A COMPARISON OF THE EFFECTS OF VARIOUS METHODS OF
PRACTICUM EXPERIENCES UPON SUBSEQUENT BEHAVIOR
AND SKILL OF COUNSELOR TRAINEES

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The present study was undertaken to examine the effects of various methods of training during the practicum experience upon subsequent counselor trainees' behavior and skill. This study has a two-fold purpose. The first is to examine which of two methods of training was most effective in producing behavioral changes in counselor trainees during a five month practicum situation. The second is to compare the effects of these forms of training with a control group which did not utilize the training procedures.

The subjects consisted of fifty counselor trainees who were recently involved in a practicum experience at North Texas State University. There were two groups of twenty students each in the two experimental groups, and one control group of ten students. The three groups were the *Intensive Training Group,* which was defined as the experimental group that first received five weeks of training in the cognitive, affective, and physical dimensions of counseling. This group then started counseling with actual clients. The *Traditional Training Group* was defined as the experimental group, which started with counseling clients the first week of the semester. This group counseled with clients every
week of the experimental period and received only verbal feedback on their behavior. The Training Control Group was defined as the group which received no intensive training in any of the cognitive, affective, or physical dimensions of counseling. This group did not counsel with clients during the experimental period and was not actively involved in a practicum experience. This group was involved in a practicum prior to the experimental period. The instruments used in the study, designed to measure any personality, communication, or knowledge changes, were the Cattell IPAT Anxiety Scale, the Rokeach Dogmatism Scale, the Personal Concept Scale, the Carkhuff Standard Communication Index, and the Didactic Examination. All of the data was analyzed by use of the Analysis of Covariance, with the pre-test used as the covariant measure. A .05 level of significance was the criterion for the rejection of the null hypothesis used in the study.

No significant differences were found between the three groups on any of the five instruments used to measure trainee behavior. The findings indicated that the impact of the training utilized in this study made no difference in terms of the trainees' behavior or skill.

As a result of the findings and observations of the study, the following recommendations are offered: (1) A similar research study should be conducted by three instructors who accept the Carkhuff model so that a counterbalanced design could be utilized. (2) A similar research study should
emphasize systematic training procedures as discussed in the most recent literature. (3) A similar research study should investigate either skill acquisition or personality change of the trainees. One should choose one criterion and train to meet it. (4) A similar research study should investigate the functioning levels of the supervisors in the different groups by use of the same instruments as used on the trainees.
A COMPARISON OF THE EFFECTS OF VARIOUS METHODS OF PRACTICUM EXPERIENCES UPON SUBSEQUENT BEHAVIOR AND SKILL OF COUNSELOR TRAINEES

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CHAPTER I

INTRODUCTION

Since 1967, when the Congress voiced increasing concern over the "accountability" of federally sponsored education programs, the educational profession has been faced with a dilemma. The educators within this profession must prove scientifically that the methods, techniques, and programs included within their art are functional.

Ohlsen (16) stated that educators in this profession share the common problems of (a) defining the professional's role in precise terms, (b) identifying the components which prepare him to function within the role, (c) developing these components into an adequate program, (d) selecting good prospects, (e) appraising the adequacy of the program, and (f) encouraging the growth of the profession. These problems are shared equally by all of the subfields in education. However, the field of counselor education seems to have an additional problem to work out. This field has been recently attacked on the basis that counseling and psychotherapy simply do not work well enough to continue to utilize them in their present form (10). Therefore, it falls upon the counselor educator not only to refute this attack but at the same time prove that counseling is effective and sufficient in basically its
Leaders in the field of counselor education have stressed two main areas of concern: (a) the counselor should develop the ability to examine, criticize, and improve his own counseling performance; (b) the counselor should receive immediate and concrete feedback on his performance in order to improve it (4, 8, 15). This transcends the program of professional training and extends throughout one's professional career. However, with regard to the actual graduate program, these two areas of concern deal directly with the counselor's practicum experience and its importance.

Truax (20) concluded that most counselor educators, as well as those who educate professionals in the related areas of psychology, psychiatry, and social work, look upon the practicum and internship experience as the most important aspect of the educational process. Patterson (17) agreed that the practicum is in some respects the most important phase of the whole counselor training process. He felt that the practicum experience should be concerned with the development of attitudes on the part of the trainee rather than learning specific techniques and responses. Dugan (9) indicated that no other part of counselor education is so costly as a practicum in terms of time, supervision, and evaluation. He felt that the need to evaluate the outcomes of various types of counselor practicums is imperative.

The previous paragraph indicates the importance and
necessity of evaluating practicum training in counselor education. The challenge to the educator in this field seems to indicate the importance of dynamic new practicum experiences and the means to assess them in terms of acquired skills and attitude modification.

Statement of the Problem

The problem was to compare the effects of various methods of training in the practicum experience with subsequent counselor trainee's behavior and skill.

Purpose of the Study

This study was designed with a twofold purpose. The first of these was to examine which of two methods of training was most effective in producing behavioral changes in counselor trainees during the five month practicum situation. The second purpose was to compare the effects of these various forms of training on counselor trainees with the effect of a training control program for counselor trainees which did not utilize either of the training procedures.

Background and Significance

One of the most important aspects of most counseling programs is the counseling practicum. It has been viewed as the culminating experience in the training of a counselor by both the American Personnel and Guidance Association and the American Psychological Association (1, 2, 3). The prac-
trainee is given an opportunity to synthesize his previous academic background with his existing counseling skills and apply this learning to actual clients (3). Thus, an assumption was made that the trainee would simply refine his existing skills in preparing to function as an effective professional.

Recently many research studies have been challenging the effectiveness of practicums and in general, the whole counselor education process. This evidence from different sources suggested that both children and adults were as likely to improve their behavior if they were left alone as if they were treated in professional counseling and psychotherapy (11, 12, 13, 14).

In addition, the recent research by Carkhuff et al (6, 7, 21) forms a challenge to our training programs of another kind. They indicated that counseling and psychotherapy could have either constructive or destructive effects for clients and these effects could be accounted for by the functioning level of the counselor. These writers (7) further stated that existing programs did not demonstrate their effectiveness in terms of client benefit.

Another important area of concern in the education of counselors was whether the educational experiences had a positive impact on the life of the trainee. That is, did our existing training programs modify attitudes and personality variables in a constructive fashion? A review of the
research on counselor education indicated that the attitudes and personality characteristics of the counselor were as important as the counselor's skills and methods. Rogers (19) felt that certain attitudes and personality characteristics might be responsible for the success of some counselors. He also stated that therapy might simply be viewed in terms of attitude change. Therefore, it was reasonable to assume that the training of counselors might also be attributed to this factor. According to Perrone and Sanborn (18), the preparation of counselors should be within the realm of personal development. With regard to the attitudes and personality characteristics of the counselor, Carkhuff (5) pointed out that successful counselors were those who were living more effectively in all areas of life than their clients.

Finally, there was a paucity of research which compared particular counselor practicums with regard to which produced desired change in trainees. This change was in terms of counselor skill and attitudinal modification.

The present study was designed on the basis of the need for research in these areas: (1) the effective training of counseling skills, (2) desired attitudinal change in the participants, and (3) a comparison among groups of trainees. This study concerned a new type of practicum experience. This training differed from a more traditional format in that not assumptions were made concerning the existing skills of the trainees and the most basic skills (sitting, listening)
were taught to the trainees.

An assumption was made based on the writings of Carkhuff (5) that effective counselors need systematic training in cognitive, affective, and physical dimensions. In this study, cognitive training was carried on in the areas of personality theory and abnormal behavior. The affective training was accomplished through a training group, the purpose of which was to facilitate high levels of personal and interpersonal adjustment. Physical training was accomplished by an individualized fitness program for trainees to facilitate the modeling effect for clients and the trainees' increased activity and vigor. This study was designed to provide and compare an innovative overall program for counselor training with regard to increased skill and positive attitudinal change.

Hypotheses

The following research hypotheses have been formulated.

I. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the IPAT Anxiety Scale than will Experimental Group II or the Control Group.

II. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the IPAT Anxiety Scale than will the Control Group.

III. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on
the **Personal Concept Scale** than will Experimental Group II or the Control Group.

IV. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the **Personal Concept Scale** than will the Control Group.

V. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the **Rokeach Dogmatism Scale** than will Experimental Group II or the Control Group.

VI. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the **Rokeach Dogmatism Scale** than will the Control Group.

VII. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the **Didactic Examination** than will Experimental Group II or the Control Group.

VIII. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the **Didactic Examination** than will the Control Group.

IX. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the **Carkhuff Standard Communication Index** than will Experimental Group II or the Control Group.

X. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the **Carkhuff Standard Communication Index** than will the Control
Definition of Terms

**Intensive Training Group** was defined as the experimental group which first received five weeks of training in the cognitive, affective, and physical dimensions of counseling. This group then started counseling with actual clients.

**Traditional Training Group** was defined as the experimental group which started with counseling clients the first week of the semester. This group counseled with clients every week of the training period and received only verbal feedback on their behavior.

**Training Control Group** was defined as the group which received no intensive training in the cognitive, affective, and physical dimensions of counseling. This group did not counsel with clients during the training period and was not actively involved in a practicum experience. This group was involved in a practicum prior to the experimental period. During the experimental intervention, this group was involved in individual study programs emphasizing research in selected topic areas.

**Behavioral Change** was defined as a change in scores on the pre- and post-test measures of self-concept, anxiety level, knowledge, dogmatism, and ability to communicate.

**Cognitive Training** was defined as systematic education in the area of personality theory and abnormal behavior throughout the semester.
Affective Training was defined as an ongoing group encounter which met regularly throughout the training period.

Physical Training was defined as an ongoing individualized program for each of the trainees.

Limitations

This study was limited to those students enrolled at North Texas State University who were graduate students in counseling and had had a counseling practicum during the school year of Fall 1971 through Fall 1972. Due to the inability to control the instructor variable in this study, any differences found might be a function of the instructor, method, or interaction of these variables.
CHAPTER BIBLIOGRAPHY


CHAPTER II

REVIEW OF THE LITERATURE

The Effectiveness of Counseling

Since the early 1950's, when Eysenck and others (6, 13, 34, 44) researched the outcome effectiveness of therapeutic endeavors, the helping professions have been exposed to many dramatic debates. These different individuals working independently concluded that counseling and therapeutic approaches were on the average ineffective. Therapy appeared approximately equivalent to the random effects of normal living without treatment. These results were based on adult neurotic treatment procedures. More recently, Levitt (28) indicated agreement with regard to the treatment of children. He concluded that the results failed to support the view that psychotherapy with neurotic children was effective. To further illustrate this significant conclusion, a few more major studies will be reported.

