothesis, there is a slight difference in a positive direction for the experimental group on attitude toward the profession of rehabilitation. Thus, the possibility exists that a more positive attitude on this concept was held by the experimental group at the end of the training period.

Hypothesis 5

Null-hypothesis Five states that at the conclusion of the training period there will be no significant difference between the experimental group and the control group on attitude toward "Myself Working in Rehabilitation." Table IX presents the means and standard deviations for this hypothesis.

TABLE IX
MEANS AND STANDARD DEVIATIONS FOR ATTITUDE TOWARD
"MYSELF WORKING IN REHABILITATION"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	53.0909	54.1497	6.6471	4.8497
Cont.	24	55.2917	54.3211	7.5671	7.6595

The post-test adjusted group means on attitude toward the concept of "Myself Working in Rehabilitation" are extremely close. The variability of the post-test data for the experimental group showed a decrease, while the variability for the control group remained about the same from pre-test to post-test. Table X presents the analysis of covariance data for this hypothesis.

TABLE X
ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF ATTITUDES
TOWARD "MYSELF WORKING IN REHABILITATION"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	0.3291	1	0.3291	0.0361	0.8503
Within	392.4224	43	9.1261	. . .	. . .
Total	392.7515	44	. . .	. . .	. . .

As indicated in Table X, the F-ratio is insignificant; therefore the null is retained. Thus, it is concluded that the attitude toward "Myself Working in Rehabilitation" did not change significantly as a result of training.

Hypothesis 6

Hypothesis Six, stated in the null form, is that at the conclusion of the training there will be no significant

difference between the experimental group and the control group on attitude toward "In-service Training." The means and standard deviations for this hypothesis are presented in Table XI.

TABLE XI
MEANS AND STANDARD DEVIATIONS FOR ATTITUDE
TOWARD "IN-SERVICE TRAINING"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	53.2727	53.1513	5.8732	7.5497
Cont.	24	48.8750	50.7779	6.5029	6.3473

As indicated in Table XI, there appears to be a slight difference between the two groups on attitude toward in-service training. At the conclusion of the in-service training program, the experimental group adjusted mean score on this concept was 53.1513, and the control group adjusted mean score was 50.7779. Variability of the measure appears to have increased more for the experimental group than for the control group. Table XII presents the data for the analysis of covariance for hypothesis six.

TABLE XII
ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF
ATTITUDES TOWARD "IN-SERVICE TRAINING"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	57.1785	1	57.1785	2.2861	0.1379
Within	1075.4780	43	25.0111	. . .	. . .
Total	1132.6565	44	. . .	. . .	. . .

The F-ratio of 2.2861 is not high enough to reject the null-hypothesis at the .05 level. The difference in the adjusted post-test means may be attributed to chance. The null-hypothesis for hypothesis Six is retained.

Hypothesis 7

Null-hypothesis Seven states that at the conclusion of the training there will be no significant difference between the experimental group and the control group on attitude toward "The Center for Rehabilitation Studies, North Texas State University." The means and standard deviations for this hypothesis are presented in Table XIII.

TABLE XIII
 MEANS AND STANDARD DEVIATIONS FOR ATTITUDE TOWARD
 "CENTER FOR REHABILITATION STUDIES, NORTH TEXAS
 STATE UNIVERSITY"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	53.3182	49.9054	6.1983	6.1749
Cont.	24	46.1667	48.1284	6.1621	6.1396

As indicated in Table XIII, the adjusted post-test means and standard deviations for the two groups are similar. The analysis of covariance for this data is presented in Table 14.

TABLE XIV
 ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF ATTITUDES
 TOWARD "CENTER FOR REHABILITATION STUDIES,
 NORTH TEXAS STATE UNIVERSITY"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	28.7996	1	28.7996	2.4035	0.1284
Within	515.2371	43	11.9823	. . .	. . .
Total	544.0366	44	. . .	. . .	. . .

As Table XIV indicates, the F-ratio of 2.4035 is not sufficient to reject the null hypothesis, although the adjusted group post-test means indicate a slight difference between the two groups. The experimental group showed a slightly more favorable attitude toward the concept "Center for Rehabilitation Studies, North Texas State University" than the control group. At the .05 level, however, the null-hypothesis must be retained.

Hypothesis 8

Hypothesis Eight stated in the null form is that at the conclusion of the training there will be no significant difference between the experimental group and the control group on attitude toward "Welfare." The means and standard deviations for this hypothesis are presented in Table XV.

TABLE XV
MEANS AND STANDARD DEVIATIONS FOR
ATTITUDE TOWARD "WELFARE"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	40.1364	39.0323	6.1976	6.8862
Cont.	24	38.3333	39.0120	6.9949	6.7758

The adjusted means and the post-test standard deviations for the two groups on the concept of welfare are virtually the same. It should be pointed out, however, that the group means on this concept, welfare, are much lower than on any of the other concepts. Both the experimental and the control group apparently have a less positive attitude toward the concept of welfare than toward any of the other concepts involved.

The analysis of covariance data for the adjusted post-test means are presented in Table XVI.

TABLE XVI
ANALYSIS OF COVARIANCE DATA FOR COMPARISON
OF ATTITUDES TOWARD "WELFARE"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	0.0046	1	0.0046	0.0005	0.9817
Within	373.5625	43	8.6875	. . .	. . .
Total	373.5671	44	. . .	. . .	. . .

The F-ratio in Table XVI shows without doubt that null-hypothesis Eight should be retained. On the concept of welfare, there is apparently no favorable attitude change as a result of the training program.

Hypothesis 9

Null-hypothesis Nine states that at the conclusion of the training there will be no significant difference between the experimental group and the control group on attitude toward "Work." The means and standard deviations for this hypothesis are presented in Table XVII.

TABLE XVII
MEANS AND STANDARD DEVIATIONS FOR
ATTITUDE TOWARD "WORK"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	56.0909	56.6792	7.8857	6.2442
Cont.	24	58.5417	57.3774	8.4080	8.4416

The adjusted post-test group means for attitude toward the concept of work were very close for the two groups. Judging from the standard deviations, the control group data did not change in variability from pre-test to post-test, but the experimental data became less variable. The analysis of covariance for these data is presented in Table XVIII.

TABLE XVIII
ANALYSIS OF COVARIANCE DATA FOR COMPARISON
OF ATTITUDES TOWARD "WORK"

Source of Variance	Sum of Squares	df	Mean Square	F	P
Between	5.4668	1	5.4668	0.3488	0.5579
Within	673.9463	43	15.6732	. . .	. . .
Total	679.4131	44	. . .	. . .	. . .

As indicated in Table XVIII, there was no significant difference between the two groups on attitude toward work. The F-ratio of 0.3488 is not sufficient to reject null-hypothesis Nine. There was apparently no favorable effect of the training program on attitude toward work, and the null-hypothesis is accepted.

Hypothesis 10

Hypothesis Ten stated in the null form is that at the conclusion of the training program there will be no significant difference between the experimental and the control group on attitude toward placement. Table XIX presents the means and standard deviations for this hypothesis.

TABLE XIX
 MEANS AND STANDARD DEVIATIONS FOR
 ATTITUDE TOWARD "PLACEMENT"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	57.9495	60.3642	6.2525	6.5705
Cont.	24	63.2500	60.7078	5.5658	5.7256

The adjusted post-test means for the two groups are virtually the same. The standard deviations for each group did not change in variability, although the training group showed slightly more variability than the control group. Table XX presents the analysis of covariance for this data.

