EFFECTS OF INDIVIDUAL SUPERVISION ON SELECTED AFFECTIVE AND COGNITIVE CHARACTERISTICS OF COUNSELORS-IN-TRAINING: A PILOT STUDY

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This is to certify that the

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Of Counselors-In-Training:
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Joan Nancy Hamachek

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Educational Psychology

Major professor

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ABSTRACT

EFFECTS OF INDIVIDUAL SUPERVISION ON SELECTED AFFECTIVE AND COGNITIVE CHARACTERISTICS OF COUNSELORS-IN-TRAINING: A PILOT STUDY

By

Joan Nancy Hamachek

A major purpose of this study was to measure the impact of the supervising counselor on the development of affective variables such as empathy, respect, genuineness and concreteness and cognitive variables such as problem sensitivity and problem solving ability in the counselor-in-training. A second purpose was to determine the nature and degree of the relationships between these affective and cognitive variables. In order to achieve these two major purposes, an instrument to measure problem sensitivity and problem solving ability was developed.

This pilot study was not designed as an attempt to either support or refute any formal interactive-facilitative process theory, but rather to generate hypotheses for further investigation of this process in supervisory experiences.

The sample consisted of twelve counseling supervisors selected from the faculty of a state university and seventeen counselors-in-training being supervised by

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these twelve supervisors.

Two tests, the Problem Solving and Sensitivity Kit (PSSK) and the Scales of Measurement for Facilitative Functioning (SMFF), were administered to the twelve supervisors. Problem solving and problem sensitivity were two of the cognitive measures and these were derived from performance on the PSSK. The supervisors were divided into high and low cognitive groups. The division was done by adding the T-scores of each of the two aforementioned cognitive variables in order to determine the median score. Those supervisors who scored above the median were in the high cognitive group and those who scored below the median were in the low cognitive group. Next, the supervisors were divided into high and low affective groups. This division was done by computing the arithmetic averages of their SMFF affective variable ratings on empathy, respect, genuineness and concreteness in order to determine the median. Once again, those supervisors with scores above the median were considered in the high affective group and those who scored below the median were in the low affective group.

To note possible changes in affective and/or cognitive functioning as a consequence of supervision, each of the seventeen counselors-in-training were tested on the PSSK and SMFF at the beginning and at the end of a nine-month supervisory period.

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Analysis of covariance was used to compare the supervisees of the high cognitive supervisors with the supervisees of the low cognitive supervisors and also the supervisees of the high affective supervisors with the supervisees of the low affective supervisors on the measures of empathy, respect, genuineness, concreteness, affective functioning level, problem sensitivity, problem solving I, problem solving II, cognitive functioning level I and cognitive functioning level II. In addition, Pearson product-moment correlations were computed in order to examine the relationships between the selected affective and cognitive variables. In order to examine changes in the supervisee's overall counseling style from the beginning to the end of his supervisory experience, a trend analysis was employed.

Results and Conclusions

Based on the statistical treatment of the data and an analysis of data trends, six conclusions appear to be worth noting:

1. The Problem Solving and Sensitivity Kit (PSSK) provides reliable measures of problem solving ability and problem sensitivity of counselors, as defined by the PSSK.

2. There are significant differences between supervisees trained by high cognitive supervisors and supervisees trained by low cognitive supervisors on measures

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of respect and affective functioning. The supervisees of high cognitive supervisors gain more on the measures of respect and affective functioning than the supervisees of low cognitive supervisors.

3. There are no significant differences between supervisees trained by high cognitive supervisors and supervisees trained by low cognitive supervisors on measures of problem sensitivity, problem solving I, problem solving II, cognitive functioning I, cognitive functioning II, empathy, genuineness and concreteness.

4. There are no differences between the supervisees of the high affective supervisors and the supervisees of the low affective supervisors on measures of empathy, respect, genuineness, concreteness, affective functioning, problem sensitivity, problem solving I, problem solving II, cognitive functioning I and cognitive functioning II.

5. The cognitive scores and affective scores of the supervisors are not significantly related to each other, implying that these dimensions may be supervisor dynamics which function independently of each other.

6. From examination of overall data trends and patterns, the data suggest that unless a supervisor is functioning at high levels on both the cognitive and affective dimensions, his supervisees will tend to either decrease or remain the same in their affective functioning.

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If, however, the supervisor is functioning at high levels on both the cognitive and affective dimensions, his supervisees will tend to increase on their affective functioning levels in the direction of becoming "fully functioning facilitative counselors."

In addition, the data suggest that supervisees' cognitive scores are not consistently related to either high or low affective/cognitive supervisors. That is, the consistent and predictable changes in supervisees are more likely to be in their affective rather than their cognitive functioning.

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To Our Children
Deb, Greg and Dan

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I owe thanks to Dr. Maryellen McSweeney for her advice concerning the analysis of the data, and to Dr. Bill Kell, Dr. William Mueller and Dr. Richard Pierce for their constant encouragement and support.

The thirty-seven participants in this study were counseling center staff members, interns and practicum students. Special thanks go to each individual for the time and energy he devoted to my study.

I am particularly thankful to my husband, Don, who helped me in so many ways, but, I think, the greatest help was that he expected me to remain "human" during this research endeavor.

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CHAPTER I

THE PROBLEM

Research evidence presented by Eysenck (1952), Bergin (1963) and Levitt (1957) suggest that the helping professions are not always as effective as they could be in producing improvement in clients at all developmental levels. Rogers and Dymond (1954), Carkhuff and Truax (1966) and Kellner (1967), on the other hand, have shown from their research efforts that psychotherapy or counseling does indeed make a difference toward improving the emotional status of clients. In any case, the consequences of the "help" received by clients who have experienced some form of therapy is not always clear nor are the results universally agreed upon. It seems imperative that we increase our knowledge about both the process of therapy and the training of therapists in order to more accurately assess the consequences and prognosis of therapeutic endeavors. For example, the review of research by Carkhuff and Truax suggests that students, clients and patients may be hindered as well as helped in the therapeutic encounter. While the literature on the conditions that facilitate psychological change has been growing, Carkhuff and Truax note that, "there is still a need to explicate those process variables that facilitate positive

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In an effort to examine what may very well be a critical "process variable," this study will investigate the impact of supervision on counselors-in-training over a nine-month period.

Purpose of the Study

The purpose of this study is twofold: 1) examine the impact of the supervisor's counseling "style" on the development of specific counseling-related characteristics in the counselor-in-training and 2) examine the interrelationships of problem sensitivity, problem solving ability, empathic understanding, respect, genuineness and concreteness and their change over time.

In addition to the experimental aspects of this study, there are several descriptive aspects. One aspect is the hypotheses generating nature of the design. Underlying this study is a search for knowledge of the modifiability of various characteristics considered important for good counseling skills. Implicit is the assumption that training programs can be developed more effectively where there is an awareness of what characteristics are modifiable.

Developing a valid and reliable instrument to measure problem sensitivity and problem solving ability

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of counselors is itself one of the purposes of this research. Several scales have already been developed to measure these variables for use with engineer managers, administrators and teachers (Joyce, 1970; Frederikson, Saunders and Wand, 1957; Shulman, Loupe and Piper, 1968).

Definition of Terms

Style is the term used to denote a subject's consistent mode of initiating, conducting, relating and reacting to specific problematic situations.

Empathy level is the average rating of 3-three minute segments of a counseling interview on the measure of empathic understanding in interpersonal processes. "Accurate empathy" is judged on both the therapist's sensitivity to current feelings and his verbal facility to communicate this understanding in a language attuned to the client's current feelings (Shapiro, 1969, p. 350).

Respect level is the average rating of 3-three minute segments of a counseling interview on the measure of respect or positive regard in interpersonal processes. Rogers (1962, pp. 420-422) describes respect as the therapist's willingness to share equally the client's fears and hopes or achievements and failures, without placing conditions upon the warm acceptance of the client's inner self.

Genuineness level is the average rating of 3-three minute segments of a counseling interview on the measure

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of facilitative genuineness in interpersonal processes. The therapist functioning at a high level of genuineness verbalizes positive cues that indicate a genuine response in a nondestructive manner to the client. Rogers (1962, pp. 417-419) has observed that to be genuine the therapist must allow his client to see everything that is going on in the therapist which is relevant to the relationship.

Concreteness level is the average rating of 3-three minute segments of a counseling interview on the measure of personally relevant concreteness or specificity of expression. High concreteness is the fluent, direct and complete expression of specific feelings and experiences regardless of emotional content expressed by either the therapist or the client (Carkhuff and Berenson, 1967, p. 7).

Affective functioning level is the arithmetic average of the ratings for empathy, respect, genuineness and concreteness.

Problem refers to a psychological state of discomfort or disequilbrium sensed by an individual. This discomfort might be caused by: 1) discrepancy between anticipated and an encountered event, 2) imbalance generated by the gap between desired and actual conditions, that is, between intended goal and a current status or 3) the ambiguity resulting from contradictory sources of information in a situation.

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Potential problem refers to a configuration of the environment that is intrinsically indeterminate, thus having a high likelihood of being perceived as problematic by an individual encountering it. When the potentially problematic situation is encountered and leads to feelings of disequilibrium, we say that a problem has been sensed. Each form of the PSSK has approximately 230 potential problems.

Problem sensitivity is a measure of the number of potentially problematic elements in the PSSK reacted to (sensed) as problems by the subject.

Problem solving I is a measure of overall problem resolution. The subject is rated on a scale from zero to three on each of ten major problem areas. Each major problem area encompasses a number of the potential problems that are imbedded in the PSSK. The rating depends on the degree of completion or comprehensiveness to which the subject brings his problem resolutions. If the problem were not attempted, the subject is given a score of zero for that problem. The total score is assumed to indicate how well a subject understands the nature of the ten selected problem areas in the situation. Those with high scores in problem solving ability I are assumed to reach the deepest and most complete level of understanding with respect to the general problems embedded in the test materials.

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problem resolution. The problem solving I total score is divided by the number of problems attempted to arrive at the problem solving ability II score. This score reflects the depth of the problem resolution in only the problems that the subject attempts to resolve. Those with high scores in problem solving ability II are assumed to come to the deepest and most complete level of understanding with respect to specific problems that the subject selects to resolve.

Cognitive functioning level I is the arithmetic average of the T scores of problem solving I and problem sensitivity measures.

Cognitive functioning level II is the arithmetic average of the T scores of problem solving II and problem sensitivity measures.

Major Research Hypotheses

The hypotheses tested in this study are statements of how the behavior of a counselor-in-training changes as a consequence of his supervision experience.

The basic hypotheses are as follows:*

1. The supervisors who scored high on measures of empathy, respect, genuineness and concreteness will have supervisees who score higher on these variables than will the supervisees working with supervisors who scored

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*Research hypotheses are restated in testable form in Chapter IV.

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2. The supervisors who scored high on measures of problem solving and problem sensitivity will have supervisees who score higher on these variables than will the supervisees working with supervisors who scored low on these measures.

3. There will be positive intercorrelations between the problem solving and problem sensitivity variables.

4. There will be positive intercorrelations among the empathy, respect, genuineness and concreteness variables.

5. There will be no significant correlation between the supervisors' affective scores and their cognitive scores.

6. The supervisee's overall counseling "style" will become more like his supervisor's "style" over a nine-month training period.

Theory

The theory undergirding this study grows out of Carkhuff's model for predicting facilitative growth (Carkhuff, 1967: Carkhuff and Berenson, 1967, pp. 44-60). For this study Carkhuff's theory has been modified to include problem solving and problem sensitivity in addition to the four dimensions described by Carkhuff as the major core conditions for effective interpersonal communication,

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which he described as empathy, respect, genuineness and concreteness.

This modified theory can be used to predict positive movement and gain as well as to predict negative movement or deterioration. Carkhuff and Truax write,

> the absence or low levels of facilitative conditions in relationships with parents, teachers and other significant figures in all likelihood contributes to the development of the difficulty or psychopathology in the first place. It makes sense that counselors offering a continuation of these same conditions will continue to produce further deterioration (1966, p. 726).

Carkhuff's model suggests that a primary core condition such as empathic understanding is critical to all learning and relearning processes. In addition, secondary dimensions peculiar to a particular interaction of 1st person (therapist), 2nd person (client) and situational variables (environmental settings) may operate to facilitate or retard the outcomes of the primary process variables.

Three critical classes of variables are encompassed by Carkhuff's model of counselor training: 1) level of trainer functioning on facilitative and action-oriented dimensions, 2) level of trainee functioning on relevant dimensions and 3) type of training programs operationalized (Carkhuff, 1968; Carkhuff, 1969). According to Carkhuff, the most critical variable in effective counselor training is the level at which the counselor-trainer is functioning on the facilitative and action-oriented dimensions related to constructive client change (1969). The present study

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focuses primarily on these dimensions of counselor growth but also includes problem solving ability and problem sensitivity as dimensions of interest.

An implication of Carkhuff's modified theory is that how we interact with a given individual may in large part be determined by the level at which each participant is functioning on the affective and cognitive variables. Differential predictions concerning gains in interpersonal functioning by the counselor-in-training may be generated according to discrepancies in initial level of functioning of both the counselor and the counselor-in-training. Persons at higher levels of functioning can help persons at lower levels to acheive higher levels on these and other variables (Carkhuff, 1967).

A goal of psychotherapy is change and change is experienced through feeling, thinking and interacting. Kell and Burrow (1970), for example, have noted that change occurs when feelings are associated with the thought process, but that this change does not necessarily occur when thinking or feeling alone is involved. There is increasing research attention being given to evaluating cognitive and affective factors which may affect a student's potential as a facilitative counselor (Carkhuff, 1966; Hosford and Briskin, 1969; Pierce and Schauble, 1970; Truax and Carkhuff, 1967; Anderson, 1968; Martin and Carkhuff, 1968). It is conceivable that important changes might

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take place as a function of graduate training experiences but that these changes will not be uniform for all students.

Need for the Study

While research has not identified the primary source of influence on the counseling behavior of counselors-in-training, the contention of this study is that the individual supervisor has a major impact on developing those characteristics relevant to effective counseling behavior of counselors-in-training. It is further argued that the manner in which the supervisor functions can influence the development of his supervisees. If, in fact, the individual supervisor plays an important and significant role in the counselor-training process, then this may have direct implications for who should do individual supervision, how it can best be done and with which counselors-in-training.

Delimitations of the Study

Any generalizations which can be made from the study is limited to the population from which the sample was taken, namely, supervising counselors and counselors-in-training at Michigan State University. Counselor trainers and counselors-in-training from other universities and counselors not engaged in supervisory duties, either at Michigan State or other universities, may have had different academic experiences. Without a replication

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study the conclusions must be considered only as tentative conclusions and results must be accepted with caution.

In addition, because of the pretest and posttest design, findings of this investigation cannot be compared to results of subsequent studies unless the subjects also participate in a similar experimental design.

It should also be noted that the Problem Solving and Sensitivity Kit (PSSK) is an unresearched instrument. While it appears to have face validity there is no data available relating the cognitive measures to other outcome variables or to other measures of problem sensitivity and problem solving.

Although there has been increasing support for the importance of empathy, respect, genuineness and concreteness, as measured by the Scales of Measurement for Facilitative Functioning, there has been little evidence to suggest what the scales "actually" measure. For example, Shapiro states that,

> Raters' judgments may be based largely on behavioral concomitants of the types of utterance specified by the "definitions" rather than on the extent to which the therapists' utterances are formally subsumable under the "definition" (1969, p. 352).

Therefore, similar findings would not be expected if instruments other than the PSSK and SMFF were used to measure the concepts of problem sensitivity, problem solving, empathy, respect, genuineness and concreteness.

In summary, this study is delimited by the nature

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Organization of the Study

The following chapter includes a review of the literature related to the study. The review is of four areas: 1) evaluation of existing counselor education programs, 2) impact of training on counselor behavior, 3) counselors and supervisors as models and 4) cognitive and affective variables involved in counselor training. Chapter III contains a report on the development and description of the Problem Solving and Sensitivity Kit. The design and methodology of the study is examined in Chapter IV. The analysis begins in Chapter V with a comparison of counselors-in-training being supervised by counselors who score high and low on the affective variables. This is followed by a comparison of the counselors-in-training in the high and low cognitive groups. Finally, the correlations between cognitive variables, affective variables and supervisors' cognitive and affective scores are examined. The descriptive analysis of the data is reported in Chapter VI. Chapter VII contains a summary of the study and conclusions drawn from the results.

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CHAPTER II

REVIEW OF LITERATURE

Increasingly, research is being undertaken to evaluate cognitive and affective factors which may affect a student's potential as a facilitative counselor (Carkhuff, 1966; Hosford and Briskin, 1969; Pierce and Schauble, 1970; Truax and Carkhuff, 1967). Since this study investigates the impact of counseling supervisors on counselors-in-training during a nine-month period in a counselor training program, the review of literature focuses on the following areas: 1) evaluation of existing counselor education programs, 2) impact of training on counselor behavior, 3) counselors and supervisors as models and 4) cognitive and affective variables involved in counselor training. In addition, an attempt is made to clarify the specific issues of direct relevance to the present study emerging from the review.

Evaluation of Counselor Education Programs

According to Whiteley (1969), there had been notable accomplishment in the area of counselor education over the past three years. But he also stated that there was only the barest knowledge about some of the central

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issues in counseling. Evaluating the effects of counselor education programs had received scant attention (Carkhuff, 1966; Whiteley, 1969) and, in fact, when such evaluation had been carried out, the results were not encouraging. For example, Carkhuff, Piaget and Pierce (1968) reported a cross sectional study which found that, on dimensions related to constructive client change, psychology trainees deteriorated in functioning from the beginning to the end of training. An analysis of a rehabilitation-counselor training program by Anthony (1968) showed a low level of functioning among graduate students across the dimensions of empathy, respect, genuineness and concreteness. According to Carkhuff (1969), counselor trainees functioning at the highest levels of empathy, respect and genuineness tended to deteriorate over the course of training.

In 1967 the Association for Counselor Education and Supervision adopted a revised set of Standards for use in counselor education. However, Stripling noted that, "no specific criteria for accrediting counselor education have been developed; and, in many cases, no qualified supervisor, counselor or counselor educator is on an institutional visiting committee" (1968, p. 201). Because the minimal standards in counselor training had only recently been established and accreditation as it was currently practiced lacked substance, Whiteley (1969) expressed a need as recently as 1969 for a careful study

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of what counselor education should and could be doing to enhance skill development in counselors-in-training. A similar plea that studies of behavior in counselor relationships become a more prominent aspect of efforts to understand, evaluate and improve counselor education programs was made by Schoch (1966).

In essence, the evaluation of the effects of counselor education programs has received scant attention, and, in fact, when such evaluation has been carried out, the results are discouraging. Previous research investigating the impact of counselor training programs suggests that the participants in training programs deteriorate from the beginning to the end of the training programs on dimensions that are thought to be critical in counseling.

Impact of Training on Counselor Behavior

A review of the literature on consistency reported that only minimal and superficial changes occurred during graduate counselor training programs (Mischel, 1969). Mischel also suggested in his review that counselors-to-be have a "style" of approaching, dealing with and feeling about people that was quite stable by the time they entered graduate school. In addition, Kassera (1968) found that counselor education had only a modest impact in changing attitudinal orientations of students. After one semester significant changes were found only on a measure of

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Dell (1967) reported a study in which lecturing and role-playing were used as strategies to increase empathy in a group of college sophomores. A total of 118 subjects were placed in either role-playing, lecture or control groups. Dell found that after seven sessions, there were no group changes in their empathic levels from the beginning to the end of the training program.