A major study by Barron and Leary (6) utilized psychiatrists, psychologists, counselors, and social workers who had at least three years of post-graduate training and experience to work with neurotic clients in an outpatient setting. Of the 150 clients who had applied and been accepted for treatment, 23 were placed on a waiting list and served
as controls during a six month period of observation. Eighty-five were assigned to group counseling and 42 were assigned to individual counseling. This was a pre-post design and on the pre-test measures there were no significant differences among the groups in diagnosis, prognosis, severity of disturbance, and demographic characteristics. The results indicated no significant differences in the three groups as measured by the MMPI at the end of the treatment period.

Poser (34) studied the outcome effectiveness of therapy in a different setting. He utilized 243 hospitalized male schizophrenics. Three groups of patients were compared. One group was seen by experienced psychiatrists and social workers; a second group was seen by totally untrained college students; and a third control group of patients received no treatment. The results showed significantly favorable outcomes for the group treated by the untrained college students. Rogers (38), Truax (45), and Truax and Carkhuff (47) also reported studies of hospital schizophrenics. They examined 16 matched pairs of patients whose treatment lasted from six months to four and one half years to a like number of control patients who received only routine hospital treatment. The overall results showed approximately equal outcomes for both groups.

Finally, in a counseling center at the University of Chicago, Rogers and Dymond (41) studied twenty-nine clients receiving client-centered counseling. Half of their group became controls by waiting two months for treatment. An
attempt to measure changes in behavior as signified by questionnaires submitted by "best friends" found no significant changes before or after counseling.

On the basis of these studies, one could state that on the average counseling and psychotherapy are largely ineffective. However, while these studies were indeed a threat and a challenge to the helping profession, there have been experimental difficulties in evaluating this conclusion. Bergin (8), in a re-evaluation of the results of Barron and Leary and the Truax studies mentioned above, reported that although there were no overall mean differences between therapy and control groups, patients receiving therapy in these studies did show significantly greater variation on personality and behavioral measures than did the controls.

These results have also been reviewed by Rosenzweig (42) and the real issue appeared to be whether it was appropriate to compare counseling with controls receiving no counseling. Without further specifications as to the type of counseling, the effectiveness of practitioners, and other experimental variables, this conclusion that counseling and psychotherapy is ineffective has not been substantiated. Individuals researching this complex issue must search to find the essential ingredients in effective helping. The one conclusion that may be made on the basis of these studies is that counseling and therapy may be either effective or ineffective. Or as Carkhuff and Berenson (11) have stated "for better or for
Ingredients of Helping

The transcending issue which supervenes the effectiveness of counseling and psychotherapeutic procedures concerned the basic elements which account for constructive, therapeutic change. The following investigations are reported to delineate the specific ingredients of successful "helping".

Fiedler (13) in a classic study reported that effective practitioners regardless of their particular approach to therapy tended to behave in a similar fashion in the therapy situation. He further stated that these therapists agreed on the nature of an ideal therapeutic relationship. Buber (9) emphasized the "I-Thou" relationship as the important factor in therapy. For him, this element was the working force in any therapeutic relationship.

Even many behavioristic theorists and counselors, who do not emphasize the importance of the relationship, such as Wolpe (54) and Bandura (5), have stated that therapists who form quality relationships with their clients may be more effective in changing behavior. On the basis of these and many other studies, the relationship element seems of paramount importance in effective counseling. The next important issue concerned the specific elements involved in a constructive, therapeutic relationship.

Rogers (37) has emphasized three major aspects of a therapeutic relationship. These were empathy, positive
regard, and self-congruence. In a later work (39), he hypothesized the necessary and sufficient conditions for effective counseling based on these elements.

In redefining empathy, Truax and Carkhuff (48) coined the term "accurate empathy". To them the major ingredient of the counseling process was the ability to discriminate and communicate accurately and with sensitivity the feelings of the client and the meaning of these feelings. They adapted Rogers' statements concerning the three major aspects into what they called the "downward phase of therapy". Thus, for them, the core conditions of the downward phase of counseling were accurate empathy, respect, and genuineness. To this they added an "upward phase" or action conditions. With their eclectic stance, they modified Rogers' relationship characteristics and stated that more was needed than simply the necessary and sufficient conditions.

In summary, on the basis of a prolific amount of research by the client-centered school and the eclectic approach of Truax and Carkhuff, the basic elements of helping were established. The central ingredient of the helping process appeared to be accurate empathy on the part of the "helper". There have been many outcome studies which emphasized the importance of empathy in the counseling situation. A few of the more relevant with regard to training will now be reported.

Outcome Studies on Empathy

According to Truax and Carkhuff (48), the central
ingredient of the counseling process is the ability to discriminate and to communicate accurately and with sensitivity the feelings of the client and the meanings of those feelings; this is empathy. In the comprehensive Wisconsin Schizophrenic Study, Rogers, Gendlin, Kresler, and Truax (40), the overall results showed psychotherapy on the average ineffective as presented earlier. However, the factoring out of the relationship skills indicated significant differences in favor of positive outcomes for those patients who were high in empathy as contrasted with those whose therapists offered low empathic conditions.

In a study of forty outpatients treated by resident psychiatrists at John Hopkins, Truax et al. (51) provided for the efficacy of the therapist offering high levels of empathy. They dichotomized therapists into two classes, those offering high levels of empathy and those offering low levels. The group of patients treated by therapists offering high levels of empathy had a ninety percent improvement rate, while the patients of therapists offering low level conditions of empathy had a fifty percent improvement rate.

Truax, Carkhuff and Kodman (49) extended the findings for accurate empathy to group psychotherapy. They studied forty hospitalized mental patients who were given group therapy sessions twice weekly over a three-month time-limited period. Patients who received high levels of empathy showed greater improvement on the MMPI than those who received low levels of accurate empathy.

Working with a quite different population, Dickenson
and Truax (16) investigated the effects of time-limited group counseling with college underachievers. Using a matched counseling and control population of forty-eight clients, those receiving group counseling showed significantly greater improvement than the controls using academic achievement as the criterion. When those receiving high levels of empathy and those receiving moderate levels of empathy were compared with the controls, those receiving high conditions of empathy showed the greatest positive gain, while those receiving only moderate levels did not differ from the control population.

In a study, Truax, Silber and Wargo (50) evaluated the effects of high levels of accurate empathy, nonpossessive warmth, and genuineness in group counseling with female juvenile delinquents. Only those counselors were used who were known to provide high levels of facilitative conditions. A total of seventy institutionalized delinquents were assigned randomly to a counseling population of forty and a control population of thirty. The counseled girls received twenty-four sessions of group counseling, and on all twelve measures obtained before and after therapy, the delinquents showed improvement beyond the control group. In addition, their ability to stay out of institutions was evaluated during a one year follow-up. The overall differences significantly favored the girls who had received high levels of empathy, warmth, and genuineness during treatment.
George Demos (15) studied an intensive six-week NDEA counseling and guidance training program working with short-term vocational educational goals. He found that the ten most successful and the ten least successful counselees out of the thirty participants (as rated by their supervisors) did show a significant difference on the dimension of empathy in the direction expected. The final tape-recorded interviews of all twenty counselors conducting short-term vocational educational counseling with "normal" secondary school clients were secured. These recordings were then rated by ten judges on five hypothesized characteristics of a helping relationship: empathic understanding, unconditional positive regard, congruence or genuineness, comfort of the counselor, and the degree of respect exhibited by the counselor. Empathy, positive regard, and respect were found to be in considerable agreement between the judges and the supervisors despite the different means of rating utilized and differences in background.

In a study by Anderson (2), the effects of confrontation in relation to the levels of therapist empathy, positive regard, genuineness, concreteness, and self-disclosure were noted. Tapes of forty initial counseling interviews were rated for number and type of counselor confrontations and for the level of "facilitative conditions" stated above. Confrontation was defined as the counselor pointing out a discrepancy between his own and the client's way of viewing a situation. This was found to be related to
increased self-exploration when accompanied by high levels of the five "facilitative conditions". Under low levels, confrontation was never followed by increased self-exploration.

Some interesting work on the manipulation of the counseling session conditions has been done recently by researchers at the State University of New York at Buffalo. In one study, Holder, Todd, Carkhuff, and Berenson (23) attempted to determine the effects of manipulation of conditions offered by the counselor upon the depth of self-exploration of the client. Clients were selected from eleven college student volunteers who were cast in a helping role. The three offering the highest facilitative conditions (empathy, warmth, and congruence) and the three offering the lowest facilitative conditions were selected to participate as clients. Unknown to the clients, the counselors offered high conditions during the first and third sections of the counseling interview and low conditions during the middle third of the session. The depth of self-exploration of the clients was found to be significantly related to the level of counselor offered conditions for the low functioning clients and not for the high functioning clients.

Similarly, Carkhuff and Alexik (10) reversed the above study and had a single trained client explore herself deeply during the first and third sections of the counseling session. She experimentally reduced the level of self-exploration during the middle third of the interview by discussing irrelevant
and impersonal material. Then a measure was taken on the change in the counselor. The client saw each of eight experienced counselors for one-hour interviews. Those counselors who had been functioning at low levels of empathy and other facilitative conditions were manipulated by the client's lowering the depth of self-exploration, and they failed in the third section to even reestablish levels of facilitative conditions they had offered during the initial period. Counselors who functioned at high levels were not manipulated by the lowering of the depth of self-exploration by the client in the middle half and continued to function at high levels, with some tendency to increase conditions offered during the middle section—in other words, they tried harder.

The research literature also raised some doubts about empathy and its hypothesized value. Mills and Zytowski (31) attempted to evaluate the psychometric structure of the Barrett-Lennard relationship inventory. They questioned the presence of multiple and independent characteristics of a relationship and concluded that there seemed to be a single dominant characteristic across all relationships to which empathy, congruence, level of regard, and unconditionality all contributed. Conversely, Zimmer and Anderson (55) concluded that positive regard and empathy were not uni-dimensional, but rather a construct composed of orthogonally related factors. They had ratings of one hundred counselor responses
analyzed by separate judges for empathy and for positive regard. These results were factor analyzed, with eight factors extracted for each construct.