TABLE XX
 ANALYSIS OF COVARIANCE DATA FOR COMPARISON
 OF ATTITUDES TOWARD "PLACEMENT"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	1.1204	1	1.1204	0.1191	0.7317
Within	404.4954	43	9.4069	. . .	. . .
Total	405.6157	44	. . .	. . .	. . .

There was no significant difference between the two groups on attitude toward placement. The F-ratio of 0.1191 is insufficient to reject the null-hypothesis and it is retained. The training program apparently did not promote more favorable attitude on this concept.

Hypothesis 11

Null-hypothesis Eleven stated that at the conclusion of the training period there would be no significant difference between the experimental group and the control group on attitude toward follow-up. Table XXI presents the means and standard deviations for this hypothesis.

TABLE XXI
MEANS AND STANDARD DEVIATIONS FOR ATTITUDE
TOWARD "FOLLOW-UP OF CLIENT"

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	52.6364	53.1659	7.4614	7.4091
Cont.	24	51.4583	51.7229	6.0144	6.5359

As indicated in Table XXI, the adjusted post-test means for the two groups are similar on attitude toward follow-up.

The experimental group had somewhat more variable pre-test and post-test data, judging from the standard deviations. Table XXII presents the analysis of covariance data for the adjusted group means for this concept.

TABLE XXII
ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF
ATTITUDES TOWARD "FOLLOW-UP OF CLIENT"

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	23.7107	1	23.7107	1.4057	0.2423
Within	725.3088	43	16.8676	. . .	. . .
Total	749.0195	44	. . .	. . .	. . .

Table XXII presents the results of null hypothesis eleven. As shown, there is an insignificant F-ratio, and the null-hypothesis is retained. The training program apparently did not promote more favorable attitude change toward the follow-up of the client.

Summary of Semantic Differential Concepts

Table XXIII presents a summary of means, standard deviations, and analysis of covariance for the semantic differential utilized in this study. All of the means are adjusted post-test means.

TABLE XXIII

SUMMARY OF POST-TEST ADJUSTED MEANS, STANDARD DEVIATIONS
AND ANALYSIS OF COVARIANCE DATA FOR THE SEMANTIC
DIFFERENTIAL CONCEPTS

Group	Concept	Adjusted Post- Test Mean	St. Dev.	F	p
Exp. Cont.	1	48.8704 48.9104	7.3704 5.1324	0.0006	0.9806
Exp. Cont.	2	54.7370 53.6577	6.9874 5.8602	0.4817	0.4914
Exp. Cont.	3	54.0115 52.2811	6.5500 5.9728	1.9839	0.1662
Exp. Cont.	4	54.1497 54.3211	4.8497 7.6595	0.0361	0.8503
Exp. Cont.	5	53.1513 50.7779	7.5497 6.3473	2.2861	0.1379
Exp. Cont.	6	49.9054 48.1284	6.1749 6.1396	2.4035	0.1284
Exp. Cont.	7	39.0323 39.0120	6.8862 6.7758	0.0005	0.9817
Exp. Cont.	8	56.6792 57.3774	6.2442 8.4416	0.3488	0.5579
Exp. Cont.	9	60.3642 60.7078	6.5705 5.7256	0.1191	0.7317
Exp. Cont.	10	53.1659 51.7229	7.4091 6.5359	1.4057	0.2423

As indicated in Table XXIII, none of the concepts used on the semantic differential was significant at the .05 level. It is assumed, therefore, that the two groups do not differ significantly with respect to the ten concepts.

Thus, the training program apparently did not promote attitude change on the part of its participants.

Hypothesis 12

Null-hypothesis Twelve states that at the end of the training period plus sixty days there will be no difference between the experimental group and the control group on the composite Supervisor's Rating Scale or on the three subscales. The means and standard deviations for this hypothesis are presented in Table XXIV.

TABLE XXIV
MEANS AND STANDARD DEVIATIONS FOR
COMPOSITE SUPERVISOR'S RATING

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-Test	Pre-test	Post-test
Exp.	22	118.6818	123.8304	9.1413	8.3305
Cont.	24	115.7500	117.1971	14.6592	15.4456

The experimental group had a mean score of 123.8304 on the composite Supervisor's Rating Scale, while the control group had a mean of 117.1971. Judging from the standard deviations, there was markedly more variability, both pre-test and post-test for the control group. Table XXV

presents the analysis of covariance for the adjusted post-test means for this hypothesis.

TABLE XXV
ANALYSIS OF COVARIANCE DATA FOR COMPOSITE
SUPERVISOR'S RATING

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	497.7090	1	497.7090	12.4677*	0.0010
Within	1716.6551	43	39.9200	. . . .	. . . .
Total	2214.2681	44	. . . .	. . . .	. . . .

*Significant at the .05 level

The F-ratio required to reject the null-hypothesis is 4.06. The ratio of 12.4677, therefore, is significant, and clearly indicates that the group which received the training scored significantly higher than the control group, on the composite Supervisor's Scale which was administered sixty days after the time of the training. This finding supports rejection of the null-hypothesis.

The Supervisor's Rating Scale also yields part-scores on knowledge, placement behaviors, and attitudes. Table XXVI presents means and standard deviations for the knowledge segment of the Supervisor's Rating Scale.

TABLE XXVI
 MEANS AND STANDARD DEVIATIONS FOR
 SUPERVISOR'S RATING SCALE,
 KNOWLEDGE SEGMENT

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	38.2727	40.2273	4.3005	3.8907
Cont.	24	36.1667	36.9861	6.5120	6.8520

Table XXVI shows a group mean difference of more than three points in favor of the experimental group, when the two groups were rated by their supervisors on knowledge about placement. The standard deviations indicate more variability for the control group on this measure than the experimental (training) group. The standard deviation also indicates that the experimental group scores became slightly more homogeneous from pre-test to post-test, but the control group data did not change appreciably with respect to variability. Table XXVII presents the analysis of covariance data for the knowledge segment of the Supervisor's Rating Scale.

TABLE XXVII

ANALYSIS OF COVARIANCE DATA FOR COMPARISON
OF SCORES ON SUPERVISOR'S RATING
SCALE, KNOWLEDGE SEGMENT

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	56.3289	1	56.3289	8.0170*	0.0070
Within	302.1274	43	7.0262	. . . .	. . . .
Total	358.4563	44	. . . .	. . . .	. . . .

*Significant at the .05 level

When the Supervisor's Rating Scale is broken down into partial scores, the knowledge segment of the rating indicates that the difference between the experimental group and the control group on this segment is clearly significant. Thus, after sixty days had passed after the training period, the supervisors of the participants of the training group rated the experimental group higher on knowledge about placement than the supervisors of those in the control group.

Table XXVIII presents the means and standard deviations for the Supervisor's Rating Scale, placement behavior part-score.

TABLE XXVIII
 MEANS AND STANDARD DEVIATIONS FOR SUPERVISOR'S
 RATING SCALE, PLACEMENT BEHAVIOR SEGMENT

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	37.3636	41.0163	4.7162	3.9369
Cont.	24	38.4583	38.3600	4.8811	5.5403

Table XXVIII shows the experimental group with both a higher adjusted post-test mean and less variability than the control group. The analysis of covariance for this data is presented in Table XXIX.

TABLE XXIX
 ANALYSIS OF COVARIANCE DATA FOR COMPARISON OF SCORES
 ON SUPERVISOR'S RATING SCALE, PLACEMENT
 BEHAVIOR SEGMENT

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between	79.9121	1	79.9121	10.0666*	0.0028
Within	341.3494	43	7.9384	. . .	. . .
Total	421.2615	44	. . .	. . .	. . .

