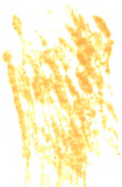
EFFECTS OF PROGRAMMED AND HUMAN SUPERVISION ON IMMEDIATE AND DELAYED TEMPORAL DIMENSIONS IN THE TEACHING OF A SPECIFIC COUNSELOR SKILL

Dissertation for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
DAVID NATHANIEL OEGEMA
1974



ABSTRACT

EFFECTS OF PROGRAMMED AND HUMAN SUPERVISION
ON IMMEDIATE AND DELAYED TEMPORAL
DIMENSIONS IN THE TEACHING OF
A SPECIFIC COUNSELOR SKILL

By

David Nathaniel Oegema

This experiment was focused on an investigation of various methods of supervision for teaching concreteness, a specific counselor skill. Two methods of supervision, programmed and human, were combined with an immediate and a delayed temporal dimension. Programmed supervision referred to feedback, instruction, and reinforcement provided by a multimedia (slides and audiotape) technique and a programmed manual. Human supervision referred to feedback, instruction, and supervision provided by a trained graduate-level supervisor. The immediate temporal dimension was defined as an interaction following each trainee response. The delayed temporal dimension was defined as an interaction occurring only after a specific portion of the instruction had been completed.

A counselor training program was developed to analyze the effectiveness of the independent variables on the teaching of concreteness. Concreteness, or specificity of expression, was defined as the ability to describe situations in behavioral or measurable terminology. Concreteness was taught to the counselor trainees through the use of

Counselor Tacting Response Leads, or CTRL's. A CTRL was defined as a counselor response lead which would evoke a client tacting response, i.e., a verbal response which either described a particular abstract concept in more operational or behavioral terms, or which gave specific examples of whatever the client was trying to communicate.

This experiment involved a repeated measures design (Campbell & Stanley, 1963) with four covariates and three posttest measures. Three personality scales from Holland's Vocational Preference Inventory (1970) were used as covariates, along with a pretest rating of the number of CTRL's present in a five-minute audiotaped counseling segment. Personality scales used were the Realistic, Conventional, and Social. The short-term posttest measure included a 25-question standardized cognitive test and a 21-question affective measure. The long-term posttest, given three weeks after the experiment, included a 12-question cognitive test and a 21-question affective measure. Possible transfer of training was measured through a rating of the number of CTRL's present during a five-minute audiotaped counseling segment. Four treatment groups were used, in addition to a non-active control group.

Instruction was presented in three phases. In Phase 1 a multimedia technique was utilized to present an introduction to concreteness, along with roleplayed counselor-client interactions illustrating appropriate and inappropriate examples of CTRL's. In Phase 2 short client segments were presented through slides and audiotape, and each subject (S) was asked to choose appropriate CTRL's from a prepared list. In Phase 3 short client segments were presented through slides and audiotape, and Ss were asked to develop an appropriate CTRL on their

own. Ss in the programmed supervision groups received supervision totally through the multimedia presentation. Ss in the human supervision groups received supervision from a trained graduate-level supervisor. Ss who received immediate feedback were given 10 short periods of supervision. Ss who received delayed feedback received two longer periods of supervision. Each of the three phases included five client segments, for a total of 15 segments used in instruction. Total instruction time was limited to 45 minutes. Each S received individual instruction.

The Ss for this study were master's degree candidates in counseling at Michigan State University. All Ss were aware that they were participating in an experiment. The original 49 Ss were randomly assigned to four treatment groups and one non-active control group.

The criterion measures used in this study were formulated to examine the separate and combined effects of programmed and human supervision combined with immediate and delayed temporal dimensions. During the cognitive measures the Ss were asked to place themselves in the role of a counselor, listen to a short client segment, and respond with an appropriate CTRL. The short-term cognitive test contained 25 questions, and the long-term test included 12 questions. All Ss received the cognitive tests. Each S's response was rated by three independent raters. Interrater reliabilities were .92 for the short-term test and .73 for the long-term test. The two audiotaped measures, pretest and posttest, were rated by three independent raters. Interrater reliabilities were .91 for the pretest and .58 for the posttest transfer-of-training measure. On the affective measures,

Ss were asked to respond to statements describing the instructional experience by ranking their feelings on a series of seven-point bipolar scales. Only Ss involved in the four treatments were given the affective measures.

It was hypothesized that Ss who received instruction through programmed supervision would make more CTRL's on the short-term cognitive measure, long-term cognitive measure, and transfer-of-training measure than Ss who received instruction through human supervision. Ss who received immediate feedback were hypothesized to be superior on the same measures to Ss who received delayed feedback. An interaction effect between supervision and feedback was hypothesized which would result in the following order of effectiveness on all posttest measures as ranked from high to low: immediate-programmed supervision > delayed-programmed supervision > immediate-human supervision > delayed-human supervision. It was also hypothesized that the same rank order would be found as a result of Ss responding to the short- and long-term affective measures. The data were analyzed using multivariate and univariate analyses of covariance. The four covariates were included in all analyses. Alpha levels for the multivariate hypotheses were set a priori at α=.05, which resulted in univariate alpha levels ranging from α=.01 to α=.05. An unbalanced design was used for all analyses.

No statistically significant differences were found for any of the hypotheses tested for the short-term measures, the long-term measures, or the transfer-of-training measure. Statistically significant differences were found between the treatment and control groups

on the short- and long-term cognitive measures. Individual treatment groups were compared to the control group, with statistically significant differences (α=.01) found on the short-term cognitive measure between the control and the immediate-programmed supervision group, the control and the immediate-human supervision group, and the control and the delayed-human supervision group. A statistically significant difference (α=.01) was found between the control and the delayed-human supervision group on the long-term cognitive measure.

EFFECTS OF PROGRAMMED AND HUMAN SUPERVISION ON IMMEDIATE AND DELAYED TEMPORAL DIMENSIONS IN THE TEACHING OF A SPECIFIC COUNSELOR SKILL

By

David Nathaniel Oegema

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling, Personnel Services,
and Educational Psychology

1974

To

Flo

and

Jimmy

ACKNOWLEDGMENTS

The writer wishes to recognize personally and express appreciation to the following individuals:

To Dr. Herbert Burks, Jr., who served as the chairman of my doctoral committee. I am greatly impressed by his dedication, guidance, and personal attention during my period of study.

To Dr. Norman Stewart, who guided my professional training. I admire his teaching skills and hope that some day my skill may approach his.

To Dr. Bob Winborn, who was always present and willing to help. I wish that I had the variety of interests and knowledge of counseling that he possesses.

To Dr. Fred Tinning, who was an advisor, neighbor, and friend. He placed others above himself and always found time to help a struggling student. Many of his ideas were included in this study.

To Dr. Dozier Thornton, who served as a committee member from the Department of Psychology.

I would also like to express appreciation to my fellow doctoral candidates who aided this study through suggestions, encouragements, and participation as supervisors. My personal thanks go to John Malacos, Nancy Voight, Pam Highlen, Dave Vandergoot, Steve Elson, Roger Livingston, Ken Carrico, Nancy Martin, and Dave Fitch.

My wife, Flo, deserves special mention. She shared with me all the heartaches and joys connected with these last two years of our lives. No words can express what she means to me.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

RATIONALE

Introduction

The concept "counseling" has been defined in a variety of ways. One such definition (Patterson, 1967) states:

> Counseling (or psychotherapy) is a relationship, involving verbal interaction, between a professionally trained person and an individual or group of individuals voluntarily seeking help with a problem which is psychological in nature, for the purpose of effecting a change in the individuals seeking help (p. 82).

Assuming that Patterson accurately describes counseling, the task of the counselor educator becomes that of training counselors capable of verbal interaction and of effecting a change in the lives of others.

Ivey and Alschuler (1973) extend the role of the counselor into an area they call "psychological education." Psychological education assumes that the counselor is also an educator whose function is remediation. The counselor would concentrate on the institution to work on promoting psychological growth for all instead of the few in crisis. The counselor would assume four functions.

1. He would work to increase the individual's intentionality, that is, to allow the individual to anticipate alternative experiences and choose among them to attain some desired goal.

2. He would use strategies to assure that the goals are taught in the most inclusive and effective ways possible.

3. He would stress that tactics employed should apply to systems as well as individuals.

4. He would work to demystify the strategies and tactics so that problem-solving skills could be taught to the widest audience possible.

The approaches of Patterson, Ivey, and Alschuler involve educating counselors and training them in the use of various skills. However, the education process itself is in need of additional exploration to determine what instructional techniques are of any benefit. Bellucci (1972) states that "Counselor educators are constantly seeking more effective methods relevant to the training and education of school and college counselors. However, evidence regarding counselor educators' relative effectiveness when employing various training methodologies and procedures is, at best, contradictory and confusing (p. 88)." The nebulous description of what occurs during counselor training cited by Bellucci is expressed in similar terms by Hansen and Warner (1971) in their concluding remarks regarding past research on practicum supervision. They maintain that little has been added to the useful knowledge of counselor education in areas of (a) the role expected of supervisors and its effects on counselor trainees, (b) new methods used in counselor preparation, and (c) counselor changes during the training process. Whiteley (1969), writing on the fate of counselor education, cites the need for a careful study of what supervisors can do to enhance skill development of counselor trainees.

The statements from Bellucci, Hansen and Warner, and Whiteley illustrate a general lack of knowledge about the effectiveness

of counselor training methods. Consumers who use the skills of the counselor are demanding that the guidance profession be accountable for what occurs during the counseling process. The guidance profession is attempting to meet the challenge of accountability (Costar, 1972; Pulvino & Sanborn, 1972; Carey & Garris, 1971). One proposed method of meeting this challenge for accountability is the use of instructional objectives (Winborn, Hinds, & Stewart, 1971; Thoresen, 1969; Horan, 1972). An instructional objective, be it cognitive, affective, or motor, is composed of three components (Mager, 1962):

a. Terminal behavior, i.e., the end performance behavior;

b. Conditions, i.e., the circumstances under which the behavior is expected to occur;

c. Criteria of minimal acceptable performance, i.e., the description of how well the learner must perform to be considered adequate.

Once objectives have been defined in behavioral terms, the instructor may create or select the necessary equipment and instructional components that will assist in the attainment of these objectives. Winborn, Hinds, and Stewart (1971) report that innovative teachers are experimenting with the use of instructional systems, programmed learning, computer assisted instruction, simulation techniques, and instructional media. Thoresen (1969) proposed the use of a variety of equipment such as videotape, computers, and data-processing hardware to meet effectively the challenge of training counselors. Thoresen also proposes the use of a systems approach which would combine specific training components in an effective and efficient manner. A systems approach would include:

1. behaviorally stated performance objectives;
2. careful attention to the interaction of components;
3. information flow and feedback mechanisms;
4. various man-machine combinations.

The effective and efficient procedure described by Thoresen also includes an emphasis on the cost-effectiveness of various instructional systems. Training methods are continuing to be scrutinized for effectiveness, but increasing emphasis is also being placed on efficiency. Industry has considered the problem of efficiency for some time and has developed a program referred to as PPBS, or the "Planning, Programming, and Budgeting System" (Lopez, 1970). Thoresen emphasizes the need for a similar type of planning, with a possible solution being the systems approach.

Purpose

The purpose of this study was to evaluate the effectiveness of programmed supervision versus human supervision in teaching concreteness, which is a specific counselor skill. Concreteness involves expressing the client's concerns in specific and measurable terminology. Supervision (programmed and human) was combined with immediate and delayed temporal dimensions to examine any interaction between time and feedback on the correctness of a particular response. Programmed supervision refers to feedback, instruction, and reinforcement provided by audio and video media and programmed written material. Human supervision refers to feedback, instruction, and reinforcement provided by a trained graduate-level counselor. The immediate temporal dimension

is defined as an interaction following each trainee response. The delayed temporal dimension is defined as an interaction occurring only after a specific portion of the instruction has been completed.

Effective programmed supervision could lead to widespread applications such as the following:

1. Programmed supervision would be controllable, i.e., there would be a consistency of instruction across trainees.
2. The cost-effectiveness of such a program would meet the challenge of accountability by providing a quality product for a predetermined cost.
3. Instruction could occur at any time and would not be contingent upon an interaction involving a given group of people.
4. The trainee could recycle for additional training.
5. A programmed technique could provide a uniform evaluation across trainees, with no opportunity for personality conflicts to occur.
6. Instruction could be presented in the exact form the programmer desired. The media used could be constantly evaluated and revised in accordance with the latest research findings.

This study was designed to test the hypothesis that supervision methods used in counselor training are differentially effective in increasing the use of Counselor Tacting Response Leads, CTRL's. More specifically, the objectives of this research were to investigate the:

1. short- and long-term effectiveness of programmed and human supervision;
2. short- and long-term effectiveness of immediate and delayed supervision;
3. short- and long-term effectiveness of specific interactions between programmed and human supervision and immediate and delayed temporal dimensions;

4. short- and long-term affective reactions toward experiencing programmed and human supervision presented on immediate and delayed temporal dimensions;

5. transfer-of-training effectiveness of instruction on CTRL's to the use of CTRL's in actual counseling interactions.

The effectiveness of supervision and instruction was evaluated by various outcome measures. The short-term cognitive measure used the frequency of Counselor Tacting Response Leads (CTRL's) made in response to 25 standardized written client statements as the basis of comparisons among treatments. The long-term cognitive measure used 12 standardized written client statements randomly selected from the short-term cognitive measure. Affective reactions toward the experience were measured by a seven-point bipolar scale administered on both a short- and long-term basis. Possible transfer of instruction on CTRL's to use in actual counseling behavior was measured by the frequency of CTRL's made during a randomly selected five-minute segment of an actual counseling interview involving a discussion of the client's concerns which had been audiotaped at the trainee's practicum setting.

Review of the Literature

In this section, the relevant empirical evidence and current modes of inquiry regarding the areas of simulation, media, modeling, supervision, feedback, and concreteness will be presented and analyzed. Each will be placed in proper perspective relating to its inclusion in this experiment.

Simulation

Miller (1972) refers to simulation as a controlled representation of a real situation. Eisenberg and Delaney (1970) suggest that simulation is something that assumes the appearance of something else without really being the same. Twelker (1969) distinguishes between "role playing" and "role performing" simulations. Role playing involves a person practicing or assuming the identity of someone else for a given period of time. Here the person plays a role that he is unaccustomed to for the purpose of understanding the situation of that person. Role performing, however, involves a person practicing his own future role.

Various levels of simulation have been identified, ranging from a low theoretical and abstract level to a high concrete and specific level containing most of the elements found in the desired terminal behavior. Stewart and Hinds (1970) identified four levels of simulation for teaching skills in counselor education, i.e., reading and listening, modeling, practice responses and roleplaying and supervised experience. These levels and their relationship to trainee behaviors and general purposes of instruction are shown in Figure 1.

Gagné (1962) describes the concepts presented by Stewart and Hinds (1970) as various forms of psychological fidelity. Gagné maintains that learning will increase in relation to the fidelity of the simulation experience. The higher the fidelity, i.e., the closer the simulation experience corresponds to the real-life situation, the faster learning will occur. Gagné further maintains that fidelity influences the transfer of learning to other situations. "Lateral

Level of Simulation	Trainee Behavior	General Purpose
Lowest		
Reading	Reading specific assignments	Overview: presentation of concepts and vocabulary
	Taking a self test over written material	Discrimination between concepts, practice of knowledge
Modeling	Watching video tapes (modeling) and paper and pencil test	Further discrimination learning, immediate knowledge of results
	Watching simulated counseling sessions (video) with paper and pencil tests	Further practice of knowledge: teaching for transfer
Role Playing	Interacting with a peer as counselor	Generalized training with immediate feedback
Supervised practice in field	Interacting with student	Terminal behaviors
Highest		

Figure 1. Simulation Chart including Levels of Simulation, Trainee Behavior, and General Purpose of each Level (Stewart & Hinds, 1970).

transfer" occurs when a concept is generalized to a broad class of situations at about the same level of complexity. "Vertical transfer" occurs when subordinate principles previously learned transfer to new principles at high levels (Gagné, 1965).

The effectiveness of using simulated experiences for instruction and clinical training is well-documented (Tinning, 1973; Stone, 1972; Eisenberg, 1969; Eisenberg & Delaney, 1970; Thayer, Peterson, Carr, & Merz, 1972; Panther, 1971; Danish, 1971; Kersh, 1965, 1958; Beaird & Standish, 1964). Gysbers and Moore (1970) state that simulation offers both an opportunity to provide a specific training emphasis and an opportunity to experience guidance functions not normally obtainable under regular practicum conditions. Such experiences as case conferences, PTA meetings, teachers' meetings, school board presentations, and daily counselor experiences have been portrayed via simulation. Panther (1971) includes the possibility of having a counselor-teacher consultation experience using simulation as part of the counselor training program. Kersh (1958, 1963, 1965) developed a simulated classroom experience for beginning teachers. Each trainee was asked to respond to various filmed classroom problems normally faced by a teacher. Several alternative feedback sequences were available, depending on which response the trainee had made. Beaird and Standish (1964) applied the procedure developed by Kersh to the counseling setting. Interview behavior was taught to trainees using a filmed simulated counseling situation.

Tinning (1973) compared the use of simulated patients to real patients in the training of first-year osteopathic medical students.

Simulated patients were programmed to respond as real patients. Tinning concluded that simulated patients in a simulated clinical environment could be considered a viable alternative as a method of instruction while providing a vehicle for transfer of learning. Simulation can allow the instructor maximum control of the student-client interaction by controlling the extraneous environmental factors. Tinning also concluded that psychological fidelity is more important than physical fidelity and that simulation provides an effective means of training relative to the cost involved. Delaney (1969) summarizes much of the recent work on simulation as follows:

1. Simulation is effective as an instructional technique.
2. The use of a television monitor to present stimuli is appropriate.
3. Realism in simulation is not a primary requirement for transfer of training.
4. Simulation positively affects actual performance.
5. Simulation provides for economy of time while reducing long-term expense.
6. The application of simulation techniques to counselor education is both feasible and effective.
7. The use of prompts or cues is desirable as part of the simulation program.

The work of Ausubel (1960) is relevant to the last statement of Delaney. Ausubel proposes that cues and advanced organizers are effective in reducing the rate of learning and increasing the retention of new material. New material becomes incorporated into a person's cognitive structure insofar as it is subsumable (organized) under relevant existing concepts. Cues and advanced organizers help this process occur smoothly and quickly.

Stone (1972) proposed a distinction between high and low fidelity simulation. Manual (written) and audio methods of instruction were considered low fidelity, while video and in vivo methods of instruction were considered high fidelity. In comparing the effects of using various fidelities of simulation for modeling a behavior, practicing the behavior, and testing for acquisition of the behavior, Stone found a statistically significant effect due to presenting model, practice, and test at a high fidelity level of simulation. The Low Fidelity Model--Low Fidelity Practice-Low Fidelity Test Groups were low in comparison with all other combinations. Any other combinations among low and high fidelity levels of model, practice, and test performed about equally.

The literature reviewed in this section tends to support the conclusions of Delaney (1969) but also identifies several important topics for additional consideration. A central theme in the use of simulation is its cost-effectiveness as compared to other methods of instruction. A second theme involves the fidelity of simulation and its effect on learning. Finally, a third major theme involves the transfer of learning from the training situation to the actual real-life situation.

In the present study these three major themes--cost-effectiveness, fidelity, and transfer--were incorporated and investigated. Simulated counseling segments were utilized to present instruction on Counselor Tacting Response Leads. Cost-effectiveness was investigated through a comparison of human supervision and programmed supervision.

Transfer of learning was tested through a planned follow-up involving audiorecordings from the trainees' practicum settings.