Lesser (27), in a study at Michigan State University Counseling Center, concluded that counselor empathy was not related to counseling progress. He used eleven counselors and twenty-two of their clients and examined such variables as similarity, various perceptions of similarity, and "refined empathy". He arrived at his conclusion about empathy by correlating changes in self-concept with client and counselor ratings of the counselor on the Empathic Understanding Scale (devised by the investigator). In addition, client and counselor ratings of counselor empathy were significantly higher for those subjects who continued than for those who terminated. He concluded that this meant that the sub-group of clients who made less counseling progress was better "understood" than the sub-group which made more progress. It is not certain that "dropping out" or terminating is necessarily equated with progress. In fact, it could be hypothesized that the clients terminated prematurely because of the lack of empathic understanding.

A better executed study which concluded that empathy was not related to counselor learning was done by Payne and Gralinsky (30). The effects of supervisor style and supervisor empathy upon counselor learning of empathy were examined. Three groups of fourteen subjects heard two sets of recorded
client statements and responded as counselors. The two experimental groups had twenty-minute conferences with their supervisors between sets one and two, while the control group received no supervision. One of the experimental groups received supervision with a counseling-oriented supervisor, while the other group received supervision from a techniques-oriented supervisor. The control group scored highest in their level of empathic functioning, the techniques group second, and the counseling supervised group third. It should be noted that both sets of supervisors were offering facilitative conditions. However, this still does not explain the better functioning of the control group unless one notes the investigator's suggestion that perhaps counselors have the maximal information they can utilize at certain points and additional information from any style of supervision may not be helpful until the opportunity for initial integration has occurred.

Thus, it appears from the bulk of the research that certain dimensions of counselor behavior are crucial for counseling. One particular dimension is that of accurate empathy on the part of the helper. This seems to be one crucial aspect of counselor training which needs to be emphasized in counselor preparation.

Practicum Supervision

This section of the review considers the expectation
of supervisory roles of counselor educators as well as their actual supervision. This is contrasted with trainee expectations of the role of supervision in the practicum situation.

Walz and Roeber (53) surveyed counselor educators to examine their orientation toward supervising a practicum. They found that these educators viewed their role as that of a teacher and these individuals did not appear to have an underlying rationale for actual supervision.

In another survey, Johnston and Gysbers (25) came to the opposite conclusion. They studied practicum supervisors' reactions toward alternatives for handling typical training situations. They concluded that these supervisors saw their role as one of non-intervention. Thus, they indicated their supervisory practices as more oriented to counseling than teaching.

Gysbers and Johnston (20) again studied and examined enrollees' and supervisors' expectations of the supervisory function before, during, and after a practicum experience by use of the Supervisors' Role Analysis Form. They concluded that at the close of the semester, supervisors agreed more than they did earlier on most of their functions. The supervisors felt they should not teach specific techniques to the trainees, but in general disagreed on whether or not they should function as a counselor for the enrollees.

Delaney and Moore (14) examined the supervisory role by using a Components Analysis of Trainees' Expectations.
They also administered the Supervisors’ Role Analysis Form to a number of pre-practicum students and concluded that these students expected this role to be largely didactic instructions.

In the Gysbers and Johnston study (20) reported earlier, students also viewed the role of supervision as that of teaching. They expected their educators to teach specific techniques on counseling. However, by the end of the experience, they felt less of a need for specific instruction and indicated a desire for more independent action.

Finally, Gysbers (19) in an article concerned with strategies for supervision, discussed the effects of the practicum experience on trainees' perceptions. He stated:

The practicum experience represents a new and psychologically threatening experience to the counselor trainee. Trainees may feel insecure and inadequate while being observed conducting an interview. They may anticipate criticism during supervision.

He felt that the main role of the supervisor was to help the student to find, understand, and accept himself as a person.

Based on these studies, an important question was raised: namely, does the level of supervisor-trainee relationship affect the degree of trainee effectiveness? Hansen and Barker (21) investigated this question. They studied whether the level of this relationship was related to the client’s level of experiencing. The results indicated that those trainees who felt they had a good supervisory relationship
were less defensive and more sensitive to themselves than were students who perceived their relationship as inadequate.

In another study, Blane (7) also investigated this question. He looked at the effects of positive, negative, or no supervision on trainees' empathic understanding. The results indicated there was a significantly higher level of empathy on a post-test measure for trainees involved in positive supervision. There were no differences in the other two groups.

Davidson and Emmer (13) studied the immediate effect of supportive and nonsupportive supervision behavior on counselor trainees' focus of concern. The subjects were divided into two groups. One group participated in a supportive interview with a supervisor while the other group met with nonsupportive supervision. All members were administered a focus of concern scale and a semantic differential of the concept of supervision. The results showed that enrollees from the nonsupportive group were positive about the concept. The data further indicated that those in the nonsupportive group tended to shift the focus of their interview from the client to themselves significantly more often than did those in the supportive group.

Therefore, on the basis of this review, one can conclude that the perceived role and the quality of supervision are important variables in the practicum situations. There are also other concerns involved. The survey of the related
will now focus on these areas.

Techniques for Supervision

This section is included to review the most necessary equipment and aids involved in the practicum experience. Included is a review of the effects of tape recordings, role-playing, and rating scales used to instruct and evaluate students.

Anderson (1) has studied the use of tape recordings in counselor training. It is felt that taping sometimes poses a threat to the trainee, especially when the recording is made for the process of supervision and evaluation. He felt that recording was justified and the degree of ego-involvement which the trainee brought to the interview usually decreased his anxiety and level of threat.

Another justification for the value of recordings was stated by Tennyson (45). He indicated that this method allowed the trainee to learn that counseling was more than mere conversation. This demonstrated that counseling techniques have a purpose. Another advantage was the opportunity for the counselor trainee to develop a sensitivity to his counseling through examination of a number of his recorded interviews.

The possible use of video-tape equipment in the training of counselors has also received increased attention from counselor educators. Poling (34) investigated the differences in three types of critique sessions using video-tapes. He
used counselors enrolled in a first-level practicum. The trainees were required to conduct three twenty minute counseling sessions which were audio and video-taped. The first taped session was followed by an individual critique; the second was critiqued in a small group, and the third in a large group. Poling reported no significant differences between the three methods of critique. However, in the subjective reports from the trainees, they felt the small group practicum was the most beneficial. The data also indicated that the trainee and supervisor evaluators tended to agree more after reviewing the video-tape.

A study by Walz and Johnston (52) dealt with counselor changes in self-perception as a result of viewing video-tapes of their interviews. Immediately after the video-taping, the counselor supervisor and counselor separately completed the Interview Check List (ICL). The authors reported that the counselors and supervisors on the ICL were closer after the counselor examined the video-taped interview. Further, the number of positive and neutral statements made by the counselor in regard to his interview decreased after viewing the tape.

Another important tool in supervision is role-playing. Schwebel (43) investigated its use and applicability in counselor education. He found that role-playing gave the counselor trainee an opportunity to come face to face with a client in a situation where he could make mistakes and
was under constant supervision. He took the position that role-playing offered the trainee experience in developing a critical eye for the counseling relationship especially in terms of understanding the feelings of the client. He believed that role-playing aided the trainee in learning to analyze his impact on the client and therefore was a very important tool in counselor education.

In another investigation, Balinsky and Dispenziere (4) evaluated the lecture and role-playing methods in the development of interviewing skills in counselor training. Three groups were utilized: (1) a role-playing plus lecture and general psychology group, (2) a lecture group only, and (3) a lecture which included instruction on interviewing skills. The results indicated that the role-playing group used the fewest number of probing questions, statements of reassurance, and ego-defensiveness in their counseling sessions. It was also reported that the role-playing group used accurate reflections of feeling more than did the other groups.

In summary, Hansen and Warner (22) reviewed the research on practicum supervision and found some areas unclear and not definitive. These included expected supervisory roles and the different effectiveness of contemporary methods of assisting trainees to work more effectively with their clients. They concluded that more highly refined experimental studies were needed.
Personality Characteristics of Trainees

The final area for consideration in this survey is the personality characteristics of trainees in the training situation. Do students modify or change attitudes as a result of training? If so, how important is attitude modification in the practicum situation? Arbuckle (3) expressed the opinion that the counselor training program must become concerned with the attitudes and personality of counselor trainees as well as with their counseling effectiveness. Combs and Super (12) have written agreement with this conclusion. They perceived counseling as more than just a matter of technique, rather it was the counselor's use of his unique self in the helping relationship that was of importance. McGowan and Schmidt (29) made this statement "... perhaps the attitudes and values of counselors are of such crucial importance that they must have a prominent place in the training experience." This agreement with these other authors was a clear indication of the importance of the personality and attitudes of the counselor in the counseling process.

Now that the importance of attitude modification has been established, the next important consideration is whether or not practicums actually produce changes in their trainees. Kirk (26) studied this question. He found that there were definite changes in counselor trainees' attitudes and personality over a training period. Rochester (36) found
similar conclusions. Research by Mungor, Myers and Brown (33) revealed that professional training does produce change in counselor attitudes. However, these changes were often temporary and not sufficiently viable to persist outside the walls of the training situation.

Carkhuff and Berenson (11) suggested that the traditional, highly cognitive preparation programs may be of questionable efficacy. These statements should not be misconstrued to suggest that the cognitive emphasis should be abandoned. However, this author felt that more emphasis should be placed upon the affective dimensions of counselor preparation and that attention be given to helping counselors function more effectively in the helping profession.

Hurst and Jensen (24) essentially agreed with Carkhuff's conclusion. They found evidence that personal growth in terms of self and other acceptance will not occur in counselor candidates involved in programs that do not make a direct attempt to bring it about.

In summary, it appears that effectiveness of counseling, the acquisition of skill on the part of trainees, and modification of trainees' attitudes in a practicum may be as Carkhuff states, "for better or for worse." The research in these areas on the whole, is inconclusive as to just what will create optimal training practicums for counselor trainees.
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHOD

Subjects

The subjects for the study were those graduate students who enrolled in a counseling practicum at North Texas State University during the school year of Fall 1971 through Fall 1972. The study was conducted for two consecutive semesters. The subjects were counselor trainees who were either actively engaged in a practicum or who had just completed one during the preceding semester. The instructors had ten students each semester, making the total sample consist of fifty students, with twenty in each experimental group and ten in the control group.