In addition, a study by Hountras and Redding (1969) reported no significant differences on $\frac{\text{client initiated}}{\text{client response}}$ talk ratio or $\frac{\text{indirect}}{\text{direct}}$ counselor influence ratio when fifteen subjects were trained in verbal interaction analysis and compared with fifteen subjects who received no training.

Mischel (1969) examined the stability and resistance to change of "cognitive constructions about ourselves and the world" and of cognitive styles in problem solving. He observed that the loss of behavioral consistency may be a chief characteristic of personality disorganization. His interpretation of the overall evidence from reviewing the topic of consistency described the human mind as functioning like an "extraordinarily effective reducing valve" that created and maintained the perception of continuity even in the face of perpetually observed changes in actual behavior. Because consistency in the cognitive and intellective domain was

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easier to establish than in the personality and interpersonal behavior domain, he hypothesized more resistance to change in the cognitive realm than the affective domain.

No change in cognitive complexity, as measured by Kelly's Role Construct Repertory Test, was found by Reighard (1968) as a result of a practicum course. However, he did report an increase in verbal behaviors, such as the use of negators, qualifiers, retractors, evaluators, direct questions and expressions of feelings.

Gallagher (1968) investigated the changes in counseling and mathematics trainees that occurred during an institute training program. At the end of the institute training program the counseling trainees scored higher on measures of passivity and moodiness and lower on measures of friendliness, persistency, sensitivity, predictability and stability than they had scored on pre-institute measures. The mathematics trainees showed no changes on any of the measures.

On the other hand, an investigation by Ashmore (1968), related to changes in attitudes and personality characteristics among counselors in a counselor education program, offered evidence to refute the notion of early determinism of personality characteristics. More specifically, Ashmore reported that counselors in an institute training program changed in several ways. They became more understanding, less probing and less supportive, as

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measured by the Helping Relationship Inventory. In addition, the female counselors also became more interpretive as measured by this instrument. On the Edwards Personal Preference Schedule the males decreased in their needs for endurance and abasement, and increased on measures of heterosexuality and dominance. Females decreased in measures of endurance. Males reflected less defensive, depressed and psychosthenic behaviors and more hypomanic behavior of the MMPI while the females reflected less defensive and paranoid behaviors.

Over the past twenty years many divergent points of view have developed in relation to the teaching and learning of psychotherapy under supervision. Several studies have been reported that suggested specific kinds of training programs in order to modify counseling behaviors. For example, Reddy (1969) concluded that the group receiving immediate feedback became more empathic than the delayed-feedback or no-feedback groups when thirty-six subjects were divided into three equal groups and each group was given a different type of feedback on their empathic behavior. The delayed-feedback group was not significantly different from the no-feedback group on the measures of empathy. In addition, the immediate-feedback and delayed-feedback groups increased in the number of reflective responses made and also gave fewer supporting and advice giving statements at the end of the training

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program than was the case during pretesting. There were no changes in the no-feedback group.

Jordan (1968) compared two training group treatments, one experiential and one didactic, with a no-treatment group on measures of empathy, non-possessive warmth and genuineness. Both treatment groups gained more on measures of empathy and non-possessive warmth from pre-to-posttesting than did the no-treatment group. While Jordan found no significant differences between the treatment groups, it was tentatively concluded from the data that the didactic treatment had produced a greater change on all the measures than did the experiential treatment.

Several research investigations have concluded with recommendations to combine didactic and experiential aspects into a counselor training program (Dahmen, 1967; Carkhuff and Truax, 1965b; Berenson, Carkhuff and Myrus, 1966; Truax, Carkhuff and Douds, 1964; Grzegorek, 1970; Goldberg, 1967) with one assumption being that the trainee's growing awareness of intellectual content and learnings in psychotherapy in the context of a relationship which nurtures his own self-exploration would lead to his growth as a therapist.

In summary, little is known about the kinds of systematic changes that can occur in counselor training programs and the research that is available reports

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conflicting evidence on the impact that training has on counselor behavior. On the one hand, some investigators suggest that counselor education has minimal impact on counselors-in-training, especially in the cognitive realm. On the other hand, more optimisitc data are presented that report changes in attitude and personality characteristics as the result of counselor educator programs.

Increasingly, research is becoming available to suggest that the impact that a counselor training program has is dependent on the program. Several investigators have recommended programs that combine didactic and experiential aspects.

Counselors and Supervisors as Models

An observer (O) is said to model an individual (I) when observation of the behavior of I, or of expressions attributing certain behavior to I, affects O so that O's subsequent behavior becomes more similar to the observed behavior of I (Flanders, 1968).

In his review of the literature covering various aspects and applications of modeling and identification Heller (1969) concluded that while modeling processes can be important facilitators of change, application to counselor-client relationships was impeded by a paucity of research investigating the operation of modeling procedures in clinic-like settings.

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The Counselor as a Model for Clients

Bandura (1961) suggested that during psychotherapy the client learned to incorporate certain aspects of the therapist's intact ego. That is, he became more like his therapist with regard to values and mannerisms and more adaptive in his own behavior. According to Bandura, this process occurred whether or not the therapist directly attempted to transmit his values and attitudes.

Concluding from data drawn from eight, year-long therapy cases, Lennard and Bernstein (1960) observed that, "whenever persons freely interact with each other, it is likely that they will become more and more alike" (p. 249). They also found that over time there were increases in the correlations of counselors and their counselees on specific kinds of patient and counselor communications. For example, verbal behavior and affective communications became more alike.

Bednar (1970) concluded from his review of the literature on persuasion that some improved clients became more like their counselors in the counseling process while some unimproved clients did not. He noted that this was, "support for the concept of a convergence effect during counseling" (p. 651).

According to Rosenthal (1955), improved clients modified their system of moral values in a direction consistent with the beliefs of their counselor. Sixty

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statements about sex, aggression and authority were sorted by the counselors and their counselees before and after therapy. Rosenthal reported that the rho correlation of improvement and change in the direction of the therapist's moral values equaled .68.

The Supervisor as a Model for Counselors-in-Training

A study that examined the influence of the supervisor's personality on trainee's perceptions was reported by Underhill (1968). Using videotape exerpts to rate student teachers and their supervisors on the Affective Sensitivity Scale, Underhill found a positive relationship between a student teacher and her supervisor's empathy at the end of the student teaching experience.

Hansen and Barker (1964) also investigated the influence of the supervisor's personality and found that in each of three groups being studied, the supervisor was the main affecting variable. The trainees in the group with the counselor rated highest on levels of empathy, respect and genuineness by his trainees were rated consistently higher than the trainees of the other two supervisors by judges on the Experiencing Scale.

A study was conducted at the University of Kansas to investigate the relationship between the student-therapist and his supervisor (McAllister and Neuringer, 1969). Fifteen counselors-in-training and two supervisors

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were the subjects in the study and each student had a minimum of three months of continuous supervision. Five measures of identification were correlated with measures of specificity, initiative, relevance and warmth-acceptance. The identification measures referring to specific similarity, either real or assumed, showed significant correlations with the criterion-measures. The investigators concluded that identification was a modeling mechanism which appeared to operate on very specific personality variables in very circumscribed situations.

The differential effects of supervisor's level of functioning on measures of empathy, respect, genuineness and concreteness upon counselors-in-training was reported by Carkhuff (1969). He reviewed the available studies and concluded that in cases where data were available, the trainees moved in the direction of becoming more like their trainers on levels of functioning on measures of empathy, respect, genuineness and concreteness from the beginning to the end of training.

In general, the literature would suggest that changes do occur and these changes are oftentimes related to the client's or supervisee's interactions with his therapist or supervisor. Much of the research in this area is still in the exploratory stages of investigation. Some of the studies on modeling appear to operate on very specific personality variables in very circumscribed situations.

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Variables Involved in Counseling and Counselor Training

Both cognitive and affective aspects of understanding are manifest in the interactions between counselor and client. Bordin (1968, pp. 166-182) suggested that behavior should be looked at as possessing these two aspects. The affective aspect referred to people's strivings, feelings and emotions and the cognitive aspect referred to the conceptual, perceptual and motor processes involved in response to the pressures inherent in the affective aspects of behavior. Bordin further stated that to understand the client completely the counselor must understand both the cognitive and affective aspects of the client's communications.

Fenichel (1941) argued that some balance between "free floating" and compulsive intellectualism was necessary for a therapist to provide the greatest degree of understanding of his client.

Empathy has been the focus of numerous studies in counseling and psychotherapy. Gladstein (1970) reviewed the studies on empathy in counseling and concluded that empathic type responses without regard for the particular client was often inappropriate; that is, there was more to counseling than empathy.

Cooper (1967) investigated the relationship between four measures of empathy and nine measures of cognitive

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control and found that individuals high on empathy were less rigid, more field analytic and better at cognitive shifting than individuals who scored low on the measures of empathy. The other measures of cognitive control were not related to the measures of empathy.

Empathy, Respect, Genuineness and Concreteness as Variables in Individual and Group Therapy

Rogers (1957, 1962) recognized three "necessary and sufficient" conditions in order for constructive personality change to occur. These conditions were genuineness, positive regard (respect) and empathy. While few researchers believed that any three therapist characteristics would be sufficient to account for the therapist's total contribution to patient outcome, Rogers' theoretical formulation was a major stimulus for research in this area.

Research related to the role of the therapist in therapeutic outcome grew out of the pioneering work of Whitehorn and Betz at John Hopkins Hospital (Betz, 1963a; Betz, 1963b; Whitehorn, 1964; Whitehorn and Betz, 1954). Their major contribution was a retrospective study of seven psychiatrists whose schizophrenic patients had an improvement rate of seventy-five per cent, as contrasted with seven other psychiatrists of similar training who had an improvement rate of only twenty-seven per cent, a percentage lower than the improvement rate found in groups of schizophrenics with no treatment. Analysis showed that the success of the patients appeared to be dependent on

the "type" of counselor seen for help, but the differences in the two "types" were not systematically explored. It was concluded that psychotherapy could indeed by "for better or for worse" (Truax, 1963, p. 256).

A study of psychotherapy with sixteen hospitalized schizophrenic patients was started in 1958 under Rogers' leadership at the University of Wisconsin. The purpose of the research program was to study the effects of the therapist's levels of: 1) accurate empathic understanding of the patient, 2) unconditional positive warmth for the patient and 3) therapist self-congruence or genuineness. In 1963 Truax reviewed the findings of the study to date. Comparisons of the levels of therapist conditions offered during therapy with measures of constructive personality change in the patient, using a matched control group, suggested that: 1) high levels of therapist-offered conditions were related to patient improvement, but 2) low levels of therapist-offered conditions were related to patient deterioration. These and additional findings were reported by Truax and Carkhuff in 1967 (pp. 80-143).

One of the first studies attempting to relate the therapist's level on the therapeutic triad to patient outcome was by Halkides (1958), who selected brief samples from early and late therapy interviews from ten most successful and ten least successful therapy cases. Ratings were made on the therapist's levels of empathic understanding

unconditional positive regard and genuineness. She reported that the therapists of the most successful cases showed significantly higher levels on the three conditions than did the therapists of the least successful cases. The work of Barrett-Lennard (1962) supported the relevance of the counselor characteristics of empathy, respect and genuineness for success with counseling center cases. However, it should be noted that a replication of these studies by Hart (1960), using the Halkides' data and similar procedures but different judges, failed to confirm Halkides' and Barrett-Lennard's findings.

Truax, Carkhuff and Kodman (1965) attempted to evaluate the generality of empathy by studying its relationship to outcomes in group psychotherapy. The study involved forty hospitalized mental patients, all relatively chronic, who were given group therapy sessions twice weekly over a three-month, time-limited period. The patients were divided into equal groups receiving high or low levels of empathy and those receiving high levels of empathy showed improvement on all the MMPI subscales equal to, or greater than, that of the patients receiving low levels of empathy.

In still other studies (Rogers, 1962; Truax, 1963; Truax and Carkhuff, 1964b; Truax, 1961), rating scales were used to divide hospitalized schizophrenic patients according to the level of empathy, respect and genuineness

provided by their therapists and it was found that patients receiving high levels of empathy, respect and genuineness demonstrated significant process movement and constructive personality and behavioral change. Patients who received low therapeutic conditions did not become engaged in positive therapeutic process movement and actually deteriorated on the outcome criteria.

Studies reporting positive counseling outcomes experienced by chronic hospitalized mental patients when they interacted with hospital attendants trained only in operationalizing the dimensions of empathy, respect and genuineness in the counseling encounter (Carkhuff and Truax, 1965a, Carkhuff and Truax, 1965b) provided an additional source of supportive evidence to the notion of modeling certain facilitative conditions.

A study of forty outpatients treated by resident psychiatrists at the Phipps Psychiatric Clinic at John Hopkins (Truax, et al., 1966) was an attempt to cross-validate the findings of the studies on individual psychotherapy with hospitalized schizophrenics with data from a very different patient and therapist population. Analysis of these data indicated greater improvement for the patients of therapists that offered high levels of empathy, respect and genuineness than for the patients that received relatively lower levels of these conditions. The differences were significant on the two measures of patient

improvement.

Counselors that offered one of three different levels of empathy, respect and genuineness (combined ratings) were investigated by Leitner (1969). He found that the clients of the high level counselors demonstrated a greater increase in self-exploration, a crucial variable related to therapy outcome (Truax and Carkhuff, 1964b), than did the clients of the low functioning counselors. Similar results were reported by Hountras and Anderson (1969).

Stoffer (1968) investigated the therapeutic success of mother helpers with elementary age children as a function of genuineness, nonpossessive warmth, empathic understanding and dogmatism in the helping person. He reported that mother helpers exhibiting high levels of nonpossessive warmth were more successful bringing about gains in achievement and a reduction in behavior problems than were the mother helpers exhibiting low levels of nonpossessive warmth.

Dickenson and Truax (1966) also found a gain in academic achievement as a result of a training program offered by a counselor trained in offering high levels of empathy, respect, genuineness and concreteness. When compared with no-therapy underachievers and underachievers receiving moderate levels of therapeutic conditions, they found that underachievers receiving high levels of the

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conditions showed significantly greater grade-point average improvement than the no-therapy or moderate-therapy students. Similar findings were reported by Aspy (1966) in his conclusion that empathy, positive regard and genuineness were related to psychological indexes as well as intellectual achievement.

Truax and Carkhuff (1964a) reported research which suggested that concreteness or specificity of expression in therapy was a critical element accounting for behavior change. In a study that investigated the effect of sixteen different therapist-influenced variables, Truax and Carkhuff found that concreteness was significantly related to criteria measures of therapeutic process such as the Insight Scale, the Personal Reference Scale and the Process Scale. In addition, they found that two counselor variables, genuineness and concreteness, accounted for approximately forty percent of the total variation on the Personal Reference Scale, a measure of the patients' personal reference statements. In another study, Pierce and Drasgow (1969) found that therapists who were trained to attend to conflict areas elicited more client self-exploration than did therapists using non-directive reflection.

Shapiro (1969) presented a paper that related empathy, warmth and genuineness in psychotherapy to outcomes of psychotherapy. He reviewed several studies that

reported positive relationships between the three therapeutic conditions and outcome in individual and group psychotherapy with a wide range of patients. These findings have also been verified and/or summarized by a number of other investigators (Carkhuff and Truax, 1966; Carkhuff and Berenson, 1967, pp. 44-60; Pagell, Carkhuff and Berenson, 1967; Rogers, et al., 1967; Truax and Carkhuff, 1967; Chessick, 1965).

Empathy, Respect, Genuineness and Concreteness as Variables in Counselor Training Programs

Desrosiers (1967) studied the personal growth of thirty-three counseling trainees and found that supervisors who scored high in genuineness, empathy and respect were more likely to affect positive attitude changes in their supervisees than was the case for low scoring supervisors.

In another study, the therapist's levels of functioning on measures of empathy, respect, genuineness and concreteness were the treatment variables (Pierce, Carkhuff and Berenson, 1967). Seventeen volunteer counselors-in-training and two counselors, one functioning at a high level and one at a low level, were used to investigate whether or not the model developed by Carkhuff to explain the change in behaviors of clients would also apply to counselors-in-training; that is, the counselors-in-training under the supervision of the high level counselor would gain more on the outcome measures than the

counselors-in-training under the supervision of the low level counselor. Pierce, Carkhuff and Berenson reported that the supervisees of the high functioning supervisor changed significantly on eleven of the fifteen outcome measures while the trainees of the low level supervisor changed significantly on only one variable. In addition, more trainees dropped out of the low level supervisor's group. They concluded that a supervisor could effect positive change in a counselor-in-training on measures of empathy, respect, genuineness, concreteness and self-exploration only if the supervisor was already functioning at a higher level on these dimensions than the counselor-in-training.

In still another study, Pierce and Schauble (1970) investigated the effects of individual supervision on levels of empathy, respect, genuineness and concreteness in counselors-in-training throughout a nine-month training program. They found that the trainees of the high functioning supervisors reflected more growth on levels of empathy, respect, genuineness and concreteness than did the trainees of the low functioning supervisors from the beginning to the end of the training program.

Carkhuff (1969) combined the data from sixteen studies that focused on the effects of training and found that different studies have reported somewhat similar results. According to Carkhuff, those trainees whose

trainers were functioning at or above the minimally facilitative level and approximately one level above the trainees were more apt to encourage positive changes in their supervisees than were trainers functioning at lower levels. In addition, para-professional trainees who were functioning initially at low levels on measures of empathy, respect, genuineness and concreteness tended to demonstrate positive gains over the course of training on these same four measures if they had been offered high levels during the training program but did not change or they deterioriated in functioning if they were offered low levels during the training program.

In summary, there is some conflicting data reported on the importance of the affective variables of empathy, respect, genuineness and concreteness in counseling and counselor training but much of the literature that was reviewed reported that therapists functioning at high levels of empathy, respect, genuineness and concreteness had clients that improved on a variety of improvement criteria, while the clients of therapists that offered low levels of these dimensions deteriorated on indices of change or gain. Similar findings were reported when changes that occurred for supervisees were investigated as a function of the supervisor's level of functioning on these dimensions.

Cognitive Variables in Therapy and Training

Bordin observed that, "the very fact that one cannot stop the movement of the world around him means that he cannot completely neglect major relationships to it" (1968, p. 175). Any analysis of a person's efforts to deal with his strivings inevitably must include the cognitive aspects of what he did or is doing. Thus, attending to specific "facts" related to a client's problem, such as vocational information or certain marital difficulties, may well contribute to a client's ego strength (Bordin, 1968, pp. 166-182).

While the concepts of problem solving ability and problem sensitivity have been investigated in other areas, there has been no effort to relate the importance of problem solving ability and problem sensitivity to counseling. Shulman, Loupe and Piper (1968) developed a test using the "in-basket" technique to measure the inquiry process of teachers-in-training. Two of the variables investigated were problem solving and problem sensitivity. But since Shulman *et al.*, did not have measures of problem solving and problem sensitivity on the supervising teachers, an analysis of change as a function of the supervising teacher scores on the same measures was not possible. Comparisons of "seeking style," as determined by ten paper and pencil tests, were made. From these data they tentatively concluded that if the

student teacher and her supervisor had different "seeking styles" at the beginning of student teaching, they became even more unlike each other as the term progressed.

In summary, while several investigators discuss the importance of cognitive aspects in counselors, no research is available that investigates the impact that a supervisor's cognitive "style" has on his counselor trainees.

CHAPTER III

INSTRUMENT DEVELOPMENT

The test to measure problem sensitivity and problem solving ability is the Problem Solving and Sensitivity Kit (PSSK),* a simulated counselor's office with an assortment of embedded potential counseling problems. The test is a modification of the Teacher In-Basket, a test developed by Shulman to study the inquiry process of teachers-in-training (1965). The theory, description, administration and validation of the PSSK are presented in this chapter.