Media

Many varieties of media have been developed and used in the field of counselor education; yet few concrete statements can be made about which media should be used in what situation. Several studies have shown that videotape is an effective means of instruction (Eisenberg & Delaney, 1970; Myrick, 1969; Higgins, Ivy, & Uhlemann, 1970; Yoakley, 1971; Ryan, 1969; Poling, 1968; Frankel, 1971). Audiotape has also received support for its effectiveness as a technique of instruction. Yenawine and Arbuckle (1971) compared the use of audiotape and videotape as vehicles for feedback to practicum students. Students were found to be threatened by videotape at the beginning of practicum and actually identified more easily with audiotape. Myrick (1969) used exposure to audio or video models to increase the frequency of self-reference in a group of counselor trainees attending an orientation program. Video modeling was found to be less effective than audio modeling. It was hypothesized that video modeling provided too many cues, resulting in confusion rather than learning. In other studies (English & Jelenevsky, 1971; Markey, Fredrickson, Johnson, & Julius, 1970; Ward, Kagan, & Krathwohl, 1972) no differences in outcome were found among audio, video, and audio-video media as methods of instruction. The writings of the various authors cited in this section suggest that both audio and video methods may be effective, depending upon the situation. Video media add additional stimuli to the situation which may or may not be

beneficial. McDonald, Allen, and Orme (1966) suggest, however, that simply using media such as audio-visual feedback during instruction has limited value unless accompanied by supervision. A particular combination of audio-video media using slides and audiotape has been shown to be as effective as videotape (Atherton, 1971; Kersh, 1963; Delaney, 1969).

Two methods of instruction that use videotape are interpersonal process recall (IPR) and microcounseling. IPR, which was developed by Dr. Norman Kagan, involves videotaping a short counseling session. The session is then stopped, and the client and a clinical "recaller" replay and review the tape in an attempt to help the client understand the underlying dynamics of the interaction. The recaller is concerned with teaching the client how to gain insight through the "self-confronting" experience on the videotape (Kagan, Schauble, Resnikoff, Danish, & Krathwohl, 1969; Kagan & Schauble, 1969). The second method of instruction, microcounseling, is an offspring of microteaching, which was developed by McDonald and Allen (1967) at the Stanford Center for Research and Development in Teaching. Usually a 5-25 minute teaching session is the core of the program, with 4-5 pupils experiencing intense supervision, immediate feedback, and evaluation by means of audio or video recordings. Ivey (1971) describes the microcounseling model as consisting of the following nine steps:

1. The trainee enters a room where he will interview a client.
2. A five-minute diagnostic session between the trainee and client is videotaped.

3. The client leaves the room and completes an evaluation sheet of the interview process. Evaluation sheets may be used in supervisory sessions with trainees.

4. The trainee receives written material regarding specific skills to be learned in the session. Instruction about the manual and feedback on the diagnostic session are given the trainee by the supervisor.

5. Modeling of the desired skill is done by prepared videotapes. Modeling may include both positive and negative examples.

6. The trainee views his first videotaped session, with discussion and feedback from the supervisor. The trainee is asked to identify from his tape both positive and negative examples of the skill being taught.

7. The trainee and supervisor review the skill and prepare for the next session with the client.

8. The trainee reinterviews the same client for five minutes.

9. Feedback and evaluation are given the trainee by the supervisor.

Microcounseling has been shown to be an effective use of videotape in the teaching of skills such as expression of feelings, reflection of feelings, and attending behavior (Elsenrath, Coker, & Martinson, 1972; Miller, Morrill, Ivey, Normington, & Uhlemann, 1973; Miller, Morrill, & Uhlemann, 1970; Parker, 1972; Guttman & Haase, 1970, 1972; Haase & DiMattia, 1970; Haase, DiMattia, & Guttman, 1972; Ivey, Normington, Miller, Morrill, & Haase, 1968; Perkins & Atkinson, 1973; Wittmer & Lister, 1972).

The present experiment utilized multi-media (slides and audiotape) as the method of instruction. Groups varied in the manner in which the media were used. The programmed supervision groups received instruction, modeling, and feedback entirely through media and a programmed instruction manual. Human supervision groups received

instruction and modeling through the multi-media presentation, but relied on graduate-level supervisors for feedback and additional instructions.

Modeling

As conceptualized in the present study, modeling involves watching another person perform some behavior and then incorporating this observed behavior into one's own behavioral system. Bandura and Walters (1963) state that patterns of observed behavior are typically acquired in large segments, rather than through a piecemeal process as customarily depicted in modern behavioral systems. The learner may reproduce more or less the entire response pattern following demonstration by a model or a verbal description of the behavior. This learning occurs even though no overt response has been made nor reinforcement received by the learner.

Miller and Dollard (1941) describe four factors essential to learning: drive, cue, response, and reward. These four factors operate in two types of "imitation learning," another term for modeling. One type of imitation learning is called "matched-dependent behavior," in which an observer learns to match a model's response as a result of reinforcement which is expressed vicariously or directly. The learner may respond to cues from the model or may be directed by internal stimulation. A second type of imitation is called "empathic learning." In this case, the model receives the reinforcement, with the observer being vicariously reinforced. As a result, the observer imitates the modeled behavior.

Rotter (1966) defines two types of control (internal and external) in explaining a concept called "control continuum reinforcement." This concept was based on the assumption that the effect of reinforcement following an individual's behavior depends upon whether the individual has perceived a causal relationship between his behavior and the environment. External control occurs when a subject perceives reinforcement as following some action on his part, but not being contingent upon his actions. Internal control occurs when a subject perceives that an event is contingent upon his behavior or his own relatively permanent characteristics. This distinction between internal and external control may explain why a person may not need immediate reinforcement by an outsider to confirm his certainty that a skill has been executed properly. The person operates on his own internal reinforcement until external reinforcement can be obtained later (Bellucci, 1972).

Nye (1972) analyzes the use of live and symbolic models in teaching a new skill or strengthening an existing skill. Live models (Krumboltz & Thoresen, 1964) such as counselors, teachers, and peers can demonstrate a desired skill with little, if any, previous planning or instruction. Learning is enhanced if modeling is followed by a role rehearsal by the observer under controlled optimum conditions. Truax (1966) concludes that the counselor serves as a model during the counseling interaction even though no attempt has been made to do so. Symbolic models are provided through written material, audiotapes, videotapes, and films. This type of modeling allows for more direct control of the desired behavior but may involve additional preparation

prior to its use. Social modeling, either live or symbolic, has been shown to be dependent to a large extent upon the identification of the observer and the model. Transfer of learning depends upon model characteristics such as age, intelligence, socioeconomic status, social and vocational competencies, prestige, and power (Bandura, 1969). Symbolic modeling seems to work best when incorporated into three steps (Nye, 1972):

1. Presentation involving written material on the skill or behavior to be learned;
2. Presentation involving an audiotape, videotape, or film in which one or more individuals illustrate the behavior;
3. Presentation involving a role-played or role rehearsal situation in which the learner actually tries out the new behavior.

Bandura (1969) distinguishes between learning a behavior through modeling and the later performance of that behavior by the observer. A learning analysis focuses on the variables operating at the time of exposure to modeling that determine the degree to which the modeled behavior is learned. The performance analysis focuses on the person's willingness to perform a learned behavior. Reinforcement indirectly influences the course of learning by focusing the observer's attention on the desired characteristics. This attention variable is important since simple exposure to modeling does not mean that a person will notice the intended behavior (Bandura, 1968). Bandura (1969) postulates a multiprocess theory of observational learning where modeled stimulus events are transformed and retained in a verbal or imaginal memory code. Later environmental cues guide the reproduction of the matching responses, which are regulated largely by reinforcing outcomes

that may be externally applied, self-administered, or vicariously experienced.

Modeling has been used in a variety of ways in instruction. LaFleur (1970) combined modeling with reinforcement and an attentional or pre-organizer factor. Modeling with the pre-organizer provided a viable tool for instruction. Payne, Weiss, and Kapp (1972) found that modeling and didactic supervision are additive when teaching counselors the skill of empathy. Whalen (1969) and Frankl (1971) found video-taped modeling to be effective in instruction. Additional studies (Bandura, 1969, 1971; Eisenberg, 1969; Bandura & Walters, 1963; Whalen, 1969; Stone, 1973; Elsenrath, Coker, & Martinson, 1972) have illustrated the effectiveness of using a modeling process as part of instruction.

Modeled client counseling segments were used in the present study as part of the supervision process. Symbolic models via multi-media (slides and audiotape) presented client statements to which a modeled counselor responded with an appropriate Counselor Tacting Response Lead. Gradually the counselor was faded out, with the trainee required to respond to the client statements.

Supervision

The word "supervision" has a variety of meanings that vary in relation to the context in which they are found. Supervision may refer to a managerial or administrative function, a consulting function, a counseling function, or a learning or instructional function. If a learning approach to supervision is used, the emphasis is on discovering

the best procedure or conditions under which the trainee can make maximum use of the instruction.

Supervision usually involves a supervisor listening to an audio- or video-taped counseling session or segment of a session and giving feedback to the trainee in the form of comments and suggestions. Walz and Roeber (1962) analyzed the types of comments usually made by supervisors and found that 47% of the supervisor's comments were instructional and an additional 26% were questioning comments asking the trainee to describe why he performed a certain behavior. The conclusion was that the typical supervisor's response is cognitive and information-giving with negative overtones. Klas and Peters (1973) analyzed the relationship between theory of what should happen during counseling and what actually happens during a counseling session. Agreement was found that counselors used direct questions, interpreted the client's statements, summarized the proceedings, and clarified the client's statements.

Delaney (1973) has presented an outline of a possible supervisory session. The supervisor is felt to be responsible for (a) helping the counselor develop appropriate counseling skills and (b) maintaining ethical and professional responsibility for the client's welfare. The supervisory process as outlined by Delaney has five basic steps:

1. initial session
2. development of a facilitative relationship
3. goal identification and determination of supervisory strategies

4. use of supervisory techniques and strategies

5. termination and follow-up.

In working with the trainee, the supervisor uses three strategies: (a) instruction, (b) modeling, and (c) reinforcement. Kelly (1971) echoes the importance of the reinforcement potential that the supervisor possesses.

Truax and Carkhuff (1967) stress that a supervisor should be active. A supervisor should listen, interrupt, role play--in short, "teach." Beginning-level trainees learn best from positive examples with specific and concrete instruction. Carkhuff (1969) identifies the facilitative level of the instructor or supervisor as being a critical variable in the level of trainee functioning. Trainees tend to move in the direction of their trainer; that is, trainees gain the most with high facilitative-level trainers and lose the most or terminate with low-level trainers. Results of several studies (Pierce & Schauble, 1971a, 1971b, 1970; Hamachek, 1971) support this assumption. Hamachek (1971) found that movement does occur toward the level of the trainer, but states that a supervisor needs to be more than just a good "model." A supervisor also needs to be a good "teacher," which may take more (higher) cognitive ability than is acknowledged by Carkhuff and Truax.

Supervision is typically studied by comparing the effects of various supervisors on the level of functioning of their trainees. Such a procedure involves the comparison of a technique-oriented versus a counseling-oriented supervisor. Payne, Winter, and Bell (1972) describe a technique-oriented supervisor as one who works for a

positive relationship with the trainee, but who focuses primarily on the trainee's effectiveness in using the skills of empathy, warmth, genuineness, and concreteness. The supervisor provides instruction with open, direct suggestions for change. A counseling-oriented supervisor is one who follows a "non-directive" procedure with the focus on a positive relationship without negative evaluations or direct suggestions for change. The technique-orientation has received support as being more effective (Payne, Winter, & Bell, 1972; Birk, 1972; Boyd, 1971, 1973; Payne & Gralinski, 1968). Guttman (1973), however, maintains that the evidence is not sufficient. She states that most of the research is still theoretical and that what has been done is questionable and nondirectional. Mazer and Engle (1968) maintain that the counselor educator and supervisor should focus on teaching the trainee. They state that the most effective method of teaching may be impersonal, with imaginative instructional methods minimizing personality conflicts that are common in personal tutoring and interfere with training. Jensen (1973) investigated a unique approach to the supervision of MA-level counselor trainees. He compared the effects of face-to-face supervision versus remote supervision by means of audiotapes exchanged through the mail. Face-to-face supervision allowed for a highly personalized and individualized interaction when compared to remote supervision. However, face-to-face supervision is more expensive in terms of time and personnel requirements and may be impractical in off-campus and in-service situations. Jensen concluded that no difference existed between groups in measured trainee competency due to the type of supervision received.

With the assumptions that supervision is instruction, that instruction involves a technique orientation, and that imaginative instructional methods can minimize personality conflicts, it is maintained that programmed supervision as used in the present study is a viable instructional technique. Specifically, this experiment compared the effects of human face-to-face supervision versus programmed supervision presented through a multi-media approach.

Feedback

Feedback provides information to the individual on his behavior and its consequences on the environment and others around him. Truax (1970) states that feedback is the basis of the phenomenon of learning itself. Feedback provides information to the counselor on the consequences of his behavior and on the setting and personnel where he works, as well as on the client. Truax states that for feedback to provide this quality control, it must be systematic and specific as it relates to both the counselor and the client, and that this should be emphasized in the counselor training program. Truax and Carkhuff (1967) stress the use of immediate and concrete feedback during training. They maintain that feedback from clients is essential in providing information to the counselor so that the counselor can modify, sharpen, and reformulate hypotheses concerning the interaction. The counselor needs to look for direct feedback from clients, such as behavior improvement, and indirect feedback from research findings or clinical innovations so that he is constantly improving his skills and techniques.

Feedback, as it relates to counselor effectiveness, has received little attention in the literature; yet much needs to be known. One area of investigation involves the influence of the practicum supervisor and the quality and type of feedback that is provided (Graves & Graves, 1973). The effectiveness of immediate over delayed feedback has been illustrated in some studies (Reddy, 1969a, 1969b). However, the results on this issue are confusing. Canada (1973) compared the effects of immediate versus delayed feedback on trainees receiving instruction on making open-ended statements and found no significant difference between treatments. McDonald and Allen (1967) propose as a possible explanation that in some cases a person may not need immediate external feedback or reinforcement, but instead may be able to operate on internal reinforcement until an external source is available later. Forster (1969) compared programmed feedback to human feedback in providing test results to students. Students seen by counselors reported being more relaxed, although they did not improve as much in the accuracy of self-estimation as did the programmed feedback group.

Gagné (1965) includes feedback as a primary step in the learning or pairing of new stimulus objects with previously learned stimulus situations. Gagné hypothesizes that learning involves:

1. the identification of previously learned instructions which are associated with stimulus objects,
2. the linking of the existing stimulus instructions to a new proper class that the learner has not previously encountered,
3. the identification of additional instances of the stimulus class beyond which specific chains have been acquired,

4. the confirmation of the response to the stimulus more or less immediately after its presentation.

Gagné concludes that some form of feedback from the environment must occur during the process for the learner to realize that his performance is correct. This feedback may develop into an internal process.

Twelker (1969) and Gagné (1965) stress the importance of transfer of learning. Twelker states that transfer occurs when a previously learned skill, habit, or behavior influences the acquisition of another skill at a later time. Positive transfer exists when the second task is facilitated, while negative transfer results in the inhibition of the later skill.

The present study involved an investigation of the effects of immediate and delayed feedback via programmed and human supervision on the learning of the skill of concreteness by counselor trainees. Possible transfer of training to the actual counseling situation was assessed through the rating of an audiotaped counseling segment recorded by each trainee at his practicum setting.

Counselor Tacting Response Leads (CTRL's)

Concreteness

Concreteness, or specificity of expression, may be described as follows:

> A low level of concreteness or specificity is when there is a discussion of anonymous generalities, when the discussion is on an abstract intellectual level. This includes discussions of "real" feelings that are expressed on an abstract level. A high level of concreteness or specificity is when specific feelings and experiences are expressed--"I hated my mother!" or ". . . Then he would blow up and start throwing things";

> when expressions deal with specific situations, events, or feelings, regardless of emotional content (Truax & Carkhuff, 1964, p. 266).

The concept of concreteness is highly relevant to the "Systematic Counseling" process taught in the M.A. counseling program at Michigan State University (Appendix A). This concept is particularly applicable in helping to "Construct Model of Client Concerns," (Subsystem 5.0), "Implement Strategy," (Subsystem 7.0), and again in "Evaluate Client Performance," (Subsystem 8.0).

Concreteness is taught to the counselor-trainee through the use of Counselor Tacting Response Leads, or CTRL's. A CTRL is a counselor response lead which will evoke a client tacting response, i.e., a verbal response which either describes a particular abstract concept in more operational or behavioral terms, or which gives specific examples of whatever the client is trying to communicate. The concept of a CTRL has its basis in the description of a verbal "tact" (Skinner, 1957). A tact is defined as "a verbal operant in which a response in given form is evoked (or at least strengthened) by a particular object or event or property of an object or event (Skinner, 1957, p. 81)." The tact directs attention toward an object or event in the environment. A tact attains strength by being reinforced in a given verbal community. The response to the tact "refers to," "mentions," "announces," "talks about," "names," "denotes," or "describes" its stimulus. Tacts, then, may be considered verbal responses which (a) describe abstract concepts in behavioral terms or (b) give specific examples of what is being communicated by the sender. Verbal tacts

may be descriptions of behaviors or environmental events associated with the behaviors.

Four classes of client verbal tacting responses may be delineated:

1. Those which offer operational definitions to previous abstract referents (e.g., "When I said that I do poorly in school, I meant that I have three C's and two D's in my classes.")

2. Those which are psychological and behavioral descriptions of emotional experiences (e.g., "When I said that I get upset, I mean that my face turns red, that my voice gets high-pitched, and I start crying.")

3. Those which tie generalizations about events to specific stimulus events (e.g., "One time when I felt angry was when my mother forced me to go to school when I felt sick all over.")

4. Those which tie generalizations about events to a variety of other specific stimulus conditions (e.g., "I also felt angry when my boyfriend went out with another girl, and the time when the teacher wouldn't accept my report since it was five minutes late.")

Although Skinner was the first to define a verbal tact, references to a similar concept can be found as far back as the writings of Freud (1950). Freud's initial position on the characteristics of psychotherapy stressed two points: (a) the recovery of repressed memories, and (b) the handling of repressed affects. One sign of recovery was relief from repression. Even though Freud concentrated on the unconscious, it is clear that the memories and affects were concrete and specific. Rogers (1951), in his writings describing empathic understanding, has focused attention on the specific experiencing of the patient, which also illustrates being concrete and specific. Ellis (1959) and Sullivan (1954) have also stressed the

importance of specificity (concreteness), noting that abstract interactions may actually be nontherapeutic. Recent major writings in support of concreteness include those of Truax and Carkhuff (1964) and Carkhuff and Berenson (1967).

Carkhuff (1969) has developed specific guidelines for the use of concreteness and its communication in the counseling process:

1. The helper should use specific and concrete reflections and interpretations to foster similar development in the client.

2. The helper should emphasize the personal relevance of the client's communication so that time is not lost in wandering or "storytelling."

3. The helper should ask for specific details and specific instances. The client should have the opportunity to discuss his concern but questions such as who, what, why, where, and when may be needed to enter and follow-through in an area of concern.

4. The helper will have to make decisions on the usefulness of concreteness based on his own experiences. One guideline is that concreteness is most helpful during initial and final stages of helping.

Carkhuff has developed a five-point scale for measuring the level of concreteness during the counseling process (Carkhuff, 1969a, 1969b; Carkhuff & Berenson, 1967). Levels 1 to 3 are dominated by varying degrees of vagueness and abstractness. In level 1, the helper makes no attempt to define situations and feelings in concrete terms. Level 2 is identified by discussions of some "real" feelings, but only on a vague and abstract intellectual level. A level 3 helper touches on specific and concrete instances, but never spends time to develop the situations or feelings fully. A level 3 helper is considered to be at a minimal level of facilitative functioning. Levels 4 and 5 are separated only by varying degrees in the use of concreteness. A level

4 helper is frequently helpful in almost all areas in developing concrete instances, while a level 5 helper centers around personally specific and relevant concrete feelings and experiences regardless of their emotional content. Thus, at relative low levels of concreteness the helper might discuss family problems on an abstract or intellectual level: "Your problems with your wife and children are a function of many long and complex conflicts between various unconscious feelings each of you have toward the other." At relatively high levels of concreteness, the helper involves the client in discussion of concrete and specific feelings, situations, and events regardless of their emotional content: "Although it is not easy for you to talk about your feelings of hostility and anger, it seems that every decision you try to make, every time you talk about changing jobs, your wife refuses to listen and you feel frustrated."