Procedure

The trainees were informed that they were to be part of an experimental study. The study was concerned with intact groups. There were two experimental groups and one control group. Each group of ten trainees received training.

Experimental Group I, a practicum class, was titled the Intensive Training Group. This group received five sessions of intensive training prior to their first counseling exper-
ience with a client. The intensive training experiences consisted of training in interpersonal skills. They were taught the importance of empathy, respect, and genuineness in the counseling relationship. This group was also taught to assess clients with a personality model based on the writings of Karen Horney. The next aspect of training was actual counselor behavior in the interview. The importance of proper posture, nonverbal behavior, and assessment of clients during the initial interview was stressed. The trainees then practiced these newly acquired skills through role playing with first each other and then with rehearsed clients. Finally, the group met in a training encounter group which continued throughout the semester to practice better and higher level responses through their interactions. The individuals in this group were also assessed on their physical fitness and placed on individualized fitness programs. The intensive training experiences began on the second week and terminated at the end of the sixth week.

Experimental Group II was titled the Traditional Training Group, and was another practicum class. This group was trained in the traditional approach to practicum supervision. The first meeting consisted of administrative concerns such as scheduling, responsibilities, and general assignments. Then on the second scheduled practicum meeting, this group started their actual counseling with clients. This continued throughout the semester. The purpose of this approach to counseling
was to give trainees as much exposure to clients as possible and to utilize feedback as the major source of training. This group had an ongoing encounter group experience as a part of their training.

The Control Group was titled the Training Control Group. This group was defined as including only those members of an evaluation class who had been exposed to a practicum the semester prior to the experimental intervention. Only those trainees who met this definition were included in this study. The Training Control Group was involved throughout the semester in an individualized course of study. Their training consisted of researching a relevant area of concern within the field of counseling and guidance. They were not exposed to clients or involved in an encounter group during the experimental period.

The assignment of subjects to each group was accomplished by individual preference. That is, each individual trainee was allowed to choose his instructor on a first come first serve basis. Therefore, there was a selection factor involved in the assignment of trainees to each class.

At the initial session of the semester, all of the trainees in each of the three groups were administered the Institute for Personality and Ability Testing Anxiety Scale Questionnaire (hereafter referred to as the IPAT Anxiety Scale), the Personal Concept Scale, the Rokeach Dogmatism Scale, and the Authoritative Feedback.
sonality theory and abnormal behavior. The Carkhuff Standard Communication Index was also administered. Independent raters not connected with this study were utilized to rate the communication scale. The raters were not told whether they were rating the experimental or control group individuals. Prior to rating the scales, all raters were evaluated to assure their proficiency in scoring the Carkhuff Standard Communication Index. The raters had prior training in the rating of this scale. The inter-rater reliability indicated a relationship of .78 which was considered a sufficient amount of agreement between raters for the purposes of this study.

At the initial session of the semester, all of the trainees in each group were given a series of handouts covering the areas of personality theory and abnormal behavior. These were developed to increase cognitive competence, i.e. their knowledge, in these two selected areas. There was a different set of instructions read to each of the groups concerning the handouts. For Experimental Group I (Intensive Training Group), the instructions stated:

Here are a series of handouts covering the area of personality theory and abnormal behavior. Knowledge of these handouts will partially determine your final grade and you may have spot quizzes over the handouts? Any questions?

For Experimental Group II (Traditional Training Group), the instructions stated:

Here are a series of handouts covering the area of personality theory and abnormal behavior. Knowledge of
these handouts will partially determine your final grade. Any questions?

For the Control Group (Training Control Group), the instructions stated:

Here are a series of handouts covering the area of personality theory and abnormal behavior. Knowledge of these handouts will make you a better counselor. Any questions?

The length of the experimental intervention was one semester in duration. The study first took place in Spring 1972 and was repeated for a different sample of subjects in the Fall of 1972. The classes met once a week for approximately four hours. At the end of the semester experience, the IPAT Anxiety Scale, the Personal Concept Scale, the Rokeach Dogmatism Scale, the Didactic Examination, and the Communication Index were readministered.

The study was conducted with the same methods and procedures but with different subjects during the second semester. There was one procedural difference. The directions for all groups with regard to the handouts were changed to

Here are a series of handouts covering the area of personality theory and abnormal behavior. Knowledge of these handouts will make you a better counselor. Any questions?

This was changed to see if there was a difference due to the instructions or simply to the training. The data gathered from the two different semesters was checked for significant differences as a function of semester on the pre-test measures. If there were no significant differences as a function of
semester, the data was combined and analyzed without regard to this factor.

Instruments

The Cattell IPAT Anxiety Scale was an objective questionnaire which consisted of forty questions distributed among five factors which group together as anxiety components. The five factors were (a) lack of self-sentiment, (b) lack of ego strength, (c) suspiciousness or paranoid insecurity, (d) guilt proneness, and (e) frustrative tension. There is also an overall factor which was used for the purpose of this study.

This test yielded reliability coefficients for total anxiety reported in the manual which are between .30 and .93 (6). One and two week test-retest reliability studies using 87 American adults and 277 Japanese students yielded correlations of .84 and .91. However, test-retest reliabilities over a period of four weeks were .31 and .44 lower. This was explained as a function of fluctuation of anxiety itself and not a measure of the unreliability of the test.

In an attempt to establish validity, Robinson et al. (11) found a small correlation of .17 between the IPAT Anxiety Scale and ratings of anxiety. All of the ratings were made by the same clinician on 39 patients. It has been suggested by Bendig (3) that the IPAT confounds two second-order factors of anxiety rather than measuring one unitary factor. In this study, 200 students were administered the IPAT Anxiety Scale.
Items were inter-correlated by the product-moment method. Little relationship to the assumed factor content appeared. The validity coefficient for total anxiety score was .81. However, Cohen (7) in testing the overall factor, found that the evidence for the test's validity was varied and impressive. The construct validity was reported at between .35 and .90. Cohen stated, "... the IPAT Anxiety Scale's impressive systematic research background commends it for use as an overall measure. No competing test can compete in this crucial regard. For a quick measure of anxiety level in literate adolescents and adults, it has no peer."

The Personal Concept Scale was designed to measure an individual's perception of self-concept and ideal self-concept. It utilized the semantic differential technique as introduced by Osgood et al (10), who viewed it as a self-rating device for measuring the connotative meanings of different concepts. The scale involved a set of twenty items each rated on a seven point scale. The "difference" scores between "self-concept" and "ideal self" were used in this study. This was viewed in terms of the increasing or decreasing congruence between the concepts.

The adequacy of the semantic differential as a research instrument was shown by a number of studies reported in the literature. Tannenbaum (14) reported a test for reliability (test-retest) with coefficients ranging from .87 to .93 (N=135). Osgood et al (10) found with regard to the validity
of the technique the evaluative dimension of the semantic
differential displayed reasonable face validity as a
measure of attitude.

Schieffer and Koeppen (13) used the Personal Concept
Scale and found a test-retest reliability coefficient from
an earlier form of the scale was .79 over a two week period
using ninety-four undergraduate psychology students at North
Texas State University. The test-retest reliability coeffi-
cient for the final revision was .70 using thirty-six
rehabilitation subjects.

The Rokeach Dogmatism Scale Form E was designed to
measure two general personality characteristics, general
authoritarianism and general intolerance. Rokeach (12)
stated that "... it is not so much what you believe that
counts, but how you believe." Dogmatism was defined as
(1) a closed way of thinking which could be associated with
any ideology, (2) an authoritarian outlook on life, (3) an
intolerance toward those with opposing beliefs, and (4) a
sufferance for, and attraction to those holding similar
beliefs.

Form E of the Rokeach Dogmatism Scale consisted of
forty items. The respondent was asked to express agreement
or disagreement with each item with responses ranging from
+1 (agree a little) through -3 (strongly disagree). There
was no neutral (0) position on the response scale.

In a first investigation by Rokeach (12), the Dogmatism
Scale items were mixed with each other and with items from other scales in order to disguise the purpose. The questionnaires were administered to introductory psychology students at Michigan State University, students in two New York area colleges, students in two English colleges, and a worker sample in an English automobile factory. Odd-even split-half reliability coefficients ranged from .70 in the Michigan State sample (N=202) to .91 for the English college group (N=137).

In reviewing normative literature for the Dogmatism Scale, Alter and White (1) found wide variations in mean scores for different populations (from 124 to 183.2). They concluded that the scale was highly sensitive to sub-cultural differences. It was also found that males showed consistently higher scores than females in all populations.

Zagona and Zurcher (15) obtained 15-week test-retest reliabilities ranging from .186 to .506 for high, low, and medium dogmatic subjects. Their sample consisted of 517 elementary psychology students. The overall reliability coefficient was .697.

In general, the research on the Rokeach Dogmatism Scale indicated its reliability as a scale. It also indicated that there are cultural differences with regard to degree of dogmatism which is in line with the hypotheses of Rokeach.

The Didactic Examination was designed to measure the amount of knowledge in two selected areas, personality theory
and abnormal behavior. The questions for this examination were taken from a standardized departmental examination in the Psychology Department at North Texas State University (8). The Didactic Examination consisted of sixty-five multiple-choice questions covering the two above mentioned areas.

Reliability for the whole departmental final was established by the Knuder-Richardson formula. The reliability coefficient for this internal consistency measure was .90. An item analysis was completed for the 143 items in the total test. There were no significant negative correlations on any of the items.

On the test, content validity was established. The test was constructed by a panel of experts in the field of psychology.

On the basis of the reliability and validity established for the whole departmental final, the questions for the Didactic Examination were chosen for this study. It was reasonable to assume that since the whole test was reliable and valid, then the sixty-five items chosen for use in the study were also reliable and valid.

The Carkhuff Standard Communication Index was a series of eight written excerpts which represent helpers stimulus expressions. That is, expressions made by a helper which indicate feeling and content in different problem areas. The directions for the subject were to formulate responses to the person who had come to you for help. The range of
helpee expressions can easily come in the first contact or first few contacts. However, one should not attempt to relate any one expression to previous ones. Simply, one tries to formulate a meaningful response to the helpee's immediate expression (5).