Theory and Selection of Instrument

The model of inquiry presented by Dewey (1938) was the framework around which the PSSK was developed. Based on Dewey's model, the process of inquiry was divided into four parts: 1) problem sensing, 2) problem formulation, 3) search and 4) resolution. The PSSK waa developed to investigate the stages of problem sensing and resolution.

Problem sensing involved the recognition by the

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*Because of the length of the PSSK and the complexity of the scoring procedures it was not reproduced in its entirety in this dissertation. Copies of the complete instrument are available, on loan, from the investigator of this study. Write to: Joan Hamachek, Michigan State University Counseling Center, East Lansing, Michigan, 48823.

subject that a problem existed. First, problem sensitivity asked whether or not the subject perceived each embedded problem as problematic and, secondly, how many potential problems did he respond to in the situation.

Resolution or problem solving occurred at the time when the subject's curiosity was satiated and his inquiry ceased. Problem solving ability was a measure of how well the subject understood the nature of selected embedded problems.

Extensive research on problem solving has been conducted by psychologists (Shonksmith, 1969; Duncker, 1945; Maier, 1936; Wertheimer, 1945; Bloom and Broder, 1950). The traditional way of observing problem solving behavior was to pose a problem situation for subjects, individually or in groups, and observe their attempts to resolve that problem. In some studies it was presumed that the subject possessed the necessary information to solve the problem and it was the manner in which he brought the information to bear upon the problem which formed the focus for research. In other studies all necessary information to solve the problem was arrayed for the problem solver.

Problem solving under field conditions differed in a number of major dimensions from the above experimental situations. As Shulman, Loupe and Piper stated,

> The real world does not consist of carefully constructed situations that are presented to

> individuals as problems-for-solution. Instead, individuals move through an array of stimulus situations which are potentially problematic in varying degrees, selectively reacting to some and not to others. Those situations that are problematic do not present themselves one at a time in predetermined numerical order but rather derive both their definition and the order in which they are handled from the cognitive activity of the inquirer. . . . More often the inquirer is operating with his ideas and feelings focused upon matters in which he has an emotional investment, such as teacher with her students, a doctor with his patients, or a therapist with his client. This affect-invested inquiry may differ markedly from the same individual's problem-solving activities in relation to, say, the area of a parallelogram (1968, pp. 17-18).

The range of experiences that were perceived and categorized as problematic varied from individual to individual. In addition, individuals reacted selectively to problems in the situation and dealt with them in an order and depth of his own choosing (Mercer, 1968). Therefore, there were different perceptions of what constituted a problem and a resolution of the problem. A basic assumption of this view of coping was that,

> In any situation, an individual will attempt to transorm the problematic and uncertain into a state that corresponds most closely to that picture of the universe with which that individual is most comfortable (Shulman, Loupe and Piper, 1968, p. 25).

The major criteria for selecting an instrument were:

1. Allow for observations of problem sensing and problem solving behaviors.

2. Maximize amount of observable search and problem solving behavior.

3. Simulate a real-life problem solving situation in order to elicit emotional involvement from the subject.

A realistic setting which maximized the need for the subject to determine where he would begin and how he would proceed for himself was developed by Frederiksen, Saunders and Ward (1957). This method was called the Administrator In-Basket. This technique was promising because it did not necessarily specify the problems to be handled, or their order. The in-basket technique left room for potential problems to be embedded, to which some subjects reacted and others did not. Shulman (1965) adapted the in-basket situation to study the inquiry processes of teachers-in-training and named his instrument the Teacher In-Basket. He found that through simulation of a complex problem situation and use of "thinking aloud" (Benjafield, 1969) techniques it was possible to conduct systematic studies of problem sensitivity and problem solving performance, among other things. Reliable and stable measures were obtained using this technique. The PSSK was modeled after the Teacher In-Basket.

Description of the Problem Solving and Sensitivity Kit (PSSK)

The kit contains three kinds of materials. These are: 1) contents of the in-basket, 2) written records concerning the clients and 3) the "human resource." The "human resource" consists of a secretary who can be

contacted by intercom.

The contents of the in-basket include telephone messages, memoranda from various members of the staff and casenote information on selected clients. These materials presumably vary in their likelihood of being viewed as problems by the subject and in the ways in which they could be perceived as problems, if at all. Figure 3.1 contains the contents of the in-basket of PSSK, Form A.*

Subjects could approach these stimuli in a potentially infinite number of ways. For example, a phone call from Tom (A-4) asking whether or not they would meet on Thursday could trigger search behavior in a number of ways. The subject may set the call aside and wait for another call from Tom. The call may be sensed as problematic but deferred for future inquiry or stored for future reference. Or the subject may look in the schedule book and find that in the past there were two Toms that met with Dr. Binaca on Thursday.

Another memo from Dr. Bailey (A-9) may be sensed as problematic and set off search behavior on the part of the subject. The materials on Stuart Strong have embedded in them a series of potentially problematic elements

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*Because of the pre-post design, two forms of the PSSK were developed. A mental health clinic was the setting for Form A; a factory was the setting for the other form, Form B.

A-1 Brief description of Madison Mental Health Clinic and its location.

A-2 Calendar indicating the date as October 29, 1969.

A-3 Memorandum from the secretary indicating that she will need information on clients so she can start scheduling appointments.

A-4 Phone call from Tom. Wants to know if you would be meeting Thursday. Last name of caller was not noted.

A-5 Phone call from Patricia Conwell. Wants to know what time her appointment will be.

A-6 Phone call from Jeff Murray's mother. Jeff left home and she wants to talk to you about him.

A-7 Phone call from ex-client, Jill Asher. Has a son with a problem and wants to talk to you about him.

A-8 Memorandum from Dr. Bailey indicating that the consulting psychiatrist will be available on Friday A.M.

A-9 Memorandum from Dr. Bailey indicating that three parent permission forms have been sent home with Stu and asks if psychologist will take care of it. Form is attached.

A-10 Memorandum from Florence Carter indicating her dissatisfaction with a group therapy session. Asks if they could meet on the thirtieth to discuss plans for future meetings and the sociogram. Sociogram made during last meeting is attached.

A-11 Memorandum from Dr. Bailey to comply with request in attached letter. The letter to Bailey indicates that Claire Powers is moving to Indianapolis and will enroll in school there on October 27. The letter, from her new principal, requests information about Claire from the Madison Mental Health Clinic.

A-12 Casefile on Cynthia Boring, a referral client from Harriet Brown.

A-13 Casefile on Mark Garrison. No indication why folder is in the in-basket is noted.

FIGURE 3.1 CONTENTS OF PSSK IN-BASKET, FORM A

which, if sensed and followed up, would lead the subject to the conclusion that Stuart is a high school drop-out who is currently having difficulties in his family with his step-sister and step-father. In addition, his step-sister is in the same therapy group with him which also presents a problem to Stu.

The written records include information in the client's case file, schedule book and current notes. Some of the case files include medical information, application forms, work evaluation sheets, case notes and educational and family history data on the client. Other case files are not as complete. The schedule book lists appointment time and dates. The current notes are recent reports on individual clients and/or group members.

The in-basket materials and the written records have over two hundred potential problems embedded in them. It is assumed that the problems vary along an obvious-obscure dimension.

Administration and Scoring of the Problem Solving and Sensitivity Kit (PSSK)

During the administration of the PSSK the counselor is placed at a desk and informed that he is to role-play a new counselor working in a clinic or factory.*

*There are two forms of the PSSK. A mental health clinic was the setting for Form A; a factory was the setting for Form B.

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This is to be his first day at work and materials have been piling up on his desk. The subject is instructed to verbally express his thoughts during the entire period. He can begin where he wants and do whatever he pleases. No time limit is suggested.*

The PSSK is administered, observed and scored by a trained observer. Via the use of a one-way mirror arrangement the observer records: 1) the materials the subject was looking at, 2) embedded problems observed by the subject, 3) conclusions or decisions reached by the subject, 4) questions the subject asked the secretary and 5) general observations and comments. Figure 3.2 is a schematic drawing of the research setting. In addition, the observer plays the role of the subject's secretary, answering questions about policy and personnel and bringing in any folders requested by the subject.** The written log is coded and rated by the observer after the testing session.

Three basic scores and two overall cognitive functioning scores constitutes the cognitive variables that are used for the analysis of cognitive performance.

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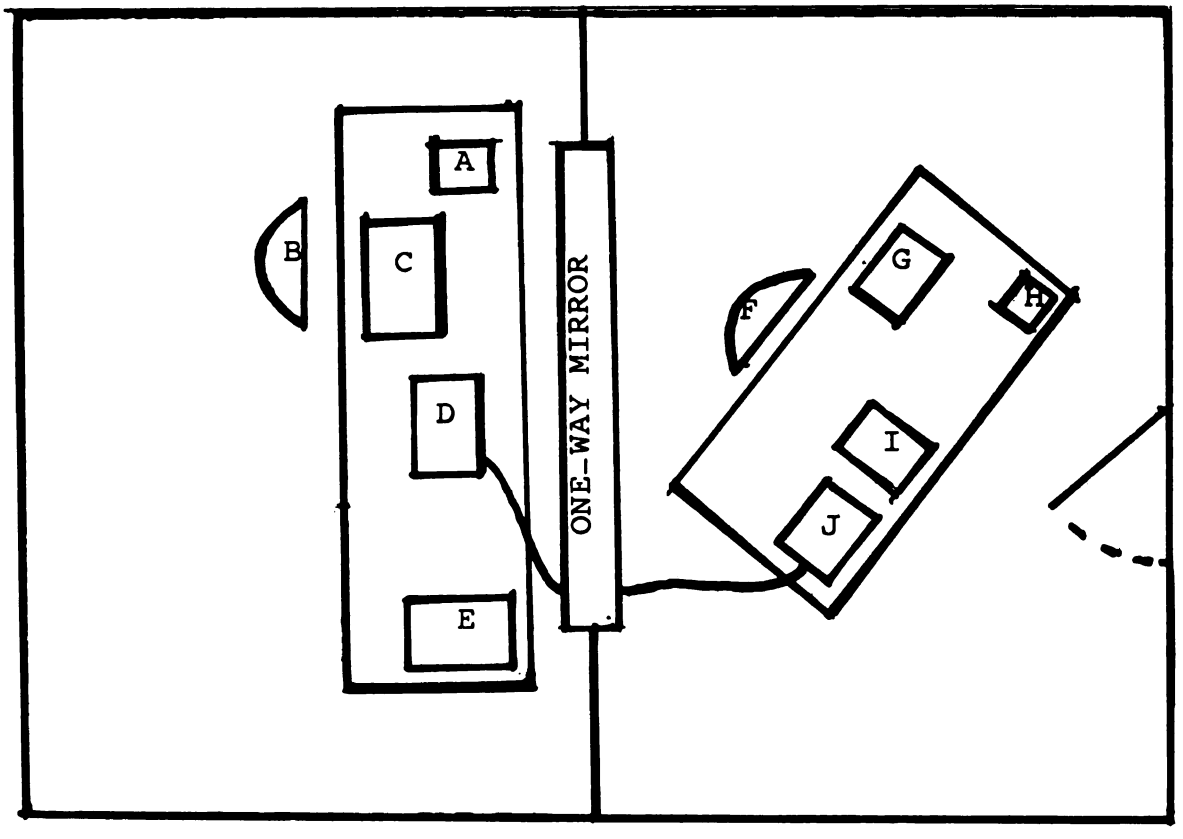
*For complete instructions given to subjects taking Form A of the PSSK see Appendix A.

**This dual role did not seem to interfere with data gathering procedures. The ideal conditions, of course, would be to have another person serve in the secretarial role.



OBSERVER ROOM

SUBJECT ROOM

A - Microphone-output

B - Observer

C - Observer's Record Book

D - Intercom Unit

E - Office Records

F - Subject

G - Files and Schedule Book

H - Microphone-input

I - In-basket

J - Intercom Unit

FIGURE 3.2 SCHEMATIC DIAGRAM OF THE RESEARCH SETTING

Problem sensitivity is the number of potentially problematic elements reacted to (sensed) as problems by the subject. Each form of the PSSK has approximately 230 potential problems embedded in the materials. Scoring for problem sensitivity is based upon a list of the embedded problems.* For example, in the cumulative folder for Claire Powers, a sixth grade student who saw the previous psychologist at the clinic, one cardex contains achievement scores of a very capable student while the scores on another cardex indicate that Claire is working below grade level. Each of these elements may be reacted to as a problem. In addition, the subject might combine the two problematic elements and note the variability of the scores from one year to the next. Adding more problematic elements concerning Claire, the subject may note that Claire has changed schools every year and when her father is home her grades are excellent, but when her father is working out of town her grades drop considerably. What and how the elements are reacted to and combined depends on the subject.

Problem solving I is a measure of overall problem resolution. The ten "major problems" each made up of a number of the potentially problematic elements, form the basis for the scoring. On each of the ten problems the subject is given a rating from zero to three, depending

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*The list of potential problems for PSSK, Form A is reproduced in Appendix B.

on the degree of completion or comprehensiveness to which the subject's problem resolutions are brought. Each point from zero to three for the ten problems is specifically defined for the rater to use in determining the level of resolution adequacy.* Those who score high in problem solving ability come to what is defined as the deepest and most complete level of understanding with respect to the problems embedded in the test materials. The total of a subject's ratings on the ten problems constitutes the problem solving I score.

Problem solving II is purported to be a measure of specific problem resolution. The purpose of this measure is to have a measure of depth of problem resolution on specific problems but also to eliminate any effect of fatique. Each subject's problem solving I score is divided by the number of problems he attempts, that is, that he has a rating of one or above, to determine the problem solving II score.

Because a time limit is not suggested, subjects may continue working until they are tired and/or feel they have completed the task. To reduce the effect of fatigue on the score, the researcher uses only those problems that the subject attempts. Thus, an individual could have a problem solving I score of nine by resolving the problems

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*The scoring manual used to rate the ten major problems for PSSK, Form A is reproduced in Appendix C.

in a variety of ways. For example, he could have received a rating of one on nine of the ten problems, or he could have received a rating of three on three of the ten problems. By dividing the total score by the number of problems attempted there would be a difference of 1.0 and 3.0. The score is assumed to reflect how involved the individual is in problems that he attempts without being penalized for not attempting all of the problems.

Cognitive functioning level I is the average score of the standardized problem solving I and problem sensitivity measures. Because the scoring system varies for each measure, T scores are calculated. The T scores are averaged for the cognitive functioning level I score.

Cognitive functioning level II is the average score of the standardized problem solving II and problem sensitivity measures.

Initial Pilot Study

Two forms of the PSSK were developed because of the necessity of pre and post measures. The two forms needed to be sufficiently similar so that the same underlying processes could be manifested and observed in the two settings, yet not so similar that there would be a transfer of learning between the two forms. Therefore, it was necessary to ascertain the degree of reliability

between the two forms of the test as well as to make an initial attempt at identifying the patterns of relationships among the problem sensitivity and problem solving variables. To do this a pilot study was conducted. The questions to be answered by the pilot study were: Are there differences in the forms of the PSSK on the variables in question? Are there differences in the ratings of the observers on the variables in question? Are there differences between raters as a result of one judge observing the subject's behavior as opposed to the other judge only hearing the audio-recording of the subject's behavior?

Eight counselors were administered both forms of the PSSK, at one week intervals. Each testing session was tape recorded. One rater observed a test session and the audio-recordings were rated by the other rater. Forms and raters were counterbalanced to reduce administration effects. Figure 3.3 contains the testing sequence design.

A two stage analysis was designed to compare the forms of the PSSK and the raters on measures of problem sensitivity, problem solving I and problem solving II.

A two factorial ANOVA for repeated measures (Kirk, 1968, pp. 237-242) provided information on the comparisons of the raw scores on measures of problem sensitivity and the two measures of problem solving. Tables 3.1, 3.2 and 3.3 contain the ANOVA tables for the three measures.

Form	Rater	Administration Time 1	Administration Time 2
Form A	A observes	n1	n3
	B listens audio-tape	n2	n4
	B observes	n3	n1
	A listens audio-tape	n4	n2
Form B	A observes	n5	n7
	B listens audio-tape	n6	n8
	B observes	n7	n5
	A listens audio-tape	n8	n6

FIGURE 3.3 INITIAL PILOT STUDY TESTING SEQUENCE DESIGN

TABLE 3.1 ANOVA SUMMARY TABLE FOR THE MEASURE OF PROBLEM SENSITIVITY IN THE INITIAL PILOT STUDY[a]

Source	SS	df	MS	F
Between Subjects	4369.95	7	624.28	
Within Subjects	80.08	3	26.69	
Between Raters	.80	1	.80	.000
Between Forms	63.26	1	63.26	1.229
Form X Rater	16.02	1	16.02	.311
Residual	1080.18	21	51.44	
Total	5530.20	31		

[a]For 1, 21 d.f., the probability of a F value of 4.325 occurring by chance is $\leq .05$; the probability of a F value of 8.025 occurring by chance is $\leq .01$.

TABLE 3.2 ANOVA SUMMARY TABLE FOR THE MEASURE OF PROBLEM SOLVING I IN THE INITIAL PILOT STUDY[a]

Source	SS	df	MS	F
Between Subjects	509.38	7	72.77	
Within Subjects	81.38	3	27.13	
Between Raters	3.13	1	3.13	.565
Between Forms	78.13	1	78.13	14.127*
Form X rater	.13	1	.13	.023
Residual	116.13	21	5.53	
Total	705.875	31		

*$p \leq .01$

[a]For 1, 21 d.f., the probability of a F value of 4.325 occurring by chance is $\leq .05$; the probability of a F value of 8.025 occurring by chance is $\leq .01$.

TABLE 3.3 ANOVA SUMMARY TABLE FOR THE MEASURE OF PROBLEM SOLVING II IN THE INITIAL PILOT STUDY[a]

Source	SS	df	MS	F
Between Subjects	4.3175	7	.6168	
Within Subjects	.7938	3	.2646	
Between Raters	.0709	1	.0709	.808
Between Forms	.6331	1	.6331	7.211*
Form X Rater	.0898	1	.0898	1.022
Residual	1.8438	21	.0878	
Total	6.9550	31		

*$p \leq .05$

[a]For 1, 21 d.f., the probability of a F value of 4.325 occurring by chance is $\leq .05$; the probability of a F value of 8.025 occurring by chance is $\leq .01$.

Significant differences were found between forms on measures of problem solving I and II but not on the measure of problem sensitivity. No significant differences were found between the raters on any of the measures. The differences between forms may have been systematic. If the differences were systematic, the analysis of covariance used in the study would take these differences into account and the differences in forms of the test would not confound the obtained results.

A further analysis was conducted to check the reliability of the ratings and to investigate whether the differences might be systematic or not (Winer, 1962, pp. 124-132). The lower limit on the reliability for a score based on the average of each subjects' four scores was computed in two ways. One estimate treated all differences within subjects (whether systematic or random) as components of the errors of measurement. The other estimate removed systematic differences associated with raters, forms and rater and form interaction from the errors of measurement. If the differences were systematic, and thus would not effect the methods of analysis in a negative way, it could be concluded that the two forms of the PSSK were measuring the same dimensions. Table 3.4 contains these findings. The reliability of a single score on the measures of problem sensitivity, problem solving I and problem solving II is reported in Table 3.5.