Concreteness is a variable that is largely under the therapist's control. Three basic functions of concreteness have been identified (Truax & Carkhuff, 1964; Carkhuff & Berenson, 1967):

1. It insures that the therapist's responses do not become too intellectual and abstract, but remain focused on the client's feelings and experiences;

2. It encourages the therapist to be accurate in his understanding of the client's statements and feelings and to verify or clarify any assumed interpretations;

3. It influences the client to be specific in describing feelings and experiences.

The use of concreteness varies throughout the interview. It has been shown to be of significant value during the early phases of therapy when an attempt is being made to define the problem (Pope & Siegman,

1962). Later parts of therapy again require an emphasis on concreteness in the development of specific directions and goals.

Counselor tacting response leads (CTRL's) have been used to elicit concrete terminology from clients. Stone (1973) used CTRL's and concreteness as interchangeable terms. Eisenberg (1969) developed a procedure for investigating various methods of teaching CTRL's to trainees. Eisenberg presented short (30-second) client statements which required the counselor to respond with an appropriate CTRL. Eisenberg compared the effectiveness of instruction among a control group receiving no instruction, a group receiving reinforcement only, a group receiving modeling only, and another receiving both reinforcement and modeling. Groups who watched CTRL's modeled made more correct CTRL's than the other groups. Eisenberg and Delaney (1970), writing about the same experiment, noted similar conclusions. Models were presented by videotape. The authors concluded that CTRL's are of important instrumental value in the process of setting goals and are largely lacking in trainees. Pilot studies suggested that the operant level for making such responses is quite low for counselors in training.

The skill of concreteness was used in the present study because of its demonstrated deficiency in beginning trainees as well as the fact that it can be taught and measured (Stone, 1972; Hamachek, 1971; Eisenberg & Delaney, 1970; Harris, 1973; Berenson, Mitchell, & Moravec, 1968; Carkhuff, Kratechvil, & Friel, 1968; Heiserman, 1971).

Summary

The present study involved an investigation of the effects of immediate and delayed feedback via human and programmed supervision on the teaching of the counselor skill of concreteness. A slide and audiotaped multi-media approach was used to present simulated counseling segments taken from actual counseling interviews. Bellucci (1972) and Hansen and Warner (1971) have noted that little evidence exists concerning the relative effectiveness of different training methodologies and procedures. In the present study, programmed and human instruction were compared with each other and with a non-active control group. Data were obtained which can be used to assess the effectiveness of each method on the specific skill of concreteness. Attention was also given to the efficiency of each technique, thus allowing for a cost-effectiveness comparison. Both efficiency and effectiveness are important aspects of accountability. The present experiment also involved a repeated measures design and a transfer-of-training measure--factors which likewise need to be analyzed as part of the cost-effectiveness rating attached to each technique.

CHAPTER II

METHODOLOGY

Overview

The major purpose of this study was to investigate the effectiveness of programmed supervision versus human supervision in teaching concreteness, a specific counselor skill. In addition, supervision (programmed and human) was presented on immediate and delayed temporal dimensions. A counselor training program was developed which involved a multimedia combination of slides and audiotape. Specifically, the skill of using Counselor Tacting Response Leads, or CTRL's, was the basis of instruction. The number of CTRL's present on various measures was the dependent variable. Programmed supervision, human supervision, immediate feedback, and delayed feedback were the independent variables. Covariates included subjects' scores on the Social, Conventional, and Realistic scales of the Vocational Preference Inventory (Holland, 1970) and a pretest rating of the number of CTRL's made during a five-minute audiotaped counseling session. A seven-point bipolar scale was used to measure the subjects' reactions toward the instructional experience. A follow-up transfer-of-training measure utilized as a dependent variable the number of CTRL's made by the subjects during five-minute audiotaped counseling excerpts taken from tapes recorded at the subjects' practicum settings.

The concept of supervision has elicited a variety of meanings including "managerial," "counseling," "consulting," and "instructional." Previous research has focused on the comparison of technique-oriented supervisors versus counseling-oriented supervisors. Both supervision techniques are based on the assumption that supervision should be a one-to-one human interaction. Jensen (1973) investigated the use of remote supervision as an alternative to face-to-face supervision and suggested that remote supervision is a viable method of instruction. However, previous research has not investigated the use of a programmed supervision technique as opposed to a human supervision technique. Separate measures on both short- and long-term effects of instruction were lacking. The effects of various subject variables, such as personality type, on instruction were similarly not included in previous research.

The investigation of the effects of immediate versus delayed feedback has been regarded as an important topic for research, but thus far has produced no basis for supporting either position. The present study involved an investigation of the effects of immediate versus delayed feedback as applied to teaching the skill of concreteness. In addition, unlike previous research, this study includes measures comparing the short- and long-term effectiveness of instruction taught by immediate versus delayed feedback.

The separate and combined effects of the treatment variables on the performance of the counselor skill of concreteness were investigated in this study. The use of a multimedia presentation was based on research showing its effectiveness under similar circumstances

(Stone, 1972). Simulated client and counselor segments used for instruction and as the basis for the cognitive posttest were developed by Eisenberg (1969) and used in previous research (Eisenberg, 1969; Eisenberg & Delaney, 1970; Stone, 1972). Simulation as a method of instruction has also been shown to be a viable alternative to real-life instruction (Tinning, 1973).

This study was conducted with 49 master's degree candidates at Michigan State University. These subjects were enrolled in the Systematic Counseling program and were in attendance on April 9, 1974, the day on which the study began. Subjects (Ss*) were randomly assigned to one of four treatment groups and a control group. Seven doctoral-level supervisors were randomly assigned to Ss receiving human supervision. Each supervisor worked with both the immediate and delayed feedback groups. Each S participated in a practicum setting of his own choosing during spring term, 1974.

Four separate treatments were investigated in this study, involving two types of supervision and two temporal variations on feedback given to Ss. Programmed supervision involved feedback, instruction, and reinforcement provided through a combined audio-video media presentation and programmed written material. Human supervision involved feedback, instruction, and reinforcement provided by a trained graduate-level counselor. Supervision was combined with immediate and delayed temporal dimensions. The immediate temporal dimension was

---

*Ss will be used for Subjects. S will be used to refer to an individual subject.

defined as an interaction following each trainee response. The delayed temporal dimension was defined as an interaction occurring only after a specific portion of the instruction had been completed.

Instruction was presented in three phases. Content across treatments was similar, and all clients' segments were presented in identical fashion through slides and audiotape. Methods of supervision and temporal dimensions of feedback were varied and served as the independent variables. Phase 1 of instruction introduced the concept of concreteness and presented appropriate and inappropriate examples of the concept through modeled counselor-client interactions. All treatment groups received identical Phase 1 training. Phases 2 and 3 of training presented clients roleplaying standardized counseling concerns. Ss were asked to respond with an appropriate CTRL chosen from a given list in Phase 2 or with a CTRL developed by themselves during Phase 3. Concerns were identical for Phases 2 and 3, while supervision and feedback varied across treatments.

Multiple measures within and across time were used. The short-term measures were a 21-question bipolar affective test and a 25-question standardized written test. The long-term measures were a 12-item standardized written test taken from the 25-question test used as the short-term measure and the identical affective test. Transfer of training was assessed using as a criterion the number of CTRL's made during five-minute excerpts from tape recordings made by the Ss at their practicum settings.

Both multivariate and univariate analyses of variance were performed to test the hypotheses. Three raters were used for some

measures, with interrater reliability analyzed through the Hoyt reliability coefficient (Hoyt, 1941). The dependent variable for the cognitive and performance tests was the number of CTRL's made on each measure. The critical level of statistical significance was set a priori at α=.05.

Sample

A sample of 49 Ss was obtained from the third-term master's degree candidates at Michigan State University. All Ss were enrolled in counseling courses in the Systematic Counseling program during spring term, 1974 (see Appendix A).

Since the Ss for this study were not drawn at random from a defined population, a summarization of the personal and demographic data is presented in Table 1. Cornfield and Tukey (1956) advocated the application of conclusions to a larger group than the sample, to a population "like those observed." A finite sample may be treated as a random sample by assuming that the sample of Ss was actually a random sample from an infinitely large population of such samples. The reader is left to determine for himself how closely the sample described here allows for generalization to similar samples.

Subject Assignment

The subject pool for this experiment consisted of the 49 Ss described previously who were in attendance on the day of the experiment. Ss were randomly assigned to one of four treatment groups and a control group. Treatment groups were as follows:

Table 1

Personal and Demographic Characteristics of Sample.

Characteristic	N	%
*Age		
21-25	26	53.1
26-30	12	24.3
31-35	6	12.2
36-40	1	2.1
41-45	2	4.1
46-50	1	2.1
51-55	1	2.1
Total	49	100.0
Sex		
Male	23	46.9
Female	25	53.1
Total	49	100.0
Marital Status		
Married	23	46.9
Single	25	51.0
Divorced	1	2.1
Total	49	100.0
Identified Program of Study		
Rehabilitation Counseling	31	63.2
Community College Counseling	9	18.4
Secondary School Counseling	7	14.3
Elementary School Counseling	2	4.1
Total	49	100.0

Table 1 (Continued)

Characteristic	N	%
Location of Undergraduate Work		
Michigan State University	24	49.1
Other Michigan Colleges	13	26.6
Colleges Outside of Michigan	12	24.3
Total	49	100.0
Undergraduate Degree		
Bachelor of Arts	35	71.3
Bachelor of Science	13	26.6
Bachelor of Arts and Bachelor of Science	1	2.1
Total	49	100.0
Undergraduate Major		
Social Science Areas	31	63.3
English and Communications	6	12.2
Math, Science, and Physics	4	8.2
French	2	4.1
Other	6	12.2
Total	49	100.0

Table 1 (Continued)

Characteristic	N	%
Earned Graduate Credits		
16-30	34	69.4
31-45	11	22.4
46-60	3	6.1
60+	1	2.1
Total	49	100.0
Years of Previous Work Experience		
0-2	23	46.8
3-5	13	26.6
6-8	4	8.2
9-11	5	10.2
15-17	3	6.1
27-29	1	2.1
Total	49	100.0

*Mean=28, Median=25, Mode=22.

Group 1 - immediate feedback, programmed supervision

Group 2 - delayed feedback, programmed supervision

Group 3 - immediate feedback, human supervision

Group 4 - delayed feedback, human supervision

Ss used were taken from two separate classes, a morning and an afternoon session of the same course and the same instructor. A total of five Ss per treatment was assigned from each class, which resulted in 20 Ss from the morning session and 20 Ss from the afternoon session receiving treatments. The remaining nine Ss were assigned to the control group. This procedure resulted in a cell size of 10 Ss per treatment group and nine Ss in the control group. One S was lost on the immediate posttest measure because of an improperly completed test. The loss of this S, along with the lower number of Ss in the control group, resulted in an unbalanced design.

During the long-term cognitive measure, the total of 49 Ss from the initial experiment was reduced to 31 Ss. Subject mortality was due to the fact that some Ss were not in attendance on the day of the follow-up. The long-term transfer-of-training measure included 42 of the 49 original Ss. Subject mortality on this measure was due to Ss not being able to find clients in the practicum settings, Ss working with clients who could not be audiotaped (deaf clients), Ss not attending supervisory sessions, and Ss not covering Subsystem 5.0 (Construct Model of Client Concerns) of the Systematic Counseling process (Appendix A) during the time period in which this measure was taken.

The statistical comparisons for this study involved unequal cells and, thus, an unbalanced design. Using a balanced design would

have resulted in the loss of a majority of the data. All comparisons were performed on a Control Data 6500 computer at Michigan State University. Multiple computer runs were made, using only Ss having complete data for the variables being compared. The various statistical analyses and their corresponding degrees of freedom are stated in Chapter III.

Subject Variable

During winter term, 1973, the Ss were involved in a course involving instruction, modeling, and role performing of the counseling process using the guidelines of the Systematic Counseling process (Appendix A). Following instructions on Subsystem 4.0 (Explain Counseling Relationship) and Subsystem 5.0 (Construct Model of Client Concerns) the trainees were required to make an audiotape of these subsystems with each trainee role performing the role of the counselor. Tapes were rated and evaluated using the guidelines stated previously. From these tapes, a five-minute segment of Subsystem 5.0 was randomly selected and rated for the number of CTRL's present. This rating was used as one of the covariates in this experiment. On several of the posttest measures, CTRL's were used as the dependent variable. Thus, it was assumed that a pretest rating on this variable would help to increase precision.

Supervisors

A total of seven supervisors was used for the immediate and delayed human supervision treatment groups. Three of the seven

supervisors worked with both morning and afternoon sessions. Supervisors were doctoral candidates in the field of counseling or counselor education. Supervisors were given instruction through the use of written material (Appendix F) and individual interaction with the experimenter. Supervisors had to achieve at the 80% level or better on the cognitive posttest (Appendix I) to be eligible to be a supervisor. Ss were randomly assigned to supervisors with the restriction that each supervisor had to work with one S receiving immediate supervision and one S receiving delayed supervision during each class period. All Ss received individual instruction. Supervisors were provided specific procedural instructions which were followed during the training phase (Appendix G).

Material Presentation

Materials for this study involved a combination of materials used in previous research and materials designed specifically by the researcher for this study.

Media Presentation

The media used consisted of 20 slides (Appendix D) with a corresponding narrative presented on audiotape. The tape presentation was divided into three phases (Appendix B):

Phase 1: Instruction centered on an introduction to the concept of concreteness through the use of five modeled client segments and a supervisor describing why each example would be judged an appropriate or inappropriate CTRL.

Phase 2: Modeled client segments were presented on slides with a corresponding narrative on audiotape. Each of the five segments pictured a client describing a situation or event that happened

to him. The Ss were asked to place themselves in the role of a counselor and choose an appropriate CTRL from a list of four standardized responses (Appendix C). The programmed supervision groups received feedback on audiotape, while the human supervision groups received feedback from a human supervisor. Ss in the immediate temporal dimension groups received supervision following each client segment, while the Ss in the delayed temporal groups received supervision only after all five client segments had been presented.

Phase 3: Modeled client segments were presented on slides, with a corresponding narrative on audiotape. Ss in each treatment group were asked to respond in writing with an appropriate CTRL which they developed themselves. Ss in the programmed supervision group received feedback on their responses through audiotape and a self-rating scale included in the programmed workbook (Appendix C). Ss in the human supervision groups received feedback from trained graduate supervisors. Ss who received immediate feedback were given supervision after each client segment. Ss who received delayed feedback were given supervision only after all five client segments had been presented.

Treatment Groups

Four basic treatment groups were involved, in addition to a non-active control group. Treatment groups will be described in the following paragraphs.

Immediate-Programmed Supervision (Group 1): Ss in this treatment group received instructions and supervision totally through slides and audiotape. During Phases 2 and 3 of training, supervision was presented on audiotape immediately following each client segment. A total of 10 short periods of supervision was built into the training. No face-to-face human interaction occurred. Ss also used a programmed manual (Appendix C) which included a self-rating scale and guidelines for judging appropriate CTRL's.

Delayed-Programmed Supervision (Group 2): Ss in this treatment group received instructions and supervision totally through

slides and audiotape. During Phases 2 and 3 of training, supervision was presented on audiotape, but only after all five of the client segments for a given phase had been presented. This resulted in two longer periods of supervision, with one being at the conclusion of the Phase 1 segments and the second being at the conclusion of Phase 2 segments. No face-to-face human interaction occurred. Ss also used a programmed manual (Appendix C) which included a self-rating scale and guidelines for judging appropriate CTRL's.

Immediate-Human Supervision (Group 3): Ss in this treatment group received instructions by slides and audiotape and supervision from trained graduate student-level supervisors. During Phases 2 and 3 of training, a client segment was presented through the media. The tape recorder was turned off and the S allowed time to respond. Feedback and supervision were then provided by the human supervisor. A total of 10 separate interactions occurred between S and supervisor, with five occurring during Phase 2 and five occurring during Phase 3. Ss were given pages 1-6 of the programmed workbook (Appendix C), which included prepared forms for the S responses.

Delayed-Human Supervision (Group 4): Ss in this treatment group received instructions by slides and audiotape and supervision from trained graduate student-level supervisors. During Phases 2 and 3 of training, client segments were presented through the media. The S listened and responded to five segments during Phase 2 before any supervision occurred. Upon completion of the five segments, the tape recorder was turned off and the human supervisor provided feedback and supervision. A similar procedure was followed during Phase 3. This

training procedure resulted in two longer periods of supervision. Ss were given pages 1-6 of the programmed workbook (Appendix C), which included prepared forms for the Ss responses.

Control (Group 5): All Ss not assigned to one of the treatment groups were assigned to a non-active control group. This group watched videotapes of the Systematic Counseling process (Appendix A). Using a prearranged time schedule, each control S took the cognitive short-term measure.

Measures

Pretreatment Measure

During winter term, 1974, the Ss were involved in a course designed to teach counseling procedures as outlined in the Systematic Counseling process (Appendix A). Each S was required to make an audiotape of Subsystems 4.0 (Explain Counseling Relationship) and 5.0 (Construct Model of Client Concerns). A randomly chosen segment of the 5.0 Subsystem was recorded from each S tape and rated by three independent raters. The number of CTRL's presented in the segment was used as the dependent variable. Interrater reliability was computed using an analysis of variance technique developed by Hoyt (1941). The reliability coefficient on the pretreatment audiotape measure was .91. The number of CTRL's found on this tape was used as a covariate measure.

A second pretreatment measure given was Holland's Vocational Preference Inventory (Holland, 1970). During the first class period

of spring term, 1974, the experimenter introduced the experiment and asked for participants from the MA candidates. A sign of being willing to participate in the experiment was the completion of the Vocational Preference Inventory. Scoring followed the procedure described by Holland (1970), with raw scores being changed to percentiles. A separate profile exists for males and females; thus, raw scores have different comparative meanings depending upon sex. Three of the scores from the Inventory were investigated as possible covariates, including the Realistic, Social, and Conventional scales. As related to this experiment, a person having a high Social score was described as a person who would prefer teaching or a therapeutic role and who would possess verbal and interpersonal skills. A person having a high Conventional score was described as a person who would perform well on structured verbal and numerical activities. A person with a high Realistic score was described as a person who would lack verbal and interpersonal skills and prefer concrete to abstract problems. On each scale, a person who received a low score would be described as having opposite personality traits. The scales used were selected by the experimenter under the assumption that a person possessing an outward-oriented personality would tend to use leads that elicited additional but not specific information, while a person who possessed a structured personality would tend to be specific or concrete in the information he requested from the client.

Short-Term Measure

The short-term measure consisted of a cognitive and an affective component. The cognitive measure was a 25-question standardized written exercise where short written client segments were given and the Ss asked to respond in writing with an appropriate counselor lead. The client segments were developed by Eisenberg (1969), who identified each segment as being a critical turning point in counseling and needing additional clarification to be understood fully by the counselor. The dependent variable was the number of appropriate CTRL's (Appendix I). The affective measure was a series of five statements involving a total of 21 separate responses (Appendix J). Each statement described an aspect of the experiment and asked the S to respond from his own viewpoint. Each statement had two adjectives having opposite meanings arranged on the ends of a seven-point bipolar scale. The cognitive measure was given to all 49 Ss, while the affective measure was given to the 40 Ss who had received one of the treatments.

Eisenberg (1969) developed a total of 40 client segments taken from actual counseling situations and identified by him as representing critical phases in counseling needing additional clarification. Eisenberg reported that the items were not of equal difficulty nor equally likely to elicit a CTRL, even by those who had received training in the concept. In the present study, the experimenter assigned 15 of the 40 items to the training phase and the remaining 25 items to the testing phase of the experiment. An attempt was made to assign items of low difficulty during the early stages of training and increase the level of difficulty as training progressed. The posttest was also

judged by the experimenter to contain items ranging from low to high difficulty. All Ss were exposed to the same items in the same order of presentation.

The short-term cognitive measure was rated by three independent raters. Reliability was estimated using an analysis of variance technique developed by Hoyt (1941). The ANOVA was calculated on a Control Data 6500 computer using a program developed by Jennrich (1961). The reliability coefficient for the three raters on the short-term cognitive measure was .92.