* Significant at the .05 level

The placement behavior segment of the Supervisor's Rating Scale indicates that the difference between the two groups is clearly significant, in favor of the experimental group. Thus, after sixty days had passed after the training period, the supervisors of the participants of the training group rated the participants higher on placement behaviors than the supervisors of those in the control group.

The next table, Table XXX, presents the means and standard deviations for the attitude segment of the Supervisor's Rating Scale.

TABLE XXX
MEANS AND STANDARD DEVIATIONS FOR SUPERVISOR'S
RATING SCALE ATTITUDE SEGMENT

Group	N	Means		Standard Deviations	
		Pre-test	Adjusted Post-test	Pre-test	Post-test
Exp.	22	42.8182	43.7914	3.1113	3.0666
Cont.	24	41.1250	41.8578	5.3512	5.8136

As shown in Table XXX, there is a difference of almost two points in the adjusted post-test means, again in favor of the experimental group. The control group had somewhat

more variable pre-test and post-test data, judging from the standard deviations.

Table XXXI presents the analysis of covariance data for the attitude segment of the Supervisor's Rating Scale.

TABLE XXXI
ANALYSIS OF COVARIANCE DATA FOR COMPARISON
OF SCORES OF SUPERVISOR'S RATING
SCALE, ATTITUDE SEGMENT

Source of Variance	Sum of Squares	df	Mean Square	F	P
Between	41.3347	1	41.3347	5.1245*	0.0187
Within	345.8391	43	8.0660	. . .	. . .
Total	388.1738	44	. . .	. . .	. . .

*Significant at the .05 level.

The F-ratio of 5.1245 is clearly significant at the .05 level. Thus, the group which received the training scored significantly higher than the control group on the attitude segment of the Supervisor's Rating Scale, when they were rated sixty days after the training period.

Hypothesis 13

Null-hypothesis Thirteen states that there will be no significant correlation between the score on the Rokeach Dogmatism Scale and attitude change as measured by the

concepts of the semantic differential for each individual in the training group. The Pearson product-moment correlation procedure for this hypothesis yielded an r of .09, which is not sufficient to reject the null-hypothesis. Hypothesis Thirteen, therefore, is not supported. There appears to be no relationship between score on the Rokeach Dogmatism Scale and attitude change on the part of the participants of the training program.

Table XXXII presents data for hypotheses Fourteen through Eighteen.

Hypothesis 14

Null-hypothesis Fourteen states that there will be no significant correlation between an individual's age and his or her score on the achievement test, dogmatism scale, attitude change, or supervisor's rating. For significance (using a one-tailed test) a correlation of .360 is required. As indicated in Table XXXII, there was no significant correlation found between an individual's age and his or her score on the achievement test, dogmatism scale, or supervisor's rating. The null-hypothesis is retained for these factors. There was, however, a significant positive correlation between the age of an individual and positive attitude change. This suggests that as a rehabilitation worker gets older, he or she is more likely to experience

TABLE XXXII
 TABLE OF PEARSON CORRELATIONS BETWEEN SELECTED
 INDEPENDENT AND DEPENDENT VARIABLES OF
 THE TRAINING GROUP

Independent Variables	Dependent Variables			
	Achievement Test	Rokeach Dogmatism Scale	Attitude Change	Supervisor's Rating Scale
Age	-0.2989	-0.0174	0.5655*	-0.0394
Sex	0.0578	-0.0077	-0.2324	0.0653
Level of Degree held: Bachelor's or less vs. Master's	-0.2157	-0.4006*	0.3896*	-0.2704
Major for Highest Degree held: Helping Prof. vs. Non-Helping Prof.	0.0778	-0.0021	0.3890*	0.1340
Number of Training Programs Previously Attended	-0.0046	0.0582	0.2029	0.2198

*Significant at the .05 level

positive attitude change after a training program. The null-hypothesis is therefore rejected for correlation between age and positive attitude change.

Hypothesis 15

Hypothesis Fifteen stated in the null form states that there will be no significant correlation between an individual's sex and his or her score on the achievement test, dogmatism scale, attitude change, or supervisor's rating. For significance (using a two-tailed test, since direction was not predicted) a correlation of .423 is required. As shown in Table XXXII, none of the correlations reached the required significance. Apparently, being male or female has no significant correlation with any of these factors, so the null-hypothesis is retained.

Hypothesis 16

Null-hypothesis Sixteen states that there will be no significant correlation between the level of degree (bachelor's or less vs. master's) held by an individual and his or her score on the achievement test, dogmatism scale, attitude change, or supervisor's rating. For significance (using a one-tailed test) a correlation of .360 is required. As indicated in Table XXXII, there is no significant correlation between level of degree and achievement test, or level of degree and supervisor's

rating. The null-hypothesis is retained for these factors. Statistical significance is reached, however, for the level of degree and dogmatism. Although negative correlation is shown in Table XXXII, the Rokeach Dogmatism Scale is scored in such a way that a higher score means more dogmatism, a less desirable trait. The negative correlation means that the person who had a bachelor's degree or less was more likely to be dogmatic than the person who had a master's degree.

Statistical significance is also reached for the factors of level of degree and attitude change. Among those participants with a master's degree, more positive attitude change took place than among those participants with a bachelor's degree or less. The null-hypothesis is thus rejected for level of degree and dogmatism, and level of degree and attitude change.

Hypothesis 17

Hypothesis Seventeen in the null form states that there will be no significant correlation between the major field of study (helping profession vs. non-helping profession) of an individual and his or her score on the achievement test, dogmatism scale, attitude change, or supervisor's rating. As shown in Table XXXII, the major field of an individual is not correlated significantly with the achievement test, dogmatism scale or supervisor's

rating. Apparently, whether an individual's academic credentials are relevant to the work he or she is doing has no significant correlation with the above-mentioned factors and the null-hypothesis is retained for these factors. Reaching statistical significance, however, is the correlation between major field of study and attitude change. The person who was trained in a non-helping profession was more likely to show a positive attitude change than the person who was trained in a helping profession. The null-hypothesis is rejected for correlation between major field of study and attitude change.

Hypothesis 18

Null-hypothesis Eighteen states that there will be no significant correlation between the number of training programs previously attended by an individual and his or her score on the achievement test, dogmatism scale, attitude change, or supervisor's rating. As indicated in Table XXXII, there is no significant correlation between the number of training programs previously attended by an individual and any of these factors. The null-hypothesis, therefore, is retained.

Additional Data

Questionnaire

Each of the participants of the in-service training program filled out a questionnaire, without signing his or her name. The purpose of the questionnaire was to evaluate reaction to training. Reaction is defined as how well a trainee liked this particular training program; this reaction measures "feelings" and not any learning that may have taken place.

The print-out of the questionnaire follows, with the number of participants who checked each response, and the percentage of the total group of twenty-two participants who checked each response. As indicated by the figures shown, the trainees, in general, felt that the program was worthwhile and well-conducted. Almost unanimously, they indicated that they would attend another program similar to this one.