Carkhuff (4) indicated that indexes of communication have been devised, standardized, and validated in the most direct, straightforward ways, and the empirical research testified to this. Further, he said at present the communication assessments derived from responses to helpee stimulus expressions were the most valid indexes for selecting persons equipped to function effectively in the helping role.

As far as supporting research was concerned, Greenberg (9) in a counter balanced design found a close relationship among different conditions: (1) responding in a written form to helpee stimulus expressions, (2) responding verbally to helpee stimulus expressions, and (3) responding in a helping role. This established both verbal and written responses as valid assessments of the counselor in the helping role.

Antonuzzo and Kratochvil (2) found a close relationship between the recorded presentation of helpee expression and the written responses of subjects and also the written presentation of stimulus expressions and the written responses of subjects.

On the basis of the above research, an assumption was made that the Carkhuff Standard Communication Index was a
valid indicator of a counselor in the helping role and may be considered an effective measure of counselor ability.

Treatment of Data

The research hypotheses of the present study were evaluated by means of one-way analyses of covariance with the pre-test being the covariant. In cases where significant F's were obtained, t-tests were performed to determine which of the mean differences were significant. The pre-test data was analyzed by a 2x3 analysis of variance to test the effect of semester participation. Since there were no differences in these groups, the data was combined across the two semesters for ease of analysis and interpretation.

The data by semester may be found in the Appendix. The statistical treatment of the data dealt with the outcome of training as measured by the post-test of the analysis of covariance. A Significance level of .05 was required for rejection of the null hypothesis.
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CHAPTER IV

RESULTS AND DISCUSSION

Results

The purpose of this chapter was to present and to analyze the data obtained in the study. The statistical analysis was accomplished by means of Analysis of Covariance to test for the difference between means derived from the five instruments employed in the study. The analysis presented in this chapter was concerned with the combined data across semesters. A breakdown of the data by semester may be found in the Appendix.

A .05 level of significance was established as the criterion for rejection of the null hypotheses. The first two research hypotheses, I and II, were concerned with comparisons of experimental and control group means on the IPAT Anxiety Scale.

I. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the IPAT Anxiety Scale than will Experimental Group II or the Control Group.

II. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the IPAT Anxiety Scale than will the Control Group.
Table I presents the pre- and post-test means and adjusted post-test mean scores. Subjects in Experimental Group I obtained 0.00 mean difference in anxiety as measured by the IPAT Anxiety Scale. Experimental Group II obtained a mean increase of 0.70 on anxiety, while the Control Group obtained a decrease of 0.20 on anxiety as measured by this scale.

**TABLE I**

EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF ANXIETY

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>20.80</td>
<td>20.80</td>
<td>21.50</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>23.70</td>
<td>24.40</td>
<td>23.82</td>
</tr>
<tr>
<td>Control Group</td>
<td>21.40</td>
<td>21.20</td>
<td>21.64</td>
</tr>
</tbody>
</table>

The results of comparisons between the experimental and control group means on the IPAT Anxiety Scale are presented in Table II. Data for these comparisons between experimental and control group means were treated by Analysis of Covariance, using the pre-test scores as covariants in order to control for initial differences. The adjusted means were 21.50 for
Experimental Group I, 23.82 for Experimental Group II, and 21.64 for the Control Group. The F ratio obtained was <1.

**TABLE II**

**ANALYSIS OF COVARIANCE OF IPAT ANXIETY SCALE SCORES**

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>49.57</td>
<td>24.78</td>
<td>0.21</td>
<td>.3D</td>
</tr>
<tr>
<td>Within Groups</td>
<td>36</td>
<td>4202.71</td>
<td>116.74</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>4252.23</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
</tbody>
</table>

Since the F value associated with this F greatly exceeds the .05 level, null hypotheses I and II were retained.

Hypotheses III and IV were concerned with comparisons of experimental and control group means on the Personal Concept Scale and were restated in the null as follows:

III. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the Personal Concept Scale than will Experimental Group II or the Control Group.

IV. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the Personal Concept Scale than will the Control Group.
Experimental and control group pre- and post-test difference means and adjusted means are reported in Table III. Subjects in Experimental Group I obtained a mean increase of 0.10, while Experimental Group II obtained a mean decrease of 0.11 on self-concept. The Control Group obtained a mean increase of 0.12 on self-concept as measured by this scale.

**TABLE III**

**EXPERIMENTAL AND CONTROL GROUP DIFFERENCE MEAN SCORES ON THE VARIABLE OF SELF-CONCEPT**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>2.36</td>
<td>2.37</td>
<td>2.36</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>2.38</td>
<td>2.27</td>
<td>2.25</td>
</tr>
<tr>
<td>Control Group</td>
<td>2.29</td>
<td>2.41</td>
<td>2.45</td>
</tr>
</tbody>
</table>

The results of comparisons between experimental and control group means on the Personal Concept Scale are presented in Table IV. Data for these comparisons between experimental and control group means were treated by Analysis of Covariance, using pre-test difference scores as covariants in order to control for initial differences between groups.
The adjusted means were 2.36 for Experimental Group I, 2.25 for Experimental Group II, and 2.45 for the Control Group.

TABLE IV
ANALYSIS OF COVARIANCE OF PERSONAL CONCEPT SCALE SCORES

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>0.293</td>
<td>0.14</td>
<td>0.63</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>36</td>
<td>10.496</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>10.790</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F ratio obtained was < 1. Since the F value associated with this F greatly exceeds the .05 level, null hypotheses III and IV were retained.

Hypotheses V and VI were concerned with comparisons of experimental and control group means on the Rokeach Dogmatism Scale and were restated in the null as follows:

V. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the Rokeach Dogmatism Scale than will Experimental Group II or the Control Group.

VI. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on
the Rokeach Dogmatism Scale than will the Control Group.

Table V presents the experimental and control group pre- and post-test means and adjusted mean scores. Subjects in Experimental Group I obtained 0.00 mean difference in dogmatism as measured by the Rokeach Dogmatism Scale. Experimental Group II and the Control Group obtained mean decreases on dogmatism of 4.80 and 12.00 respectively.

**TABLE V**

**EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF DOGMATISM**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>124.40</td>
<td>124.40</td>
<td>123.18</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>122.20</td>
<td>117.40</td>
<td>117.31</td>
</tr>
<tr>
<td>Control Group</td>
<td>119.30</td>
<td>107.30</td>
<td>108.68</td>
</tr>
</tbody>
</table>

The results of comparisons between experimental and control group means on the Rokeach Dogmatism Scale are presented in Table VI. Data for these comparisons between experimental and control group means were treated by Analysis of Covariance, using pre-test scores as covariants in order
to control for initial differences between groups. The adjusted means were 122.18 for Experimental Group I, 117.31 for Experimental Group II, and 108.68 for the Control Group. The F ratio obtained was <1.

TABLE VI
ANALYSIS OF COVARIANCE OF ROKEACH DOGMATISM SCALE SCORES

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>1059.29</td>
<td>529.64</td>
<td>0.48</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>36</td>
<td>12337.55</td>
<td>356.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>13396.84</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since the P value associated with this F greatly exceeds .05, null hypotheses V and VI were retained.

Hypotheses VII and VIII were concerned with comparisons of experimental and control group means on the Didactic Examination and were restated in the null as follows:

VII. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the Didactic Examination than will Experimental Group II or the Control Group.
will exhibit a significantly smaller adjusted mean score on the Didactic Examination than will the Control Group.

Experimental and control group pre- and post-test means and adjusted means are reported in Table VII. Subjects in Experimental Group I and Experimental Group II obtained a mean increase of 16.10 and 0.45 respectively. The Control Group obtained a mean decrease of 1.30 on knowledge as measured by this scale.

TABLE VII
EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF KNOWLEDGE

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group I</td>
<td>38.90</td>
<td>55.00</td>
<td>54.43</td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>37.50</td>
<td>37.95</td>
<td>37.77</td>
</tr>
<tr>
<td>Control Group</td>
<td>33.70</td>
<td>32.40</td>
<td>33.31</td>
</tr>
</tbody>
</table>

The results of comparisons between experimental and control group means on the Didactic Examination are presented in Table VIII. Data for the comparisons between experimental and control group means were treated by Analysis of Covariance,
using pre-test scores as covariants in order to control for initial differences between groups.

**TABLE VIII**

**ANALYSIS OF COVARIANCE OF DIDACTIC EXAMINATION**

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>2517.69</td>
<td>1258.84</td>
<td>26.81</td>
<td>SD at .05 level</td>
</tr>
<tr>
<td>Within Groups</td>
<td>36</td>
<td>1689.95</td>
<td>46.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>4207.64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The adjusted means for the Didactic Examination were 54.43 for Experimental Group I, 37.77 for Experimental Group II, and 33.31 for the Control Group. The F ratio obtained was 26.81. Since the P value associated with this F did not exceed .05, null hypotheses VII and VIII were rejected.

A t-test for all possible combinations between the experimental and control groups was accomplished. This was to identify which of the specific mean differences were significant. The t-value for comparisons between Experimental Groups I and II was 4.76. This difference was significant at the .01 level.
TABLE II

SCORES OF t-tests FOR ALL POSSIBLE COMBINATIONS ACROSS SEMESTERS FOR THE DIDACTIC EXAMINATION

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Scores</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group I</td>
<td>48.05</td>
<td>9.90</td>
<td>4.78 SD</td>
</tr>
<tr>
<td>SD Group I</td>
<td>34.60</td>
<td>7.60</td>
<td>-1.30 NSD</td>
</tr>
<tr>
<td>Control Group</td>
<td>38.00</td>
<td>4.52</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>34.60</td>
<td>7.56</td>
<td>-1.30 NSD</td>
</tr>
<tr>
<td>SD Group II</td>
<td>38.00</td>
<td>4.52</td>
<td></td>
</tr>
</tbody>
</table>

The second comparison was between Experimental Group I and the Control Group. The t-value for these comparisons was 3.02. This difference was also significant at the .01 level.

The final comparison was between Experimental Group II and the Control Group. The t-value was -1.30, which was non-significant at the .05 level. Therefore the significant difference between the groups was associated with Experimental Group I and its comparisons.
Hypotheses IX and X were concerned with comparisons of experimental and control group means on the Carkhuff Standard Communication Index and were restated in the null as follows:

IX. At the end of the semester, Experimental Group I will exhibit a significantly smaller adjusted mean score on the Carkhuff Standard Communication Index than will Experimental Group II or the Control Group.