Long-Term Measure

A three-week follow-up measure involved a 12-question standardized cognitive measure and a 21-question affective test. The cognitive test contained 12 items randomly selected from the 25 item short-term cognitive measure. Each S was asked to respond in writing with an appropriate counselor lead to a short client statement. The dependent variable was the number of CTRL's made to the 12 statements. Three raters scored each test. Interrater reliability was estimated using the analysis of variance technique developed by Hoyt (1941). The ANOVA was calculated on a Control Data 6500 computer using a program developed by Jennrich (1961). The reliability coefficient for the three raters on the long-term cognitive measure was .73.

The identical 21-item affective test as given during the short-term measure was readministered with Ss instructed to respond to the questions from the viewpoint of the original training experiment and testing situation. All Ss in attendance on the day of the follow-up

measure were given the cognitive measure (32), while only those Ss who were members of one of the treatment groups were given the affective test (26).

Transfer-of-Training Measure

During spring term, 1974, the members of the MA counselor training program were involved in a counseling practicum, with sites varying according to their area of interest. Each trainee met for a weekly one-hour session with a practicum supervisor as assigned by the University. Each supervisor was asked to obtain one audiotape for each S. A five-minute segment was rerecorded from each tape and rated by three independent raters for the number of CTRL's present. The analysis of variance technique was used as developed by Hoyt (1941), with calculations performed on a Control Data 6500 computer using a program developed by Jennrich (1961). The reliability coefficient for the three raters on the transfer-of-training measure was .58. The experimenter had hoped that all tapes would be turned in by the time of the three-week follow-up. In actual practice, tapes were turned in up to the deadline of one month following the experiment. A total of 42 of the 49 possible tapes was turned in. Reasons for the delay in receiving these tapes include S difficulty in obtaining clients, supervisor delay in passing along tapes, and Ss not taping in certain settings. No control procedure was included in this experiment to account for differences in the transfer effect due to these time delays. Observations by the experimenter were that the effects due to delay were spread fairly equally across treatments. Other factors

influencing this measure included the type of client seen and the specific supervisor style assigned to each trainee. Supervisor load ranged from three to seven trainees. Experimenter observations show Ss of varying treatments to be fairly equally distributed over supervisors. Each of these effects mentioned could have influenced the variance of this measure and, as a consequence, may have reduced the precision of the measure. A note should be made also of the low interrater reliability when compared to the pretest audiotaped measure. The same raters, using identical guidelines, were utilized for each rating. The second measure yielded a lower interrater reliability because of the poor sound quality of the tapes received, making parts of the counseling interaction very difficult to understand. In actual number of perceived CTRL's, the raters varied only slightly. Yet, the raters reached exact agreement in only a few instances.

Facilities

A large classroom and 10 small counseling laboratory rooms in Erickson Hall at Michigan State University served as the facilities for this study. The treatment phase was presented to each S individually in the small counseling rooms. Following the training phase, each S returned to a large classroom and was given the short-term testing measure. No specific time limit was set for the test. Since treatments were scheduled at varying times during the class period, the posttest was a continuous function with Ss entering and leaving throughout the session. The facilities were considered by the

experimenter to be adequate to control for any disturbance caused by this procedure.

Apparatus

Slides were presented by equipment rented from the instructional Media Center at Michigan State University. All slide projectors were carousel projectors with the slides prearranged. Each S was asked to change the slides as instructed on the audiotape. Each S also operated a cassette tape recorder. Prior operating instructions on both the projector and the recorder were given each S by the experimenter.

All equipment and tapes were checked prior to their use to assess their operating efficiency. During the session, however, one recorder produced poor sound quality and one cassette tape malfunctioned. Corrections were made as soon as possible. These experiences, however, may have increased the frustration level of those Ss involved. The affective posttest was designed to elicit reactions of Ss who experienced such malfunctions.

Procedures

Pretest Measure

A five-minute audiotaped roleplayed counseling segment was obtained for each S. The segments were taken from an assigned practice session in the class, Education 819D: The Counseling Process. Each segment was rated by three independent raters for the number of CTRL's present. The results were used as a covariate in the experiment.

Selection of Subjects

The counselor training program developed in this study was integrated into the Ss' training, with all scheduling and training occurring during regularly scheduled class time. During the first scheduled class meeting for spring term, 1974, the experimenter made a brief presentation about the nature of the experiment and asked for volunteers. The experimenter stated that he would be conducting his doctoral research on the skill of concreteness. The skill of concreteness was reported to be useful in counseling and a skill on which the Ss had not received formal training. It should be noted here that the Ss had participated in two previous research studies during the current academic year. For each of the previous studies, the Ss had received a .5 addition to their obtained grade in the class in which they were members at the time as an incentive for participating. This experimenter could not promise any credit toward their course grade, but did promise a personal profile on the Vocational Preference Inventory, feedback on the results of the experiment, and coffee and donuts on the day of the experiment. All Ss who were willing to participate were given the Vocational Preference Inventory. One student declined to participate for unknown reasons. The experiment was to take place the following class period, Tuesday, April 9, 1974.

Selection and Training of Supervisors

Seven supervisors were involved in the experiment. All supervisors were first or second year Ph.D. candidates in the field of counseling at Michigan State University. All supervisors were fellow

students of the experimenter and were asked to participate through personal contact. Each supervisor was given a copy of the CTRL guidelines and rating scales as part of training (Appendix F). The experimenter made personal contact with each supervisor to aid in his training. After the supervisors had become familiar with the concept of CTRL's, they were given the 25-question cognitive posttest, which was the same test later given to each S. A minimum criterion level of 80% appropriate CTRL's was set a priori to establish a competency level for each supervisor. Rating of the supervisor responses was performed by the experimenter, with all supervisors meeting criterion on the first testing. Each supervisor was given a detailed instruction sheet explaining the procedure to be followed during the experiment (Appendix G). The experimenter assigned each supervisor to both an immediate and a delayed temporal dimension supervisory session and reported this information, along with specific times and rooms, to each supervisor through the use of prepared forms (Appendix E). The experimenter designed the scheduling of the supervisors such that each supervisor was involved with a S receiving immediate human supervision and a second S receiving delayed human supervision. This procedure was used to control for possible confounding due to an interaction between supervisor and treatment. Scheduling was also arranged such that all four treatments occurred simultaneously to avoid possible confounding due to an interaction of time and treatment.

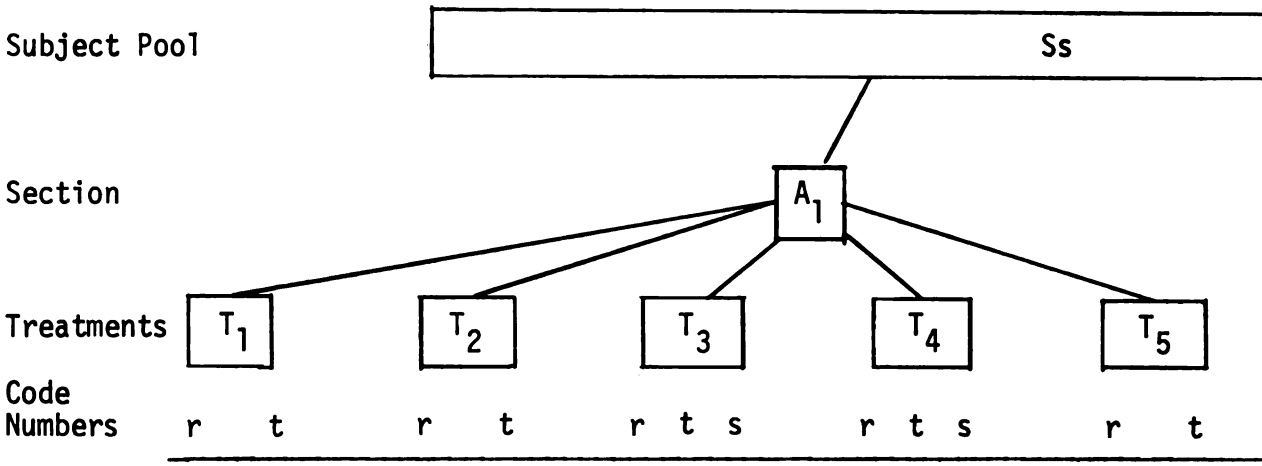
Scheduling of Subjects

Ss were randomly assigned to treatments based on the S pool elicited the previous week. Specific times and rooms were assigned to each S through the use of prepared forms (Appendix E). Each S was assigned a code number which was used on all materials handed in. Ss who were assigned to treatments but not in attendance on the day of the experiment were replaced by randomly selected Ss from the control group. The Ss in attendance on the day of the experiment were the sample described under "Sample Characteristics" to be used for possible generalization of the results of this experiment to similar populations (Cornfield & Tukey, 1956). The scheduling procedure used is shown in Figure 2.

Treatment Procedures

Each S was given a prepared sheet describing the specific time and place of his training. Control Ss were given identical forms (Appendix E). Instructions were given the entire class by the experimenter on the use of the tape recorder and slide machines. Ss were told to report at their scheduled time to their assigned place but to remain in class watching videotaped counseling segments until their specific time arrived. It should be noted that the use of the laboratory rooms and the role-performing procedure were not novel experiences for the Ss, but activities in which they had taken part on numerous occasions during the preceding 20 weeks.

As each S reported to his assigned room, he was given a programmed workbook designed especially for his treatment group. Ss



Code Numbers	r t	r t	r t s	r t s	r t
	244-8:30	F-8:30	C-9:20-a	C-8:30-a	250-9:00
	245-8:30	242-8:30	D-9:20-b	A-8:30-b	250-9:00
	F-9:20	243-8:30	E-9:20-c	B-8:30-c	250-9:00
	244-9:20	242-9:20	D-8:30-d	A-9:20-d	250-9:00
	245-9:20	243-9:20	E-8:30-e	B-9:20-e	250-9:00

Ss=Subjects

A=Section

A_1=morning section

A_2=afternoon section

T=Treatment

T_1=immediate-programmed supervision

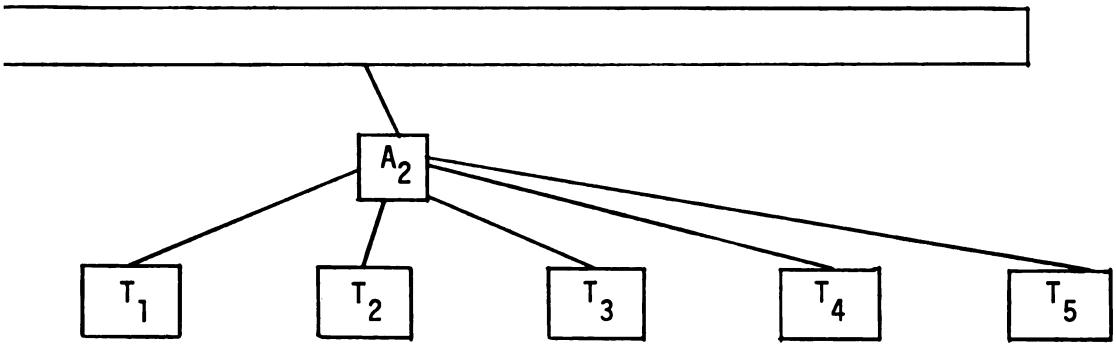
T_2=delayed-programmed supervision

T_3=immediate-human supervision

T_4=delayed-human supervision

T_5=control

Figure 2. Assignment of Subjects to Treatments and Supervisors.



r t	r t	r t s	r t s	r t
244-5:00	A-5:00	D-4:30-a	H-4:30-f	250-5:20
245-5:00	242-5:00	E-4:30-b	O-4:30-g	250-5:20
244-5:45	243-5:00	C-5:20-c	F-4:30-c	250-5:20
245-5:45	242-5:45	D-5:20-f	F-5:20-b	
A-5:45	243-5:45	E-5:20-g	B-5:20-a	

r=room assigned

t=time assigned

s=supervisor

r+t=code number assigned

were reminded how to use the equipment. Total time of the training was limited to 45 minutes, with no violations of this time limit occurring. No minimum time limit was set, although the process could not be covered in less than 30 minutes by any of the treatment groups.

Short-Term Measures

Upon completion of the treatment, each S reported to a large classroom where the S was given a 25-question cognitive measure, a 21-question affective measure, and a biographic information sheet. No time limits were imposed on this posttest. Subjects were instructed to complete the cognitive measure first (Appendix I), then the affective measure (Appendix J), and finally to provide information used for the description of the sample.

Transfer-of-Training Measure

Each S was assigned to a counseling practicum setting by the class instructor in charge of practicum for spring term, 1974. Six of the seven supervisors used during training were also involved as practicum supervisors. Six additional supervisors were also assigned by the University. Each supervisor was informed that an experiment was in progress and that a posttest audiotaped measure was needed from each S. Specifically, they were asked to provide tapes which:

1. were clear and easily understood;
2. were recorded after April 9, 1974;
3. included at least a five-minute segment dealing with Subsystem 5.0 (Construct Model of Client Concerns).

The same memorandum was given to supervisors two weeks following the experiment and followed-up a week later by a personal note listing the names of Ss from which tapes had not been received. The experimenter re-recorded a randomly selected five-minute segment of the tape. Each segment was rated by the same three raters who had rated the pretest audiotaped measure. Interrater reliability was much lower for this second measure with a possible explanation being the poorer sound quality of the second recordings when compared to the first audiotaped measure.

Long-Term Measure

Three weeks following the original treatments, a set of follow-up measures was given the Ss in attendance in class on that day. Arrangements were made with the class instructor to use the last 45 minutes of the scheduled class period. Ss were told by the experimenter that a follow-up measure to the experiment would be given, followed by feedback on the Vocational Preference Inventory which they had previously taken. All members present in class were asked to respond to a 12-item cognitive measure. This measure was developed by randomly selecting 12 items from the original 25-item cognitive posttest (Appendix I). A shortened form was developed because of the long period of time required to complete the longer form. In addition, all Ss who had participated in one of the four treatment groups were given the same affective measure as given during the short-term assessment. Ss were instructed to respond to the affective test questions from the same perspective as during the short-term measure. Upon completion of both measures, the

Ss were informed of the four treatments given and the mean scores of each group on the 25-question cognitive test. The Vocational Preference Inventory Profiles were distributed, and interpretations of the scales were given to the class as a group. The class was thanked for participating in the study.

Hypotheses

This study was designed to investigate two major topics in counseling. The first area of investigation was the effectiveness of a programmed supervision approach in teaching the skill of concreteness versus a human supervision approach. The second area of investigation centered on the effectiveness of immediate versus delayed feedback as components of instruction.

The following directional hypotheses were formulated:

H_1: Ss who receive instruction through programmed supervision will make more CTRL's on the short-term cognitive measure than Ss who receive instruction through human supervision.

H_2: Ss who receive instruction through programmed supervision will make more CTRL's on the long-term cognitive measure than Ss who receive instruction through human supervision.

H_3: Ss who receive instruction through programmed supervision will make more CTRL's during a five-minute audiotaped segment taken from a counseling interview than Ss who receive instruction through human supervision.

H_4: Ss who receive instruction through programmed supervision will respond more favorably toward the experience on a test measuring short-term affective reactions toward their supervision than Ss who receive human supervision.

H_5: Ss who receive instruction through programmed supervision will respond more favorably toward the experience on a test measuring long-term affective reactions toward their supervision than Ss who receive human supervision.

H_6: Ss who receive instruction with immediate supervision will make more CTRL's on the short-term cognitive measure than Ss who receive instruction with delayed supervision.

H_7: Ss who receive instruction with immediate supervision will make more CTRL's on the long-term cognitive measure than Ss who receive instruction with delayed supervision.

H_8: Ss who receive instruction with immediate supervision will make more CTRL's during a five-minute audiotaped segment taken from a counseling interview than Ss who receive instruction with delayed supervision.

H_9: Ss who receive instruction with immediate supervision will respond more favorably toward the experience on a test measuring short-term affective reactions toward their supervision than Ss who receive instruction with delayed supervision.

H_{10}: Ss who receive instruction with immediate supervision will respond more favorably toward the experience on a test measuring long-term affective reactions toward their supervision than Ss who receive instruction with delayed supervision.

H_{11}: Ss who receive instruction through any one of the four treatments will make more CTRL's on the short-term cognitive measure, long-term cognitive measure, and transfer-of-training measure than Ss who are members of the control group and receive no instruction.

In addition to the individual effects of programmed versus human supervision and immediate versus delayed feedback, a possible interaction effect was hypothesized. The following hypothesis was developed for the interaction effect:

H_{12}: There will be a significant interaction effect between the type of supervision and the temporal dimension of supervision on all tests, both affective and cognitive, which will result in the following order of effectiveness as ranked from most effective to least effective: immediate-programmed supervision > delayed-programmed supervision > immediate-human supervision > delayed human supervision.

Experimental Design

This study involved a repeated measures design suggested by Campbell and Stanley (1963). All Ss and supervisors were randomly

assigned to treatments. Four covariates were used from two pretreatment measures, and three posttest measures were given. The design included four active treatment groups and one non-active control group. The design may be represented as shown in Figure 3. Using a graphic model, the design may be represented as shown in Figure 4.

The number of Ss involved in each measure and analysis is shown in Table 2.

Analysis of Data

Data were keypunched by the experimenter and verified at the Michigan State University Computer Center. The statistical analyses were calculated on a Control Data 6500 computer using an analysis of variance program developed by Jennrich (1961).

The four covariates used in this study were analyzed for their significance in relation to the dependent variable. An analysis of covariance was conducted to test any such relationship, again using the program developed by Jennrich.

Interrater reliability was analyzed through an analysis of variance technique developed by Hoyt (1941).

Both multivariate and univariate analyses of variance were performed to test the hypotheses. Main effects and interactions were examined. The critical level of statistical significance for all tests was set a priori at α=.05.

The results of the analyses of the hypotheses are reported in Chapter III.

Sequence

O_1	O_2	R	X_1	O_3	O_4	O_5
O_1	O_2	R	X_2	O_3	O_4	O_5
O_1	O_2	R	X_3	O_3	O_4	O_5
O_1	O_2	R	X_4	O_3	O_4	O_5
O_1	O_2	R	X_5	O_3	O_4	O_5

Legend R-Random assignment

X=Treatment

X_1=Immediate-programmed supervision

X_2=Delayed-programmed supervision

X_3=Immediate-human supervision

X_4=Delayed-human supervision

X_5=Control

O=Measures

O_1=Audiotaped CTRL pretreatment measure

O_2=Vocational Preference Inventory

O_3=Short-term test package

O_4=Long-term test package

O_5=Audiotaped CTRL transfer-of-training measure

Figure 3. Repeated Measures Design with Five Measures and Five Groups.

Temporal Dimension of Supervision	Programmed	Human	Control
Immediate	S_1*-S_{10}	S_{21}-S_{30}	S_{41}-S_{49} (no supervision)
Delayed	S_{11}-S_{20}	S_{31}-S_{40}	

*S=Subject

Figure 4. Graphic Model of Experimental Design

Table 2

Cell Sizes for Posttest Measures.

		Treatment Groups				
		1	2	3	4	Control
Post-test Measures	Immediate Cognitive	10	9	10	10	9
	Immediate Affective	10	9	10	10	Not given
	Delayed Cognitive	8	7	5	6	6
	Delayed Affective	8	7	5	6	Not given
	Audiotaped Transfer of Training	9	7	9	8	9

CHAPTER III

RESULTS

The results of this study were based on four posttest measures, using a repeated measures design. A short-term test, a long-term test, and a transfer-of-training test were the measures used. Analyses of covariance (ANCOVA) were conducted, with both multivariate and univariate F values computed.

The short-term test consisted of a 25-question cognitive test and a 21-question affective test. The long-term test consisted of a 12-question cognitive test and a 21-question affective test. The 12-item cognitive test was developed by randomly selecting 12 items from the 25-question short-term measure. The 21-question affective test was a seven-point bipolar scale using a self-reporting technique. For both the short- and long-term tests, all Ss involved in one of the treatment groups were given the affective test, while all Ss involved in the experiment (treatment and control) were given the cognitive test. The transfer-of-training measure involved a comparison among groups on the number of CTRL's present during a five-minute audiotaped counseling segment recorded by each S at his practicum setting. The comparison for the transfer-of-training measure involved all groups, both treatment and control.