TABLE 3.4 RELIABILITY OF PROBLEM SENSITIVITY, PROBLEM SOLVING I AND PROBLEM SOLVING II SCORES, WITH AND WITHOUT EFFECTS OF SYSTEMATIC DIFFERENCES REMOVED, BASED ON THE AVERAGE OF SUBJECT'S FOUR SCORES IN THE INITIAL PILOT STUDY

Variable	With Systematic Differences Included	With Systematic Differences Removed
Problem Sensitivity	.957	.918
Problem Solving I	.627	.924
Problem Solving II	.571	.858

TABLE 3.5 RELIABILITY OF PROBLEM SENSITIVITY, PROBLEM SOLVING I AND PROBLEM SOLVING II SCORES, WITH AND WITHOUT EFFECTS OF SYSTEMATIC DIFFERENCES REMOVED, BASED ON AN INDIVIDUAL SCORE IN THE INITIAL PILOT STUDY

Variable	With Systematic Differences Included	With Systematic Differences Removed
Problem Sensitivity	.848	.812
Problem Solving I	.296	.752
Problem Solving II	.249	.601

The reliability of the scores on the problem solving I and problem solving II variables increased substantially when the effects of systematic differences were removed from the error of measurement. Therefore, it was concluded that the differences between forms and raters

were primarily systematic and that both forms of the PSSK measure essentially the same processes and characteristics. It should be noted that the two forms of the PSSK represent parallel rather than equivalent forms of the same characteristics.

In addition, correlation coefficients were computed on each of the three cognitive measures for the score obtained by observing and rating the subject's behavior and the score from rating the audio-recording of the subject's behavior. The high positive correlations of .98, .94 and .61 for problem sensitivity, problem solving I and problem solving II, respectively, would suggest that rating by either the observation or the audio-recording technique allows for reliable scoring of the data.

Summary

The Problem Solving and Sensitivity Kit (PSSK) was based on a model of inquiry presented by Dewey (1938) and on research by Shulman (1965) and Shulman, Loupe and Piper (1968).

The PSSK was developed so as to allow for observations of problem sensing and problem solving behavior and to simulate a real-life counseling situation in order to elicit emotional involvement from the subject. The contents of the test were described as were the administration and scoring procedures used to score the PSSK.

A pilot study was conducted to investigate several

questions. They were: 1) Are there differences in the ratings of the observers on the problem solving and problem sensitivity variables? 2) Are there differences in the forms of the PSSK on the variables in question? 3) Are there differences between raters as a result of one judge observing the subject's behavior as opposed to the other judge only hearing the audio-recording of the subject's behavior? From a two factorial ANOVA for repeated measures and an estimate of reliabilities based on the components of variance, it was concluded that differences in the ratings by two judges on the same test were not significant and that the two forms of the PSSK represented parallel rather than equivalent forms to measure problem sensitivity and problem solving ability of counselors. High correlations between measures obtained from observing the subject and listening to an audio-recording of the subject's behavior suggested that rating by either procedure allowed for reliable scoring of the data.

CHAPTER IV

DESIGN AND METHODOLOGY

In this chapter the 1) sample selection, 2) instrumentation, 3) procedure for collecting data, 4) the design of the study, 5) hypotheses to be tested and 6) the type of analysis used to test these hypotheses are examined.

Sample Selection

The sample consisted of twelve counselor training supervisors and seventeen of their supervisees. Supervisors were faculty members at Michigan State University and the supervisees were advanced graduate students at the same university.

Supervisor Selection

As soon as the list of faculty members eligible to do supervision was released in the fall of 1969, a letter was sent to each potential supervisor asking whether he would be willing to participate in this investigation.* Twenty-two letters were sent. Two supervisors declined to participate. An additional five supervisors were

*See Appendix D for copy of this letter.

eliminated from the selection because they were not assigned to supervise first and second term practicum students and/or interns, the supervisees that were to participate in this study. Twelve supervisors of the fifteen that were eligible and interested were randomly chosen to participate in this study.

The supervisors were ten male and two female counseling center faculty members employed at Michigan State University during the 1969-70 academic year. The theoretical orientation of the supervisors ranged from neo-psychoanalytic to interpersonal or eclectic, and they had a range of one to twenty-three years of counseling experience. Each had a doctoral degree in either clinical psychology or counseling psychology.

Supervisee Selection

The supervisees were ten male and seven female first or second term practicum students or interns that were to be supervised by the twelve supervisors selected to participate in this study. The supervisees were assigned to supervisors by either the Assistant Director for Training or by the practicum instructor. The procedure that was used to make the pairings was described as "essentially no systematic process." The supervisees were twelve interns, three first term practicum students and two second term practicum students. Each had completed seventy-five

per cent or more of the course work for his Ph.D. requirements.

Eight supervisors were assigned only one counselor-in-training, three supervisors were assigned two counselors-in-training and one supervisor was assigned to three counselors-in-training.

Instrumentation

The two instruments used in this study were Carkhuff's Scales of Measurement for Facilitative Functioning (SMFF) and the Problem Solving and Sensitivity Kit (PSSK).

Scales of Measurement for Facilitative Functioning (SMFF)

The SMFF consists of four scales: "Empathic Understanding in Interpersonal Processes;" "Respect or Positive Regard in Interpersonal Processes;" "Facilitative Genuineness in Interpersonal Processes;" "Personally Relevant Concreteness or Specificity of Expression."* Three excerpts of three minutes each are selected randomly from the beginning, middle and end of a taped counseling interview and ranked on a nine-point scale (1.0, 1.5, 2.0, . . ., 5.0), with the use of the four scales of measurement, to determine the subject's level of functioning on dimensions of empathy, respect, genuineness and concreteness. The average ratings of the 3-three minute segments on a

*See Appendix E for copies of the four scales.

given dimension constitutes the measure of therapeutic functioning on that dimension.

Scoring

Each tape segment was scored by two judges independantly of the other segments. All four dimensions were rated at the conclusion of each tape segment.

The two raters for the Carkhuff's Facilitative Functioning Scales were trained by an experienced researcher that had been shown by previous research to be functioning above level 3.0 across all the dimensions of empathy, respect, genuineness and concreteness (Pierce and Schauble, 1970). The interrater reliabilities in this study were E. = .890, R. = .899, G. = .874 and C. = .893. The raters were neither aware of the supervisor-supervisee pairings nor did they have knowledge of which tapes were interviews by the supervisors and which interviews were by the supervisees.

The averaged ratings across all four dimensions were used to divide the supervisors into high or low affective functioning groups. The average ratings on the high and low supervisors on the four dimensions are reported in Table 4.1. The high supervisors had average ratings of E. = 3.29, R. = 3.33, G. = 3.54 and C. = 3.46. Across all dimensions the high supervisors' scores ranged from a low of 2.75 to a high of 4.00. The average ratings

TABLE 4.1 AVERAGE RATINGS AND RANGE OF SCORES FOR HIGH AND LOW SUPERVISORS ON DIMENSIONS OF EMPATHY, RESPECT, GENUINENESS AND CONCRETENESS

Supervisor Group	Range	Empathy	Respect	Genuine-ness	Concrete-ness
High (n =6)	2.75-4.00	3.29	3.33	3.54	3.46
Low (n =6)	1.00-2.75	2.29	2.29	2.25	2.17

of the low supervisors were E. = 2.29, R. = 2.29, G. = 2.25 and C. = 2.17. Across all conditions the low supervisors' scores ranged from a low of 1.00 to a high of 2.75.

Standardization Information on the Scales of Measurement for Facilitative Functioning (SMFF)

Validation of the scales, apart from consideration of their face validity, depends almost entirely on the research evidence relating them to outcome and to other therapy variables. The data suggest that empathy, respect, genuineness and concreteness are related to such outcome variables as self-exploration, the MMPI, achievement score gains and constructive personality and behavioral change.*

Problem Solving and Sensitivity Kit (PSSK)

The PSSK** is used to measure the subject on dimensions of problem solving and problem sensitivity. The

*For a fuller discussion of the validity information on the SMFF, see Chapter II.

**For a detailed description of the PSSK and its development, see Chapter III.

PSSK is used during a structured role playing session and requires the subject to come to grips with problematic situations which requires the discovery of available techniques or the invention of new means for a resolution of the imbedded problems. Each subject's performance is rated on problem sensitivity from 0 to 233, depending on the number of embedded problems he "senses." The subject is also rated from 0 to 3 on ten complex problems, depending on the problem resolution that occurs. The total of the ratings on the ten problems yields data for two measures of the subject's problem solving ability.

Administration and Scoring

A room with a one-way mirror and wired with an intercom was made available by the Reading Clinic in the College of Education for the PSSK testing. The instructions* required the subject to role play a counselor working in a mental health clinic (Form A) or a factory (Form B). This was to be his first day at work and materials had piled up on his desk and he was to respond to the materials as if it was, in fact, his job. The subject was instructed to give verbal expression to his thoughts during the entire period. The subject was to react to the array of materials before him, any of which

*See Appendix A for a copy of the instructions used when administering Form A of the PSSK.

could have been perceived as either possessing discrepant characteristics or as having been in equilibrium and non-problematical. Each subject was to work until the task was completed to his satisfaction. The observer, who was on the other side of the one-way mirror during the entire period, recorded, in writing: 1) the materials the subject was looking at, 2) embedded problems observed by the subject, 3) conclusions or decisions reached by the subject, 4) questions asked of secretary and 5) general observations and comments. The written record was used to rate the participants on their problem solving ability and problem sensitivity.

The observer (A) for the PSSK was an experienced researcher and had been closely involved for three years in the development and rating of the Teacher In-Basket, (Shulman, et. al., 1968) the instrument on which the PSSK was modeled.* While it was not possible for two raters to be used throughout the ratings of the PSSK tests, a second rater (B) was trained to score the audio-recordings of the PSSK for problem sensitivity and problem solving ability. Rater B rated the audio-recordings of three randomly selected administrations of the PSSK as a check on the reliability of Rater A's scores. Using the Pearson

*Rater A was the investigator of this study. While it would have been preferable to have the data collected by an unbiased judge, the large amount of time and money this would involve and the complexity of the instrument prohibited this.

product-moment formula, the interrater reliabilities for problem sensitivity, problem solving I and problem solving II were .96, .99 and .80, respectively.

The sums of the supervisors' scores on problem solving and problem sensitivity, converted to T scores, were used to divide the supervisors into high and low cognitive functioning groups, the treatment groups. The division into groups was the same whether problem solving I or problem solving II was used as the problem solving dimension to divide the groups. As indicated in Table 4.2, the average raw score ratings of the high supervisors were P. Sen. = 50.00, P. Sol. I = 13.17 and P. Sol. II = 1.77. Their range of scores was 39 to 71 for problem sensitivity, 10 to 20 for problem solving I and 1.3 to 2.5 for problem solving II. The average raw score ratings of the low supervisors were P. Sen. = 28.83, P. Sol. I = 5.33 and P. Sol. II = 1.50. Their range of scores was 16 to 40 for problem sensitivity, 3 to 10 for problem solving I and 1.0 to 2.0 for problem solving II.

TABLE 4.2 AVERAGE RAW SCORE RATINGS AND RANGE OF SCORES FOR HIGH AND LOW SUPERVISORS ON DIMENSIONS OF PROBLEM SENSITIVITY, PROBLEM SOLVING I AND PROBLEM SOLVING II

Supervisor Group	Problem Sensitivity		Problem Solving I		Problem Solving II	
	$\bar{X}$	Range	$\bar{X}$	Range	$\bar{X}$	Range
High (n = 6)	50.00	39-71	13.17	10-20	1.77	1.3-2.5
Low (n = 6)	28.83	16-40	5.33	3-10	1.50	1.0-2.0

Standardization Information on the Problem Solving and Sensitivity Kit (PSSK)

The PSSK was an empirical, yet unreasearched, instrument to measure problem solving ability and problem sensitivity in counselors. Since it was a modification of a test developed and validated by Shulman (1965) and Shulman, Loupe and Piper (1968), it was assumed that the concepts of problem solving and problem sensitivity would also be valid concepts in the PSSK.

In addition, a pilot study was conducted in which eight counselors were administered both forms of the PSSK at one-week intervals. The ANOVA for the two-factor experiment with repeated measures yielded no significant F values for the rater or form and rater interaction effects. While there were significant main effects for form on both of the problem solving variables, it was concluded that the differences were primarily systematic, and thus, would not interfere with the planned analysis.*

Procedure

The supervisors were tested on two instruments, the Problem Solving and Sensitivity Kit, Form A (PSSK) and Carkhuff's Scales of Measurement for Facilitative Functioning (SMFF). The supervisors were divided into two

*For a more complete description of this pilot study, see Chapter III.

groups, twice, for the analysis. First, the supervisors' scores on the PSSK were used to divide the supervisors into high and low cognitive groups, and, secondly, the supervisors' average scores on the SMFF were used to divide the supervisors into high and low affective groups.

Each participating supervisee submitted tape recordings of two of his counseling interviews within the first three weeks of the academic year. One of the tapes was randomly selected and rated by two judges on the dimensions of empathy, respect, genuineness and concreteness, as defined by the SMFF. In addition, the supervisees submitted a tape of a counseling interview during the final three weeks of the academic year, with the exception of the two second term practicum students who submitted tapes during the final three weeks of winter term. These tapes were rated on empathy, respect, genuineness and concreteness by the same two judges who rated the pretapes and were used as post measures of affective therapeutic functioning.

During the first three weeks of fall term each participating supervisee was scheduled to take the PSSK, Form A. In addition, the supervisees participated in taking the second form of the PSSK during the last three weeks of spring term, with the exception of the two second term practicum students. The second term practicum students were tested at the beginning of spring term. The ratings

on the PSSK were used as pre and post measures of cognitive functioning.

It should be noted at this point that neither the supervisor nor the supervisees had any information about the design of the study.

Design

The design of this study is both predictive and descriptive in nature. The predictive aspects of the study follows a pretest-posttest control group design, as described by Campbell and Stanley (1966, pp. 13-24). Rather than one treatment and one control group this study uses two treatment groups, one of high supervisors and one of low supervisors. The basic design has the following form:

$$R\ O_1\ T_{Hi}\ O_2$$

$$R\ O_3\ T_{Lo}\ O_4$$

where R is randomized placement of the supervisees into the two treatment (T) groups,* O_1 and O_3 are pretreatment observations and O_2 and O_4 are posttreatment observations.

*While pairing of the supervisees to supervisors was described as a relatively random process by the instructors that make the assignments, it should be noted that on a few occasions pairing of a particular supervisee to a supervisor was made for specific reasons. If the assignments were not all random, confounding variables may have entered into the supervisory process and these were not taken into account in this study.

While the sources of internal invalidity are accounted for in this design, an external source of invalidity, interaction of the testing and the treatment, may influence the final observations.

The descriptive aspects of the study follows a trend analysis design. This design can not provide emperical validation nor will it test any hypotheses. Nonetheless, it may help to generate some hypotheses that might be investigated in future studies.

Statistical Hypotheses

The following are the principle testable hypotheses of the experiment as stated in their null form:

1. No difference will be found in the supervisees of the high cognitive supervisors and the supervisees of the low cognitive supervisors on the measure of:

A. Problem sensitivity.

Symbolically: H_o: $PSen_{Hi\ cog} = or < PSen_{Lo\ cog}$

B. Problem solving I.

Symbolically: H_o: $PSI_{Hi\ cog} = or < PSI_{Lo\ cog}$

C. Problem solving II.

Symbolically: H_o: $PSII_{Hi\ cog} = or < PSII_{Lo\ cog}$

D. Cognitive functioning level I.

Symbolically: H_o: $CFI_{Hi\ cog} = or < CFI_{Lo\ cog}$

E. Cognitive functioning level II.

Symbolically: H_o: $CFII_{Hi\ cog} = \text{or} \leq CFII_{Lo\ cog}$

F. Empathy.

Symbolically: H_o: $E_{Hi\ cog} = E_{Lo\ cog}$

G. Respect.

Symbolically: H_o: $R_{Hi\ cog} = R_{Lo\ cog}$

H. Genuineness.

Symbolically: H_o: $G_{Hi\ cog} = G_{Lo\ cog}$

I. Concreteness.

Symbolically: H_o: $C_{Hi\ cog} = C_{Lo\ cog}$

J. Affective functioning level.

Symbolically: H_o: $AF_{Hi\ cog} = AF_{Lo\ cog}$

2. No difference will be found in the supervisees of the high affective supervisors and the supervisees of the low affective supervisors on the measure of:

A. Empathy.

Symbolically: H_o: $E_{Hi\ aff} = \text{or} < E_{Lo\ aff}$

B. Respect.

Symbolically: H_o: $R_{Hi\ aff} = \text{or} < R_{Lo\ aff}$

C. Genuineness.

Symbolically: H_o: $G_{Hi\ aff} = \text{or} < G_{Lo\ aff}$

D. Concreteness.

Symbolically: H_o: $C_{Hi\ aff} = \text{or} < C_{Lo\ aff}$

E. Affective functioning level.

Symbolically: H_o: $Aff_{Hi\ aff} = or < AF_{Lo\ aff}$

F. Problem sensitivity.

Symbolically: H_o: $PSen_{Hi\ aff} = PSen_{Lo\ aff}$

G. Problem solving I

Symbolically: H_o: $PSI_{Hi\ aff} = PSI_{Lo\ aff}$

H. Problem solving II.

Symbolically: H_o: $PSII_{Hi\ aff} = PSII_{Lo\ aff}$

I. Cognitive functioning level I.

Symbolically: H_o: $CFI_{Hi\ aff} = CFI_{Lo\ aff}$

J. Cognitive functioning level II.

Symbolically: H_o: $CFII_{Hi\ aff} = CFII_{Lo\ aff}$

3. There will be no positive correlation among the cognitive variables.

Symbolically: H_o: $r = or < 0$

4. There will be no positive correlation among the affective variables.

Symbolically: H_o: $r = or < 0$

5. There will be no correlation between a supervisor's score on the affective variables and his score on the cognitive variables.

Symbolically: H_o: $r = 0$

Analysis

Analyses of covariance, with pretest scores as the

covariate, were computed on the PSSK variables and SMFF variables to test hypotheses one and two. The analysis of covariance was used because the data were readily adaptable to it and it was more precise than simple gain score comparisons or comparable nonparametric techniques. In addition, analysis of covariance was selected because it could adjust for systematic differences between the two forms of the PSSK.

Pearson product-moment correlations were performed on the cognitive scores to see if they had linear agreement. The same procedure was used on the affective variables. These correlations were used to test hypotheses three and four. Hypothesis five was also tested with the Pearson product-moment correlation coefficient.

A descriptive analysis was used to examine changes in "style" of the supervisee as a function of his supervisors's overall counseling style.

Summary

The subjects in this study were ten male and two female counseling supervisors and seventeen of their supervisees in training at Michigan State University.

Carkhuff's Scales of Measurement for Facilitative Functioning were used to measure empathy, respect, genuineness and concreteness (affective variables) and the Problem Solving and Sensitivity Kit was used to measure the problem

sensitivity and problem solving ability (cognitive variables) of counselors.

Both of the tests were administered to the supervisors at the beginning of the academic year. The supervisees participated in the testing at the beginning and the end of the academic year.

The statistical procedures used in this study were analyses of covariance for comparing the supervisees in the high cognitive--low cognitive groups and the high affective--low affective groups on the measures of empathy, respect, genuineness, concreteness, affective functioning level, problem sensitivity, problem solving I, problem solving II, cognitive functioning level I and cognitive functioning level II. Pearson product-moment correlations were used to examine the relationships between the affective variables, the cognitive variables and the supervisors' scores on the cognitive and affective variables. A trend analysis was used to examine changes in the supervisee's overall counseling style from the beginning to the end of the program.

CHAPTER V

ANALYSIS OF DATA: STATISTICAL TREATMENT

This chapter consists of a restatement of each hypothesis in the null form. Each hypothesis is followed by applicable data. Finally, the results of the tested differences between treatment groups in hypotheses one and two, as tested by analysis of covariance, are given with a probability statement of reject or accept. Hypotheses three, four and five are correlational analyses and are followed by probability statements regarding the significance levels of the correlation coefficients.