X. At the end of the semester, Experimental Group II will exhibit a significantly smaller adjusted mean score on the Carkhuff Standard Communication Index than will the Control Group.

Table X presents the pre- and post-test means and adjusted mean scores.

**TABLE X**

**EXPERIMENTAL AND CONTROL GROUP MEAN SCORES**

**ON THE VARIABLE OF COMMUNICATION**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>2.46</td>
<td>2.62</td>
<td>2.56</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>2.30</td>
<td>2.39</td>
<td>2.44</td>
</tr>
<tr>
<td>Control Group</td>
<td>2.42</td>
<td>2.46</td>
<td>2.43</td>
</tr>
</tbody>
</table>
Subjects in Experimental Groups I, II and the Control Group obtained mean communication level increases of 0.16, 0.09, and 0.04, respectively.

The results of comparisons between experimental and control group means on the Carkhuff Standard Communication Index are presented in Table XI. Data for the comparisons between experimental and control group means presented in Table XI were treated by Analysis of Covariance, using pre-test scores as covariants in order to control for initial differences between groups.

TABLE XI

ANALYSIS OF COVARIANCE OF CARKHUFF STANDARD COMMUNICATION INDEX

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>10.02</td>
<td>501.46</td>
<td>2.42</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>36</td>
<td>74.46</td>
<td>206.84</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>84.49</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
</tbody>
</table>

The adjusted means were 2.56 for Experimental Group I, 2.44 for Experimental Group II, and 2.43 for the Control Group. The F ratio obtained was 2.42. Since the P value
X were retained.

Discussion

The discussion of the results will consider the three major areas of investigation involved in the present study. These are the variables of communication, personality, and knowledge which were tested in this study.

The non-significance of some of the results was, in part, quite surprising. Based upon previous research, the lack of significance on the variable of communication was especially surprising. In this study, communication was measured by the Carkhuff Standard Communication Index. The basic hypothesis tested was that short-term intensive training in interpersonal skills would significantly increase trainees' communication level. This hypothesis was based on a voluminous amount of research (1, 3, 4, 5, 7, 8). Further, this training was proven to be effective with a multitude of populations (1, 6, 9, 12, 13) in many diverse settings.

With regard to the insignificant results, some of the more recent writings of Carkhuff (3) may help explain the lack of change in communication level of the trainees. He discussed the principles of effective training in general and more specifically, interpersonal skills training. The principle of systematization in training was considered of utmost importance for optimal efficiency. According to Carkhuff, interpersonal skills training was viewed as a systematic, task-oriented procedure for skill acquisition based upon successful
completion of tasks through practice by the trainees.

In the present study, the training of the participants was based on a general lecture approach dealing with the overall model of functioning as presented by Carkhuff (4, 5). It was not a systematic approach. Further, the trainees were expected to practice empathic responses with their clients in the actual counseling situation. This training was not too much different from the training in the more traditional practicum.

Another possible reason for the lack of significance may have been in terms of length of intensive training in communication. There was a positive trend developing on the Communication Index which indicated agreement with the conclusions of Collingwood (9), that to increase trainees' functioning level to a minimally facilitative level, it takes at least twenty to twenty-five hours of interpersonal skills training. Therefore, it appeared that the training period was too short to allow the trainees to acquire and consolidate effective interpersonal skills.

The non-significant results with regard to personality characteristics were less surprising. The basic hypothesis tested was that changes in the personality of trainees would result from practicum training. The variables of personality tested in this study were anxiety, dogmatism, and self-concept as measured by the IPAT Anxiety Scale, the Rokeach Dogmatism Scale, and the Personal Concept Scale.
(2, 10, 11, 12, 14, 15) indicated conflicting results with regard to personality change in a practicum setting. Perhaps one explanation for the non-significant results in the study was explained by Kratochvil (12) who stated, "... what is focused on in training is what changes or can change." Hurst and Jensen (11) stated it another way. They concluded that

> Evidence is provided that personal growth in terms of self and other acceptance will not occur in counselor candidates in programs that do not make a direct attempt to bring it about.

The emphasis of training in the present study was totally in terms of counseling skill acquisition. Even in the training groups, the emphasis was on effective counseling skills rather than emotional self-exploration.

The final variable tested was knowledge. It was tested by use of the Didactic Examination. The basic hypothesis was that students would study independently if the work was related to their professional competency. There were actually two different aspects of this hypothesis tested. The first semester the students in Experimental Group I were tested over these areas of knowledge through regular weekly testing which added or subtracted from their course grade. The second semester the instructions to all three groups were identical, stressing improved professional competency as the only reason for the extra work. The results across both semesters indicated a significant difference between the groups. However, upon closer inspection the significant
difference was found to be only in the first semester.

TABLE XII
ANALYSIS OF COVARIANCE OF DIDACTIC EXAMINATION FOR SEMESTER I

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>1540.65</td>
<td>770.32</td>
<td>33.46</td>
<td>SD at .05 level</td>
</tr>
<tr>
<td>Within Groups</td>
<td>26</td>
<td>598.51</td>
<td>23.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>2139.16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the second semester there was no difference.

TABLE XIII
ANALYSIS OF COVARIANCE OF DIDACTIC EXAMINATION FOR SEMESTER II

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>255.89</td>
<td>127.94</td>
<td>2.78</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25</td>
<td>1147.13</td>
<td>45.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>1403.02</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
These results appeared to be a function of the different directions given for the two semesters, rather than a real experimental difference between the groups. These results should be discounted as significant for the above reasons.

In summary, the insignificant results of the first two basic hypotheses tested, namely that of communication and personality change, may have been a function of difficulties inherent in the study. The significant difference found on the variable of knowledge must be discounted due to the confounding instructions located in the study. All the results of these investigations were explained in terms of experimental errors inherent in the study.
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The present study was undertaken to examine the effects of various methods of training during the practicum experience upon subsequent counselor trainees' behavior and skill. In this chapter, a brief overview of the entire study is presented, conclusions are drawn from the results of this study, and recommendations are made for further research in this area.

Summary of Methods and Procedures

The subjects consisted of fifty counselor trainees who were recently involved in a practicum experience at North Texas State University. There were five groups of ten students each utilized in the two experimental groups and the one control group across two semesters. The three groups were defined as the Intensive Training Group, which was defined as the group that first received five weeks of training in the cognitive, affective, and physical dimensions of counseling. This group then started counseling with actual clients. The Traditional Training Group was defined as the group which started with counseling clients the first week of the semester. This group counseled with clients every week of the training period and received only verbal feedback on their behavior.
The Training Control Group was defined as the group which received no intensive training in the cognitive, affective, and physical dimensions of counseling. This group did not counsel with clients during the training period and was not actively involved in a practicum experience. This group was involved in a practicum prior to the experimental period.

The instruments used to measure any communication, personality, and knowledge changes were the Carkhuff Standard Communication Index, the IPAT Anxiety Scale, the Rokeach Dogmatism Scale, the Personal Concept Scale, and the Didactic Examination. All the data were analyzed by use of the Analysis of Covariance with the pre-test being used as the covariant measure. A .05 level of significance was the criterion for rejection of the null hypotheses involved in the study.

Summary of Findings

The results yielded by this study are reported in Chapter IV. The results of the study are presented below in summary form.

1. There is no significant difference between the three groups on the variable of anxiety as measured by the IPAT Anxiety Scale.

2. There is no significant difference between the three groups on the variable of dogmatism as measured by the Rokeach Dogmatism Scale.

3. There is no significant difference between the three groups on the variable of self-concept as measured
by the Personal Concept Scale.

4. There is a significant difference at the .05 level between the three groups on the variable of knowledge as measured by the Didactic Examination.

5. There is no significant difference between the three groups on the variable of communication as measured by the Carkhuff Standard Communication Index.

Conclusions

Following a detailed examination of the research findings, the following conclusions were drawn:

1. Short-term training of counselors must stress the most systematic procedures available to increase communication levels optimally.

2. For interpersonal skills training to be effective, trainees should have received more hours of training to increase communication ability significantly.

3. Counseling practicums which stress skill acquisition will have little effect on the trainee's personality.

4. Students will learn extra material in the practicum experience only if it is directly related to course grade.

Recommendations

In consideration of the results of this study and the design, the following recommendations are presented:

1. It is recommended that future research in this area use three instructors who are trained in the Carkhuff model
so a counterbalanced design may be utilized.

2. It is recommended that training of counselors should emphasize systematic training procedures as discussed in the more recent Carkhuff literature.

3. It is recommended that research in this area should study only the skill acquisition of the trainees. The assessment of changes in personality characteristics should be omitted in this type of study.

4. It is recommended that further research in this area study the functioning levels of the supervisors in the differing groups by use of the same instruments as trainees receive.

In summary, there is a growing amount of research which indicates the validity of short-term training of counselors for skill acquisition in the practicum experience. It appears that the planning and systematation of training procedures is of critical importance. The future of this type of training should consider this carefully.
APPENDIX

I. Instruments Utilized in the Study
   A. IPAT Anxiety Scale
   B. Rokeach Dogmatism Scale
   C. Personal Concept Scale
   D. Carkhuff Standard Communication Index

II. Mean Scores and Analysis of Covariance Scores per Semester
   E. IPAT Anxiety Scale
   F. Rokeach Dogmatism Scale
   G. Personal Concept Scale
   H. Didactic Examination
   I. Carkhuff Standard Communication Index

III. Pre-test 2x3 Analysis of Variance Scores
   J. IPAT Anxiety Scale
   K. Rokeach Dogmatism Scale
   L. Personal Concept Scale
   M. Didactic Examination
   N. Carkhuff Standard Communication Index
APPENDIX A

SELF ANALYSIS FORM

NAME: ___________________________  SEX: ____________________________________

First  Middle  Last  AGE: ____________________________  OTHER FACTS: ____________________________

TODAY'S DATE: ________________________

Inside this booklet you will find forty questions, dealing with difficulties that most people experience at one time or another. It will help a lot in self-understanding if you check Yes, No, etc., to each, frankly and truthfully, to describe any problems you may have.