The use of an ANCOVA technique allowed for possible relationships between the covariates and S variables to be included in the analyses. The Social, Conventional, and Realistic scales on the Vocational Preference Inventory (Holland, 1970) were felt to be related to the concept of concreteness and, thus, were included as covariates. The fourth covariate was a pretest rating of the number of CTRL's present during a five-minute audiotaped roleplayed counseling segment. This pretest rating corresponded to the posttest transfer-of-training measure.

Both multivariate and univariate F values were calculated using an ANCOVA procedure developed by Jennrich (1961). Type I error level (alpha) for the multivariate F tests was set a priori at $\alpha=.05$. The alpha levels for the univariate F tests were dependent on the number of hypotheses tested with the multivariate ANCOVA. The actual alpha levels for the univariate F tests ranged from $\alpha=.01$ to $\alpha=.05$. Since a multivariate procedure with four covariates was used, several of the degrees of freedom were used in testing hypotheses involving each covariate and hypotheses involving a statistically significant difference from zero. An unbalanced design was used, with N ranging from 22 to 25 depending on the analysis. Only Ss having complete data for the variables being compared were included in the analysis.

In discussing the results of the analyses, the short- and long-term cognitive tests will be discussed together. The short- and long-term affective measures will also be discussed together.

Covariate Effects

Four covariates were included in this study. Three scales from the Vocational Preference Inventory (Holland, 1970) were predicted to be highly correlated with the dependent variables on the cognitive posttests and transfer-of-training measures. A fourth covariate was a rating of the number of CTRL's made by each S during a five-minute audiotaped counseling segment. An analysis of covariance technique was used to test all hypotheses. The absence of Ss on various measures of the repeated measures design resulted in an unbalanced design for each analysis. Using only Ss having complete data on the variables being compared resulted in varying N's for each test. This procedure also resulted in varying correlations between covariates and other variables. Correlations above the absolute value r=.30 are reported in Appendix M.

Cognitive and Transfer-of-Training Measures

The covariate, cognitive, and transfer-of-training effects can be observed in terms of the resultant cell means for the four treatment groups, as shown in Table 3.

An analysis of control X treatment with all treatments combined produced the cell means as shown in Table 4.

A third analysis used an ANCOVA procedure to compare the four treatment groups taken individually to the control group. The cell means for this analysis can be compared using the treatment group means from Table 3 and the control group means from Table 4.

The four treatment groups were compared using a 2 X 2 design (Feedback X Supervision) with both multivariate and univariate F values

Table 3

Cell Means and Standard Deviations for Four Treatment Groups on Seven Variables

		Supervision					
		Programmed			Human		
			N=7			N=4	
			Mean	Standard Deviation		Mean	Standard Deviation
Feedback	Immediate	V_1	76.28	21.17	V_1	66.25	27.80
		V_2	31.42	31.84	V_2	46.25	25.94
		V_3	46.42	35.20	V_3	56.25	18.42
		V_4	23.14	13.29	V_4	22.00	1.82
		V_5	73.71	1.88	V_5	71.25	3.86
		V_6	30.00	13.27	V_6	35.00	1.41
		V_7	22.85	10.80	V_7	21.50	6.19
			N=5			N=6	
			Mean	Standard Deviation		Mean	Standard Deviation
	Delayed	V_1	76.00	15.96	V_1	58.33	17.51
		V_2	36.00	23.82	V_2	51.66	33.71
		V_3	42.00	39.30	V_3	46.66	36.42
		V_4	20.20	16.02	V_4	21.33	9.04
		V_5	63.80	16.82	V_5	74.50	.83
		V_6	27.40	12.64	V_6	35.16	.75
		V_7	15.00	8.48	V_7	20.83	13.15

Legend

V_1=Social Scale

V_2=Conventional Scale

V_3=Realistic Scale

V_4=Audiotaped CTRL Pretest

V_5=Short-term Cognitive Measure

V_6=Long-term Cognitive Measure

V_7=Audiotaped CTRL Transfer-of-Training Measure

Table 4

Cell Means and Standard Deviations of Treatment X Control on Seven Variables

	Treatment N=22		Control N=3	
	Mean	Standard Deviation	Mean	Standard Deviation
V_1	69.50	20.56	51.66	16.07
V_2	40.68	28.96	21.66	16.07
V_3	47.27	32.17	31.66	20.20
V_4	21.77	10.98	16.66	7.02
V_5	71.22	8.69	2.00	0.00
V_6	31.72	9.59	0.00	0.00
V_7	20.27	10.14	14.33	10.11

V_1=Social Scale

V_2=Conventional Scale

V_3=Realistic Scale

V_4=Audiotaped CTRL Pretest

V_5=Short-term Cognitive Measure

V_6=Long-term Cognitive Measure

V_7=Audiotaped CTRL Transfer-of-Training Measure

calculated. The results of this analysis are shown in Table 5 with no statistically significant results occurring.

Results of Tests for Hypotheses 1 and 6

Hypothesis 1 was formulated to assess the effects of programmed and human supervision on the teaching of the counselor skill of concreteness. The hypothesis was based on the assumptions that supervision is instruction and that the best method of instruction is a technique-orientation. Hypothesis 1 stated that programmed supervision would be more effective than human supervision as measured by the short-term cognitive test.

The analysis between programmed and human supervision for the short-term cognitive measure utilized an ANCOVA procedure with four covariates. The univariate F value was not statistically significant ($F=.44$, $p=.52$, df 1, 12). Hypothesis 1 was, therefore, not supported.

Hypothesis 6 was formulated to test the effects of immediate and delayed feedback on the teaching of the counselor skill of concreteness. Previous studies (Reddy, 1969a, 1969b) have demonstrated that using immediate feedback is a more effective learning procedure than using delayed feedback. However, Canada (1973) compared the effects of immediate and delayed feedback in teaching the use of open-ended statements by counselors and found no significant difference between treatment groups. Hypothesis 6 stated that immediate feedback would be more effective than delayed feedback as measured by the short-term cognitive measure.

The analysis between immediate and delayed feedback utilized an ANCOVA procedure with four covariates. The univariate F value was

Table 5

Summary of ANCOVAs Showing Multivariate and Univariate F Values Based on Four Treatments with Four Covariates

Source	df	MS	Multivariate F[(a)]	Univariate F[(b)]
Feedback (F)	3, 12		.91 (.46)*	
V_1	1	50.24		.77 (.39)
V_2	1	30.98		.41 (.53)
V_3	1	50.04		.84 (.37)
Supervision (S)	3, 12		1.42 (.28)	
V_1	1	28.41		.44 (.52)
V_2	1	362.29		4.74 (.05)
V_3	1	3.60		.06 (.81)
Interaction (F X S)	3, 12		1.63 (.24)	
V_1	1	221.55		3.40 (.09)
V_2	1	17.66		.23 (.64)
V_3	1	111.91		1.88 (.19)
Error	14			
V_1		65.06		
V_2		76.44		
V_3		59.50		

*Numbers in ( ) indicate p values

V_1=Short-term Cognitive Measure

V_2=Long-term Cognitive Measure

V_3=Transfer-of-Training Measure

(a) Tested at α=.05

(b) Tested at $\alpha=\frac{.05}{3}$

not statistically significant (F=.77, p=.39, df 1, 12). Thus, Hypothesis 6 was not supported.

The possibility of an interaction between Feedback and Supervision on the short-term cognitive measure was analyzed with an ANCOVA procedure with four covariates. The resulting univariate F value was not statistically significant (F=3.40, p=.09, df 1, 12). Therefore, the possibility of an interaction between feedback and supervision was not supported.

The results of the tests on the short-term cognitive measure indicated no statistically significant difference between programmed and human supervision, immediate and delayed feedback, or an interaction between feedback and supervision. Thus, Hypotheses 1 and 6 were not supported.

Results of Tests for Hypotheses 2 and 7

Hypothesis 2 parallels Hypothesis 1 in predicting a difference between the use of programmed and human supervision in teaching the skill of concreteness. Hypothesis 2 stated that programmed supervision would be more effective than human supervision as measured by the long-term cognitive test.

The analysis between programmed and human supervision for the long-term cognitive measure utilized an ANCOVA procedure with four covariates. The resulting univariate F value was not statistically significant (F=4.74, p=.05, df 1, 12). It should be noted that a Type I error level (alpha) was set at α=.05 for the multivariate ANCOVA. Since three hypotheses were tested at this level, the univariate F value would

have to be at a p value of .05/3 or lower to be considered significant. Hypothesis 2 was, therefore, not supported.

Hypothesis 7 parallels Hypothesis 6 in predicting a difference between the use of immediate and delayed feedback in teaching concreteness. Hypothesis 7 stated that immediate supervision would be more effective than delayed supervision as measured by the long-term cognitive measure.

The analysis between immediate and delayed supervision for the long-term cognitive measure utilized an ANCOVA procedure with four covariates. The resulting univariate F value was not statistically significant ($F=.41$, $p=.53$, df 1, 12). Therefore, Hypothesis 7 was not supported.

The possibility of an interaction between feedback X supervision on the long-term cognitive measure was analyzed with an ANCOVA procedure with four covariates. The resulting univariate F value was not statistically significant ($F=.23$, $p=.64$, df 1, 12). The possibility of an interaction between feedback and supervision was not supported.

The results of the tests on the long-term cognitive measure indicated no statistically significant differences between programmed and human supervision, or between immediate and delayed feedback, and no interaction between feedback and supervision. Thus, Hypotheses 2 and 7 were not supported.

Results of Tests for Hypotheses 3 and 8

Hypotheses 3 and 8 were formulated to assess a possible transfer-of-training effect from the instructional experience to the

actual counseling situation. Instruction was presented in a sequential learning fashion, with higher levels of simulation provided as the treatment session progressed. The cognitive tests measured written CTRL's, which would be considered a low level of simulation. The transfer-of-training measure assessed the number of CTRL's made during a segment of an actual counseling interview.

Hypothesis 3 stated that Ss who received instruction through programmed supervision would make more CTRL's on the transfer-of-training measure than Ss who received instruction through human supervision.

The analysis of programmed versus human supervision on the transfer-of-training measure utilized an ANCOVA procedure with four covariates. The resulting univariate F value was not statistically significant ($F=.06$, $p=.81$, df 1, 12). Hypothesis 3 was, therefore, not supported.

Hypothesis 8 stated that Ss who received instruction with immediate feedback would make more CTRL's on the transfer-of-training measure than Ss who received instruction with delayed feedback.

The analysis of immediate versus delayed feedback on the transfer-of-training measure utilized an ANCOVA procedure with four covariates. The resulting univariate F value was not statistically significant ($F=.84$, $p=.37$, df 1, 12). Therefore, Hypothesis 8 was not supported.

The possibility of an interaction between feedback and supervision on the transfer-of-training measure was analyzed using an ANCOVA procedure with four covariates. The resulting univariate F value was

not statistically significant (F=1.88, p=.19, df 1, 12). The possibility of an interaction between feedback and supervision was not supported.

The results of the tests on the transfer-of-training measure indicated no statistically significant differences between programmed and human supervision, or between immediate and delayed feedback, and no interaction between feedback and supervision.

Affective Tests

A 21-question affective test was administered on both short- and long-term bases. The affective test involved a seven-point bipolar self-rating scale to measure Ss' reactions toward the instructional experience. Subjects assigned to one of the four treatments were given the measure, while control Ss were not involved. For purposes of analysis, scores from the measures were transformed so that a low score indicates a positive reaction and a high score a negative reaction toward the variable being measured. The short- and long-term affective measures were combined and analyzed for differences across the four treatment groups. The results of the ANCOVAs are shown in Table 6.

The results of 21 univariate ANCOVAs show no statistically significant differences across the four treatment groups.

The 21 items of the affective test were then analyzed to assess any change from the short-term measure to the long-term measure. The results of the ANCOVAs assessing difference among the four treatment groups with respect to change across measures are shown in Table 7.

Table 6

Summary of ANCOVAs Showing Univariate F Values Based on a Total Affective Test Score (Immediate and Delayed) Across Four Treatments

Source (b)	df	MS	Error (E)	df (E)	F Value (a)
1	3	1.27	1.47	21	.87 (.47) (c)
2	3	1.44	1.89	21	.76 (.53)
3	3	.80	2.20	21	.36 (.78)
4	3	5.00	3.63	21	1.38 (.28)
5	3	1.99	2.54	21	.79 (.52)
6	3	.58	1.56	21	.37 (.77)
7	3	.38	1.74	21	.22 (.88)
8	3	.86	1.18	21	.73 (.55)
9	3	1.41	2.13	21	.66 (.59)
10	3	5.96	2.20	21	2.71 (.07)
11	3	6.29	3.63	21	1.73 (.19)
12	3	2.11	1.84	21	1.15 (.35)
13	3	4.78	3.56	21	1.34 (.29)
14	3	.68	3.75	21	.18 (.91)
15	3	1.73	3.46	21	.50 (.69)
16	3	3.97	2.53	21	1.56 (.23)
17	3	6.84	2.06	21	3.32 (.04)
18	3	2.66	1.63	21	1.63 (.21)
19	3	2.73	1.60	21	1.70 (.20)
20	3	1.14	2.59	21	.44 (.73)
21	3	1.72	2.01	21	.86 (.48)

(a) Alpha set at .01 for Sources 1-20 and .05 for Source 21.

(b) Numbers correspond to affective test items.

(c) Numbers in ( ) indicate p values.

Table 7

Summary of ANCOVAs Showing Univariate F Values Based on Affective Test Gain Scores (Immediate to Delayed) Across Four Treatments

Source (b)	df	MS	Error (E)	df (E)	F Value (a)
1	1	.49	.21	21	2.36 (.14) (c)
2	1	.00	.98	21	.00 (1.00)
3	1	.00	1.18	21	.00 (1.00)
4	1	1.59	1.20	21	1.32 (.26)
5	1	.49	1.05	21	.47 (.50)
6	1	.71	.59	21	1.20 (.29)
7	1	.96	.21	21	4.64 (.04)
8	1	.02	.35	21	.06 (.82)
9	1	1.25	.36	21	3.44 (.08)
10	1	.78	1.26	21	.14 (.71)
11	1	2.82	.47	21	6.04 (.02)
12	1	.08	.68	21	.12 (.74)
13	1	.49	.74	21	.66 (.42)
14	1	.71	3.11	21	.23 (.64)
15	1	.08	1.22	21	.06 (.80)
16	1	.18	.89	21	.20 (.66)
17	1	1.96	1.42	21	1.38 (.25)
18	1	.96	.48	21	1.98 (.17)
19	1	.00	.53	21	.00 (1.00)
20	1	.18	.56	21	.32 (.58)
21	1	.02	.81	21	.02 (.88)

(a) Alpha set at .01 for Sources 1-20 and at .05 for Source 21.

(b) Numbers correspond to affective test items.

(c) Numbers in ( ) indicate P values.

The results of the 21 ANCOVAs comparing change across measures resulted in no statistically significant univariate F values.

The affective measures were also analyzed to assess any possible interaction between treatment and repeated measures. The results of the ANCOVAs assessing possible interaction between treatment and repeated measures are shown in Table 8.

The results of the 21 ANCOVAs assessing possible interaction between treatment and repeated measures resulted in no statistically significant univariable F values.

The 21-question short- and long-term affective reaction measures were analyzed for differences among groups, for differences between tests, and for possible interaction between treatment and repeated measures. None of the multivariate or univariate F values were statistically significant.

Results of Tests for Hypotheses 4 and 9

Hypotheses 4 and 9 were formulated to assess the affective reactions of Ss who received one of the four treatments during instruction. Both hypotheses were stated in terms of the short-term affective measure.

Hypothesis 4 stated that Ss who received programmed supervision would respond more favorably toward the instructional experience on the short-term affective measure than Ss who received human supervision. Since none of the 21 separate ANCOVAs shown in Table 6 resulted in significant univariate F values, Hypothesis 4 was not supported.

Table 8

Summary of ANCOVAs Showing Univariate F Values Based on Interaction (Groups X Repeated Measures) For Affective Test

Source (b)	df	MS	Error (E)	df (E)	F Value (a)
1	3	.18	.21	21	.86 (.48) (c)
2	3	1.00	.98	21	1.03 (.40)
3	3	.24	1.18	21	.20 (.89)
4	3	.69	1.20	21	.57 (.64)
5	3	.84	1.05	21	.81 (.50)
6	3	.55	.59	21	.94 (.44)
7	3	.36	.21	21	1.72 (.19)
8	3	.31	.35	21	.88 (.47)
9	3	.95	.36	21	2.60 (.08)
10	3	.08	1.26	21	.07 (.98)
11	3	.03	.47	21	.07 (.97)
12	3	.13	.68	21	.19 (.90)
13	3	.38	.74	21	.51 (.68)
14	3	.56	3.11	21	.18 (.91)
15	3	.24	1.22	21	.20 (.90)
16	3	1.73	.89	21	1.95 (.15)
17	3	1.81	1.42	21	1.27 (.31)
18	3	1.36	.48	21	2.80 (.07)
19	3	.89	.53	21	1.68 (.20)
20	3	.46	.56	21	.82 (.50)
21	3	.69	.81	21	.85 (.48)

(a) Alpha set at .01 for Sources 1-20 and .05 for Source 21.

(b) Numbers correspond to affective test items.

(c) Numbers in ( ) indicate p values.

Hypothesis 9 stated that Ss who received immediate feedback would respond more favorably toward the instructional experience on the short-term affective measure than Ss who received delayed feedback. Since none of the 21 separate ANCOVAs shown in Table 6 resulted in statistically significant univariate F values, Hypothesis 9 was not supported.

A possible interaction effect was assessed between the treatment and the repeated measures. Since none of the 21 separate ANCOVAs shown in Table 8 resulted in statistically significant univariate F values, the existence of an interaction effect was not supported.

The results of the analyses comparing treatment groups on the short-term affective measure resulted in no statistically significant univariate F values. Hypotheses 4 and 9 were, therefore, not supported.

Results of Tests for Hypotheses 5 and 10

Hypotheses 5 and 10 were formulated to assess the affective reactions of Ss who received one of the four treatments during instruction. Both hypotheses were stated in terms of the long-term affective measure.

Hypothesis 5 stated that Ss who received programmed supervision would respond more favorably toward the instructional experience on the long-term affective measure than Ss who received human supervision. Since none of the 21 separate ANCOVAs shown in Table 6 resulted in statistically significant univariate F values, Hypotheses 5 was not supported.

Hypothesis 10 stated that Ss who received immediate feedback would respond more favorably toward the instructional experience on the long-term affective measure than Ss who received delayed feedback. Since none of the 21 separate ANCOVAs shown in Table 6 resulted in statistically significant univariate F values, Hypothesis 10 was not supported.

The results of the analyses comparing treatment groups on the long-term affective measure resulted in no statistically significant univariate F values. Therefore, Hypotheses 5 and 10 were not supported.

Treatment X Control

The four treatment groups were compared to a non-active control group on the cognitive and transfer-of-training measures to assess the effectiveness of treatment versus no treatment. A summary of the analysis comparing treatment (all four treatments combined) with control is shown in Table 9.

Results of Tests for Hypothesis 11

Hypothesis 11 was formulated to assess the effect of treatment compared to no treatment. Hypothesis 11 stated that Ss who received instruction by any one of the four treatments would make more CTRL's on the short-term cognitive measure, long-term cognitive measure, and transfer-of-training measure than Ss who received no instruction.

The analysis of treatment and control utilized an ANCOVA procedure with four covariates. The resulting multivariate F value was statistically significant ($F=52.89$, $p=.0001$, df 3, 17). Univariate F

Table 9

Summary of ANCOVAs Showing Multivariate and Univariate F Values Based on Treatment X Control Including Influence of Four Covariates

Source	df	MS	Multivariate F (a)	Univariate F (b)
Between	3, 17		52.89 (.0001)*	
V_1	1	11356.66		173.12 (.0001)*
V_2	1	2734.70		35.97 (.0001)*
V_3	1	13.53		.19 (.67)
Error (Within)	19			
V_1		65.60		
V_2		76.02		
V_3		72.19		

(a) Tested at α=.05

(b) Tested at α=.05/3 *=Statistically significant

V_1=Short-term Cognitive Posttest

V_2=Long-term Cognitive Posttest

V_3=Transfer-of-Training Measure

values were computed for each of the three separate posttest measures. The univariate F value for the short-term cognitive measure was statistically significant (F=173.12, p=.0001, df 1, 17). The univariate F value for the long-term cognitive measure was statistically significant (F=35.97, p=.0001, df 1, 17). The univariate F value for the transfer-of-training measure was not statistically significant (F=.19, p=.67, df 1, 17).