In response to the question "What, to you, was the single most important part of the training?", seven of the participants listed the communication of ideas and sharing of problems. Three participants listed the job analysis section as being most important. Two participants mentioned the field trips and two mentioned the section on the stages of the counseling process. The participants

Questionnaire

1. In general, how worthwhile was this training program for you?
14 Very worthwhile (64%)
7 Fairly worthwhile (31%)
1 Not very worthwhile (5%)
2. On the whole, the training program was conducted:
11 Very well (50%)
11 Fairly well (50%)
 Poorly
3. I thought the training program was:
18 Very well organized and helpful (81%)
4 Of some value (18%)
 Poorly organized and a waste of time
4. Concerning the quality of instruction:
11 The instruction was excellent (50%)
11 The instruction was average (50%)
 The instruction was of poor quality
5. In regard to the subject content of this program:
12 It was all theory and of little practical value (54%)
9 It was both theoretical and practical (41%)
1 It was very practical and useful (5%)
6. Concerning visual aids:
6 Not enough films, readings, charts, demonstrations, etc. (28%)
2 Too much use of films, readings, charts, demonstrations, etc. (9%)
14 The right amount of visual aids (64%)
7. Would you like to attend another training program similar to this one?
21 Yes (95%) 1 No (5%)

Please list comments or suggestions or reactions. Use the back of this page if necessary.

What, to you, was the single most important part of this training?

were also asked to give comments, suggestions, and reactions. Several specific improvements were offered, such as better use of the overhead projector, more fully-prepared presenters, and more role-playing and group interaction. In the main, however, the comments were positive and constructive.

Degree of Change

The Degree of Change Form is a measure of the impact on the trainee, as measured by the trainee's own evaluation of change as he or she saw it. It answers the question "Do you think you have experienced any changes as a result of this training program?" The changes cover the areas of information, attitudes, behavior, and motivation. The four areas are responded to as "none, slight, moderate, much, or great." Each of these responses was assigned a number, from zero to four, for tabulation purposes. Table XXXIII presents the data for the responses of the participants.

On information change, the participants averaged 2.5454 which was halfway between "moderate" and "much." On attitude change, the participants averaged 2.2272, between "moderate" and "much." On behavioral change, the participants averaged 2.318, again between "moderate" and "much." On motivational change, the participants averaged

TABLE XXXIII
 "DEGREE OF CHANGE" PERCEIVED BY PARTICIPANTS

Type of Change	(0) None		(1) Slight		(2) Moderate		(3) Much		(4) Great	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Info.	0	0	2	9%	7	32%	11	50%	2	9%
Att.	0	0	5	23%	9	41%	5	23%	3	14%
Behav.	0	0	2	9%	11	50%	7	32%	2	9%
Motiv.	0	0	0	0	5	23%	12	55%	5	23%

3.045, between "much" and "great." Apparently at the time of the close of the training period, the participants felt that they had experienced at least moderate change in these four areas. Since these perceived changes might be spuriously high on the last day of a training program, a six-month follow-up study is planned to see whether these perceived changes are sustained over time.

Discussion

This section contains observations on the findings, and how these findings related to the few other similar studies reported in the literature.

As in the studies by Stude (6) and Cochran (2), significant information gain was made by the participants

of the training program of this study, which was designed to teach certain cognitive material. Evidently, training programs of this type are effective in the teaching of relevant subject matter.

There was no significant attitude change between the participants of the training group of this study and the control group, as measured by the semantic differential. Previous reports of attitude change after similar in-service training have been mixed. Whereas Welch (7) and Clos (1) found significant attitude change after training of this type, most investigators (Stude [6], Friesen [4], Moriarty [5], and others) found no significant attitude change, and little or none retained six or more months past the training period.

The fact that no significant attitude change was found on any of the ten concepts of the semantic differential, is perhaps not so much a reflection of no change of attitude as it is a result of the semantic differential not being able to detect such changes, especially in this study. In looking at the pre-test data in Table XXIII, it can be seen that all of the means except for the concept "Welfare" tend to be high. That is, if a rating of four is average, an average mean value should be ten times four (10 x 4) or forty. Thus the fact that the mean ratings for the attitudes tended to be well above 40.0000 could account

for the relatively small amount of change in the attitudes. Another factor might be that attitudes are developed over a long period of time, and perhaps it is unrealistic to believe that they can change after only a five-day training period. Besides, even if there were more accurate measures of significant attitude change, the change could prove to be a temporary one.

Judging from the supervisor's ratings, the participants of the program seemed to benefit significantly in terms of information gained, attitude change, and placement behaviors exhibited. In each of these areas, as well as in the total score, the training group participants' ratings were significantly higher than the control groups'. It might be well to use caution in interpreting this finding, because the supervisors of the individuals who were chosen to attend the training might tend to rate a person higher just because of this special program. Distefano and Pryer (3) in evaluating the effects of psychiatric attendant training using supervisor's rating of job performance as the criterion, found no significant difference between the training class and a control group. In the study cited however, the supervisors doing the rating of job performance were not the persons responsible for choosing individuals for the training class.

It should be noted that when the participants of the training program self-reported their attitudes, as measured by the semantic differential, no significant difference was found between them and the control group. When supervisors of both groups, however, rated them on attitude, using a rating scale on this dimension, the participants of the training group demonstrated significantly more positive attitude change than the control. No explanation of this phenomenon is offered.

There appeared to be a significant correlation between the age of an individual and his or her total positive attitude change, as measured by the semantic differential. This suggests that as a rehabilitation worker gets older, he or she is more open to the type of attitude change that most training programs, overtly or covertly, attempt to produce. Younger workers are perhaps more resistant to this type of change. No attempt was made to determine the number of years on the job as a factor, but this might have had a different effect on this relationship.

There were three other correlations which reached statistical significance. Almost nothing in the literature can be found examining these relationships, so they will be briefly mentioned here. The individual holding a bachelor's degree or less showed less positive attitude change than the individual holding a master's degree.

This suggests that with more education, more positive attitude change is apt to occur. A second relationship reaching statistical significance is that an individual holding a bachelor's degree or less showed more dogmatism than an individual holding a master's degree. This seems compatible with the above-mentioned finding, that of more positive attitude change taking place along with more education. More positive attitude change would be expected of persons who are more flexible and open-minded, and thus, less dogmatic. Perhaps dogmatism and resistance to positive attitude change are closely related and both decrease as education increases. Further research along this line would need to be done to test this hypothesis.

The third correlation which reached statistical significance was that of relationship between major field of study and positive attitude change. Major fields of the participants of the training program were divided into what are typically called "helping professions," such as psychology, counseling, rehabilitation and the "non-helping professions" such as biology, music, and political science. The participants of the training program who had majored in the non-helping professions showed more positive change than those who had majored in the helping professions. This was an unexpected finding.

The questionnaire, answered anonymously, indicated that the trainees in general clearly felt that the training program was worthwhile. All except one of the participants would attend another program similar to this one, given the opportunity.

When the participants of the training program were asked to respond to the program in terms of changes they saw in themselves, all the participants claimed at least "slight" change in information, attitude, and behavior, and all claimed at least "moderate" change in motivation.

Summary

The participants of the training program significantly indicated subject matter knowledge gained, when compared to the control group. The ratings they received from their supervisors sixty days after training were significantly higher than the control groups' ratings. Attitude change as measured by the semantic differential was not significant. Significant positive correlation was found between the age of an individual and positive attitude change, level of degree and attitude change, level of degree and dogmatism, and major field of study and attitude change. The participants felt strongly positive toward the program, both in terms of how it was presented and in terms of their own growth. Caution should be exercised

in generalizing from this sample to different populations beyond Region VI.

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CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

One purpose of this study was to determine whether significant informational, attitudinal, and behavioral changes take place after a short-term in-service training program for rehabilitation personnel. A second purpose was to attempt to study relationships between selected independent variables of the rehabilitation workers and the observed changes. A third purpose was to provide information that might be useful in a constructive revision of the present training program.

The participants of the training program were drawn from a population of rehabilitation personnel who specialize in job placement of the handicapped either full-time or as a part of their job responsibilities. These workers practice at approximately eighteen rehabilitation facilities in Health, Education, and Welfare Region VI, which includes Texas, Arkansas, Louisiana, Oklahoma, and New Mexico.