Start with the two simple examples just below, for practice. As you see, each inquiry is actually put in the form of a sentence. By putting a cross, X, in one of the three boxes on the right you show how it applies to you. Make your marks now.

1. I enjoy walking: ____________________________  Yes  Possibly  No

A middle box is provided for when you cannot definitely say Yes or No. But use it as little as possible.

2. I would rather spend an evening:
   (A) talking to people, (B) at a movie

   ____________________________  A  B  Uncertain

   About half the items inside end in A and B choices like this. B is always on the right. Remember, use the "In between" or "Uncertain" box only if you cannot possibly decide on A or B.

Now:

1. Make sure you have put your name, and whatever else the examiner asks, in the place at the top of this page.

2. Never pass over an item but give some answer to every single one. Your answers will be entirely confidential.

3. Do not spend time pondering. Answer each immediately, the way you want to at this moment (not last week, or usually). You may have answered questions like this before, but answer them as you feel now.

Most people finish in five minutes; some, in ten. Hand in this form as soon as you are through with it, unless told to do otherwise. As soon as the examiner signals or tells you to, turn the page and begin.

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APPENDIX 5

ROEACH DOGMATISM SCALE

The following is a study of what people think and feel about a number of important social and personal questions. This is not an intelligence test nor an information test. There are no right or wrong answers. The best answer is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing with others, and perhaps rather uncertain on others. Whether you agree or disagree with any statement, you can be sure that many people feel the same as you.

Respond to each statement by placing your response in the appropriate place on the separate answer sheet. Indicate the extent to which you agree or disagree by circling a number by the number for each statement. The numbers and their meanings are indicated below:

+1 I agree a little  -1 I disagree a little
+2 I agree on the whole  -2 I disagree on the whole
+3 I agree very much  -3 I disagree very much

1. The United States and Russia have just about nothing in common.
2. The principles I have come to believe in are quite different from those believed in by most people.
3. The highest form of government is a democracy, and the highest form of democracy is a government run by those who are most intelligent.
4. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
5. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.
6. There are certain "isms" which are really the same even though those who believe in these "isms" try to tell you they are different.
7. Fundamentally, the world we live in is a pretty lonesome place.

8. Most people just don't give a "damn" for others.

9. I'd like it if I could find someone who would tell me how to solve my personal problems.

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

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

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

13. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

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

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

16. 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.

17. Most people are failures and it is the system that is responsible for this.

18. It is only natural for a person to have a guilty conscience.

19. In the history of mankind there have probably been just a handful of really great thinkers.

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

21. A man who does not believe in some great cause has not really lived.

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

23. To compromise with our political opponents is dangerous because it usually leads to the loss of a
25. A group which tolerates too much differences of opinion among its own members cannot exist for long.

26. There are two kinds of people in this world; those who are for the truth and those who are against the truth.

27. My blood boils whenever a person stubbornly refuses to admit he's wrong.

28. A person who thinks primarily of his own happiness is beneath contempt.

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

30. I sometimes have a tendency to be too critical of the ideas of others.

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

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

33. 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.

34. Young people should not have too easy access to books which are likely to confuse them.

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

36. There's no use wasting your money on newspapers which you know in advance are just plain propaganda.

37. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."

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

39. Most people just don't know what's good for them.

40. To one who really takes the trouble to understand the world he lives in, it's an easy matter to predict future events.
APPENDIX C

PERSONAL CONCEPT SCALE

INSTRUCTIONS

The purpose of this scale is to identify the meaning that various concepts have for you by having you rate them against a series of descriptive scales. Place an "x" on each line according to what the concept means to you. For example:

If you consider yourself very talkative, you would place your "x" as follows:

\[ \text{talkative } x : \_ : \_ : \_ : \_ : \_ : \text{ quiet} \]

If you feel you are mostly quiet, you would mark as follows:

\[ \text{talkative } \_ : \_ : \_ : \_ : \_ : x : \_ : \text{ quiet} \]

If you see yourself as slightly talkative, mark this way:

\[ \text{talkative } \_ : \_ : x : \_ : \_ : \_ : \_ : \text{ quiet} \]

If you think you are equally talkative and quiet, mark this way:

\[ \text{talkative } \_ : \_ : \_ : x : \_ : \_ : \_ : \_ : \text{ quiet} \]

Be sure you mark every scale. Do not skip any. Never put more than one "x" on a single line. Make each item a separate and independent judgement. Place your marks in the middle of the space. THIS NOT THIS

\[ \text{talkative } \_ : \_ : x : \_ : \_ : \_ \_ : \_ : \text{ quiet} \]

Your first impressions are generally the most accurate, so work quickly, but do not be careless.
I AM

plain ____________ sexy
feminine ____________ masculine
warm ____________ cool
unaware ____________ aware
tense ____________ relaxed
deep ____________ shallow
certain ____________ uncertain
accepted ____________ rejected
cautions ____________ adventuresome
talkative ____________ quiet
close ____________ distant
disturbed ____________ contented
active ____________ passive
down ____________ up
powerful ____________ weak
following ____________ leading
loose ____________ tight
early ____________ late
conservative ____________ liberal
clear ____________ hazy
I WOULD LIKE TO BE

plain _______ _______ _______ _______ _______ _______ _______ _______ sexy
feminine _______ _______ _______ _______ _______ _______ _______ _______ masculine
warm _______ _______ _______ _______ _______ _______ _______ _______ cool
unaware _______ _______ _______ _______ _______ _______ _______ _______ aware
tense _______ _______ _______ _______ _______ _______ _______ _______ relaxed
deep _______ _______ _______ _______ _______ _______ _______ _______ shallow
certain _______ _______ _______ _______ _______ _______ _______ _______ uncertain
accepted _______ _______ _______ _______ _______ _______ _______ _______ rejected
cautious _______ _______ _______ _______ _______ _______ _______ _______ adventuresome
talkative _______ _______ _______ _______ _______ _______ _______ _______ quiet
close _______ _______ _______ _______ _______ _______ _______ _______ distant
disturbed _______ _______ _______ _______ _______ _______ _______ _______ contented
active _______ _______ _______ _______ _______ _______ _______ _______ passive
down _______ _______ _______ _______ _______ _______ _______ _______ up
powerful _______ _______ _______ _______ _______ _______ _______ _______ weak
following _______ _______ _______ _______ _______ _______ _______ _______ leading
loose _______ _______ _______ _______ _______ _______ _______ _______ tight
early _______ _______ _______ _______ _______ _______ _______ _______ late
conservative _______ _______ _______ _______ _______ _______ _______ _______ liberal
clear _______ _______ _______ _______ _______ _______ _______ _______ hazy
APPENDIX D

CARKHUFF STANDARD COMMUNICATION INDEX

Your role here is that of a counselor who is trying to be as helpful as possible to his clients. After reading each of the attached client statements, you are to write down exactly what you would say to this person if you and he (she) were speaking directly and in person to one another.

Since these eight client statements are not related to each other, your responses should also be independent of one another. Remember, it is crucial that you write down, as clearly and as accurately as possible, precisely what you would say in response to each client statement.

Excerpt 1

Client
I don't know if I am right or wrong feeling the way I do. But I find myself withdrawing from people. I don't seem to socialize and play their stupid little games anymore. I get upset and come home depressed and have headaches. It seems all so superficial. There was a time when I used to get along with everybody. Everybody said, "Isn't she wonderful. She gets along with everybody. Everybody likes her." I used to think that was something to be really proud of, but that wasn't who I was at that time. I had no depth. I was what the crowd wanted me to be - the particular group I was with.

Excerpt 2

Client
It's not an easy thing to talk about. I guess the heart of the problem is sort of a sexual problem. I never thought I would have this sort of problem. But I find myself not getting the fulfillment I used to. It's not as enjoyable - for my husband either, although we don't discuss it. I used to enjoy and look forward to making love. I used to have an orgasm but I don't anymore. I can't remember the last time I was satisfied. I find myself being attracted to other men and wondering what it would be like to go to bed with them. I don't know what this means. Is this symptomatic of our whole relationship as a marriage? Is something wrong with me or us?
Excerpt 3

Client

"Gee, those people! Who do they think they are? I just can’t stand interacting with them anymore. Just a bunch of phonies. They leave me so frustrated. They make me so anxious, I get angry at myself. I don’t even want to be bothered with them anymore. I just wish I could be honest with them and tell them all to go to hell. But I guess I just can’t do it."

Excerpt 4

Client

"He is ridiculous! Everything has to be done when he wants to do it. The way he wants it done. It’s as if nobody else exists. It’s everything he wants to do. There is a range of things I have to do. Not just be a housewife and take care of the kids. Oh no, I have to do his typing for him, errands for him. If I don’t do it right away, I’m stupid. I’m not a good wife or something stupid like that. I have an identity of my own and I’m not going to have it wrapped up in him. It makes me — it infuriates me! I want to punch him right in the mouth. What am I going to do? Who does he think he is anyway?"

Excerpt 5

Client

"I’m really excited! We are going to California. I’m going to have a second lease on life. I found a marvelous job. It’s great! It’s so great, I can’t believe it’s true, it’s so great. I have a secretarial job. I can be a mother and can have a part-time job which I think I will enjoy very much. I can be home when the children get home from school. It’s too good to be true. It’s exciting. New horizons are unfolding. I just can’t wait to get started. It’s great!"

Excerpt 6

Client

"I’m so thrilled to have found a counselor like you. I didn’t know any existed. You seem to understand me so well. It’s just great! I feel like I’m coming alive again. I have not felt like this in so long."
Excerpt 7

Client  
Cee, I'm disappointed. I thought we could get along so well together and you could help me. We don't seem to be getting anywhere. You don't understand me. You don't know I'm here. I don't even think you care for me. You don't hear me when I talk. You seem to be somewhere else. Your responses are independent of anything I have to say. I don't know where to turn. I'm just so, doggone it, I don't know what I'm going to do, but I know you can't help me. There just is no hope.