Hypothesis One

No difference will be found in the supervisees of the high cognitive supervisors and the supervisees of the low cognitive supervisors on the measure of:

A. Problem sensitivity.

B. Problem solving I.

C. Problem solving II.

D. Cognitive functioning level I.

E. Cognitive functioning level II.

F. Empathy.

G. Respect.

H. Genuineness.

I. Concreteness.

J. Affective functioning level.

TABLE 5.1 PRE AND POST MEAN SCORES, STANDARD DEVIATIONS AND ADJUSTED MEAN SCORES ON TEN VARIABLES FOR HIGH AND LOW COGNITIVE TREATMENT GROUPS

Criterion Variable	Treatment Group	Pre $\bar{X}$	Pre S.D.	Post $\bar{X}$	Post S.D.	Adjusted $\bar{X}$
Problem Sensitivity	High	21.83	19.13	23.50	17.38	21.29
	Low	39.83		35.00		37.25
Problem Solving I	High	5.33	4.45	7.00	5.75	6.39
	Low	9.83		11.17		11.78
Problem Solving II	High	1.27	.74	1.70	.71	1.83
	Low	1.82		1.93		1.80
Cognitive I	High	89.75	17.92	99.68	19.99	96.69
	Low	108.80		106.80		109.79
Cognitive II	High	92.72	15.84	98.93	18.23	98.71
	Low	106.47		106.17		106.39
Empathy	High	2.38	.45	2.46	.40	2.46
	Low	2.42		1.92		1.92
Respect	High	2.29	.44	2.46	.39	2.77
	Low	2.46		1.92		1.92
Genuineness	High	2.42	.48	2.46	.42	2.48
	Low	2.58		1.96		1.94
Concreteness	High	2.17	.64	2.58	.50	2.58
	Low	2.46		1.92		1.92
Affective Level	High	2.29	.48	2.54	.40	2.54
	Low	2.42		1.96		1.96

TABLE 5.2 ANALYSIS OF COVARIANCE FOR PROBLEM SENSITIVITY SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS[a]

Source of Variation	SS	df	MS	F
Treatments	600.089	1	600.089	1.928
Experimental Error	2802.645	9	311.183	
Total	3402.734	10		

[a]For 1, 9 d.f., the probability of a F value of 5.12 occurring by chance is $\leq$ .05; the probability of a F value of 10.60 occurring by chance is $\leq$ .01. This footnote is applicable to Tables 5.2 through 5.11 and Tables 5-13 through 5-22.

TABLE 5.3 ANALYSIS OF COVARIANCE FOR PROBLEM SOLVING I SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	66.685	1	66.685	1.898
Experimental Error	316.206	9	35.134	
Total	382.891	10		

TABLE 5.4 ANALYSIS OF COVARIANCE FOR PROBLEM SOLVING II SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.0034	1	.0034	.007
Experimental Error	4.3101	9	.4789	
Total	4.3135	10		

TABLE 5.5 ANALYSIS OF COVARIANCE FOR COGNITIVE I SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	383.792	1	383.792	.938
Experimental Error	3682.053	9	409.117	
Total	4065.845	10		

TABLE 5.6 ANALYSIS OF COVARIANCE FOR COGNITIVE II SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	146.319	1	146.319	.397
Experimental Error	3318.732	9	368.748	
Total	3465.051	10		

TABLE 5.7 ANALYSIS OF COVARIANCE FOR EMPATHY SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.890	1	.890	4.942
Experimental Error	1.620	9	.180	
Total	2.510	10		

TABLE 5.8 ANALYSIS OF COVARIANCE FOR RESPECT SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.875	1	.875	5.237*
Experimental Error	1.504	9	.167	
Total	2.379	10		

*$p < .05$

TABLE 5.9 ANALYSIS OF COVARIANCE FOR GENUINENESS SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.833	1	.833	4.626
Experimental Error	1.620	9	.180	
Total	2.453	10		

TABLE 5.10 ANALYSIS OF COVARIANCE FOR CONCRETENESS SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	1.261	1	1.261	4.467
Experimental Error	2.542	9	.282	
Total	3.803	10		

TABLE 5.11 ANALYSIS OF COVARIANCE FOR AFFECTIVE FUNCTIONING LEVEL SCORES WITH HIGH AND LOW COGNITIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.982	1	.982	5.525*
Experiemental Error	1.600	9	.178	
Total	7.125	10		

*$p < .05$

Adjusted mean scores in Table 5.1 and analysis of covariance data in Tables 5.2 through 5.11 provided the data for testing hypothesis one. Examination of these data revealed that:

Subhypothesis A. There was no significant difference at the .05 level on problem sensitivity scores between the supervisees of high cognitive supervisors and supervisees of the low cognitive supervisors. There was a tendency in the data to move in the predicted direction but not significantly so.

Subhypothesis B. There was no significant difference at the .05 level on the first measure of problem solving between the supervisees of high cognitive supervisors and supervisees of the low cognitive supervisors.

Subhypothesis C. There was no significant difference at the .05 level on the second measure of problem solving between the supervisees in the two cognitive groups.

Subhypothesis D. There was no significant difference at the .05 level on the first measure of cognitive functioning between the supervisees in the two cognitive groups. Although the data were not significant, they tended to move in the predicted direction.

Subhypothesis E. There was no significant difference at the .05 level on the second cognitive functioning measures between the supervisees in the two cognitive groups. There was a tendency in the data to move in the predicted direction but not significantly so.

Subhypothesis F. There was no significant difference at the .05 level on empathy scores between the supervisees in the two cognitive groups. The differences were in the direction that the supervisees of the high cognitive supervisors achieved more growth in empathy than the supervisees of the low cognitive supervisors. In fact, the supervisees in the low cognitive group tended to deteriorate on the measure of empathy from pre-to-posttesting while the mean score of empathy for the supervisees in the high cognitive group increased from pre-to-posttesting.

Subhypothesis G. There was a significant difference at the .05 level on respect scores between the supervisees in the two cognitive groups. The null hypothesis was rejected at the .05 level of confidence indicating that there was a significant difference between these two groups.

The supervisees of the high cognitive supervisors gained on the mean functioning level of respect from pre-to-posttesting while the supervisees in the low cognitive group deteriorated on the mean functioning level of respect during the same time span.

Subhypothesis H. There was no significant difference at the .05 level on genuineness scores between the supervisees of high cognitive supervisors and supervisees of the low cognitive supervisors. While the mean genuineness score remained essentially the same from pre-to-posttesting for the supervisees in the high cognitive group, the mean score for the supervisees in the low cognitive group decreased, but this difference was not significant.

Subhypothesis I. There was no significant difference at the .05 level of confidence on the concreteness scores between the supervisees in the two cognitive groups. However, the mean scores increased from pre-to-posttesting for the high cognitive group subjects and decreased for the low cognitive group subjects.

Subhypothesis J. There was a significant difference at the .05 level on the affective functioning level scores between the supervisees in the two cognitive groups. The null hypothesis was rejected at the .05 level of confidence. The mean score of affective functioning level increased from pre-to-posttesting for the high cognitive group but decreased during the same time for

the low cognitive group.

Hypothesis Two

No difference will be found in the supervisees of the high affective supervisors and the supervisees of the low affective supervisors on the measure of:

A. Empathy.

B. Respect.

C. Genuineness.

D. Concreteness.

E. Affective functioning level.

F. Problem sensitivity.

G. Problem solving I.

H. Problem solving II.

I. Cognitive functioning level I.

J. Cognitive functioning level II.

Adjusted mean scores in Table 5.15 and analysis of covariance data in Tables 5.13 through 5.22 provided the data for testing hypothesis two. Examination of these data revealed that:

Subhypothesis A. There was no significant difference at the .05 level on the empathy scores between the supervisses of high affective supervisors and supervisees of the low affective supervisors. Although the data were not significant, they tended to move in a direction opposite from the predicted direction. While both groups

TABLE 5.12 PRE AND POST MEAN SCORES, STANDARD DEVIATIONS AND ADJUSTED MEAN SCORES ON TEN VARIABLES FOR HIGH AND LOW AFFECTIVE TREATMENT GROUPS

Criterion Variable	Treatment Group	Pre $\bar{X}$	Pre S.D.	Post $\bar{X}$	Post S.D.	Adjusted $\bar{X}$
Empathy	High	2.42	.45	2.08	.49	2.08
	Low	2.38		2.29		2.29
Respect	High	2.42	.45	2.13	.48	2.13
	Low	2.33		2.25		2.25
Genuineness	High	2.58	.48	2.17	.50	2.16
	Low	2.42		2.25		2.26
Concreteness	High	2.33	.66	2.25	.62	2.25
	Low	2.29		2.25		2.25
Affective Level	High	2.38	.48	2.21	.51	2.21
	Low	2.33		2.29		2.29
Problem Sensitivity	High	24.33	20.30	35.00	17.38	35.27
	Low	37.33		23.50		23.23
Problem Solving I	High	6.83	5.02	11.00	5.82	11.06
	Low	8.33		7.17		7.11
Problem Solving II	High	1.27	.74	1.85	.72	1.98
	Low	1.82		1.78		1.66
Cognitive I	High	95.55	20.33	108.55	19.52	108.22
	Low	103.00		97.93		98.26
Cognitive II	High	94.58	16.66	105.22	18.42	105.88
	Low	104.60		98.88		99.22

TABLE 5.13 ANALYSIS OF COVARIANCE FOR EMPATHY SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.133	1	.133	.5049
Experimental Error	2.376	9	.264	
Total	2.509	10		

TABLE 5.14 ANALYSIS OF COVARIANCE FOR RESPECT SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.043	1	.043	.165
Experimental Error	2.336	9	.260	
Total	2.379	10		

TABLE 5.15 ANALYSIS OF COVARIANCE FOR GENUINENESS SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.032	1	.032	.118
Experimental Error	2.418	9	.269	
Total	2.450	10		

TABLE 5.16 ANALYSIS OF COVARIANCE FOR CONCRETENESS SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.0001	1	.0001	.0002
Experimental Error	4.5000	9	.5000	
Total	4.5001	10		

TABLE 5.17 ANALYSIS OF COVARIANCE FOR AFFECTIVE FUNCTIONING LEVEL SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.018	1	.018	.064
Experimental Error	2.557	9	.284	
Total	2.575	10		

TABLE 5.18 ANALYSIS OF COVARIANCE FOR PROBLEM SENSITIVITY SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	387.615	1	387.615	1.157
Experimental Error	3014.118	9	334.902	
Total	3401.733	10		

TABLE 5.19 ANALYSIS OF COVARIANCE FOR PROBLEM SOLVING I SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	45.595	1	45.595	1.217
Experimental Error	337.294	9	37.477	
Total	382.889	10		

TABLE 5.20 ANALYSIS OF COVARIANCE FOR PROBLEM SOLVING II SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	.253	1	.253	.563
Experimental Error	4.042	9	.449	
Total	4.295	10		

TABLE 5.21 ANALYSIS OF COVARIANCE FOR COGNITIVE I SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	286.278	1	286.278	.682
Experimental Error	3779.523	9	419.947	
Total	4065.801	10		

TABLE 5.22 ANALYSIS OF COVARIANCE FOR COGNITIVE II SCORES WITH HIGH AND LOW AFFECTIVE SUPERVISOR GROUPS

Source of Variation	SS	df	MS	F
Treatments	120.048	1	120.048	.323
Experimental Error	3344.994	9	371.666	
Total	3465.042	10		

decreased in the average functioning level on empathy from pre-to-posttesting, the mean of the low affective group decreased less than the mean of the high affective group.

Subhypothesis B. There was no significant difference at the .05 level on the respect scores between the supervisees in the two affective groups. While both groups decreased in the mean functioning level on respect from pre-to-posttesting, the mean of the low affective group decreased less than the mean of the high affective group. Therefore, while the data were not significant, they tended to move in a direction opposite from the predicted direction.

Subhypothesis C. There was no signficant difference at the .05 level on the genuineness scores between the supervisees in the two affective groups. The data tended to move in a direction opposite from the predicted direction even though these differences were not significant. In fact, both groups decreased on the mean functioning level but the high affective group mean decreased more

than the low affective group mean.

Subhypothesis D. There was no significant difference at the .05 level on the concreteness scores between the supervisees in the two affective groups. While both groups decreased in the mean functioning level on concreteness from pre-to-posttesting, the mean of the high affective group decreased more than the mean of the low affective group. Therefore, the data tended to move in a direction opposite from the predicted direction.

Subhypothesis E. There was no significant difference at the .05 level on the affective functioning level scores between the supervisees in the two affective groups. As with the four affective measures, the data tended to move in a direction opposite from the predicted direction. That is, the mean of the low affective group decreased less than the mean of the high affective group from pre-to-posttesting.

Subhypothesis F. There was no significant difference at the .05 level on the problem sensitivity scores between the supervisees in the two affective groups. There was a tendency in the data to move in the direction of greater gains for the supervisees in the high affective group than for the supervisees in the low affective group, but not significantly so.

Subhypothesis G. There was no significant difference at the .05 level of confidence on the first

measure of problem solving between the supervisees in the two affective groups. Although the data were not significant, they tended to move in the direction that high affective supervisors produced greater gains in the problem solving dimension than did the low affective supervisors from pre-to-posttesting.

Subhypothesis H. There was no significant difference at the .05 level of confidence on the second measure of problem solving between the supervisees in the two affective groups. There was a tendency in the data to move in the direction of greater gains for the supervisees in the high affective group than for the supervisees in the low affective group, but not significantly so.

Subhypothesis I. There was no significant difference at the .05 level on the first measure of cognitive functioning level between the supervisees of high cognitive supervisors and supervisees of the low cognitive supervisors. As with the first measure of problem solving and problem sensitivity scores, the data tended to move in the direction of greater gains for the supervisees in the high affective group than for the supervisees in the low affective group.

Subhypothesis J. There was no significant difference at the .05 level on the second measure of cognitive functioning level between the supervisees in the two

affective groups. As was the case with the second measure of problem solving and problem sensitivity scores, the data tended to move in the direction of greater gains for the supervisees in the high affective group than for the supervisees in the low affective group.

Hypothesis Three

There will be no positive correlation between the three cognitive variables of problem sensitivity, problem solving I and problem solving II.

Pearson product-moment correlation coefficients were computed for pre and post scores for the seventeen supervisees and presented in Table 5.23. All of the correlations except the pre scores of problem solving II and problem sensitivity rejected the null hypothesis of

TABLE 5.23 MATRIX OF INTERCORRELATIONS AMONG BASIC COGNITIVE VARIABLES FOR PRE AND POST SCORES OF SEVENTEEN COUNSELORS-IN-TRAINING[a, b]

	Problem Sensitivity	Problem Solving I	Problem Solving II
Problem Sensitivity		.833	.386
Problem Solving I	.959		.557
Problem Solving II	.633	.727	

[a]Pre scores above diagonal--Post scores below diagonal.

[b]For N = 17, the probability of $r \geq .39$ occurring by chance = .05; the probability of $r \geq .53$ occurring by chance = .01. (one-tailed)

r = 0 at the .05 level of confidence for a one-tailed test of correlation coefficients.

Hypothesis Four

There will be no positive correlation between the four affective variables of empathy, respect, genuineness and concreteness.

Pearson product-moment correlations of the four affective variables are presented in Table 5.24. All of the correlations rejected the null hypothesis of r = 0 at the .01 level of confidence for a one-tailed test of the correlation coefficients.

TABLE 5.24 MATRIX OF INTERCORRELATIONS AMONG BASIC AFFECTIVE VARIABLES FOR PRE AND POST SCORES OF SEVENTEEN COUNSELORS-IN-TRAINING[a,b]

	Empathy	Respect	Genuineness	Concreteness
Empathy		.963	.914	.910
Respect	.986		.965	.897
Genuineness	.947	.960		.858
Concreteness	.836	.883	.915	

[a]Pre scores above diagonal--Post scores below diagonal.

[b]For N = 17, the probability of r $\geq$ .39 occurring by chance = 05; the probability of r $\geq$ .53 occuring by chance = .01. (one-tailed)

Hypothesis Five

There will be no correlation between a supervisor's scores on the affective variables and the cognitive

variables.

The Pearson product-moment correlation coefficients of - .217 and - .271 for cognitive I and affective scores and also cognitive II and the affective scores, respectively, failed to reject the null hypothese of r = 0 at the .05 level of confidence for two-tailed tests of the correlation coefficients.

Summary

The analyses of the hypotheses in this study were examined and the following results were found.

Hypothesis	Results*
1. No difference will be found in the supervisees of the high cognitive supervisors and the supervisees of the low cognitive supervisors on the measure of:	
Problem sensitivity	Accepted
Problem solving I	Accepted
Problem solving II	Accepted
Cognitive functioning level I	Accepted
Cognitive functioning level II	Accepted
Empathy	Accepted
Respect	Rejected

*Hypotheses are accepted or rejected at .05 level of confidence. This footnote applies to hypotheses 1 through 5.

Hypothesis	Results
Genuineness	Accepted
Concreteness	Accepted
Affective functioning level	Rejected
2. No difference will be found in the supervisees of the high affective supervisors and the supervisees of the low affective supervisors on the measure of:	
Empathy	Accepted
Respect	Accepted
Genuineness	Accepted
Concreteness	Accepted
Affective functioning level	Accepted
Problem sensitivity	Accepted
Problem solving I	Accepted
Problem solving II	Accepted
Cognitive functioning level I	Accepted
Cognitive functioning level II	Accepted
3. There will be no positive correlation between the three cognitive variables of problem sensitivity and the two measures of problem solving.	Rejected on five measures: pre and post problem solving I with problem sensitivity, pre and post problem

Hypothesis	Results
	solving I and problem solving II, post problem solving II with problem sensitivity. Accepted on pre problem solving II and problem sensitivity measures.
4. There will be no positive correlation between the four affective variables of empathy, respect, genuineness and concretenesss.	Rejected for all combinations.
5. There will be no correlation between a supervisor's scores on the affective variables and the cognitive variables.	Accepted for cognitive I and affective scores and also cognitive II and affective scores.

CHAPTER VI

ANALYSIS OF DATA: DESCRIPTIVE TREATMENT

In this chapter a descriptive analysis was used to examine changes in the cognitive and affective "styles" of the supervisee as a function of his supervisor's overall counseling style. The supervisees of four groups of supervisors were examined. These supervisors were: 1) high cognitive--high affective supervisors, 2) high cognitive--low affective supervisors, 3) low cognitive--high affective supervisors and 4) low cognitive--low affective supervisors. Because there were only three to seven supervisor-supervisee pairs in each group no statistical treatment was attempted. This analysis was merely to help interpret the findings of the previous chapter and generate new hypotheses.

Supervisor Groups

The twelve supervisors were divided into four groups for this analysis: 1) a high cognitive--high affective group, 2) a high cognitive--low affective group, 3) a low cognitive--high affective group, 4) a low cognitive--low affective group. Each group was composed

of three supervisors and their respective supervisees.* The supervisors in group one each scored above the median scores of the twelve supervisors on both the affective and cognitive functioning dimensions. Two of the supervisors in this group supervised one counselor-in-training each while one supervisor supervised two counselors-in-training. In the second group the supervisors scored above the median score on cognitive functioning level and below the median score on the affective functioning level. There were six supervisees in this group with one supervisor working with one counselor-in-training, one supervisor supervising two counselors-in-training and one supervisor supervising three counselors-in-training. In the third group each supervisor trained one counselor-in-training. These supervisors were functioning below the median score on the cognitive functioning dimension but above the median score on the affective functioning dimension. The fourth group was composed of three supervisors functioning below the median on the affective and cognitive dimensions and their four supervisees. One supervisor in this group trained two counselors-in-training and the other two supervisors trained one counselor-in-training each.