A control group was selected from the same population of rehabilitation workers of Region VI, to measure the differences between the group who underwent the training and the group which did not. The institute took place at

the Center for Rehabilitation Studies, Oak Street Hall, North Texas State University in Denton, Texas on May 1 through May 5, 1978.

All subjects, in both groups, were administered the same tests. The control group received all the test material by mail approximately one week after the training group.

The paper and pencil materials were a pre-test and a post-test on the subject matter of the training program, a pre-test and a post-test on a semantic differential, the Rokeach Dogmatism Scale, a questionnaire on reaction to training, and a personal data sheet for demographic material, which included a "Degree of Change" form. The same instruments were used for the control group with the exception of the questionnaire and the "Degree of Change" form.

In addition, both groups had each member rated by his or her supervisor for the period sixty days prior to the training and sixty days after the training.

Conclusions

1. The training program was effective in advancing the academic achievement of the participants.
2. Judging from supervisor's ratings, participants in the program benefited significantly in terms of professional

information gained, professional attitudes improved, and more effective placement behavior.

3. The older the participants of this program, the more likely that they developed more positive professional attitudes.

4. The more formal education the participants of this program had experienced, the more likely that they developed more positive professional attitudes.

5. The more formal education the participants of this program had experienced, the lower their level of dogmatism.

6. The participants of this program who had been trained in the non-helping professions demonstrated more positive attitude change than the participants who had been trained in the helping professions.

7. The participants were supportive about the training program and expressed the belief that it was worthwhile.

Recommendations

The results of this investigation offer a basis for the following recommendations:

1. Programs such as this one provide a necessary service for a rapidly-changing field. However, more rigorous methods of evaluating their actual purpose and outcomes need to be found.

2. Further research is necessary to strengthen the instrumentation commonly used to evaluate research. Specifically, attention needs to be paid to the possibility of using more standardized content material, along with more standardized testing. This content material and testing would of course be consistent with and relevant to the needs of specific populations of rehabilitation personnel. More precise attitude measurement would be useful, as well as a type of supervisory rating scheme which would minimize the Hawthorne effect of supervisors rating higher persons chosen to attend a special program.

3. It would be helpful if a method were devised for measuring any carryover into actual practice, after such training programs.

4. Finally, since an enormous amount of money is spent by the federal government for innovative service programs, expansion of services in local and state agencies, and other grants for special programs, it seems reasonable to propose that funding be made available as well for both evaluations such as the present study, and further research into the efficacy of such evaluations.

APPENDIX

LETTERS TO THE CONTROL GROUP

Center for Rehabilitation Studies
North Texas State University
P. O. Box 13438 NT Station
Denton, Texas 76203
April 28, 1978

Dear

Your name has been selected to be part of a comparison group, for a research project of the Center for Rehabilitation Studies at North Texas State University. Participating in this research will in no way affect your job or possible future education. Each individual's questionnaires will be confidential and seen only by the researcher listed below, for her doctoral dissertation.

If you are able to do this today, you won't forget. For your convenience, I am enclosing a self-addressed stamped envelope.

This will be the first of two mailings. Thank you in advance for your cooperation.

Sincerely,

Dr. Ken Miner, Assistant Director

Linda Reinberg, Researcher

Center for Rehabilitation Studies
North Texas State University
P. O. Box 13438 NT Station
Denton, Texas 76203
May 8, 1978

Dear

Thank you for answering and mailing the material which was recently sent to you. This group of questionnaires is identical in content to the first group; this dissertation project is designed to measure any changes.

Your participation in this research will in no way affect your job or your future education. Each individual's material will be confidential and seen only by the researcher for the purposes of measuring change.

I would appreciate your mailing the material back as soon as possible; for your convenience, a stamped self-addressed envelope is enclosed.

Your participation is greatly appreciated because your individual response is very important to this study. I thank you in advance.

Sincerely,

Dr. Ken Miner, Assistant Director

Linda Reinberg, Researcher

LETTERS TO THE SUPERVISORS

Center for Rehabilitation Studies
North Texas State University
P. O. Box 13438 NT Station
Denton, Texas 76203
April 28, 1978

Re:

Dear

The above name has been randomly selected to be rated by his or her supervisor, as part of a research project of the Center for Rehabilitation Studies at North Texas State University.

The rating period is to cover the sixty (60) days immediately prior to receiving this communication. Please follow the instructions and return as soon as possible in the enclosed self-addressed stamped envelope.

Thank you in advance for your cooperation.

Sincerely,

Dr. Ken Miner, Assistant Director

Linda Reinberg, Researcher

Center for Rehabilitation Studies
North Texas State University
P. O. Box 13438
Denton, Texas 76203
June 30, 1978

Re:

Dear

A few weeks ago you were mailed a rating sheet for the above-named person, which you filled out and mailed back to me. I appreciate your response.

Enclosed is a follow-up rating sheet, identical in content to the first one. Please follow the instructions and return as soon as possible in the enclosed stamped, self-addressed envelope.

The rating period is to cover the sixty (60) days immediately prior to receiving this communication.

Thank you in advance for your continued cooperation.

Sincerely,

Dr. Ken Miner, Assistant Director

Linda Reinberg, Researcher

INSTRUMENTS

ACHIEVEMENT TEST

Placement and Follow-Up

INSTRUCTIONS: Circle the letter of the best answer to each of the following questions.

1. When compared to state agency counselors who do not use a placement plan, counselors who do use a placement plan have:
 - a) A greater number of rehabilitation closures and a lower percentage of cases closed not rehabilitated.
 - b) A greater number of cases close, rehabilitated, but a higher percentage of cases closed, not rehabilitated.
 - c) Approximately the same number of rehabilitation closures and approximately the same percentage closed not rehabilitated.
 - d) A greater number of closures but a lower rate of job satisfaction.

2. State agency counselors who write a placement plan separate from the general Individualized Written Rehabilitation Plan (IWRP) have:
 - a) A higher number of rehabilitations.
 - b) A lower percentage of non-rehabilitated closures.
 - c) a and b above.
 - d) A lower number or rehabilitations.

3. NARC-OJT can best be described as a program:
 - a) For on-the-job training of ex-drug users.
 - b) Encouraging business to provide jobs for the retarded.
 - c) Which pays private business fully for the wages of the retarded whom it hires.
 - d) Involving jobs in religious organizations for the retarded
 - e) Mainly in facilities for the mentally retarded, such as sheltered workshops, etc.