The results of the univariate ANCOVA procedures indicated a statistically significant difference between treatment and control for the short- and long-term cognitive measure but not the transfer-of-training measure.

Each treatment group was compared individually to the control group on the three posttest measures. The results of the ANCOVAs are shown in Table 10.

The multivariate and univariate ANCOVAs resulted in the following statistically significant F values:

> The immediate-programmed supervision treatment group was statistically different from the control group on the short-term cognitive measure, with a resulting univariate F value of F=15.65, p=.0012, df=1, 14.
>
> The immediate-human supervision treatment group was statistically different from the control group on the short-term cognitive measure, with a resulting univariate F value of F=20.35, p=.0004, df=1, 14.
>
> The delayed-human supervision treatment group was statistically different from the control group on the short-term cognitive measure, with a resulting univariate F value of F=166.16, p=.0001, df=1, 14.
>
> The delayed-human supervision treatment group was statistically different from the control group on the long-term cognitive measure, with a resulting univariate F value of F=40.27, p=.0001, df=1, 14.

Table 10

Summary of ANCOVAs Showing Multivariate and Univariate F Values Based on Treatments (Taken Individually) X Control Including Influences of Four Covariates

Source	df	MS	Multivariate F (a)	Univariate F (b)
G1-G5	3, 14		6.72 (*.0049)	
V_1	1	898.95		15.66 (*.0012)
V_2	1	.03		.00 (.98)
V_3	1	142.57		1.94 (.18)
G2-G5	3, 14		1.68 (.22)	
V_1	1	201.01		3.50 (.08)
V_2	1	9.28		.13 (.72)
V_3	1	15.07		.21 (.66)
G3-G5	3, 14		5.94 (*.0079)	
V_1	1	1168.58		20.35 (*.0004)
V_2	1	324.90		4.69 (.05)
V_3	1	.57		.01 (.93)

Table 10 (Continued)

Source	df	MS	Multivariate F (a)	Univariate F (b)
G4-G5	3, 14		48.47 (*.0001)	
V_1	1	9541.18		166.16 (*.0001)
V_2	1	2791.79		40.27 (*.0001)
V_3	1	7.18		.10 (.76)
Error	16			
V_1		57.42		
V_2		69.33		
V_3		73.29		

G_1=Immediate-Programmed Supervision

G_2=Delayed-Programmed Supervision

G_3=Immediate-Human Supervision

G_4=Delayed-Human Supervision

G_5=Control

V_1=Short-term Cognitive Test

V_2=Long-term Cognitive Test

V_3=Transfer-of-Training Measure

(a) Tested at α=.05

(b) Tested at α=.05/3

* Statistically significant

The comparison of individual treatment groups to the control group showed three of the four treatment groups statistically different from the control on the short-term measure. Only one treatment group was statistically different from the control on the long-term cognitive measure. There were no treatment groups statistically different from the control on the transfer-of-training measure. All analyses were ANCOVAs with four covariates. Thus Hypothesis 11 received partial support.

Results of Test for Hypothesis 12

Hypothesis 12 was formulated to assess a possible interaction effect between supervision and feedback. The two levels of supervision and two levels of feedback resulted in four treatment groups. Hypothesis 12 stated that an interaction would occur between feedback and supervision, resulting in the following order of effectiveness as ranked from most effective to least effective:

> immediate-programmed supervision > delayed-programmed supervision > immediate-human supervision > delayed-human supervision.

A summary of all the hypotheses tested involving the four treatment groups is shown in Table 11.

Since none of the hypotheses tested involving the four treatment groups resulted in statistically significant multivariate or univariate F values, Hypothesis 12 was not supported.

Status of the Research Hypotheses

In the following, each research hypothesis is restated and its resulting status is summarized:

Table 11

Summary of Tests of Hypotheses Analyzed by Multivariate and Univariate ANCOVAs with Four Covariates.

Comparison	Posttest Measure	Univariate F Value	P Value	df
Programmed X human supervision	short-term cognitive	.44	.52 (a)	1, 12
Programmed X human supervision	long-term cognitive	4.74	.05 (a)	1, 12
Programmed X human supervision	transfer of training	.06	.81 (a)	1, 12
Programmed X human supervision	affective	None of 21 ANCOVAs significant	(b)	
Immediate X delayed feedback	short-term cognitive	.72	.39 (a)	1, 12
Immediate X delayed feedback	long-term cognitive	.41	.53 (a)	1, 12
Immediate X delayed feedback	transfer of training	.84	.37 (a)	1, 12
Immediate X delayed feedback	affective	None of 21 ANCOVAs significant	(b)	
Feedback X supervision	short-term cognitive	3.40	.09 (a)	1, 12
Feedback X supervision	long-term cognitive	.23	.64 (a)	1, 12
Feedback X supervision	transfer of training	1.88	.19 (a)	1, 12

(a) Alpha set at .05/3 for statistical significance.

(b) Alpha set at .01 for statistical significance.

1. Ss who receive instruction through programmed supervision will make more CTRL's on the short-term cognitive measure than Ss who receive instruction through human supervision.

Short-term cognitive measure: Not Supported

2. Ss who receive instruction through programmed supervision will make more CTRL's on the long-term cognitive measure than Ss who receive instruction through human supervision.

Long-term cognitive measure: Not Supported

3. Ss who receive instruction through programmed supervision will make more CTRL's during a five-minute audiotaped segment taken from a counseling interview than Ss who receive instruction through human supervision.

Transfer-of-training measure: Not Supported

4. Ss who receive instruction through programmed supervision will respond more favorably toward the experience on a test measuring short-term affective reactions toward their supervision than Ss who receive human supervision.

Short-term affective measure: Not Supported

5. Ss who receive instruction through programmed supervision will respond more favorably toward the experience on a test measuring long-term affective reactions toward their supervision than Ss who receive human supervision.

Long-term affective reactions: Not Supported

6. Ss who receive instruction with immediate supervision will make more $CTRL^{T}$s on the short-term cognitive measure than Ss who receive instruction with delayed supervision.

Short-term cognitive measure: Not Supported

7. Ss who receive instruction with immediate supervision will make more $CTRL^{T}$s on the long-term cognitive measure than Ss who receive instruction with delayed supervision.

Long-term cognitive measure: Not Supported

8. Ss who receive instruction with immediate supervision will make more $CTRL^{T}$s during a five-minute audiotaped segment taken from a counseling interview than Ss who receive instruction with delayed supervision.

Transfer-of-training measure: Not Supported

9. Ss who receive instruction with immediate supervision will respond more favorably toward the experience on a test measuring short-term affective reactions toward their supervision than Ss who receive instruction with delayed supervision.

Short-term affective measure: Not Supported

10. Ss who receive instruction with immediate supervision will respond more favorably toward the experience on a test measuring long-term affective reactions toward their supervision than Ss who receive instruction with delayed supervision.

Long-term affective measure: Not Supported

11. Ss who receive instruction through any one of the four treatments will make more CTRL's on the short-term cognitive measure, long-term cognitive measure, and transfer-of-training measure than Ss who are members of the control group and receive no instruction.

Short-term cognitive measure: Partially Supported

Long-term cognitive measure: Partially Supported

Transfer-of-training measure: Not Supported

12. There will be a significant interaction affect between the type of supervision and the temporal dimension of supervision on all tests, both affective and cognitive, which will result in the following order of effectiveness as ranked from most effective to least effective:

immediate-programmed supervision > delayed-programmed supervision > immediate-human supervision > delayed-human supervision.

Interaction test measures: Not Supported

CHAPTER IV

DISCUSSION

Overview

This experiment was focused on an investigation of various methods of supervision for teaching concreteness, a specific counselor skill. Two methods of supervision, programmed and human, were combined with an immediate and delayed temporal dimension. Programmed supervision referred to feedback, instruction, and reinforcement provided by a multimedia (slides and audiotape) technique and a programmed manual. Human supervision referred to feedback, instruction, and supervision provided by a trained graduate-level supervisor. The immediate temporal dimension was defined as an interaction following each trainee response. The delayed temporal dimension was defined as an interaction occurring only after a specific portion of the instruction had been completed.

A counselor training program was developed to analyze the effectiveness of the independent variables on the teaching of concreteness. Concreteness, or specificity of expression, was defined as the ability to describe situations in behavioral or measurable terminology. Concreteness was taught to the counselor trainees through the use of Counselor Tacting Response Leads, or CTRL's. A CTRL was defined as a counselor response lead which would evoke a client tacting response, i.e., a verbal response which either described a particular abstract

concept in more operational or behavioral terms, or which gave specific examples of whatever the client was trying to communicate.

This experiment involved a repeated measures design (Campbell & Stanley, 1963) with four covariates and three posttest measures. Three personality scales from Holland's Vocational Preference Inventory (1970) were used as covariates, along with a pretest rating of the number of CTRL's present in a five-minute audiotaped counseling segment. Personality scales used were the Realistic, Conventional, and Social. The short-term posttest measure included a 25-question standardized cognitive test and a 21-question affective measure. The long-term posttest, given three weeks after the experiment, included a 12-question cognitive test and a 21-question affective measure. Possible transfer of training was measured through a rating of the number of CTRL's present during a five-minute audiotaped counseling segment. Four treatment groups were used, in addition to a non-active control group.

Instruction was presented in three phases. In Phase 1 a multimedia technique was utilized to present an introduction to concreteness, along with roleplayed counselor-client interactions illustrating appropriate and inappropriate examples of CTRL's. In Phase 2 short client segments were presented through slides and audiotape, and Ss were asked to choose appropriate CTRL's from a prepared list. In Phase 3 short client segments were presented through slides and audiotape, and Ss were asked to develop an appropriate CTRL on their own. Ss in the programmed supervision groups received supervision totally through the multimedia presentation. Ss in the human supervision groups received supervision from a trained graduate-level supervisor. Ss who received

immediate feedback were given 10 short periods of supervision. Ss who received delayed feedback received two longer periods of supervision. Each of the three phases included five client segments, for a total of 15 segments used in instruction. Total instruction time was limited to 45 minutes. Each S received individual instruction.

The Ss for this study were master's degree candidates in counseling at Michigan State University. All Ss were aware that they were participating in an experiment. The original 49 Ss were randomly assigned to four treatment groups and one non-active control group.

The criterion measures used in this study were formulated to examine the separate and combined effects of programmed and human supervision combined with immediate and delayed temporal dimensions. During the cognitive measures the Ss were asked to place themselves in the role of a counselor, listen to a short client segment, and respond with an appropriate CTRL. The short-term cognitive test contained 25 questions, and the long-term test included 12 questions. All Ss received the cognitive tests. Each S's response was rated by three independent raters. Interrater reliabilities were .92 for the short-term test and .73 for the long-term test. The two audiotaped measures, pretest and posttest, were rated by three independent raters. Interrater reliabilities were .91 for the pretest and .58 for the posttest transfer-of-training measure. On the affective measures, Ss were asked to respond to statements describing the instructional experience by ranking their feelings on a series of seven-point bipolar scales. Only Ss involved in the four treatments were given the affective measures.

It was hypothesized that Ss who received instruction through programmed supervision would make more CTRL's on the short-term cognitive measure, long-term cognitive measure, and transfer-of-training measure than Ss who received instruction through human supervision. Ss who received immediate feedback were hypothesized to be superior on the same measures to Ss who received delayed feedback. An interaction effect between supervision and feedback was hypothesized which would result in the following order of effectiveness on all posttest measures as ranked from high to low: immediate-programmed supervision > delayed-programmed supervision > immediate-human supervision > delayed-human supervision. It was also hypothesized that the same rank order would be found as a result of Ss responding to the short- and long-term affective measures. The data were analyzed using multivariate and univariate ANCOVAs. The four covariates were included in all analyses. Alpha levels for the multivariate hypotheses were set a priori at $\alpha=.05$, which resulted in univariate alpha levels ranging from $\alpha=.01$ to $\alpha=.05$. An unbalanced design was used for all analyses.

No statistically significant differences were found for any of the hypotheses tested for the short-term measures, the long-term measures, or the transfer-of-training measure. Statistically significant differences were found between the treatment and control groups on the short- and long-term cognitive measures. Individual treatment groups were compared to the control group, with statistically significant differences ($\alpha=.01$) found on the short-term cognitive measure between the control and the immediate-programmed supervision group, the control and the immediate-human supervision group, and the control and the

delayed-human supervision group. A statistically significant difference (α=.01) was found between the control and the delayed-human supervision group on the long-term cognitive measure.

Limitations

Before discussing the positive implications of this experiment, the limitations should be discussed. Each limitation has implications for revisions or improvements in similar research studies which may be conducted in the future.

Design

This experiment involved a repeated measures design, with Ss being randomly assigned (Campbell & Stanley, 1963). The multiple-measures technique was designed to be a strength in this study by providing a follow-up over time, a factor missing in most research designs. The use of the repeated measures design, however, led to the possible presence of certain confounding variables. One of the possible confounding variables was S mortality. Posttest measures were given immediately following the experiment, three weeks after the experiment, and up to a month following the experiment. The sample for the follow-up measures dropped from 49 Ss in the immediate posttest, to 32 Ss in the long-term measure, to 42 Ss in the transfer-of-training measure. Ss missing for the long-term measure were not in attendance in class on the day the test was given, which may indicate a lower motivation level on the part of those Ss.

A second threat to internal validity was the possible effect of history on the transfer-of-training measure. Audiotapes were received by the experimenter over a period of two and one-half weeks. Content across tapes was controlled through established guidelines, but the time variable was left open. In addition, the longer the time delay, the more likely that some effect between practicum supervisor and S might have occurred. Thus, if a similar study were to follow the design of this experiment, the variables of supervisors and time should also be controlled.

Since the sample was not randomly selected from a defined population, the effects of this experiment are, in the strictest sense, limited to the 49 Ss. However, it is hoped the effects might be generalized to similar populations in similar settings (Cornfield & Tukey, 1956). For the purposes of possible generalization, a detailed description of the sample is contained in Chapter II.

Equipment

Several additional variables may have influenced the results of this study besides the two threats to internal validity previously cited. One possible variable was the use of the slide projectors and tape recorders. The equipment was rented for use in this experiment. The quality of the equipment was assessed prior to use; yet, one tape recorder and one cassette tape malfunctioned. Both were corrected as soon as possible, but the malfunctions may have influenced the Ss using them at the time.

Sample

The sample used was a convenient one felt to be typical of counselors-in-training. The Ss had, however, been involved in two previous experiments within the current academic year and had not received feedback on either experiment. For both experiments, the Ss had received a grade bonus for participating, whereas no such bonus could be given in the present study. Also, the Ss were not naive, but rather were aware that they were participating in an experiment.

Concreteness

The use of concreteness as the dependent variable may also have influenced the results of this experiment. The concept of concreteness was used as the basis of instruction since it had been previously identified as lacking in beginning level counselors (Eisenberg & Delaney, 1970) and was found to be measurable (Stone, 1972; Eisenberg & Delaney, 1970). The Systematic Counseling program (Appendix A) at Michigan State University stresses the necessity of describing behaviors in measurable behavioral terminology. This emphasis is similar in content to the concept of concreteness, except that different terminology is used. Thus, the skill of concreteness may already have been present at a high level in this specific population before the experiment was conducted. Concreteness also proved to be a variable fairly easily measured on a written basis as shown by interrater reliabilities of .92 and .73, but much more difficult to assess in spoken form as shown by interrater reliabilities of .91 and .58. The guidelines for evaluating CTRL's established a basic sentence format that needed to be present for a

response to be judged an acceptable CTRL. In writing, a person tends to use complete sentences. However, our spoken language follows a different pattern and is composed of a combination of sentences and sentence fragments. The guidelines for CTRL's proved inadequate to handle this situation. In addition, the number of CTRL's made by a counselor within a five-minute segment is not totally within his control. The amount of input by the counselor is dependent on the counseling setting and the particular client with whom he is working. The counselor works differently with various clients, depending upon how freely they verbalize, their level of education, their age, and other such factors. Whereas no controls were placed on these variables in this experiment, such controls should be considered for future research.

The concept of concreteness also needs to be evaluated in terms of its effectiveness and benefit in counseling. Concreteness is useful in describing behaviors in specific terminology, but needs to be used at the correct time and in the correct manner. A too liberal use of the skill is as damaging as not using the skill. This experiment used the number of CTRL's present but did not evaluate the quality of the leads nor their effectiveness within the context of the counseling situation. A personal observation by the experimenter was that the counselors who were rated highest in using concreteness were not the most efficient or most effective counselors. Concreteness needs to be assessed in terms of its relationship to other counselor skills. Thus, ratings of the mere number of CTRL's made are meaningless without some framework for comparison. For concreteness to be used as a dependent variable in future research, additional emphasis will have to be placed

on the quality of the CTRL's and the interrelationship of this skill with other counselor skills.

Delayed Feedback

A further limitation involved the definition of delayed feedback as used in this experiment. Delayed feedback involved less than a five-minute delay before feedback was provided. This relatively brief amount of time may not have been of sufficient duration nor the measuring instrument precise enough to record any differences due to this variable.

Cognitive Measures: Short- and Long-Term

The short-term cognitive measure used 25 standardized client frames identified by Eisenberg (1969) to be critical points in the goal-setting stage of counseling and in need of additional clarification. The long-term cognitive measure included 12 randomly selected questions from the short-term cognitive measure. The client frames were not representative of the total sample of client statements, as observed by Stone (1973). Thus, strictly speaking, results cannot be generalized beyond the test frames. However, the specific questions used are delineated in Appendix I, and the reader may, therefore, assess for himself how comparable the test frames are to the population to which he may wish to generalize.

The short-term cognitive test was developed using a 25-question format, on the assumption that length would aid in differentiation among Ss. However, the length did not accomplish this purpose, but instead led to a fatigue factor, as reported by several Ss. The long-term

measure was shortened to 12 questions to control for the possible fatigue factor. In both tests, the length did not appear to aid in differentiation among treatment groups. Recommendations for improvement on this measure would include the development of questions increasing in level of difficulty and the development of a quality rating system in addition to the "acceptable" or "not acceptable" rating utilized in this study.

Transfer-of-Training Measure

An audiotape from each S's practicum setting served as the basis for the transfer-of-training measure. A five-minute segment was randomly chosen from each tape and rated by three independent raters for the number of CTRL's present. Limitations already cited concerning this measure include the difficulty of rating the spoken conversation and the variance among Ss due to clients and practicum settings. Interrater reliability for this measure was .58, while interrater reliability for a pretest audiotaped measure was .91. The pretest audiotape was a roleplayed situation using a coached client. The Ss were making the tape for a course grade and were instructed to make the tape as clear and comprehensive as possible. The transfer-of-training audiotape was made in an actual counseling situation with less than adequate conditions in most cases. The Ss had no control over the clients, no prepared scripts, and no chance to re-record the tape for improved sound quality. The re-recording of the second tape by the experimenter resulted in some inaudible portions, thus making rating very difficult.

In addition, a rating of the mere number of CTRL's was felt to be an inadequate basis for comparison.

Affective Measure: Short- and Long-term

The affective measures involved a self-rating seven-point bipolar scale with 21 questions to assess the Ss' reactions toward the instructional experience. The experimenter felt this technique holds promise for future research.

Covariates

The three personality scales from the Vocational Preference Inventory (Holland, 1970) were easy to administer and score. The assumption that a person's personality may influence his making certain types of responses was neither proved nor disproved in this experiment. Correlations as high as r=.65 between the Realistic scale and transfer-of-training measure, r=-.58 between the Conventional scale and long-term cognitive test, and r=-.41 between the Social scale and long-term cognitive test lend some support to the assumption. However, additional experimentation is needed before any conclusion can be reached.