Excerpt 8

Client  
Who do you think you are! You call yourself a therapist. Damn, here I am spilling my guts out to you and all you do is look at the clock. You don't hear what I say. Your responses are not attuned to what I'm saying. I never heard of such therapy. You are supposed to be helping me. You are so wrapped up in your world you don't hear a thing I'm saying. You don't give me the time. The minute the hour is up you push me out the door whether I have something important to say or not. I ah - it makes me so god-damn mad!
# APPENDIX E

## TABLE XIV

EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF ANXIETY FOR SEMESTER I

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>20.80</td>
<td>20.80</td>
<td>20.85</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>22.10</td>
<td>24.50</td>
<td>24.21</td>
</tr>
<tr>
<td>Control Group</td>
<td>20.10</td>
<td>22.40</td>
<td>22.63</td>
</tr>
</tbody>
</table>

## TABLE XV

ANALYSIS OF COVARIANCE OF IPAT ANXIETY SCALE SCORES FOR SEMESTER I

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>56.29</td>
<td>28.14</td>
<td>0.18</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>26</td>
<td>3948.81</td>
<td>151.87</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>4005.11</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
</tbody>
</table>
TABLE XVI
EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF ANXIETY FOR SEMESTER II

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>27.00</td>
<td>24.66</td>
<td>24.63</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>20.50</td>
<td>17.50</td>
<td>17.51</td>
</tr>
<tr>
<td>Control Group</td>
<td>20.10</td>
<td>22.40</td>
<td>22.41</td>
</tr>
</tbody>
</table>

TABLE XVII
ANALYSIS OF COVARIANCE OF IPAT ANXIETY SCALE SCORES FOR SEMESTER II

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>245.85</td>
<td>122.92</td>
<td>0.90</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25</td>
<td>3408.76</td>
<td>136.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>3654.62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX F

#### TABLE XVIII

**EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF DOGMATISM FOR SEMESTER I**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>124.40</td>
<td>124.40</td>
<td>123.84</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>127.60</td>
<td>119.90</td>
<td>117.86</td>
</tr>
<tr>
<td>Control Group</td>
<td>117.60</td>
<td>112.20</td>
<td>122.79</td>
</tr>
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</table>

#### TABLE XIX

**ANALYSIS OF COVARIANCE OF ROKEACH DOGMATISM SCALE FOR SEMESTER I**

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>200.93</td>
<td>100.46</td>
<td>0.35</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>26</td>
<td>7415.67</td>
<td>285.21</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Total</td>
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<td>7616.60</td>
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<td>.</td>
<td>.</td>
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TABLE XX

EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF DOGMATISM FOR SEMESTER II

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group I</td>
<td>118.11</td>
<td>113.55</td>
<td>113.59</td>
</tr>
<tr>
<td>Experimental</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>116.90</td>
<td>105.90</td>
<td>105.85</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>117.60</td>
<td>120.20</td>
<td>120.20</td>
</tr>
</tbody>
</table>

TABLE XXI

ANALYSIS OF COVARIANCE OF ROKEACH DOGMATISM SCALE FOR SEMESTER II

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>1030.56</td>
<td>515.28</td>
<td>1.27</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25</td>
<td>10139.43</td>
<td>405.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>11169.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

TABLE XXII
EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF SELF-CONCEPT FOR SEMESTER I

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>2.44</td>
<td>2.21</td>
<td>2.17</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>2.47</td>
<td>2.33</td>
<td>2.26</td>
</tr>
<tr>
<td>Control Group</td>
<td>2.29</td>
<td>2.41</td>
<td>2.51</td>
</tr>
</tbody>
</table>

TABLE XXIII
ANALYSIS OF COVARIANCE OF PERSONAL CONCEPT SCALE FOR SEMESTER I

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>0.62</td>
<td>0.31</td>
<td>1.93</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>26</td>
<td>4.19</td>
<td>0.16</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>4.81</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>
### TABLE XXXI

EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF SELF-CONCEPT FOR SEMESTER II

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>2.27</td>
<td>2.55</td>
<td>2.55</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>2.28</td>
<td>2.20</td>
<td>2.20</td>
</tr>
<tr>
<td>Control Group</td>
<td>2.29</td>
<td>2.41</td>
<td>2.41</td>
</tr>
</tbody>
</table>

### TABLE XXXV

ANALYSIS OF COVARIANCE OF PERSONAL CONCEPT SCALE FOR SEMESTER II

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>0.59</td>
<td>0.29</td>
<td>1.03</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25</td>
<td>7.13</td>
<td>0.28</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>7.72</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>
### APPENDIX H

#### TABLE XXVI
EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF KNOWLEDGE FOR SEMESTER I

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>38.90</td>
<td>55.00</td>
<td>53.69</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>34.60</td>
<td>36.60</td>
<td>37.66</td>
</tr>
<tr>
<td>Control Group</td>
<td>36.10</td>
<td>38.00</td>
<td>38.23</td>
</tr>
</tbody>
</table>

#### TABLE XXVII
EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF KNOWLEDGE FOR SEMESTER II

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>39.77</td>
<td>40.33</td>
<td>40.01</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>34.80</td>
<td>32.60</td>
<td>32.61</td>
</tr>
<tr>
<td>Control Group</td>
<td>36.10</td>
<td>38.00</td>
<td>38.07</td>
</tr>
</tbody>
</table>
### APPENDIX I

#### TABLE XXVIII

**EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF COMMUNICATION FOR SEMESTER I**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>246</td>
<td>262</td>
<td>252</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>221</td>
<td>233</td>
<td>240</td>
</tr>
<tr>
<td>Control Group</td>
<td>226</td>
<td>236</td>
<td>239</td>
</tr>
</tbody>
</table>

#### TABLE XXIX

**ANALYSIS OF COVARIANCE OF CARKHUFF STANDARD COMMUNICATION INDEX FOR SEMESTER I**

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>725.95</td>
<td>362.97</td>
<td>1.44</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>26</td>
<td>6535.50</td>
<td>251.36</td>
<td></td>
<td>.</td>
</tr>
<tr>
<td>Total</td>
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<td>7261.45</td>
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<td>.</td>
<td>.</td>
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</tbody>
</table>
TABLE XXX
EXPERIMENTAL AND CONTROL GROUP MEAN SCORES ON THE VARIABLE OF COMMUNICATION FOR SEMESTER II

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Training Mean</th>
<th>Post-Training Mean</th>
<th>Adjusted Post-Training Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Group I</td>
<td>236</td>
<td>242</td>
<td>242</td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>243</td>
<td>249</td>
<td>244</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>226</td>
<td>236</td>
<td>241</td>
</tr>
</tbody>
</table>

TABLE XXXI
ANALYSIS OF COVARIANCE OF CARKHUFF STANDARD COMMUNICATION INDEX FOR SEMESTER II

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>36.34</td>
<td>18.12</td>
<td>0.287</td>
<td>NSD</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25</td>
<td>1607.06</td>
<td>64.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>1643.91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX J

TABLE XXXII

PRE-TEST SCORES OF 2x3 ANALYSIS OF VARIANCE ACROSS SEMESTERS FOR THE IPAT ANXIETY SCALE

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean Square</th>
<th>Degrees of Freedom</th>
<th>F-ratio*</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semesters</td>
<td>26.81</td>
<td>5</td>
<td>.</td>
<td>.82</td>
</tr>
<tr>
<td>Groups</td>
<td>6.00</td>
<td>1</td>
<td>.04</td>
<td>.82</td>
</tr>
<tr>
<td>Semester x Groups</td>
<td>30.01</td>
<td>2</td>
<td>.23</td>
<td>.79</td>
</tr>
<tr>
<td>WITHIN</td>
<td>127.68</td>
<td>54</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>TOTAL</td>
<td>119.13</td>
<td>59</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

*Non-significant results at the .05 level.
APPENDIX K

TABLE XXXIII

PRE-TEST SCORES OF 2x3 ANALYSIS OF VARIANCE ACROSS SEMESTERS FOR THE ROEBAECH DOGMATISM SCALE

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean Square</th>
<th>Degrees of Freedom</th>
<th>F-ratio*</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semesters</td>
<td>541.37</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td>1382.50</td>
<td>1</td>
<td>2.14</td>
<td>0.14</td>
</tr>
<tr>
<td>Semesters</td>
<td>248.43</td>
<td>2</td>
<td>0.38</td>
<td>0.63</td>
</tr>
<tr>
<td>x Groups</td>
<td>413.75</td>
<td>2</td>
<td>0.64</td>
<td>0.53</td>
</tr>
<tr>
<td>WITHIN</td>
<td>644.16</td>
<td>54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>635.45</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Non-significant results at the .05 level.
### APPENDIX L

#### TABLE XXXIV

**PRE-TEST SCORES OF 2x3 ANALYSIS OF VARIANCE ACROSS SEMESTERS FOR THE PERSONAL CONCEPT SCALE**

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean Square</th>
<th>Degrees of Freedom</th>
<th>F-ratio*</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BETWEEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semesters</td>
<td>23.70</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td>14.02</td>
<td>1</td>
<td>0.16</td>
<td>0.66</td>
</tr>
<tr>
<td>Semesters x Groups</td>
<td>35.13</td>
<td>2</td>
<td>0.42</td>
<td>0.66</td>
</tr>
<tr>
<td><strong>WITHIN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>82.59</td>
<td>54</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>77.60</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Non-significant results at the .05 level.*
## APPENDIX IV

### TABLE XXXV

PRE-TEST SCORES OF 2x3 ANALYSIS OF VARIANCE ACROSS SEMESTERS ON THE DIDACTIC EXAMINATION

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean Square</th>
<th>Degrees of Freedom</th>
<th>F-ratio*</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BETWEEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semesters</td>
<td>1145.62</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td>534.37</td>
<td>1</td>
<td>0.46</td>
<td>0.50</td>
</tr>
<tr>
<td>Semesters x Groups</td>
<td>65.31</td>
<td>2</td>
<td>0.56</td>
<td>0.94</td>
</tr>
<tr>
<td><strong>WITHIN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WITHIN</td>
<td>1157.78</td>
<td>54</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1182.68</td>
<td>59</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

*Non-significant results at the .05 level.
APPENDIX N

TABLE XXXVI

PRE-TEST SCORES OF 2x3 ANALYSIS OF VARIANCE ACROSS
SEMESTERS ON THE COMMUNICATION INDEX

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean Square</th>
<th>Degrees of Freedom</th>
<th>F-ratio*</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
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*Non-significant results at the .05 level.
BIBLIOGRAPHY

Books


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**Articles**


Buber, M., "Distance and Relation," Psychiatry, XVI (1953), 104-105.


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Unpublished Materials