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*The fact that there were three supervisors in each group was by chance rather than by design. The classifications of high and low on the cognitive and affective dimensions were based on each supervisor's score in relation to the other supervisors' scores on the same dimension.

The theoretical orientation of the ten male and two female supervisors ranged from neo-analytic to existential, and they had a range of one to twenty-three years of post Ph.D. counseling experience. Each had a doctors degree in either clinical psychology or counseling psychology.

The ten male and seven female supervisees were first term practicum students, second term practicum students or interns. There were twelve interns, three first term practicum students and two second term practicum students. Each had completed seventy-five percent or more of the course work for his Ph.D. requirements.

Table 6.1 contains the means and standard deviations of the ten basic variables for the supervisors and supervisees participating in this study.

TABLE 6.1 MEANS AND STANDARD DEVIATION ON TEN BASIC VARIABLES FOR SUPERVISORS AND SUPERVISEES

	Supervisors		Supervisees			
Variables	$\bar{X}$	S.D.	Pre $\bar{X}$	Pre S.D.	Post $\bar{X}$	Post S.D.
Prob. Sen.	39.42	14.80	30.56	18.67	23.31	12.63
Prob. Sol. I	9.25	5.05	7.56	4.73	7.31	5.21
Prob. Sol. II	1.72	.45	1.57	.07	1.69	.78
Cog. I	100.88	17.43	99.00	18.69	97.63	17.48
Cog. II	101.04	15.25	98.94	15.12	98.28	17.01
Empathy	2.79	.62	2.42	.47	2.22	.55
Respect	2.81	.66	2.42	.47	2.22	.54
Genuineness	2.90	.73	2.48	.53	2.25	.55
Concretness	2.81	.84	2.39	.66	2.27	.65
Aff. Funct.	2.81	.73	2.42	.51	2.27	.56

High Cognitive--High Affective Group

The raw scores on the ten basic variables and an indication if the score was above (+) or below (-) the mean for the high cognitive--high affective supervisors and their supervisees are presented in Table 6.2.

The scores of supervisor 103 were all above the mean except for problem sensitivity and cognitive I scores, which were just slightly below the mean scores for the twelve supervisors. The supervisee of supervisor 103 was subject 208. The scores of subject 208 increased on the five cognitive variables and the affective variable of concreteness from below to above the mean from pre-to-posttesting. The four additional affective scores were above the mean during both testing periods. In other words, subject 208 scored above the mean on all the cognitive and affective variables during posttesting.

Supervisor 104 had scores above the mean on all measures except problem solving II, empathy and respect. The supervisees of supervisor 104 were subjects 216 and 217. The scores of supervisee 216 dropped to below the mean or remained below the mean on the five cognitive variables from pre-to-posttesting. On the other hand, the scores below the mean on the affective dimensions increased to above the mean at the time of posttesting. While supervisor 104 had scores on empathy and respect below the mean of the twelve supervisors, the scores were still above the

TABLE 6.2 RAW SCORES FOR TEN BASIC VARIABLES FOR HIGH COGNITIVE-- HIGH AFFECTIVE SUPERVISORS AND THEIR SUPERVISEES

Variables		Super-visor 103	Super-visee 208	Super-visor 104	Super-visee 216	Super-visee 217	Super-visor 107	Super-visee 206
Problem Sensitivity	pre	39-[a]	5-	55+	35+	41+	43+	6-
	post		41+		17-	27+		20-
Problem Solving I	pre	10+	0-	12+	8+	12+	12+	0-
	post		14+		4-	10+		5-
Problem Solving II	pre	2.0+	0-	1.3-	1.3-	2.0+	1.5-	0-
	post		1.8+		1.0-	2.5+		1.0-
Cognitive I	pre	99.0-	65.5-	117.0+	105.5+	114.0+	111.0+	71.0-
	post		121.0+		91.5-	107.0+		97.0-
Cognitive II	pre	106.0+	65.5-	102.0+	95.0-	115.0+	102.5+	71.0-
	post		112.0+		87.5-	111.0+		89.0-
Empathy	pre	3.75+	2.50+	2.75-	2.50+	2.50+	3.00+	2.00-
	post		2.50+		2.50+	3.00+		2.25+
Respect	pre	3.75+	2.50+	2.75-	2.25-	2.50+	3.25+	2.00-
	post		2.75+		2.50+	3.00+		2.25+
Genuineness	pre	3.75+	2.75+	3.00+	2.25-	2.50+	3.75+	2.25-
	post		3.00+		2.50+	3.00+		2.00-
Concreteness	pre	4.00+	2.25-	2.75-	2.25-	2.50+	3.50+	2.00-
	post		3.50+		2.50+	3.00+		2.00-
Affective Functioning	pre	4.00+	2.50+	3.00+	2.25-	2.50+	3.50+	2.00-
	post		3.00+		2.50+	3.00+		2.25-

[a] + indicates that raw score is above the mean of the respective groups; - indicates that raw score is below the mean of the respective groups. Table 6.1 contains these means. This footnote is applicable to Tables 6.2 through Table 6.5.

post-scores of supervisee 216. Supervisee 217 had scores above the mean on all ten variables during pre and post-testing. In general, supervisees 216 and 217 remained the same or increased their scores on the affective measures and stayed the same or decreased in their scores on the cognitive measures from pre-to-posttesting.

The scores of supervisor 107 were above the mean on all the variables with the exception of problem solving II. Subject 206 was the supervisee of supervisor 107. While the scores of subject 206 remained below the mean on the five cognitive variables from pre-to-posttesting, his raw scores did increase markedly. In fact, during post-testing his scores were only slightly below the means of the seventeen supervisees' scores. Scores on two of the five affective variables increased from below the mean on pretesting to above the mean during posttesting. The other three affective variables remained below the mean.

In summary, for the students of supervisors termed high cognitive--high affective the scores on the five affective variables remained the same or increased from pre-to-posttesting. In fact, only three of the twenty post-test affective scores (four subjects, five scores each) fell below the mean scores for these variables. Those which did fall below had been low on pretesting also. Seven of the scores increased from below to above the mean from pre-to-posttesting. There was no consistent direction of

change for the supervisees on the cognitive variables.

High Cognitive--Low Affective Group

Table 6.3 contains the raw scores on the ten basic variables and an indication if the score was above (+) or below (-) the mean for the high cognitive--low affective supervisors and their supervisees.

Supervisor 106 had scores above the mean on the cognitive variables and below the mean on the affective variables. The supervisees of supervisor 106 were subjects 213, 214 and 215. All of the affective scores of subject 213 dropped considerably from pre-to-posttesting but only two of the five scores dropped below the mean of the supervisees' scores. The cognitive scores remained essentially the same from pre-to-posttesting with only slight variations in the raw scores obtained during both testing periods. Subject 214 had scores above the mean on the cognitive variables and below the mean for the affective variables during pretesting. The affective scores dropped considerably during posttesting and all remained below the mean of the supervisees' scores. In addition, the cognitive scores also dropped and were all below the mean during posttesting. All of the raw scores of subject 215 dropped to below the mean from pre-to-posttesting. In general, the supervisees of high cognitive--low affective supervisor 106 tended to decrease on measures of both the cognitive and affective variables.

TABLE 6.3 RAW SCORES FOR TEN BASIC VARIABLES FOR HIGH COGNITIVE--LOW AFFECTIVE SUPERVISORS AND THEIR SUPERVISEES

Variables		Supervisor 106	Supervisee 213	Supervisee 214	Supervisee 215	Supervisor 109	Supervisee 211	Supervisee 212	Supervisor 111	Supervisee 203
Problem Sensitivity	pre	71+	35+	31+	28-	50+	28-	12-	42+	31+
	post		37+	13-	13-		15-	9-		25+
Problem Solving I	pre	20+	14+	11+	9+	13+	6-	2-	12+	7-
	post		13+	3-	4-		5-	2-		5-
Problem Solving II	pre	2.5+	1.8+	2.2+	1.8+	1.9+	1.5-	2.0+	2.4+	2.3+
	post		2.2+	1.5-	1.0-		2.5+	2.0+		1.7+
Cognitive I	pre	135.0+	121.0+	104.0+	98.0-	119.5+	92.0-	79.0-	109.0+	99.0+
	post		115.0+	85.0-	87.5-		94.0-	76.0-		100.0+
Cognitive II	pre	135.0+	107.0+	111.5+	98.0-	111.5+	89.5-	96.0-	115.0+	116.5+
	post		112.5+	89.0-	83.5-		103.5+	91.0-		101.0+
Empathy	pre	2.50-	3.25+	2.00-	2.00-	2.25-	3.00+	2.50+	2.00-	2.00-
	post		2.25+	1.25-	1.75-		2.75+	3.25+		2.50+
Respect	pre	2.50-	3.00+	2.00-	2.00-	2.50-	3.25+	2.50+	2.00-	2.00-
	post		2.25+	1.25-	1.75-		2.75+	3.00+		2.50+
Genuineness	pre	2.75-	3.00+	1.75-	2.00-	2.50-	3.50+	2.50+	2.00-	2.00-
	post		2.25+	1.25-	2.00-		2.50+	3.25+		2.50+
Concreteness	pre	2.75-	3.50+	2.00-	2.00-	2.25-	3.25+	2.75+	1.00-	1.00-
	post		2.25-	1.25-	2.00-		2.75+	3.00+		2.75+
Affective Functioning	pre	2.50-	3.25+	2.00-	2.00-	2.50-	3.25+	2.50+	1.50-	1.75-
	post		2.25-	1.25-	1.75-		2.75+	3.00+		2.75+

Supervisor 109 had scores above the mean on all the cognitive measures and below the mean on all of the affective measures. Subjects 211 and 212 were the supervisees of supervisor 109. From pre-to-posttesting, the scores of subject 211 remained above the mean for the affective measures and below the mean for the cognitive measures with the exception of problem solving II and cognitive II. These two measures increased from below the mean to above the mean from pre-to-posttesting. The scores of subject 212 remained essentially the same from pre-to-posttesting. Scores above the mean remained above the mean and scores below the mean remained below the mean. In general, supervisees 211 and 212 remained the same on most of the variables of interest in this study. Only slight changes occurred.

The cognitive scores of supervisor 111 were all above the mean and his affective scores were below the mean. The supervisee of supervisor 111 was subject 203. The cognitive scores of subject 203 remained essentially unchanged from pre-to-posttesting but the affective scores increased from below to above the mean during this same time.

In summary, for the supervisees of supervisors termed high cognitive--low affective the scores on the five affective variables tended to maintain themselves. If the scores were high, they remained high; if the scores were

low, they remained low. While more changes occurred on the cognitive variables from pre-to-posttesting, the changes did not appear to be systematically related to the high cognitive--low affective supervisors' "style."

Low Cognitive--High Affective Group

The raw scores on the ten basic variables and an indication if the score was above (+) or below (-) the mean for the low cognitive--high affective supervisors and their supervisees are presented in Table 6.4.

The cognitive scores of supervisor 101 were all below the mean and his affective scores were all above the mean except for the respect score, which was just slightly below the mean scores for the twelve supervisors. The supervisee of supervisor 101 was subject 202. The cognitive scores of subject 202 decreased from above to below the mean from pre-to-posttesting. The two affective scores, respect and genuineness, decreased to below the mean also. The other three affective variables remained below the mean on posttesting. In other words, supervisee 202 scored below the mean on all the cognitive and affective variables during posttesting.

Supervisor 102 had affective scores above the mean and cognitive scores below the mean with the exception of one cognitive variable, problem solving II. The supervisee of supervisor 102 was subject 204. The scores of subject 204 increased considerably on the five cognitive

TABLE 6.4 RAW SCORES FOR TEN BASIC VARIABLES FOR LOW COGNITIVE--HIGH AFFECTIVE SUPERVISORS AND THEIR SUPERVISEE

Variables		Supervisor 101	Supervisee 202	Supervisor 102	Supervisee 204	Supervisor 110	Supervisee 201
Problem Sensitivity	pre	30-	50+	26-	14-	16-	33+
	post		8-		49+		70+
Problem Solving I	pre	4-	13+	6-	4-	6-	14+
	post		2-		18+		20+
Problem Solving II	pre	1.3-	1.6+	2.0+	2.0+	1.5-	2.3+
	post		1.0-		3.0+		2.5+
Cognitive I	pre	86.0-	123.0+	87.5-	85.5-	78.0-	118.5+
	post		69.0-		127.0+		138.0+
Cognitive II	pre	85.0-	109.5+	99.0-	98.0-	79.5-	118.5+
	post		71.5-		132.5+		127.0+
Empathy	pre	3.00+	2.25-	3.75+	3.25+	3.50+	2.00-
	post		1.50-		1.50-		2.00-
Respect	pre	2.75-	2.50+	3.75+	3.25+	3.75+	2.00-
	post		1.50-		1.50-		2.00-
Genuineness	pre	3.50+	2.50+	3.75+	3.25+	3.50+	2.50+
	post		1.75-		1.50-		2.00-
Concreteness	pre	3.25+	2.25-	3.75+	3.25+	3.50+	2.00-
	post		1.75-		1.50-		2.00-
Affective Functioning	pre	3.00+	2.25-	3.50+	3.25+	3.50+	2.00-
	post		1.75-		1.50-		2.00-

variables from pre-to-posttesting. In fact, his cognitive scores were almost identical to his supervisor on pre-testing but far superior during posttesting. In addition, the affective scores of subject 204 dropped markedly from pre-to-posttesting.

The cognitive scores of supervisor 110 were below the mean while his affective scores were all above the mean of the supervisors' scores. Subject 201 was the supervisee of supervisor 110. During pretesting subject 201 scored above the mean on the five cognitive measures and on the affective measure of genuineness. The scores remained essentially unchanged during posttesting. The raw scores on the cognitive variables did increase substantially but subject 201 scored above the mean during both testing periods. The affective scores remained below the mean.

In summary, for the supervisees of supervisors termed low cognitive--high affective the scores on the five affective variables remained below the mean or decreased from pre-to-posttesting to fall below the mean. In fact, eight of the fifteen scores moved from above to below the mean during the second testing period. The additional seven scores remained below the mean from pre-to-posttesting. There was no consistent direction of change for the supervisees on the cognitive variables.

Low Cognitive--Low Affective Group

Tabe 6.5 contains the raw scores on the ten basic variables and an indication if the score was above (+) or below (-) the mean for the low cognitive--low affective supervisors and their supervisees.

The scores of supervisor 105 were all below the mean except for problem solving I, which was just slightly above the mean scores for the twelve supervisors. The supervisee of supervisor 105 was subject 207. The scores of supervisee 207 remained below the mean on the affective variables. The raw scores on the cognitive measures increased from pre-to-posttesting so that all cognitive scores were above the mean during posttesting.

Supervisor 108 had scores below the mean on all measures except problem sensitivity. The problem sensitivity score was only slightly above the mean. The supervisee of supervisor 108 was subject 205. All the scores of supervisee 205 were maintained at levels above the mean from pre-to-posttesting. All of the raw scores did decrease slightly, but still remained above the mean.

The scores of supervisor 112 were all below the mean scores for the twelve supervisors. Subjects 209 and 210 were the supervisees of supervisor 112. The raw scores of supervisee 209 tended to decrease from pre-to-posttesting on the cognitive and affective variables. While subject 209 scored above the mean on the cognitive

TABLE 6.5 RAW SCORES FOR THE TEN BASIC VARIABLES FOR LOW COGNITIVE--LOW AFFECTIVE SUPERVISORS AND THEIR SUPERVISEES

Variables		Supervisor 105	Supervisee 207	Supervisor 108	Supervisee 205	Supervisor 112	Supervisee 209	Supervisee 210
Problem Sensitivity	pre	36-	29-	40+	81+	25-	43+	20-
	post		32+		36+		22-	9-
Problem Solving I	pre	10+	7-	3-	13+	3-	12+	3-
	post		13+		10+		9+	0-
Problem Solving II	pre	1.7-	1.8+	1.0-	1.6+	1.5-	1.7+	1.5-
	post		2.6+		1.7+		1.5-	0-
Cognitive I	pre	97.0-	96.5-	87.0-	128.5+	84.5-	116.0+	85.5-
	post		111.5+		110.0+		101.5+	69.0-
Cognitive II	pre	98.0-	100.0+	83.5-	115.0+	95.5-	109.0+	86.5-
	post		118.0+		105.5+		96.0-	69.0-
Empathy	pre	2.00-	2.00-	2.50-	3.00+	2.50-	2.00-	2.00-
	post		2.00-		2.50+		2.00-	2.00-
Respect	pre	2.00-	2.00-	2.50-	3.00+	2.25-	2.00-	2.00-
	post		2.00-		2.50+		2.00-	2.00-
Genuineness	pre	2.00-	2.00-	2.00-	3.25+	2.25-	2.00-	2.25-
	post		2.00-		2.50+		2.00-	2.00-
Concreteness	pre	2.25-	2.00-	2.50-	3.25+	2.25-	2.00-	2.00-
	post		2.00-		2.50+		1.25-	2.25-
Affective Functioning	pre	2.00-	2.00-	2.50-	3.00+	2.25-	2.00-	2.25-
	post		2.00-		2.50+		1.75-	2.25-

measures during pretesting, three of the five measures dropped below the mean during posttesting. The affective scores were below the mean during pretesting and post-testing. Supervisee 210 had scores below the mean on all ten variables. The raw scores did tend to decrease during this time. In general, supervisees 209 and 210 remained the same on the affective measures and decreased their scores on the cognitive measures.

In summary, for supervisees of the low cognitive--low affective supervisors the raw scores on the five affective variables remained the same or decreased from pre-to-posttesting. Looking at positions above or below the mean it could be concluded that affective scores re-main constant from pre-to-posttesting. There was no consistent direction of change for the supervisees on the cognitive variables.

Summary of the Findings

The descriptive analysis was used to further investigate changes in the cognitive and affective styles of the supervisee as a function of his supervisor's measured ccunseling style. The supervisors were classified (compared with each other) into one of four groups: 1) high cognitive--high affective group, 2) high cognitive--low affective group, 3) low cognitive--high affective group and 4) low cognitive--low affective group. The results are summarized in Tables 6.6 and 6.7.