The audiotaped CTRL pretest was correlated with the Social scale at r=-.41. The audiotaped pretest was correlated only r=-.22 with the audiotaped posttest. Correlations between the pretest and cognitive measures were below r=.20. Thus, the audiotaped pretest added little to this experiment.

Conclusions and Implications

This experiment was designed to compare programmed and human supervision presented on immediate and delayed temporal dimensions. The results of the ANCOVAs showed no statistically significant differences between treatment groups. The conclusions that are drawn must be viewed in terms of the sample used and the criterion measure, i.e., CTRL's.

Accepting the results of the ANCOVAs at face value leads to several important implications. This study showed no significant differences between programmed and human supervision. This finding suggests that both methods of instruction are equally efficient in teaching concreteness. If both are equally effective, it seems pertinent to examine the relative cost of each technique. The cost involved with a programmed approach is the initial investment in terms of equipment, slides, and audiotapes. Once developed, the maintenance cost is rather low. The program is reusable and requires a minimum amount of supervision. Students can study the material at their own speed and at times convenient to them. The concept can be reviewed by students as frequently as necessary in order to ensure mastery learning. Human supervision requires paid personnel who need a high level of expertise in the concept before being able to teach others. Personnel possessing such knowledge are limited. Arrangements have to be made concerning the time and place for instruction. Instruction is usually not given on an individual basis nor is there any control to ensure uniform quality of the instructional experience. The analysis of cost-effectiveness in

the present study comparing programmed supervision to human supervision was on a superficial level. The results of the ANCOVA's and the cost-effectiveness considerations led the experimenter to favor slightly the programmed approach.

In conducting an in-depth analysis and comparison of programmed and human supervision, several important considerations have to be taken into account. One consideration would be the availability of audio and video equipment and the facilities for their use. The present experiment utilized an individual instructional procedure which required separate rooms for each S. A second consideration would be the desirability of individual compared to group instruction. The use of the programmed supervision technique has not been applied as yet to the group situation. In addition, the interaction among group members may be desirable. A third area to consider would be at what point in the counselor training program the instruction should occur. A beginning-level counselor trainee may need additional practice and instruction in specific skills, while a trainee nearing the end of his program may desire a total "gestalt" of the counseling process itself. A fourth variable requiring consideration would be the size of the target population. A small population may not justify the expense of developing a programmed supervision package. The programmed approach would become more feasible if the target population justified mass production of the slides, tapes, and programmed materials.

In analyzing the affective reactions of Ss toward the instructional experience, no significant differences were found between treatment groups. The raw data suggested a slight difference between groups,

with the programmed supervision group feeling that the experience was somewhat impersonal while the human supervision group felt that it was somewhat personal. The differences, however, were not significant. Since the Ss' reactions toward programmed supervision were not significantly different from the reactions toward human supervision, either one is presumably an acceptable method of instruction.

Similar findings indicating lack of statistically significant differences between immediate and delayed feedback suggest that feedback does not have to be provided immediately, but may be delayed without influencing the amount of learning that will occur. This result has to be viewed from the framework that delayed feedback actually involved only a five-minute delay.

The experimental design used in this study provided for a follow-up over time. Experiments frequently contain only a short-term measure, with no indication of what occurs beyond that point. This experiment showed that knowledge concerning the skill of concreteness continued over a three-week period. The repeated-measures design was limited by S mortality. Control of S mortality is essential if the results are to be considered representative of the entire sample used.

A statistically significant difference was found on the short- and long-term cognitive measures between treatment and control. From this finding, the conclusion can be drawn that instruction on CTRL's was superior to no instruction. In comparing individual treatment groups to the control group, the results become harder to explain. Three of the four treatment groups were statistically different from the control on the short-term cognitive test, i.e., the immediate-

programmed supervision group, the immediate-human supervision group, and the delayed-human supervision group. On the long-term cognitive measure, only the delayed-human supervision group was superior to the control. These results suggest that the delayed-human supervision treatment was the most effective in producing learning and retention over time. These tests must be analyzed with the knowledge that four covariates were used and their relationships factored out. Raw means for the four treatment groups were almost identical. Ss were randomly assigned to treatments, which theoretically controlled for equivalence among groups. A possible revision in the design might be the use of a randomized block design instead of a covariate procedure. The randomized block procedure would result in any possible personality influences being distributed evenly across groups instead of concentrated in one group.

In summary, several conclusions may be drawn from this experiment:

1. Programmed supervision may be considered a possible alternative to human supervision in teaching concreteness. Relative cost-effectiveness considerations should be taken into account before using either approach.

2. There is no difference between immediate and delayed feedback as they apply to instruction on the skill of concreteness. This conclusion is guarded since delayed feedback involved less than a five-minute delay before feedback was provided.

3. Methods of measuring for possible transfer-of-training on the skill of concreteness need revision, with ratings on the number of CTRL's being a meaningless variable. A rating of quality or appropriateness also needs to be developed.

4. The relationship between a person's personality and his making specific types of statements such as CTRL's is an area holding promise for future investigation.

Suggestions for Future Research

Various areas for future investigation can be generated from this experiment:

1. The use of a bipolar self-rating scale was judged satisfactory by the experimenter for measuring affective reactions. Scales such as the one used in this experiment need additional experimentation, not only for their use as measures of S variables but also to determine their reliability and validity.

2. The cognitive measures may not be totally representative of the sample of possible client statements. In addition, each statement proved to be of a fairly uniform difficulty level. A method of using client statements to differentiate between Ss needs to be developed.

3. Delayed feedback as used in this experiment involved a delay of only five minutes or less. Additional experimentation should be made, varying the time between instruction and feedback.

4. The multimedia technique holds promise as an instructional technique. Further research needs to be focused on various methods of instruction, such as the slide-audiotape combination.

5. The transfer-of-training measure involving an audiotaped rating needs additional refinement and guidelines. Additional research is needed to identify what factors influence transfer and how can transfer be measured.

6. The use of personality characteristics as they apply to counselors needs additional investigation. The results of this experiment implied that personality type may be correlated with concreteness.

7. This experiment used a format that assigned trainees to treatments. However, people may vary in their attitudes and acceptance of programmed or human supervision. The interaction between preference for a type of instruction and actual instruction received needs to be investigated.

8. The basic question investigated in this study of the effectiveness of programmed versus human supervision needs additional research. The results of this study reveal no differences between the two methods of supervision as they apply to teaching the skill of concreteness. The same basic question could be asked of other counselor skills such as empathy, warmth, and attention. Such investigations should include a quality rating as well as a quantitative measure.

LIST OF REFERENCES

LIST OF REFERENCES

Atherton, L.L. A comparison of movie and multiple-image presentation techniques on affective and cognitive learning. Unpublished doctoral dissertation, Michigan State University, 1971.

Ausubel, D.P. The use of advanced organizers in the learning and retention of meaningful verbal material. Journal of Educational Psychology, 1960, 51, 267-272.

Bandura, A. Social-learning theory of identification processes. In D.A. Goslin (Ed.), Handbook of socialization theory and research, Chicago: Rand McNally, 1968.

Bandura, A. Principles of behavior modification. New York: Holt, Rinehart, & Winston, 1969.

Bandura, A. Social learning theory. Morristown, N.J.: General Learning Press, 1971.

Bandura, A., & Walters, R.H. Social learning and personality development. New York: Holt, Rinehart, & Winston, 1963.

Beaird, J.H., & Standish, J.T. Audiosimilation in counselor training. Final Report, Title VII, Project Number 1245, Oregon State System of Higher Education, Monmouth, Oregon, 1974.

Bellucci, J.E. Microcounseling and imitation learning-A behavioral approach to counselor education. Counselor Education and Supervision, 1972, 12, 88-95.

Berenson, B.G., Mitchell, K.M., & Moravec, J.A. Level of therapist functioning, patient depth of self-exploration, and type of confrontation. Journal of Counseling Psychology, 1968, 15, 136-139.

Birk, J.M. Effects of counseling supervision method and preference on empathic understanding. Journal of Counseling Psychology, 1972, 19, 542-546.

Boyd, J.D., II. The construction of a microcounseling training model and the assessment of its effectiveness in teaching a cognitively flexible set of verbal response behaviors to neophyte counselors. Unpublished doctoral dissertation, Ohio State University, 1971.

Boyd, J.D., II. Microcounseling for a counseling-like verbal response set: Differential effects of two micromodels and two methods of counseling supervision. Journal of Counseling Psychology, 1973, 20, 97-98.

Campbell, D.T., & Stanley, J.C. Experimental and quasi-experimental designs for research. Chicago: Rand McNally, 1963.

Canada, R.M. Immediate reinforcement versus delayed reinforcement in teaching a basic interview technique. Journal of Counseling Psychology, 1973, 20, 395-398.

Carey, A., & Garris, D. Accountability for school counselors. The School Counselor, 1971, 18, 321-326.

Carkhuff, R.R. The counselor's contribution to facilitative processes. Urbana, Ill.: Parkinson, 1967.

Carkhuff, R.R. Critical variables in effective counselor training. Journal of Counseling Psychology, 1969, 16, 238-245. (a)

Carkhuff, R.R. The prediction of the effects of teacher-counselor education: The development of communication and discrimination selection indexes. Counselor Education and Supervision, 1969, 81, 265-272. (b)

Carkhuff, R.R. Helping and human relations: A primer for lay and professional helpers, Volume I: Selection and training. New York: Holt, Rinehart, & Winston, 1969. (c)

Carkhuff, R.R., & Berenson, B.G. Beyond counseling and therapy. New York: Holt, Rinehart, & Winston, 1967.

Carkhuff, R.R., Kratochvil, D., & Friel, T. Effects of professional training: Communication and discrimination of facilitative conditions. Journal of Counseling Psychology, 1968, 15, 68-74.

Carkhuff, R.R., & Truax, C.B. Toward explaining success and failure in interpersonal experiences. Personnel and Guidance Journal, 1966, 46, 723-728.

Cornfield, J., & Tukey, J.W. Average values of mean squares in factorials. Annals of Mathematical Statistics, 1956, 27, 907-949.

Costar, J.W. Making guidance programs accountable. Paper presented at Conference on Accountability in Guidance and Pupil Personnel Work. Kellogg Center, Michigan State University, July 31-August 1, 1972.

Danish, S.J. Film-simulated counseling training. Counselor Education and Supervision, 1971, 11, 29-34.

Delaney, D.J. Simulation techniques in counselor education: Proposal of an unique approach. Counselor Education and Supervision, 1969, 8, 183-189.

Delaney, D.J. A behavioral model for the practicum supervision of counselor candidates. Counselor Education and Supervision, 1972, 12, 46-50.

Eisenberg, S. The development and application of a simulated environment for training counselors. Unpublished doctoral dissertation, University of Illinois, 1969.

Eisenberg, S., & Delaney, D.J. Using video simulation of counseling for training counselors. Journal of Counseling Psychology, 1970, 17, 15-19.

Ellis, A. Rationalism and its therapeutic applications. Annals of Psychotherapy, 1959, 1, 55-64.

Elsenrath, D.E., Coker, D.L., & Martinson, W.D. Microteaching interviewing skills. Journal of Counseling Psychology, 1972, 19, 150-155.

English, R.W., & Jelenevsky, S. Counselor behavior as judged under audio, visual, and audiovisual communication conditions. Journal of Counseling Psychology, 1971, 18, 509-513.

Forster, J.R. Comparing feedback methods after testing. Journal of Counseling Psychology, 1969, 16, 222-226.

Frankel, M. Effects of videotape modeling and self-confrontation techniques on microcounseling behavior. Journal of Counseling Psychology, 1971, 18, 465-471.

Freud, S. Analysis terminable and interminable. Collected Papers, 5, New York: Hogarth Press, 1950.

Gagné, R.M. Simulators. In R. Glaser (Ed.), Training research and education. Pittsburgh, Pa.: University of Pittsburgh Press, 1962.

Gagné, R.M. The conditions of learning. New York: Holt, Rinehart, & Winston, 1965.

Graves, W.H., & Graves, L.H. Analysis of feedback among group practicum members. Counselor Education and Supervision, 1973, 13, 111-117.

Guttman, J.A.J. Reduction of the defensive behavior of counselor trainees during counseling supervision. Counselor Education and Supervision, 1973, 12, 294-299.

Guttman, M.J., & Haase, R.F. The generalization of microcounseling skills to counseling practice. Counseling Center Research Report No. 17, University of Massachusetts, August, 1970.

Guttman, M.J., & Haase, R.F. Generalization of microcounseling skills from training period to actual counseling setting. Counselor Education and Supervision, 1972, 12, 98-107.

Gysbers, N.C., & Moore, E.J. Using simulation techniques in the counseling practicum. Counselor Education and Supervision, 1970, 9, 277-285.

Haase, R.F., & DiMattia, D.J. The application of the microcounseling paradigm to the training of support personnel in counseling. Counselor Education and Supervision, 1970, 10, 16-23.

Haase, R.F., DiMattia, D.J., & Guttman, M.J. Training of support personnel in three human relations skills: A systematic one-year follow up. Counselor Education and Supervision, 1972, 11, 194-199.

Hamachek, J.N. Effects of individual supervision on selected affective and cognitive characteristics of counselors-in-training: A pilot study. Unpublished doctoral dissertation, Michigan State University, 1971.

Hansen, J.C., & Warner, R.W., Jr. Review of research on practicum supervision. Counselor Education and Supervision, 1971, 10, 261-272.

Harris, G.A. Training and evaluation of school counselors' communication with students. Counselor Education and Supervision, 1973, 12, 200-205.

Heiserman, M.S. The effect of experimental videotape training procedures compared to cognitive-classroom teaching methods on the interpersonal communication skills of juvenile court caseworkers. Unpublished doctoral dissertation, Michigan State University, 1971.

Higgins, W.H., Ivey, A.E., & Uhlemann, M.R. Media therapy: A programmed approach to teaching behavioral skills. Journal of Counseling Psychology, 1970, 17, 20-26.

Holland, J.L. Vocational preference inventory. Palo Alto, Calif.: Consulting Psychologists Press, 1970.

Horan, J.J. Behavioral goals in systematic counselor education. Counselor Education and Supervision, 1972, 12, 162-170.

Hoyt, C.J. Test reliability estimated by analysis of variance. Psychometrika, 1941, 6, 153-160.

Ivey, A.E. Microcounseling, innovation in interviewing training. Springfield, Ill.: Thomas, 1971.

Ivey, A.E., & Alschuler, A.S. Psychological education is . . . . Personnel and Guidance Journal, 1973, 51, 588-591.

Ivey, A.E., Normington, C.J., Miller, D.D., Morrill, W.H., & Haase, R.H. Microcounseling and attending behavior - an approach to prepracticum counselor training. Monograph, Journal of Counseling Psychology, 1968, 15, 1-12.

Jennrich, R.I. 1604 analysis of variance. Laboratory Bulletins, 1961, Numerical Analysis Department, University of Wisconsin.

Jensen, G.L. Comparative effects of remote and face-to-face supervision in a competency-based counseling practicum. Unpublished doctoral dissertation, Michigan State University, 1973.

Kagan, N., & Schauble, P.G. Affect simulation in interpersonal process recall. Journal of Counseling Psychology, 1969, 16, 309-313.

Kagan, N., Schauble, P.G., Resnikoff, A., Danish, S.J., & Krathwohl, D.R. Interpersonal process recall. Journal of Nervous and Mental Disease, 1969, 148, 365-374.

Kelly, J.D. Reinforcement in microcounseling. Journal of Counseling Psychology, 1971, 18, 268-272.

Kersh, B.Y. Directed discovery versus programmed instruction: A test of a theoretical position involving educated technology. Final Report, Title VII, Project Number 907, Oregon State System of Higher Education, Monmouth, Oregon, 1963.

Klas, L.D., & Peters, H.J. Counseling interview techniques: A comparison of theory and practice. Counselor Education and Supervision, 1973, 13, 137-143.

Krumboltz, J.D., & Thoresen, C.E. The effect of behavioral counseling in group and individual settings on information-seeking behavior. Journal of Counseling Psychology, 1964, 2, 324-333.

LaFleur, N.K. The separate and combined effects of models, reinforcement, and attentional variables on adolescent vocational behaviors. Unpublished doctoral dissertation, Michigan State University, 1970.

Lopez, F.M. Accountability in education. Phi Delta Kappan, 1970, 52, 231-235.

Mager, R.F. Preparing instructional objectives. Palo Alto, Calif.: Fearon, 1962.

Markey, M.J., Fredrickson, R.H., Johnson, R.W., & Julius, M.A. Influence of playback techniques on counselor performance. Counselor Education and Supervision, 1970, 9, 178-182.

Mazer, G.E., & Engle, K.B. Practicum supervision: Good guys and bad guys. Counselor Education and Supervision, 1968, 8, 147-149.

McDonald, F.J., & Allen, D.W. Training effects of feedback and modeling procedures on teaching performance (Tech. Rep. No. 3) Stanford Center for Research and Development in Teaching, 1967.

McDonald, F.J., Allen, D.W., & Orme, M.E. The effect of self feedback and reinforcement on the acquisition of a teaching skill. Paper presented at the meeting of the American Educational Research Association, Chicago, February, 1966.

Miller, C.D., Morrill, W.H., Ivey, A.E., Normington, C.J., & Uhlemann, M.R. Microcounseling: Techniques in assessing clients' attitudes toward guidance tests. Counselor Education and Supervision, 1973, 13, 14-23.

Miller, C.D., Morrill, W.H., & Uhlemann, M.R. Micro-counseling: An experimental study of pre-practicum training in communicating test results. Counselor Education and Supervision, 1970, 9, 171-177.

Miller, N.E., & Dollard, J. Social learning and imitation. New Haven: Yale University Press, 1941.

Miller, T.V. Simulation and instructional objectives in counselor education. Counselor Education and Supervision, 1972, 12, 83-87.

Myrick, R.D. Effect of a model on verbal behavior in counseling. Journal of Counseling Psychology, 1969, 16, 185-190.

Nye, L.S. Obtaining results through modeling. Personnel and Guidance Journal, 1972, 51, 380-384.

Panther, E.E. Simulated consulting experiences in counselor preparation. Counselor Education and Supervision, 1971, 11, 17-23.

Parker, R.D. The effects of microcounseling with counseling practicum students. Unpublished doctoral dissertation, University of South Dakota, 1972.

Patterson, C.H. The selection of counselors. In Whiteley, J.M. (Ed.), Research in counseling, St. Louis: Merrill, 1967, pp. 69-102.

Payne, P., & Gralinski, D. Effects of supervisor style and empathy upon counselor learning. Journal of Counseling Psychology, 1968, 15, 517-522.

Payne, P.A., Weiss, S.D., & Kapp, R.A. Didactic, experiential, and modeling factors in the learning of empathy. Journal of Counseling Psychology, 1972, 19, 425-429.

Payne, P.A., Winter, D.E., & Bell, G.E. Effects of supervisor style on the learning of empathy in a supervision analogue. Counselor Education and Supervision, 1972, 11, 262-269.

Perkins, S.R., & Atkinson, D.R. Effects of selected techniques for training resident assistants in human relations skills. Journal of Counseling Psychology, 1973, 20, 84-90.

Pierce, R.M., & Schauble, P.G. Graduate training of facilitative counselors: The effects of individual supervision. Journal of Counseling Psychology, 1970, 17, 210-215.

Pierce, R.M., & Schauble, P.G. Toward the development of facilitative counselors: The effects of practicum instruction and individual supervision. Counselor Education and Supervision, 1971, 11, 83-89. (a)

Pierce, R.M., & Schauble, P.G. Follow-up study on the effects of individual supervision in graduate school training. Journal of Counseling Psychology, 1971, 18, 186-187. (b)

Poling, E.G. Videotape recording in counseling practicum: II-Critique considerations. Counselor Education and Supervision, 1968, 8, 33-38.

Pope, B., & Siegman, A.W. Effect of therapist verbal activity level and specificity on patient productivity and speech disturbance in the initial interview. Journal of Counseling Psychology, 1962, 26, 489.

Pulvino, C.J., & Sanborn, M.P. Feedback and accountability. Personnel and Guidance Journal, 1972, 51, 15-20.