4. Eligibility for NARC-OJT includes all the following EXCEPT:
 - a) Having an IQ or 80 or less
 - b) Being considered work-ready by the referring agency

- c) Being classified as mentally retarded by an appropriate agency.
 - d) Working a full forty-hour week.
 - e) Meeting one of the CETA requirements.
5. Under the Fair Labor Standards Act (FLSA):
- a) 16 and 17 year olds may work outside school hours in certain nonhazardous occupations.
 - b) 18 is the minimum age for most jobs.
 - c) Overtime pay must be no less than 1 1/2 times the regular rate of pay.
 - d) Overtime must be paid in the workshops of all hours worked over 30.
 - e) The minimum wage to be paid is \$2.85 an hour.
6. Sheltered workshop certificates are usually:
- a) Given on a one-time permanent basis.
 - b) Generally used for one year.
 - c) Issued retroactively
 - d) Usually renewable after every three years.
 - e) Must be reviewed semi-annually.
7. A handicapped worker (client) in a sheltered workshop may be in one of the following groups:
- a) Welfare recipient
 - b) Chronically unemployed
 - c) Juvenile delinquent
 - d) Alcohol or drug user
 - e) Parolees
8. Under FLSA, clients paid piece rates:
- a) Are not allowed.
 - b) Must be paid not less than the prevailing piece rates paid nonhandicapped workers for the same work.
 - c) Must have their piece rate transferred into hourly rates.
 - d) Almost always are paid less than hourly workers.
9. "Affirmative action" must be taken by every employer doing business with the federal government under contract for more than:

- a) \$250
 - b) \$2,500
 - c) \$25,000
 - d) \$250,000
10. Job modification for handicapped employees is designed primarily by:
- a) Plant engineers
 - b) Placement specialists
 - c) Rehabilitation technicians at research institutes
 - d) Engineers that are employed by Research and Training Centers
 - e) None of the above
11. Assistive devices are:
- a) Commercially available
 - b) Special designs for each individual
 - c) Adaptations of commercial items
 - d) All of the above
12. Successful job restructuring depends on:
- a) What relevant tasks are to be performed.
 - b) Skill levels of the client.
 - c) Adequate job knowledge by the client.
 - d) All of the above.
13. Follow-up studies are best done in the following manner:
- a) In person
 - b) By questionnaire
 - c) By telephone
 - d) Contact the V.R. Counselor
14. The average length of employment in the U.S. today is:
- a) Under 1 year
 - b) Under 3 years
 - c) Under 5 years
 - d) Under 7 years
15. Which of the following is critical when we look at a person's job-seeking skills:
- a) Promptness
 - b) Written materials
 - c) Interview techniques
 - d) Behavior
 - e) All of the above

16. Which of the following is the most utilized source of job information:
- a) D.O.T.
 - b) Employment service
 - c) Relatives and friends
 - d) Newspaper
 - e) Company gate
17. Job analysis can aid in:
- a) Standardizing job titles
 - b) Determining training needs
 - c) Vocational counseling
 - d) All of the above
18. A job analysis includes which of the following:
- a) Job's major tasks performed
 - b) Name and sex of the direct supervisor
 - c) Details of corporate structure
 - d) Job's relationship to other on-site jobs
 - e) Wage and cost analysis
19. A thorough job analysis can be of aid to:
- a) Client who is a potential employee
 - b) Placement specialist
 - c) Employer
 - d) a and b
 - e) b and c
20. A thorough job analysis includes all of the following EXCEPT:
- a) Tools or machines used
 - b) Supervision received
 - c) Physical requirements
 - d) Training required
 - e) Salary and benefits analysis
21. An essential task of the counselor in the early stages of the counseling process is to:
- a) To create a climate free from threat
 - b) To arrange a counseling environment which facilitates client problem solving
 - c) To give the best possible advice
 - d) a and b
 - e) b and c

22. A critical substage of client change during the strategy implementation stage of the counseling process involves.
- a) Cognitive dissonance
 - b) Retribution
 - c) Attribution
 - d) Catharsis
 - e) Projection
23. Which of the following is a skill required of counselors:
- a) Interpersonal communication ability
 - b) Behavior observation
 - c) Behavior measurement
 - d) Behavior change
 - e) All of the above
24. The best kind of training approach for good counseling skills is:
- a) Transactional Analysis, which results in skills of defining and change the "ego states" of the client.
 - b) Behavioral, which utilizes both classical conditioning and operant conditioning to bring about change
 - c) Any training approach that results in the skills the counselor needs to meet the tasks required of him/her at each stage of the counseling process.
 - d) Rogerian, which demands that the counselor be empathic, warm, and genuine and thereby through a relationship bring about client change.
 - e) Freudian, which helps determine unconscious motivation which gives the counselor powerful tools with which to help the client.
25. Job readiness can be determined from all of the following EXCEPT:
- a) Analysis of work history
 - b) Motivation assessment
 - c) Results of testing
 - d) On-the-job training

26. Which of the following sources can aid in determining job readiness?
- a) Therapists
 - b) Psychological tests
 - c) Past school records
 - d) Volunteers who worked with the client
 - e) All of the above
27. General employability refers to the ability of a client to:
- a) Work in a military position
 - b) Perform in a specific vocational setting
 - c) Work at all
 - d) Work in an area specified in his/her rehabilitation plan.
 - e) Work when his handicapping condition has been reduced.
28. It often happens that all employees in a particular work section can perform all the tasks related to work flow in that section. When this method is used, all of the following will be true EXCEPT:
- a) If some employees quit, the job flow will remain intact
 - b) Employment of homebound will not be possible
 - c) Total tasks are divided into subsections with the on-site employees rotated
 - d) Redistribution of workflow can be achieved without loss of productivity
29. The use of sequencing techniques for getting access to source documents is most useful for:
- a) Wheelchair users
 - b) The visually handicapped
 - c) Lower level of trainable mentally retarded
 - d) Educable mentally retarded
30. The primary source of job information is:
- a) "Help wanted" advertisements
 - b) Public employment agencies
 - c) Private employment agencies
 - d) Friends and relatives

31. All the following are considered by employers to be important qualifications for work EXCEPT:
- a) Ability to read and write
 - b) Job references
 - c) General work experience
 - d) Good personal appearance
32. Indicate which of the following is properly stated regarding client readiness:
- a) Facts about the client plus facts about the job equal a good decision
 - b) Knowing more about the client than the client knows of himself equal a good decision
 - c) Work requirements plus other stimuli present and accounted for equal a good decision
 - d) Specific barriers to employment solved and sample behaviors equal a good decision
33. "When a client is minimally ready for work, place him, and then continue on his rehabilitation." This plan:
- a) Interferes with self-concept and feelings of self-respect
 - b) Is a concept of client-readiness for competitive employment
 - c) Reduces earnings and is costly to the taxpayer
 - d) Is less efficient than completing the rehabilitation and then placing
34. Which of the following is closest to the appropriate criteria for determining job-preparedness:
- a) Work requirements, barriers to employment, sample behaviors
 - b) Specific employability, general employability, barriers to employment
 - c) Physical readiness, motivation, good relationship with rehabilitation counselor
 - d) Physical readiness, psychological readiness, occupational readiness
35. For a job analysis, the Department of Labor has a detailed and comprehensive format. All of the following are needed for this job analysis EXCEPT:
- a) Dictionary of Occupational Titles, Volumes I and II
 - b) Occupational Outlook Handbook
 - c) Standard Industrial Classification Manual
 - d) Handbook for Analyzing Jobs

THE REHABILITATION CLIENT: a person undergoing the rehabilitation process

THE REHABILITATION PROCESS: restoring the handicapped individual to the fullest physical, mental, social, vocational, and economic usefulness of which he is capable

THE PROFESSION OF REHABILITATION: an established area of skills and techniques, of which you are a practitioner

MYSELF WORKING IN REHABILITATION: you, as a member of that profession in which you are employed at this time

IN-SERVICE TRAINING: the continuing development of professional practitioners by means of short programs or institutes in order to improve technical skills or the quality of services which the practitioners provide

THE CENTER FOR REHABILITATION STUDIES, NORTH TEXAS STATE UNIVERSITY: where this training program is taking place, at this time

WELFARE: receiving financial aid from the government or from a private organization because of hardship and/or need

PLACEMENT: term meaning that the individual client has completed his rehabilitation plan, has been placed on a suitable job, and has been followed-up for a period of thirty days; also referred to as closure.