TABLE 6.6 FREQUENCY OF PRE-TO-POST MEAN SCORES FOR AFFECTIVE AND COGNITIVE VARIABLES

Group	Super-visor	Super-visee	Mean Change for Cognitive Variables				Mean Change for Affective Variables			
			Hi-Lo	Lo-Hi	Hi-Hi	Lo-Lo	Hi-lo	Lo-Hi	Hi-Hi	Lo-Lo
Hi-Cog	103	208	--	5	--	--	--	1	4	--
Hi-Aff	104	216	3	--	--	2	--	4	1	--
		217	--	--	5	--	--	--	5	--
	107	206	--	--	--	5	--	2	--	3
			3	5	5	7	0	7	10	3
Hi-Cog	106	213	--	--	5	--	2	--	3	--
Lo-Aff		214	5	--	--	--	--	--	--	5
		215	2	--	--	3	--	--	--	5
	109	211	--	2	--	3	--	--	5	--
		212	--	--	2	3	--	--	5	--
	111	203	--	--	4	1	--	5	--	--
			7	2	11	10	2	5	13	10
Lo-Cog	101	202	5	--	--	--	2	--	--	3
Hi-Aff	102	204	--	4	1	--	5	--	--	--
	110	201	--	--	5	--	1	--	--	4
			5	4	6	0	8	0	0	7
Lo-Cog	105	207	--	3	2	--	--	--	--	5
Lo-Aff	108	205	--	--	5	--	--	--	5	--
	112	209	3	--	2	--	--	--	--	5
		210	--	--	--	5	--	--	--	5
			3	3	9	5	0	0	5	15

TABLE 6.7 FREQUENCY OF PRE-TO-POST RAW SCORE CHANGES FOR AFFECTIVE AND COGNITIVE VARIABLES

Group	Supervisor	Supervisee	Raw Score Change for Cognitive Variables			Raw Score Change for Affective Variables		
			Increase	Decrease	Same	Increase	Decrease	Same
Hi-Cog	103	208	5	--	--	4	--	1
Hi-Aff	104	216	--	5	--	4	--	1
		217	1	4	--	5	--	--
	107	206	5	--	--	3	1	1
			11	9	0	16	1	3
Hi-Cog	106	213	3	2	--	--	5	--
Lo-Aff		214	--	5	--	--	5	--
		215	--	5	--	--	3	2
	109	211	3	2	--	--	5	--
		212	--	3	2	5	--	--
	111	203	1	4	--	5	--	--
			7	21	2	10	18	2
Lo-Cog	101	202	--	5	--	--	5	--
Hi-Aff	102	204	5	--	--	--	5	--
	110	201	5	--	--	--	1	4
			10	5	0	0	11	4
Lo-Cog	105	207	5	--	--	--	--	5
Lo-Aff	108	205	1	4	--	--	5	--
	112	209	--	5	--	--	2	3
		210	--	5	--	1	1	3
			6	14	0	1	8	11

Systematic changes in affective functioning of the supervisees did appear to be somewhat related to his supervisor's "style" of functioning on both the cognitive and affective variables. That is, the supervisees of the high cognitive--high affective supervisors tended to change in a positive direction on the affective measures. In the high cognitive--low affective groups some supervisees increased and some supervisees decreased on affective functioning level. In the low cognitive--high affective and low cognitive--low affective groups the supervisees tended to decrease in their affective functioning. Cognitive functioning of the supervisee was not as systematically related to his supervisor's "style" as was the case for affective functioning. Interpretation and discussion of these data appear in Chapter VII.

CHAPTER VII

SUMMARY

A major purpose of this study was to measure the impact of the supervising counselor on the development of affective variables such as empathy, respect, genuineness and concreteness and cognitive variables such as problem sensitivity and problem solving ability in the counselor-in-training. A second purpose was to determine the nature and degree of the relationships between these affective and cognitive variables. In order to achieve these two major purposes, an instrument to measure problem solving ability was developed.

A basic tenet of this investigation was that an interactive-facilitative process goes on between a supervising counselor and his supervisee, which is directly influenced by the supervisor's level of functioning on the cognitive and affective variables mentioned above. It should be noted here that this study was not designed as an attempt to either support or refute any formal interactive-facilitative process theory, but rather to provide a basis for further investigation of this process in supervisory experiences.

The sample consisted of twelve counseling

supervisors selected from the faculty of a state university and seventeen counselors-in-training being supervised by these twelve supervisors.

Two tests, the Problem Solving and Sensitivity Kit (PSSK) and the Scales of Measurement for Facilitative Functioning (SMFF), were administered to the twelve supervisors. Problem solving and problem sensitivity were two of the cognitive measures and these were derived from performance on the PSSK. The supervisors were divided into high and low cognitive groups. This was done by adding the T-scores of each of the two aforementioned cognitive variables in order to determine the median score. Those above the median were in the high cognitive group and those below the median were in the low cognitive group. Next, the supervisors were divided into high and low affective groups. This was done by computing the arithmetic averages of their SMFF affective variable ratings on empathy, respect, genuineness and concreteness in order to determine the median. Once again, those above the median were considered in the high affective group and those below the median were in the low affective group.

To note possible changes in affective and/or cognitive functioning as a consequence of supervision, each of the seventeen counselors-in-training were tested on the PSSK and SMFF at the beginning and at the end of a nine-month supervisory period.

Analysis of covariance was used to compare the supervisees of the high cognitive or low cognitive supervisors and also the supervisees of the high affective or low affective supervisors on the measures of empathy, respect, genuineness, concreteness, affective functioning level, problem sensitivity, problem solving I, problem solving II, cognitive functioning level I and cognitive functioning level II. In addition, Pearson product-moment correlations were computed in order to examine the relationships between the selected affective and cognitive variables. In order to examine changes in the supervisee's overall counseling style from the beginning to the end of his supervisory experience, a trend analysis was employed.

Results

The analyses of covariance for the two groups of high or low cognitive supervisors resulted in F values of 1.93, 1.90, .01, .94, .40, 4.94, 5.24,* 4.63, 4.47 and 5.53* for measures of problem sensitivity, problem solving I, problem solving II, cognitive I, cognitive II, empathy, respect, genuineness, concreteness and affective functioning, respectively. As noted above, all tests failed to reject the hypotheses of no mean differences at the .05 level of confidence with the exception of significant mean

*Significant $\leq$ .05 level of confidence.

differences on measures of respect and affective functioning for the supervisees of the high cognitive supervisors and those of the low cognitive supervisors. This means that supervisees who had high cognitive supervisors gained significantly more on the measures of respect and affective functioning than the supervisees with low cognitive supervisors.

The analyses of covariance that compared the supervisees of the high affective supervisors with the supervisees of the low affective supervisors on the cognitive and affective variables mentioned above resulted in F values to reject all of the null hypotheses at the .05 level of confidence. This means that there were no cognitive or affective differences between supervisees who had high affective supervisors and those who had low affective supervisors.

With only one exception, the high intercorrelations for the pre and post cognitive scores suggested that the null hypotheses of no correlation could not be accepted. The exception was for the problem sensitivity and problem solving II pre scores in which the correlation of .385 failed to reject the null hypothesis. In general, these findings would suggest that the cognitive variables defined in this study were interrelated.

The intercorrelations of the affective variables of empathy, respect, genuineness and concreteness were

all above the .05 level of confidence. This finding would suggest that the affective variables defined in this investigation were interrelated.

The correlations for cognitive I and affective scores and cognitive II and affective scores for the supervisors failed to reject the null hypothese of no correlation at the .05 level of confidence. This means that the supervisors' scores on the affective variables were not related to their scores on the cognitive variables.

An analysis of data trends showed an increase on the affective ratings of the supervisees of high cognitive--high affective supervisors. On the other hand, the supervisees of low cognitive--high affective supervisors tended to show a decrease in their affective ratings. The affective scores for the supervisees of the high cognitive--low affective supervisors and low cognitive--low affective supervisors were inconsistent. That is, they tended to either remain the same and/or to decrease from pre-to-posttesting. Supervisees' cognitive scores, it is important to note, were not consistently related to the supervisors' relative positions on either the affective or cognitive measures.

Conclusions

Based on the statistical treatment of the data and an analysis of data trends, six relatively stable

conclusions appear to be worth noting:

1. The Problem Solving and Sensitivity Kit (PSSK) provides reliable measures of problem solving ability and problem sensitivity of counselors, as defined by the PSSK.

2. There are significant differences between supervisees trained by high cognitive supervisors and supervisees trained by low cognitive supervisors on measures of respect and affective functioning. The supervisees of the high cognitive supervisors gain more on the measures of respect and affective functioning than the supervisees of the low cognitive supervisors.

3. There are no significant differences between supervisees trained by high cognitive supervisors and supervisees trained by low cognitive supervisors on measures of problem sensitivity, problem solving I, problem solving II, cognitive functioning I, cognitive functioning II, empathy, genuineness and concreteness.

4. There are no differences between the supervisees of the high affective supervisors and the supervisees of the low affective supervisors on measures of empathy, respect, genuineness, concreteness, affective functioning, problem sensitivity, problem solving I, problem solving II, cognitive functioning I and cognitive functioning II.

5. The cognitive scores and affective scores of the supervisors are not significantly related to each other,

implying that these dimensions may be supervisor dynamics which function independently of each other.

6. From examination of overall data trends and patterns, the data suggest that unless a supervisor is functioning at high levels on both the cognitive and affective dimensions, his supervisees will tend to either decrease or remain the same in their affective functioning. If, however, the supervisor is functioning at high levels on both the cognitive and affective dimensions, his supervisees will tend to increase on their affective functioning levels in the direction of becoming what Carkhuff (1968) describes as "fully functioning facilitative counselors."

In addition, the data suggest that supervisees' cognitive scores are not consistently related to either high or low affective/cognitive supervisors. That is, the consistent and predictable changes in supervisees were more likely to be in their affective rather than their cognitive functioning.

Discussion of Results and Conclusions

The results of the analyses of covariance indicate that few significant differences exist between the supervisees of the high and low affective or cognitive supervisors on the affective and cognitive variables. However, further examination of the data suggests a possible relationship between the cognitive level of functioning and

the affective level of functioning of the supervisor and the impact that differential cognitive/affective supervisory functioning has on supervisees. Carkhuff's original theory (1969) suggests that a supervisor's level of functioning on the four affective variables determines the growth of supervisees along these same dimensions. On the basis of the results of this study, a modification of that theory might state that the supervisees of high affective and high cognitive supervisors improve on their affective dimensions more than do supervisees of low affective and/or low cognitive supervisors.

It appears that the ability of one person to focus on another's feelings, that is, scoring high on the affective dimensions, was an important but not a sufficient condition to facilitate growth in the counselor-in-training. Cognitive elements in the supervisors were also important in the training process to produce facilitative counselors. The cognitive characteristics of problem sensitivity and problem solving ability appears to serve two functions. One, it helps to control and direct the expression of affect. Two, it serves the instrumental function of enhancing the fullest possible expression, exploration and understanding of the affect.

Unlike affective functioning, changes in the supervisee's cognitive functioning appears to be less systematically related to his supervisor's cognitive and/or

affective functioning. The results of this study indicates that changes on the cognitive measures were not as frequent or as systematic as changes on the affective measures. In addition, possibly because the cognitive variables of problem sensitivity and problem solving ability were not systematically taught by the supervisor, the impact of the supervisory experience on cognitive dimensions may have been minimized. On the whole, this study would suggest no relationship between a supervisor and his supervisee's cognitive functioning style as supervision is currently practiced.

Limitations of the Study

The small sample size could very well be one possible source to account for the discrepancy from the predicted differences in the high and low affective or cognitive groups and the results of this study. Although a trend analysis did suggest that some of the supervisors did have an impact on their supervisees in the development of skills to communicate the conditions of empathy, respect, genuineness and concreteness, it should be noted that each of these groups was composed of only three supervisors and their supervisees. Without a replication study using a larger sample size the results must be interpreted very cautiously. Additional changes in a replication study might be to use more than one tape to rate the subjects on the SMFF and rate all of the tapes on the SMFF

during one time period. It would also be desirable to have more control over the assignment of supervisor-supervisee pairings than was possible in the present study. In addition, it would be important to have judges do the rating on the PSSK who are completely ignorant of the research design.

Further investigation is needed on the scoring system of the PSSK and the SMFF. For example, a weighted scoring system may be more appropriate for the measure of problem sensitivity than the present equal weight system. This remains to be investigated. In addition, research is needed to further define the "meaning" of the problem solving, problem sensitivity, empathy, respect, genuineness and concreteness variables.

Implications for Further Research

The therapeutic relevance of what the counselor offers in terms of such attitudinal qualities as empathy, respect, genuineness and concreteness has been verified by a substantial body of research evidence.* However, little research has been done to determine the relationship between specific personality characteristics of counselors and their ability and success in a supervisory role. In addition, no research is available regarding the relevance of problem sensitivity and problem solving ability

*See Chapter II for a discussion of these studies.

to either therapy or supervisory outcomes or to the relationship of these cognitive variables to other personality and cognitive characteristics. In order to have a more complete understanding of the supervisory process, these questions need to be addressed. Not only do we need information on what kinds of personality and intellectual characteristics are related to high and low levels of affective and cognitive functioning, but we also need to know the ways in which they are related.

In order to more fully understand the dynamics of supervision, future research efforts might well investigate the reciprocal impact of the supervisor-supervisee relationship. This study looked only at the possible influence which a supervisor has on a supervisee. Other research might profitably investigate the stability and/or direction of change in the dimensions of problem sensitivity, problem solving ability, empathy, respect, genuineness and concreteness in the supervisors. In addition, it might be important to know the effect of different pairings of the supervisors and supervisees on such variables as sex, race, personality characteristics and intellectual skills.

Finally, future research might well take into account the trainability of the affective and cognitive variables which were included in this study. If the conclusion is further substantiated that the most effective supervisors function at high levels on both the cognitive

and the affective dimensions, then studies need to be conducted to investigate the possibility of training individuals to become high cognitive--high affective supervisors.

Implications for Supervision

Ivey et al., have noted that, "Teaching beginning counselors and therapists 'how to counsel' is one of the more complex and challenging issues facing counseling psychology." (1968, p. 1) As supervision is currently practiced, it appears that training counselors to function effectively in the cognitive and affective realms is more by accident than by intent.

The results of this study suggest the importance of both affective and cognitive component parts of the supervisory process. An individual who functions at high levels on affective dimensions such as empathy, respect, genuineness and concreteness may be a good counselor, but without high cognitive skills he may have trouble "teaching" or "supervising" a counselor-in-training. In other words, a supervisor cannot just respond to or focus on feelings, but he should also be able to discuss and analyze these feelings.

While Carkhuff and Truax (1965b) do recommend an integrated didactive-affective approach to training counselors, the results of the present investigation

differs somewhat from their findings. For example, Carkhuff and Truax put a heavy emphasis on the influence of "modeling" the desired behavior while the results of this study imply a greater importance on the cognitive components of being able to more directly teach the desired behavior.

Apparently, an effective supervisor has to be more than a good "model." He also has to be a good "teacher" and this may take more (higher) cognitive ability than Carkhuff and Truax acknowledge. However, it must be remembered that high levels of affective functioning also appear to be very important. Without the affective components, the "teaching" of the supervisor could be seen as coming from a person that is too cold, detached and clinical.

In summary, in speculating about the implications of the data it is possible that high affective skills may help show a counselor how to behave and feel while high cognitive skills may help him think about (do something about) his behavior and feelings in appropriate ways.

It is an assumption of this study that good counseling may be learned through good supervision. If this is the case then as many ways as possible must be devised to assist supervisors to explicate, discuss and train the counselor-in-training to recognize and respond to the important cognitive and affective dimensions of

effective counseling. Instruments such as the PSSK and SMFF might be used as counselor training aids for this purpose.

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APPENDICES

APPENDIX A

INSTRUCTIONS FOR PSSK, FORM A

The date is October 29, 1969. You are sitting in room A-2 at the Madison Mental Health Clinic in Ridge Forest, Michigan. A city of 100,000 located 75 miles NW of Detroit. You have just been hired to be the new psychologist at the clinic, and room A-2 is to be your office. The former psychologist, Dr. Henry Binaca, died October 14. This is your first day at work.

When you came in this morning, Mrs. Jacobson, the secretary, told you that there were many things that had piled up on your desk over the course of the past two weeks, and since you have no appointments today this was the best opportunity to catch up on them. She said that she realized how difficult some of the things would be to do since you had not yet seen any clients; yet, due to many impending deadlines, she would appreciate it if you did as much as you could.

Please act in this situation exactly as you would were you really this psychologist. You have at your disposal all the resources in this room just as you would if this were in fact your office. The following materials are available in your "office":

Schedule book

Current achievement records of group members

Dr. Binaca's current notes on clients

Mail box contents

Also there are materials available from Mrs. Jacobson's office. They are:

Case notes on clients (includes family and employment records

Cumulative achievement and medical records of group members

Free advice - includes information about business policy, testing methods, etc. Also can inform you of any experiences, meetings, etc. you have undergone previously.

Use anything and everyone you can in the pursuit of your activities.

In the interests of the study being conducted, it is imperative that all of your thoughts in this situation be made verbal. That is, think aloud during this entire period. Nothing is too trivial to be said aloud. Keep talking all the time! At such a time as you stop thinking aloud, you will hear a buzzer omit a short buzz. This is a reminder to you to resume your thinking out loud. The success of this research depends largely on your ability to make your thoughts available to yourself and to the observer. Please do not write on the materials. Mrs. Jacobson has extra paper in the office if needed.

Just do a rough draft of any letters, lists, phone calls or things to be done. You can assume that the secretary will take care of everything for you and have it done by tomorrow. Welcome to Madison Clinic and Ridge Forest!

APPENDIX B

POTENTIALLY PROBLEMATIC SITUATIONS
EMBEDDED IN PSSK, FORM A

A. General
   1. Sex break down of group (5 boys, 2 girls).
   2. Number of clients (any questions concerning).
   3. Death of therapist hard on clients.
   4. Wide range of ability in group.
   5. Variability of background of group and/or clients.
   6. Can other counselors be contacted (info. on them)?

B. Client appointment memo
   1. Policy on contacting clients or referring not stated.
   2. No info. on whether or not clients have been contacted since death of Binaca.

C. Tom call
   1. There are two Toms.
   2. More info. about Tom pertaining to phone call.
   3. Both Toms met on Thurs.

D. Murray call
   *1. More info. about Murray pertaining to phone call.

E. Conwell call
   *1. More info. on Pat pertaining to phone call.

F. Asher call
   *1. More info. about Jill pertaining to phone call.
   *2. Time conflicts with group time.
   3. Wants to come in evening. Question about clinic hours.

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*Problem has been restated elsewhere. For example, F. 2. and I. O.b. refer to the same embedded problem.

G. Psychologist memo
   1. Role of Simon not given.
   2. Does not state how often he comes.

H. Stu permission form
   1. Stu's last name not given.
   2. What to do with form not given.
   3. No date on it.
   *4. More info. on Stu pertaining to form.

I. Sociogram and note
   1. Group started - Flo led group alone.
   2. Flo out of town today.
   3. What arrows stand for is not indicated.

J. Schedule book
   1. What initials mean not given (PS, EV, C, etc).
   *2. Group was to start 23rd - after Binaca's death.
   3. No info. on research given.

K. Binaca's current notes
   1. Only some clients have notes.

L. Group folder
   1. Criterion used last year not stated.
   2. Group was to start after Binaca's death - the 23rd. (J2)*
   3. Meets 7-9 on Thurs. - Conflicts with Asher time. (F2)*

M. Cardexes or cumulative files
   1. What K.A. means not given.
   2. What achievement scores mean not given.
   3. Info. on intelligence tests (statistical).
   4. Cardexes - different colored ink for different grades.

N. Casefiles
   1. Initials are of counselors.
   2. Harriet Brown and Henry Binaca's initials are the same.
   3. How fee determined not given.
   4. What marital status code means not given.

I. <u>Jill Asher</u>

O. Mailbox
   a. Called about son. (F1)*
   b. Conflicts with group time. (F2)*

1. Schedule book
   *a. Has terminated.

5. Case file
   a. Was seen only two times.
   b. Has terminated. (I 1a)*
   c. Lundy is named after father.
   d. Lundy is only son.
   e. Educ. of parents different - 17 & 12 years.
   f. Age gap between 2nd and 3rd child.

II. Cynthia Boring

0. Mailbox
   a. Why she wants to see male is not given.
   *b. Binaca was seeing husband also.
   c. Not indicated whether she continued to see Brown after Binaca's death.

1. Schedule book
   a. Binaca never saw her.

5. Case file
   a. Wants to see male - connection with seeing husband's therapist.
   b. Separated from husband.
   *c. Marital problems.
   d. Referral client.

III. Todd Boring

0. Mailbox
   a. Wife to see Binaca also. (II 0b)*

1. Schedule book
   a. Terminated therapy.
   b. Returned to therapy.
   c. Oct. 15th indicates (Mrs.) Todd Boring had appointment.
   d. Reason for ? after (Mrs.) not indicated.

2. Binaca's current notes
   a. Has sexual problems.
   b. Is ignoring any problems.
   c. Doesn't know wife is getting professional help also.
   d. Marital problems. (II 5c)*

5. Casefile
   a. Change of address.
   b. Separated.

c. Salary for Todd different than income of wife.
d. Prot.-Cath. marriage.
e. Cynthia folder indicates Prot.-Prot. marrige.
f. Marital problems. (II 5c)*

IV. Barry Burnson

0. Mailbox
a. Sociogram indicates he initiates a great deal.
b. Sociogram indicates very little two way interaction with him.

3. Group folder
a. Recommendations are from teachers in co-ed classes.
b. Father is carpenter.
c. Highest ach. score in shop.
d. Ach. scores quite variable.

4. Cumulative folders
a. Discipline reports - Barry is having social problems.
b. Problems arise when girls are around.
c. Citizenship grades dropping recently.
d. Very active socially.
e. Used to sleepwalk and have enuresis. Nervous child.
f. Very slight hearing loss.
g. Tardies and absences increasing recently.

V. Pat Conwell

0. Mailbox
a. Called for appointment. (E1)*

1. Schedule book
a. No shows high.
b. Switched apt. days.
*c. Didn't show after conditions were stated.

2. Binaca's current notes
a. Conditions are stated. Possibly too severe.
b. Didn't show after conditions were stated. (V 1c)*
c. Wants to come in now - connected to conditions.

5. Casefile
a. Attempted suicide.
b. Divorced.

VI. Anita Deming

2. Binaca's current notes
   *a. Was seen by another therapist.
   b. Terminated in June 1965.
   c. Termination was shortly before suicide attempt.
   d. Depressed on last session.
   e. Urgent?

5. Casefile
   a. Has child from previous marriage.
   b. Been married before.
   c. Was seen by another therapist at clinic. (VI 2a)*
   d. Records missing.
   e. Husband called for her when she came in the first time.
   f. Depression related to fear of loss of love.
   g. Husband teaches psychology.
   h. Attempted suicide once.

VII. Mark Garrison

0. Mailbox
   a. No indication why folder in mailbox.

1. Schedule book
   a. Scheduled for Oct. 16, 1969.
   *b. Had not been seen by Binaca.
   c. Urgent?

5. Casefile
   a. A referral client.
   b. Had not been seen by Binaca. (VII 1b)*
   c. 19 yrs. education (college) and semi-skilled work.
   d. 19 yrs. education (college) and low salary.
   e. Seen by Florence Carter.
   f. Notes don't indicate why Mark should see male.
   g. Fee was adjusted.
   h. Widowed.
   i. Works afternoons.
   j. Florence is also having discouraged feelings about group.
   k. Employer called for apt. for him.

VIII. Julia Johns

0. Mailbox
   a. Sociogram she is involved in a lot of completed interactions.

*b. Sociogram she initiates frequently to Stu - no response.

3. Group folder
   a. Asked to be in group.
   *b. Stepbrother also in group.
   c. Ach. low for high IQ - Underachiever.
   *d. Ach. high in relation to stepbrother.
   *e. Has stepmother.

4. Cumulative folder
   a. High ach. in past.
   b. Popular girl.
   c. Mother died 7/65.
   d. Has stepmother. (VIII 3e)*
   e. Has stepbrother.
   f. Stepbrother also in group. (VIII 3b)*
   g. Times absent increasing recently.
   h. Change of address.

IX. Stanley Leland

3. Group folder
   a. Having difficulties with teachers.
   b. Personality test describes pretty well adjusted guy.
   c. No IQ score.
   *d. Ach. low.
   e. He is Stanley Jr.
   f. Father may be in House of Rep. next year.

4. Cumulative folder
   a. Variables grades - mostly low in past.
   b. Low IQ.
   c. Low ach. (IX 3d)*
   d. Both parents work.
   e. Only child.
   f. Change of addresses.
   g. Grandfather lives with them.
   h. Has been discipline problem for several years.
   i. Active in sports - B teams.
   j. Some hearing loss.
   k. Tardy a great deal lately.
   l. Pushy parents.

X. Thomas Macom

0. Mailbox
   a. Lots of completed interactions are made with him.
   b. He called.

3. Group folder
   a. Variable grades - some quite low.
   b. High IQ.
   c. Parents last name different than his.
   d. Discrepancy between IQ and ach.
   e. Math grades high.

4. Cumulative folder
   a. Parents divorced.
   b. Mother remarried.
   c. Drop in ach. related to family troubles.
   d. Discrepancy between father & stepfather education.
   e. Math grades remain high over time.
   f. Absent a great deal.
   g. Deportment grade drops in 1965.
   h. Active in sports - also quite a school leader.
   i. Very high grades up to 7th grade.

XI. Jeffrey Murray

0. Mailbox
   a. Mother called. (D1)*

3. Group folder
   a. High ach. and IQ.
   b. High ach. but difficulties with teachers.

4. Cumulative folder
   a. High ach. consistently in past.
   b. Deportment grades getting lower recently.
   c. Only son.
   d. Having difficulties with peers in 1968.
   e. Involved in petty thievery.
   f. Parents over-protect him.

XII. Claire Powers

0. Mailbox
   a. She has already gone.
   b. No date on memo.
   *c. Father will be living with them in Indianapolis.
   d. Can teacher be contacted?
   e. Policy on releasing info. not given.

1. Schedule book
   a. She terminated.
   *b. Only seen one time by Binaca.

4. Cumulative folder
   a. Transfer record - home in several places.
   b. Changed schools every year.
   c. Low IQ for sometimes high achiever.
   *d. Father out of home a lot.
   e. Work varies from year to year.
   f. Grades high when father is home.
   g. Ach. high in contrast to low report card.
   h. U in listens well and responds on report card.
   i. Lost weight recently.
   j. Only child.

5. Casefile
   a. Parents have Prot.-Cath. marriage.
   b. Father works out of town. (XII 4d)*
   c. Having difficulties in school.
   d. Sickness related to apt. with Binaca.
   e. Only seen one time by Binaca. (XII 1b)*
   f. Father will be living with them in Indpls. (XII 0c)*

XIII. Jennifer Sartiano

3. Group folder
   a. Poor attitudes towards school.
   b. Very high IQ.
   c. No telephone.
   d. Father is hotel porter.
   e. High ach. except French.
   f. Only 17 in 12th grade.

4. Cumulative folder
   a. Moved around a lot.
   b. Transferred from Riverdale.
   c. Withdrew from school 1962.
   d. Reason was illness.
   e. Socially active in grades 1-9.
   f. Father has had several jobs.
   g. Unemployed in Riverdale.
   h. Father born in Italy.
   i. Skipped 4th grade.
   j. Large family.
   k. Many absences.
   l. Mother is sickly.
   m. Dropped out of school one year - complications of scarlet fever.
   n. Sick a great deal.
   o. High ach. in past.

XIV. Jeffrey Spence

1. Schedule book
   *a. Last apt. was 2½ weeks ago.

2. Binaca's current notes
   *a. Notes indicates something about dying. Maybe connected with feelings about Binaca's death.
   *b. Possible setback.
   *c. Urgent?

5. Casefile
   a. Widowed.
   b. Referred by minister.
   c. Feels his love can kill.
   d. Has feelings that he may kill Binaca - related to death. (XIV 2a)*
   e. Has been 2½ weeks since Binaca's death. (XIV 1a)*
   f. Urgent? (XIV 2c)*
   g. Possible setback for Jeff. (XIV 2b)*

XV. Stuart Strong

0. Mailbox
   a. Julia initiates to Stu frequently. (VIII 0b)*
   b. He initiates or responds rarely.
   c. Permission form not signed. (H4)*

3. Group folder
   *a. Transferred from Detroit
   *b. No records.
   *c. Mother has remarried.
   d. Julia is stepsister - also in group. (VIII 3b)*
   e. Low achievement.
   f. 19 years old.

4. Cumulative folder
   a. Transferred from Detroit. (XV 3a)*
   b. No records. (XV 3b)*
   c. Mother works.
   d. Parents divorced.
   e. Mother remarried. (XV 3c)*
   f. Has a stepsister.
   g. His stepsister is also in the group. (VIII 3b)*
   h. Stepsister doing well (ach.) by comparison. (VIII 3d)*
   i. Absent and tardy a great deal.
   j. Consistently low achievement.

XVI. Thomas Vacillio

1. Schedule book
   a. Apt. is during scheduled research time.

5. Casefile
   a. Father born in Italy.
   b. Low education of parents
   c. School is paying fee.
   d. Large family.
   e. Grandmother is living with them.
   f. Underachiever
   g. Transfer student.

APPENDIX C

SCORING CODE FOR PROBLEM SOLVING ABILITY ON PSSK, FORM A

Jeff Murray	1.	Read Call. Read Kelly's notes and connects with call.
	2.	Read call. Read Kelly's notes. Bright, overprotected and overindulged child. father sticks up for him.
	3.	Reads call. Bright, overprotected and overindulged child. Connect behavior in past to call (possible family therapy).
Mark Garrison	1.	Wife died. Angry at women. Mental problems. (2 of 3)
	2.	Mental problems. Wife died. Angry at women. (3 of 3)
	3.	Urgent! Semiskilled work with 19 years education. Mental problems.
Clair Powers	1.	Moved a lot. Variable grades. Emotional instability.
	2.	Father out of town a lot. Moved a lot. Variable grades. Maybe some connection.
	3.	Father out of town a lot. When he is gone - grades drop. Move a lot - not time to make friends.
Asher (group)	1.	Wants to come in same time as group meets.
	2.	Wants to come in same time as group meets. Info. on Jill - no problem.
	3.	Wants to come in same time as group meets. Info. on Jill - maybe needs

		help for self (only son - possibly need family therapy).
Tom call	1.	There are two Toms.
	2.	There are two Toms. More info. on one Tom to decide who called.
	3.	Two Toms. More info. on both to decide who called. Both met on Thurs. and/or are becoming more assertive.
Stu & Julia	1.	Julia chooses Stu on sociogram. Both from broken homes.
	2.	Julia & Stu brother & sister.
	3.	Julia & Stu brother & sister. She does better in everything by comparison.
Pat Conwell	1.	Lot of no shows or not committed to change.
	2.	Manipulates guys. Not committed to change. Conditions for continuing therapy have been stated.
	3.	Connection between call & conditions being stated. Calls for new therapist. Stopped coming in to see Binaca.
Borings	1.	Both husband & wife want to see Binaca.
	2.	Borings have lack of communication with each other.
	3.	Todd doesn't even know wife is getting professional help.
Spence	1.	His love can kill.
	2.	Probably feels he killed Binaca.
	3.	Probably feels he killed Binaca. Has not contacted clinic since getting letter.
Deming	1.	Saw another therapist.
	2.	Saw another therapist. Married before.
	3.	Saw another therapist. Uses illness to get love and attention.

APPENDIX D

LETTER TO PARTICIPANTS IN STUDY

To:

From: Joan Hamachek

I am interested in doing some research this fall using a sample of counseling center staff (for my dissertation). I will be looking at selected affective and cognitive characteristics of counselors.

If you agree to participate, your maximum commitment would consist of involving yourself with a selected "task" for a two-three hour block of time sometime during fall term. This time will be at your convenience. In addition, I will need tapes of two client interviews. I will provide the tape and clients are of your choosing.

The minimum commitment would be that I don't need either "task" data or tapes, i.e., nothing. So if you agree to participate, it may involve from zero time to two or three hours of time and two hours of taped interviews. You will be contacted within two weeks of your time commitment.

Please indicate below if you will be able to participate. I'm quite excited about my research idea and I think you might find it interesting also. Hope you will be able to participate. My office is 252A if you have any questions.

Please return to my mailbox by Wed., Sept. 24.

YES, I will participate _____

NO, I will not be able to participate_____

APPENDIX E

SCALES OF MEASUREMENT FOR FACILITATIVE FUNCTIONING

Empathic Understanding in Interpersonal Processes.

Level 1
The verbal and behavioral expressions of the first person do not attend to or detract significantly from the verbal and behavioral expressions of the second person(s) in that they communicate significantly less of the second person's feelings than the second person has communicated himself. For example, the first person communicates no awareness of even the most obvious, expressed surface feelings of the second person. The first person may be bored or disinterested or simply operating from a preconceived frame of reference which totally excludes that of the other person(s). In summary, the first person does everything but express that he is listening, understanding or being sensitive to even the feelings of the other person in such a way as to detract significantly from the communications of the second person.

Level 2
While the first person responds to the expressed feelings of the second person(s), he does so in such a way that he subtracts noticeable affect from the communications of the second person. For example, the first person may communicate some awareness of obvious surface feelings of the second person but his communications drain off a level of the affect and distort the level of meaning. The first person may communicate his own ideas of what may be going on but these are not congruent with the expressions of the second person. In summary, the first person tends to respond to other than what the second person is expressing or indicating.

Level 3
The expressions of the first person in response to the expressed feelings of the second person(s) are essentially interchangeable with those of the second person in that they express essentially the same affect and meaning. For example, the first person responds with accurate understanding of the surface feelings of the second person but may not respond to or may misinterpret the deeper feelings.

In summary, the first person is responding so as to neither subtract from nor add to the expresions of the second person; but he does not respond accurately to how that person really feels beneath the surface feelings. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4
The responses of the first person add noticeably to the expressions of the second person(s) in such a way as to express feelings a level deeper than the second person was able to express himself. For example, the facilitator communicates his understanding of the expressions of the second person at a level deeper than they were expressed, and thus enables the second person to experience and/or express feelings which he was unable to express previously. In summary, the facilitator's responses add deeper feeling and meaning to the expressions of the second person.

Level 5
The first person's responses add significantly to the feeling and meaning of the expressions of the second person(s) in such a way as to (1) accurately express feelings levels below what the person himself was able to express or (2) in the event of ongoing deep self-exploration on the second person's part to be fully with him in his deepest moments. For example, the facilitator responds with accuracy to all of the person's deeper as well as surface feelings. He is "together" with the second person or "tuned in" on his wave length. The facilitator and the other person might proceed together to explore previously unexplored areas of human existence. In summary, the facilitator is responding with a full awareness of who the other person is and a comprehensive and accurate empathic understanding of his most deep feelings.

The Communication of Respect in Interpersonal Processes

Level 1
The verbal and behavioral expressions of the first person communicate a clear lack of respect (or negative regard) for the second person(s). For example, the first person communicates to the second person that the second person's feelings and experiences are not worthy of consideration or that the second person is not capable of acting constructively. The first person may become the sole focus of the evaluation. In summary, in many ways the first person communicates a total lack of respect for the feelings, experiences and potentials of the second person.

Level 2
The first person responds to the second person in such a way as to communicate little respect for the feelings and experiences and potentials of the second person. For example, the first person may respond mechanically or passively or ignore many of the feelings of the second person. In summary, in many ways the first person displays a lack of respect or concern for the second person's feelings, experiences and potentials.

Level 3
The first person communicates a positive respect and concern for the second person's feelings, experiences and potentials. For example, the first person communicates respect and concern for the second person's ability to express himself and to deal constructively with his life situation. In summary, in many ways the first person communicates that who the second person is and what he does matters to the first person. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4
The facilitator clearly communicates a very deep respect and concern for the second person. For example, the facilitator's responses enables the second person to feel free to be himself and to experience being valued as an individual. In summary, the facilitator communicates a very deep caring for the feelings, experiences and potentials of the second person.

Level 5
The facilitator communicates the very deepest respect for the second person's worth as a person and his potentials as a free individual. For example, the facilitator cares very deeply for the human potentials of the second person. In summary, the facilitator is committed to the value of the other person as a human being.

Facilitative Genuineness in Interpersonal Processes

Level 1
The first person's verbalizations are clearly unrelated to what he is feeling at the moment, or his only genuine responses are negative in regard to the second person(s) and appear to have a totally destructive effect upon the second person. For example, the first person may be defensive in his interaction with the second person(s) and this defensiveness may be demonstrated in the content of his words or his voice quality and where he is defensive

he does not employ his reaction as a basis for potentially valuable inquiry into the relationship. In summary, there is evidence of a considerable discrepancy between the first person's inner experiencing and his current verbalizations or where there is no discrepancy, the first person's reactions are employed solely in a destructive fashion.

Level 2

The first person's verbalizations are slightly unrelated to what he is feeling at the moment or when his responses are genuine they are negative in regard to the second person and the first person does not appear to know how to employ his negative reactions constructively as a basis for inquiry into the relationship. For example, the first person may respond to the second person(s) in a "professional" manner that has a rehearsed quality or a quality concerning the way helper "should" respond in that sitatuion. In summary, the first person is usually responding according to his prescribed "role" rather than to express what he personally feels or means and when he is genuine his responses are negative and he is unable to employ them as a basis for further inquiry.

Level 3

The first person provides no negative cues between what he says and what he feels, but he provides no positive cues to indicate a really genuine response to the second person(s). For example, the first person may listen and follow the second person(s) but commits nothing more of himself. In summary, the first person appears to make appropriate responses which do not seem insincere but which do not reflect any real involvement either. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4

The facilitator presents some positive cues indicating a genuine response (whether positive or negative) in a non-destructive manner to the second person(s). For example, the facilitator's expressions are congruent with his feelings although he may be somewhat hesitant about expressing them fully. In summary, the facilitator responds with many of his own feelings and there is no doubt as to whether he really means what he says and he is able to employ his responses whatever their emotional content, as a basis for further inquiry into the relationship.

Level 5

The facilitator is freely and deeply himself in a non-exploitative relationship with the second person(s). For

example, the facilitator is completely spontaneous in his interaction and open to experiences of all types, both pleasant and hurtful; and in the event of hurtful responses the facilitator's comments are employed constructively to open a further area of inquiry for both the facilitator and the second person. In summary, the facilitator is clearly being himself and yet employing his own genuine responses constructively.

Personally Relevant Concreteness or Specificity of Expression in Interpersonal Processes

Level 1
The first person leads or allows all discussion with the second person(s) to deal only with vague and annonymous generalities. For example, the first person and the second person discuss everything on strictly an abstract and highly intellectual level. In summary, the first person makes no attempt to lead the discussion into the realm of personally relevant specific situations and feelings.

Level 2
The first person frequently leads or allows even discussions of material personally relevant to the second person(s) to be dealt with on a vague and abstract level. For example, the first person and the second person may discuss "real" feelings but they do so at an abstract, intellectualized level. In summary, the first person does not elicit discussion of most personally relevant feelings and experiences in specific and concrete terms.

Level 3
The first person at times enables the second person(s) to discuss personally relevant material in specific and concrete terminology. For example, the first person will help to make it possible for the discussion with the second person(s) to center directly around most things which are personally important to the second person(s) although there will continue to be areas not dealt with concretely and areas which the second person does not develop fully in specificity. In summary, the first person sometimes guides discussions into consideration of personally relevant specific and concrete instances, but these are not always fully developed. Level 3 constitutes the minimal level of facilitative functioning.

Level 4
The facilitator is frequently helpful in enabling the second person(s) to fully develop in concrete and specific terms almost all instances of concern. For example, the facilitator is able on many occasions to guide the

discussion to specific feelings and experiences of personally meaningful material. In summary, the facilitator is very helpful in enabling the discussion to center around specific and concrete instances of most important and personally relevant feelings and experiences.

Level 5

The facilitator is always helpful in guiding the discussion so that the second person(s) may discuss fluently, directly and completely specific feelings and experiences. For example, the first person involves the second person in discussion of specific feelings, situations and events, regardless of their emotional content. In summary, the facilitator facilitates a direct expression of all personally relevant feelings and experiences in concrete and specific terms.