WORK: employment, especially as a means of earning ones livelihood

FOLLOW-UP: the final phase of the rehabilitation process; determining with the newly employed person his satisfaction with his job and his employer's satisfaction with the person's performance on the job

Please indicate your concept of: THE REHABILITATION CLIENT

1. optimistic _____ : _____ : _____ : _____ : _____ : _____ : _____ : pessimistic
2. unsuccessful _____ : _____ : _____ : _____ : _____ : _____ : _____ : successful
3. lasting _____ : _____ : _____ : _____ : _____ : _____ : _____ : transient
4. weak _____ : _____ : _____ : _____ : _____ : _____ : _____ : strong
5. grateful _____ : _____ : _____ : _____ : _____ : _____ : _____ : ungrateful
6. avoiding _____ : _____ : _____ : _____ : _____ : _____ : _____ : pursuing
7. complex _____ : _____ : _____ : _____ : _____ : _____ : _____ : simple
8. clean _____ : _____ : _____ : _____ : _____ : _____ : _____ : dirty
9. meaningful _____ : _____ : _____ : _____ : _____ : _____ : _____ : meaningless
10. unimportant _____ : _____ : _____ : _____ : _____ : _____ : _____ : important

Please indicate your concept of: THE REHABILITATION PROCESS

1. positive _____ : _____ : _____ : _____ : _____ : _____ : _____ : negative
2. useless _____ : _____ : _____ : _____ : _____ : _____ : _____ : useful
3. strong _____ : _____ : _____ : _____ : _____ : _____ : _____ : weak
4. consistent _____ : _____ : _____ : _____ : _____ : _____ : _____ : inconsistent
5. severe _____ : _____ : _____ : _____ : _____ : _____ : _____ : lenient
6. kind _____ : _____ : _____ : _____ : _____ : _____ : _____ : cruel
7. health _____ : _____ : _____ : _____ : _____ : _____ : _____ : sick
8. untimely _____ : _____ : _____ : _____ : _____ : _____ : _____ : timely
9. rational _____ : _____ : _____ : _____ : _____ : _____ : _____ : intuitive
10. passive _____ : _____ : _____ : _____ : _____ : _____ : _____ : active

Please indicate your concept of: THE PROFESSION OF REHABILITATION

1. valuable _____:_____:_____:_____:_____:_____:_____:_____: worthless
2. cold _____:_____:_____:_____:_____:_____:_____:_____: hot
3. sociable _____:_____:_____:_____:_____:_____:_____:_____: unsociable
4. repelling _____:_____:_____:_____:_____:_____:_____:_____: attracting
5. stable _____:_____:_____:_____:_____:_____:_____:_____: changeable
6. important _____:_____:_____:_____:_____:_____:_____:_____: unimportant
7. harmonious _____:_____:_____:_____:_____:_____:_____:_____: dissonant
8. colorful _____:_____:_____:_____:_____:_____:_____:_____: colorless
9. negative _____:_____:_____:_____:_____:_____:_____:_____: positive
10. spacious _____:_____:_____:_____:_____:_____:_____:_____: constricted

Please indicate your concept of: MYSELF WORKING IN REHABILITATION

1. sensitive _____:_____:_____:_____:_____:_____:_____:_____: insensitive
2. avoiding _____:_____:_____:_____:_____:_____:_____:_____: pursuing
3. destructive _____:_____:_____:_____:_____:_____:_____:_____: constructive
4. graceful _____:_____:_____:_____:_____:_____:_____:_____: awkward
5. pleasurable _____:_____:_____:_____:_____:_____:_____:_____: painful
6. skeptical _____:_____:_____:_____:_____:_____:_____:_____: believing
7. tenacious _____:_____:_____:_____:_____:_____:_____:_____: yielding
8. aimless _____:_____:_____:_____:_____:_____:_____:_____: motivated
9. transient _____:_____:_____:_____:_____:_____:_____:_____: lasting
10. egotistic _____:_____:_____:_____:_____:_____:_____:_____: altruistic

Please indicate your concept of: IN-SERVICE TRAINING

1. important ___ : ___ : ___ : ___ : ___ : ___ : ___ : unimportant
2. unused ___ : ___ : ___ : ___ : ___ : ___ : ___ : used
3. boring ___ : ___ : ___ : ___ : ___ : ___ : ___ : interesting
4. strong ___ : ___ : ___ : ___ : ___ : ___ : ___ : weak
5. timely ___ : ___ : ___ : ___ : ___ : ___ : ___ : untimely
6. painful ___ : ___ : ___ : ___ : ___ : ___ : ___ : pleasurable
7. reputable ___ : ___ : ___ : ___ : ___ : ___ : ___ : disreputable
8. hard ___ : ___ : ___ : ___ : ___ : ___ : ___ : soft
9. progressive ___ : ___ : ___ : ___ : ___ : ___ : ___ : regressive
10. constrained ___ : ___ : ___ : ___ : ___ : ___ : ___ : free

Please indicate your concept of: THE CENTER FOR REHABILITATION STUDIES
NORTH TEXAS STATE UNIVERSITY

1. repelling ___ : ___ : ___ : ___ : ___ : ___ : ___ : attracting
2. alive ___ : ___ : ___ : ___ : ___ : ___ : ___ : dead
3. active ___ : ___ : ___ : ___ : ___ : ___ : ___ : passive
4. weak ___ : ___ : ___ : ___ : ___ : ___ : ___ : strong
5. dissonant ___ : ___ : ___ : ___ : ___ : ___ : ___ : harmonious
6. beautiful ___ : ___ : ___ : ___ : ___ : ___ : ___ : ugly
7. wise ___ : ___ : ___ : ___ : ___ : ___ : ___ : foolish
8. feminine ___ : ___ : ___ : ___ : ___ : ___ : ___ : masculine
9. heavy ___ : ___ : ___ : ___ : ___ : ___ : ___ : light
10. serious ___ : ___ : ___ : ___ : ___ : ___ : ___ : humorous

Please indicate your concept of: WELFARE

- | | | | | | | | | | | | | | | | |
|---------------|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|------------|
| 1. kind | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | cruel |
| 2. bad | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | good |
| 3. grateful | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | ungrateful |
| 4. clean | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | dirty |
| 5. negative | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | positive |
| 6. strong | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | weak |
| 7. severe | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | lenient |
| 8. complex | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | simple |
| 9. changeable | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | stable |
| 10. periodic | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | erratic |

Please indicate your concept of: PLACEMENT

- | | | | | | | | | | | | | | | | |
|----------------|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|--------------|
| 1. complete | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | incomplete |
| 2. pessimistic | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | optimistic |
| 3. cruel | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | kind |
| 4. pleasurable | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | painful |
| 5. meaningful | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | meaningless |
| 6. unimportant | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | important |
| 7. true | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | false |
| 8. reputable | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | disreputable |
| 9. foolish | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | wise |
| 10. strong | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | _____ | : | weak |

Please indicate your concept of: WORK

1. good _____:_____:_____:_____:_____:_____:_____: bad
2. successful _____:_____:_____:_____:_____:_____:_____: unsuccessful
3. dirty _____:_____:_____:_____:_____:_____:_____: clean
4. meaningless _____:_____:_____:_____:_____:_____:_____: meaningful
5. wise _____:_____:_____:_____:_____:_____:_____: foolish
6. healthy _____:_____:_____:_____:_____:_____:_____: sick
7. ungrateful _____:_____:_____:_____:_____:_____:_____: grateful
8. hard _____:_____:_____:_____:_____:_____:_____: soft
9. pleasurable _____:_____:_____:_____:_____:_____:_____: painful
10. unimportant _____:_____:_____:_____:_____:_____:_____: important

Please indicate your concept of: FOLLOW-UP

1. timely _____:_____:_____:_____:_____:_____:_____: untimely
2. simple _____:_____:_____:_____:_____:_____:_____: complex
3. incomplete _____:_____:_____:_____:_____:_____:_____: complete
4. successful _____:_____:_____:_____:_____:_____:_____: unsuccessful
5. regressive _____:_____:_____:_____:_____:_____:_____: progressive
6. strong _____:_____:_____:_____:_____:_____:_____: weak
7. active _____:_____:_____:_____:_____:_____:_____: passive
8. changeable _____:_____:_____:_____:_____:_____:_____: stable
9. intentional _____:_____:_____:_____:_____:_____:_____: unintentional
10. important _____:_____:_____:_____:_____:_____:_____: unimportant

The following is a study of what the general public thinks and feels about a number of important social and personal questions. 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 people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write 1, 2, 3, or 5, 6, 7, depending on how you feel in each case.

- | | |
|---------------------------|------------------------|
| 1 I DISAGREE VERY MUCH | 5 I AGREE A LITTLE |
| 2 I DISAGREE ON THE WHOLE | 6 I AGREE ON THE WHOLE |
| 3 I DISAGREE A LITTLE | 7 I AGREE VERY MUCH |

1. The United States and Russia have just about nothing in common.
2. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
3. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
4. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.
5. Man on his own is a helpless and miserable creature.
6. Fundamentally, the world we live in is a pretty lonesome place.
7. Most people just don't give a "damn" for others.
8. I'd like it if I could find someone who would tell me how to solve my personal problems.
9. It is only natural for a person to be rather fearful of the future.
10. There is so much to be done and so little time to do it in.
11. Once I get wound up in a heated discussion I just can't stop.
12. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

13. 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.
14. It is better to be a dead hero than to be a live coward.
15. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.
16. The main thing in life is for a person to want to do something important.
17. If given a chance I would do something of great benefit to the world.
18. In the history of mankind there have probably been just a handful of really great thinkers.
19. There are a number of people I have come to hate because of the things they stand for.
20. A man who does not believe in some great cause has not really lived.
21. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
22. Of all the different philosophies which exist in this world there is probably only one which is correct.
23. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.
24. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
25. 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.
26. In times like these, a person must be pretty selfish if he considers primarily his own happiness.
27. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.
28. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.
29. A group which tolerates too much difference of opinion among its own members cannot exist for long.
30. There are two kinds of people in this world: those who are for the truth and those who are against the truth.

31. My blood boils whenever a person stubbornly refuses to admit he's wrong.
32. A person who thinks primarily of his own happiness is beneath contempt.
33. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
34. In this complicated world of ours the only way we can know what's going on is to rely on the leaders or experts who can be trusted.
35. 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.
36. 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.
37. The present is all too often full of unhappiness. It is only the future that counts.
38. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."
39. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.
40. Most people just don't know what's good for them.

You may detach this sheet for convenience of using it.

OPINION SURVEY

NAME _____

- | | |
|------------------------------|---------------------------|
| 1. - I disagree very much | 5. - I agree a little |
| 2. - I disagree on the whole | 6. - I agree on the whole |
| 3. - I disagree a little | 7. - I agree very much |

- | | |
|----------|----------|
| 1. ____ | 21. ____ |
| 2. ____ | 22. ____ |
| 3. ____ | 23. ____ |
| 4. ____ | 24. ____ |
| 5. ____ | 25. ____ |
| 6. ____ | 26. ____ |
| 7. ____ | 27. ____ |
| 8. ____ | 28. ____ |
| 9. ____ | 29. ____ |
| 10. ____ | 30. ____ |
| 11. ____ | 31. ____ |
| 12. ____ | 32. ____ |
| 13. ____ | 33. ____ |
| 14. ____ | 34. ____ |
| 15. ____ | 35. ____ |
| 16. ____ | 36. ____ |
| 17. ____ | 37. ____ |
| 18. ____ | 38. ____ |
| 19. ____ | 39. ____ |
| 20. ____ | 40. ____ |

Supervisor's Name _____

Rehabilitation Worker's Name _____

INSTRUCTIONS

1. Please rate the individual whose name appears at the top of this page.
2. Each rating statement is followed by a six-point rating continuum. Place an X at that point on the rating continuum which you think best describes his or her performance on the item, at this time.
3. Use the end-points on the continuum whenever the counselor is markedly well or badly described by the statement. End-point ratings in no way imply that a counselor is perfect or incompetent.
4. Do not place any ratings on the lines between the categories.
5. When you finish the ratings, please return it in the enclosed stamped, self-addressed envelope. Thank you.

RATING EXAMPLE

Drives cautiously and carefully.
/ / X / / / / /
Almost Always Sometimes

1. Knows tests well and chooses those that are appropriate to the client's needs.
/ / / / / / / /
Almost Always Sometimes

2. Helps clients carefully select suitable jobs.
/ / / / / / / /
Almost Always Sometimes

3. Carries out his promises to clients.
/ / / / / / / /
Almost Always Sometimes

4. Effectively uses medical and/or psychological findings.
/ / / / / / / /
Almost Always Sometimes

5. Participates in community rehabilitation efforts.
/ / / / / / / /
Almost Always Sometimes

PERSONAL DATA SHEET

135

Name _____ Sex: M F Age: _____

Degree(s) earned and Major Field of Study for each:

Bachelor's _____
Masters's _____
Doctorate _____
Other _____

Have you ever participated in a Placement workshop before?
If so, please give the approximate date: _____

Approximate dates and types of the three most recently attended in-service training programs of types other than Placement:

	<u>Date</u>	<u>Type</u>
1.	_____	_____
2.	_____	_____
3.	_____	_____

The following definitions apply to the question below;

Informational: The acquisition of professional information (theories, current trends, issues, facts and figures, philosophy, history, etc.)

Attitudinal: The acquisition of more appropriate personal and professional attitudes and values (changing outlook, biases, prejudices, misconceptions, etc.)

Behavioral: The application of information through professional performance skills (application of techniques of any type)

Motivational: The acquisition of professional incentive and drive (desire to improve delivery of services, desire to achieve more and better closures, desire to improve agency and profession, etc.)

Do you think that you have experienced any change (i.e., informational, attitudinal, behavioral, motivational) as a direct result of the training? Mark the degree of change that you experienced as a direct result of the training.

<u>DEGREE OF CHANGE</u>					<u>TYPE OF CHANGE</u>
None	Slight	Moderate	Much	Great	
_____	_____	_____	_____	_____	Informational
_____	_____	_____	_____	_____	Attitudinal
_____	_____	_____	_____	_____	Behavioral
_____	_____	_____	_____	_____	Motivational

QUESTIONNAIRE

Please do NOT sign your name to this questionnaire. Be as honest as you can.

1. In general, how worthwhile was this training program for you?
 Very worthwhile
 Fairly worthwhile
 Not very worthwhile
2. On the whole, the training program was conducted:
 Very well
 Fairly well
 Poorly
3. I thought the training program was:
 Very well organized and helpful
 Of some value
 Poorly organized and a waste of time
4. Concerning the quality of the instruction:
 The instruction was excellent
 The instruction was average
 The instruction was of poor quality
5. In regard to the subject content of the program:
 It was all theory and of little practical value
 It was both theoretical and practical
 It was very practical and useful
6. Concerning visual aids:
 Not enough films, readings, charts, demonstrations, etc.
 Too much use of films, readings, charts, demonstrations, etc.
 The right amount of visual aids.

Would you like to attend another training program similar to this one?

Yes No

Please list comments of suggestions or reactions. Use the back of this page if necessary.

What, to you, was the single most important part of this training?

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