Reddy, W.B. The effects of immediate and delayed feedback on the learning of empathy. Journal of Counseling Psychology, 1969, 16, 59-62. (a)

Reddy, W.B. The qualitative aspects of feedback in learning empathy. Counselor Education and Supervision, 1969, 8, 176-181. (b)

Roark, A.E. The influence of training on counselor responses in actual and role-playing interviews. Counselor Education and Supervision, 1969, 8, 289-295.

Rogers, C.R. Client-centered therapy. Cambridge, Mass: Riverside Press, 1951.

Rotter, J.B. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80, (1, Whole No. 609).

Ryan, C. Video aids in practicum supervision. Counselor Education and Supervision, 1969, 8, 125-129.

Skinner, B.F. Verbal behavior. New York: Appleton-Century-Crofts, 1957.

Stewart, N.R., & Hinds, W.C. Behavioral objectives to direct simulated experiences in counselor education. Paper presented to American Personnel and Guidance Association. New Orleans, March, 1970.

Stone, G.L. The effect of fidelity of simulation on counselor training. Unpublished doctoral dissertation, Michigan State University, 1972.

Sullivan, H.S. The psychiatric interview. New York: Norton, 1954.

Thayer, L., Peterson, V., Carr, E., & Merz, D. Development of a critical incidents videotape. Journal of Counseling Psychology, 1972, 19, 188-191.

Thoresen, C.E. The systems approach and counselor education: Basic features and implications. Counselor Education and Supervision, 1969, 9, 3-11.

Tinning, F.C. An experimental study investigating the effects of real and simulated clinical training on psychomotor, affective and cognitive variables during real clinical performance of first year osteopathic medical students. Unpublished doctoral dissertation, Michigan State University, 1973.

Truax, C.B. Some implications of behavior therapy and psychotherapy. Journal of Counseling Psychology, 1966, 13, 160-170.

Truax, C.B. An approach to counselor education. Counselor Education and Supervision, 1970, 10, 4-15.

Truax, C.B., & Carkhuff, R.R. Concreteness: A neglected variable in research in psychotherapy. Journal of Clinical Psychology, 1964, 24, 264-267.

Truax, C.B., & Carkhuff, R.R. Toward effective counseling and psychotherapy. Chicago: Aldine, 1967.

Twelker, P.A. Instructional simulation: A research development and dissemination activity. Teaching research, Final report, Oregon State System of Higher Education, Monmouth, Oregon, 1969.

Walen, C.K. Effects of a model and instruction on group verbal behavior. Journal of Counseling and Clinical Psychology, 1969, 33, 509-521.

Walz, G.R., & Roeber, E.C. Supervisors' reactions to a counseling interview. Counselor Education and Supervision, 1962, 2, 2-7.

Ward, G.R., Kagan, N., & Krathwohl, D.R. An attempt to measure and facilitate counselor effectiveness. Counselor Education and Supervision, 1972, 11, 179-182.

Whiteley, J.M. Counselor education. Review of Educational Research, 1969, 39, 173-187.

Winborn, B.B., Hinds, W.C., & Stewart, N.R. Instructional objectives for the professional preparation of counselors. Counselor Education and Supervision, 1971, 10, 133-137.

Wittmer, J., & Lister, J.L. Microcounseling and microcounseling consultation via videotape. Counselor Education and Supervision, 1972, 11, 238-240.

Yenawine, G., & Arbuckle, D.S. Study of the use of videotape as techniques in counselor education. Journal of Counseling Psychology, 1971, 18, 1-6.

Yoakley, R.W. The effects of a traditional program compared with audio and symbolic modeling, feedback, and reinforcement as a means of teaching empathy to counselors for the deaf. Unpublished doctoral dissertation, University of Tennessee, 1971.

APPENDICES

APPENDIX A

SYSTEMATIC COUNSELING:
A GENERAL INTRODUCTION

APPENDIX A

*S Y S T E M A T I C C O U N S E L I N G: A GENERAL INTRODUCTION

Norman R. Stewart
Bob B. Winborn
Richard G. Johnson
Herbert M. Burks, Jr.
James R. Engelkes

Counseling Systems Research Project
Department of Counseling, Personnel Services,
and Educational Psychology
College of Education

Michigan State University

January, 1973

*Permission granted by Herbert M. Burks, Jr. for re-typing for inclusion in this dissertation.

SYSTEMATIC COUNSELING

In 1967 the counselor education faculty at Michigan State University made an evaluation of the master's degree program in counseling. From this study, which revealed a number of weaknesses in the existing program, a new model was developed for counselor preparation. This model was entitled "Systematic Counseling." The purpose of this brief paper is to provide an introduction to this approach. Systematic Counseling will be defined, its scientific bases will be specified, and its distinguishing features will be outlined. Finally, a brief overview of the major steps in the Systematic Counseling process will be presented.

I. Definition

Systematic Counseling is an approach in which the various aspects of the counseling process are clearly identified and organized into a sequence designed to resolve the client's concerns efficiently as well as effectively.

II. Scientific Bases

Systematic Counseling represents a synthesis of three scientific approaches--learning theory, systems analysis, and educational technology. Learning theory and the principles of behavior modification provide the theoretical and experimental base. Systems analysis provides the organizational framework, and educational technology is the source of methods and materials.

III. Distinguishing Features

There are several features of this approach which, when taken in combination, serve to distinguish it from other approaches to counseling:

A. Counselor and client establish a mutually agreed-upon objective for counseling and then work toward the attainment of that objective.

B. The objective is stated in terms of specific observable behaviors.

C. The counselor directs specific learning experiences designed to help the client attain his objective.

D. As suggested in the proposed definition, an attempt has been made to identify the elements of the counseling process and to place them into an optimal

sequence. It should be stressed, however, that while this sequence is considered ideal for most situations, flexibility is provided for situations which deviate from the usual.

E. In this approach, counseling is viewed as a learning process. Through counseling, the client learns new ways of obtaining information, new ways of making decisions, and new ways of responding to his environment. Moreover, he learns how to apply these learnings to other situations beyond those concerning the problem which brought him in for counseling.

F. The counselor uses a wide variety of resources in terms of both techniques and people in helping the client to attain his objective for counseling. Besides such "standard" counseling techniques as listening, reflecting, clarifying, asking questions, summarizing, and furnishing information--nearly all of which are strictly verbal in nature--the counselor uses a number of additional techniques or procedures as well. For example, he may arrange for the client to observe a model of the desired behavior, whether live, audio-taped, or video-taped; he may arrange for a client to visit a place of business; he may set up behavior contracts or use other forms of contingency management; he may use counter-conditioning or role-playing. Most of the latter procedures are not limited to the verbal medium. The counselor also frequently involves significant others in the client's environment (e.g., teachers, parents, and peers) to observe client behavior and dispense reinforcement for appropriate client behaviors.

G. Monitoring and evaluation of both client and counselor performance are built-in aspects of this approach to counseling.

H. Finally, systematic counseling incorporates a self-corrective mechanism by which results from evaluating the counselor's behavior are fed back to the counselor to help him in working with other clients.

IV. Major Steps in Systematic Counseling

Attached is a simplified flowchart of the major aspects of the Systematic Counseling process. A flowchart is merely a graphic, sequential description of the functions and decisions involved in the counseling process. You will note that each element, or function, of counseling is enclosed in a box and is labeled by a verbal statement, or descriptor. The arrows indicate the order in which the various

functions are to be performed, starting at the upper left corner and proceeding in counter-clockwise direction. Let us now look more closely at certain sections of the flowchart:

Function 1.0 -- In Systematic Counseling, as in other approaches, we start with the counselor as the main functionary. Succeeding aspects of the flowchart will show what the counselor does.

Function 2.0 -- The first specific function with which the counselor is concerned is that of processing the client referral. The referral may originate in a number of ways. It may be based on counselor observation; or the case may be called to the counselor's attention by others, such as teachers or other school personnel, by individuals or agencies in the community at large, or by parents or other members of the client's family. Or, the client may be a self-referral. The counselor then analyzes the appropriateness of the referral. If he decides that this is not an appropriate case for him to handle, he will help the client find appropriate assistance from other sources.

Function 3.0 -- If the counselor accepts the referral, he then prepares for the interview. This involves arranging for an appointment and reviewing any available data on the client.

Function 4.0 -- During the first interview, the counselor explains the counseling relationship to the client. This involves explaining briefly the purpose of counseling, the respective responsibilities of counselor and client, the kinds of things focused on in counseling, and the limits under which counseling is conducted.

Function 5.0 -- The counselor then proceeds to construct a model of the client's concerns, i.e., he engages the client in conversation about the difficulty so as to understand the problem in all relevant aspects. He then verifies or checks his picture of the client's concerns with the client himself.

Function 6.0 -- Next, counselor and client decide upon a mutually acceptable goal and specific learning objective for counseling.

Function 7.0 -- The next major phase is to determine and implement a strategy for attaining the client's learning objective. Major strategies include information-seeking, decision-making, and behavior modification. Examples of behavior modification procedures commonly used are modeling, simulation, reinforcement, and extinction. A plan of attack including intermediate objectives and specific steps to be taken by client and counselor is decided upon, and these steps are then carried out.

Function 8.0 -- In this phase, client performance is evaluated, both in terms of improvement over the initial, presenting level of problem behavior and in terms of whether the learning objective

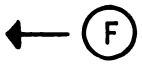
has been attained. If the objective has not been attained, it is then necessary for counselor and client to "recycle" through (repeat) Function 7.0, "Implement Strategy," after which client performance is again evaluated.

Function 9.0 -- After the objective has been attained and there is no apparent need for further counseling, the counselor proceeds to terminate regular contact with the client. He begins by explaining the rationale and procedures for termination and resolves any client or counselor resistance to termination. Next, he conducts transfer of learning, emphasizing how the strategies and skills learned during the counseling process can be applied by the client to future problems. Finally, he establishes a plan for monitoring the client's performance for a reasonable period of time after the termination of counseling.

Function 10.0 -- In this phase the counselor follows up or monitors the client's performance. This procedure usually involves one or more of the following: (a) observing the client's behavior directly; (b) asking the client how he is progressing, usually in brief checkup interviews; (c) requesting information from others in the client's environment who are familiar with his performance; and (d) examining records and other written data concerning the client's behavior. If the client encounters difficulty, provision is made for further counseling.

Function 11.0 -- If the client has demonstrated successful performance during the follow-up period, the counselor proceeds to close the case. As part of this process, he invites the client to return if new problems should develop and then completes his interview notes and other records concerning the case.

Function 12.0 -- The next phase involves an evaluation of the counselor's performance. Here, the counselor may engage in introspection and may also seek the help of others in evaluating his performance, including the client, fellow counselors, teachers, supervisors, and others who are familiar with his work with a particular client.



In the next and concluding step, the information resulting from the evaluation of the counselor's performance is transmitted or "fed back" (as indicated by the symbol "F") to the counselor to help him adapt his methods so as to be more effective and efficient with the next client. This closes the loop and completes the cycle, thus emphasizing the self-corrective nature of the Systematic Counseling process.

APPENDIX B

SCRIPT FOR PROGRAMMED SUPERVISION-IMMEDIATE FEEDBACK

APPENDIX B

SCRIPT FOR PROGRAMMED SUPERVISION - IMMEDIATE FEEDBACK

Introduction

Concreteness

This presentation focuses on a specific counselor skill called concreteness. Concreteness refers to describing the client's concern in specific and measurable terminology. The concept of concreteness has been emphasized in the work of Carkhuff and Truax, who listed the following skills as essential to counselors: empathy, positive regard, genuineness, and concreteness. One can visualize concreteness in counseling as ranging from a high abstract level to a low concrete level. A possible comparison to illustrate this point would be a step ladder. Statements high on the ladder would be generally abstract and on a very intellectual level. As one goes down the ladder, responses become very specific and measurable. A behavioral objective written in measurable terms would be an excellent example of a concrete statement.

Concreteness is useful in counseling and serves three basic functions as identified by Truax and Carkhuff.

1. The use of concreteness ensures that the counselor's responses do not become too general or abstract but instead remain focused on the client's feelings and experiences.

2. The use of concreteness encourages the counselor to be accurate in determining what the client is saying and not to assume any information that hasn't been verified by the client.

3. The use of concreteness also influences the client to be specific in describing his feelings and experiences.

Concreteness is most useful during the early phases of counseling when an attempt is being made to define a specific concern and the various elements of that concern, and again later in therapy when the emphasis is on the development of specific goals and assignments. Here at Michigan State University, the concept of concreteness would be most helpful in "Construct Model of Client Concern," Subsystem 5.0, "Implement Strategy," Subsystem 7.0, and in the phase of counseling "Evaluate Client Performance," Subsystem 8.0.

The counselor exerts a great deal of control over the amount of concreteness in the counseling process. This control is exercised by the counselor through specific leads or responses on his part. A counselor response that elicits a concrete statement from the client is called a counselor tacting response lead or CTRL.

In summary, the following points regarding the concept of concreteness have been covered;

1. Concreteness is a skill desirable in counselors.
2. Concreteness refers to a specific and measurable client response.
3. Counselors can elicit concrete responses from clients through the use of leads or questions which are called CTRL's or counselor tacting response leads.

This session today will be broken into three phases. Phase 1 involves models presenting appropriate and inappropriate CTRL's through the use of slides and audiotape. Phase 2 presents brief client segments with you as a trainee placing yourself in the position of a counselor and choosing an appropriate CTRL from a list of four possible

alternatives. In Phase 3 you are asked to listen to a short client segment and respond in writing with an appropriate CTRL.

We will now start Phase 1 of training, during which time you are asked to observe appropriate and inappropriate CTRL's. Let me demonstrate a part of a counseling interview where a Counselor Tacting Lead was used.

Client (CL): I can't concentrate on my studies.

Counselor (CO): Tell me what you mean when you say you can't concentrate.

CL: When I said I can't concentrate, I mean that when I sit down to study at my desk, I begin to fidget and think about my girl friend rather than study.

In this example, the counselor used a Counselor Tacting Response Lead. In terms of our ladder of abstraction the client's concern was high--the word "concentration" can mean many things. The counselor's lead enabled the client to specify her concern in terms of behaviors--"I fidget"--"I think about my girl friend"--and conditions--"study at my desk."

Let's now turn to an inappropriate example.

CL: I am flunking out of school . . . losing my boyfriend . . . fighting with my parents--a real bummer . . . I am really depressed.

CO: Tell me more about it.

CL: What do you mean? About what?

The counselor's response "Tell me more about it" in the inappropriate example is not to be considered a tacting lead, since it is not at all clear what the counselor is interested in. It did not help the client specify her concern in terms of behaviors or environmental conditions and left her confused.

Let's examine how the counselor could have helped the client be more concrete in this situation by making a tacting response.

CL: I am flunking out of school . . . losing my boyfriend . . . fighting with my parents--a real bummer . . . I am really depressed.

CO: Can you help me understand what it means to be depressed for you?

CL: Oh . . . I can't decide anything. I have trouble sleeping and haven't been able to eat a thing since I moved back home!

In this example, the counselor lead, "Can you help me understand what it means to be depressed for you?", elicited specific information about the feeling of depression. Since the lead forced the client to be concrete, the counselor's statement is considered to be an appropriate CTRL.

Let us look at another appropriate example.

CL: It's because I'm tall. People don't come right out and say it, but I know deep down they really look down on me and look at me as if I were inferior. I really resent that.

CO: Can you describe an instance when you felt someone was looking at you?

The counselor response was an appropriate CTRL since the lead would force the client to describe a specific instance when someone looked at her and how she felt at that time. The client would have to be concrete in her description.

Another appropriate example is as follows:

CL: I've never really had any close friends. It seems that everyone around me has friends but me. No matter how hard I try, I never feel as though I'm accepted.

CO: Can you give me an example when you felt as though you were trying to be friends with someone and felt rejected?

Again, the counselor response was an appropriate CTRL since the client has to describe a specific example that illustrates the behavior he was describing.

A final example will illustrate the use of CTRL's further:

CL: It's this group of friends I have. Well, not really friends exactly, because nobody seems to act like a friend. Everybody says we're not really friends at all. But we all want to be friends. Maybe you can help us.

CO: Can you give me an example about what not really acting like friends is all about? Describe a situation.

The counselor lead which asked that the client describe a situation dealing with the client's friends and their actions once again satisfies the requirements for a CTRL.

The examples just given illustrate the concept of concreteness that is presented in this session. In each example, the client presented a situation that needed additional clarification to be understood fully by both the counselor and the client. The counselor responded with a lead which forced the client to define the problem in very concrete and specific terms.

We are now ready to begin Phase 2 of this training session. During this phase a brief modeled client segment will be presented through the slides and tape. On pages 3 and 4 of your workbook are listed five possible counselor responses to each client segment. During this phase, place yourself in the role of the counselor working with each client. Listen carefully to each segment and circle the appropriate counselor tacting response lead corresponding to that segment. Remember that the emphasis being stressed is on forcing the client to describe his or her concern in specific and concrete terms.

Listen to the following client segment:

CL: I'm scared. I'm always scared. I don't know what it is, but I'm always nervous and I'm that way all day long. I never feel relaxed.

Please choose the appropriate CTRL from the four choices on page 3 under segment 1. You will have 30 seconds. (Time lapse) The correct CTRL for segment 1 is lead number 2 since the lead forces the client to give a specific example when she felt scared. Response number 1 is incorrect as a CTRL since it is just a reflection of what the client previously stated. Using just a reflective statement does not allow us to predict how the client will answer. Response number 3 simply asks the client to continue, but we have no way of knowing what direction the client will take. Response number 4 totally ignores the client's feelings and turns attention to other concerns. Once again, response number 2 was the appropriate CTRL.

Listen to client segment number 2:

CL: I have trouble with my reading comprehension, too. I have to read something three or four times before I pick it up, and I don't feel my study habits are too good. I'm flunking out.

On page 3 of your workbook under segment 2, you will find four possible counselor responses. Choose the appropriate CTRL. You will have 30 seconds. (Time lapse) The correct CTRL for segment 2 is counselor

response number 4. The client you have just heard was expressing difficulty with reading which he felt was causing him to flunk out of school. The segment contained little if any information that described how he reads or what causes him to reread material three or four times before he can understand it. Counselor lead number 4 asks the client to give additional information on these topics and, thus, is considered an appropriate CTRL. Alternative answer number 1 is a reflective statement which may or may not cause the client to talk more, but we have no way of predicting what the client will talk about. If you, as a counselor, simply wanted general information, then response number 1 would be appropriate. Response number 2 will produce no additional information. Response number 3 is concerned with developing a strategy before the problem itself has adequately been defined. Once again, response number 4 was the correct response.

Please listen to the following client segment:

CL: Here I am ready to graduate, and I still don't know what I want to do with my life. I just can't seem to make a decision on what to do after high school. Nothing seems interesting or appealing. I'm really getting worried.

Next to segment 3, you will find four possible counselor responses. Please circle the appropriate CTRL. You will have 30 seconds. (Time lapse)

The correct answer is counselor lead number 1. This response focuses on the client's stated concern of not knowing what to do with her life and asks the client to state additional information related to her vocation. Counselor lead number 2 is scored as incorrect even though it asks for specific information regarding the client's brother and sister. The key here is that the client has not mentioned her brother or sister, nor do they bear a direct relationship to the client's previous statement. Alternative answer 3 is a summary or reflective statement and is inappropriate as a CTRL since it does not ask for any additional specific information. Statement 4 is also an inappropriate CTRL since no prediction can be made about the client's probable response.

Please listen to client segment 4:

CL: It's really getting me down. I'm the kind of guy who'd wind up buying the Brooklyn Bridge. I just can't seem to say "no" to people. My life is run by everybody but me. There are so many instances. It upsets me--even frightens me at times.

On page 4 of your workbook under segment 4 are listed four possible counselor responses. Please circle the correct CTRL. You will have 30 seconds. (Time lapse)

The correct CTRL for client segment 4 is answer number 4 since the response leads the client to describe a specific example of the concern.

On the basis of the counselor lead we can predict that the client will continue to talk about the same concern only in more detail. Choice 1 is not a CTRL since it merely repeats part of the client's statement and may not lead the client into giving a more detailed description of his concern. Statement 2 doesn't lead to any predictable client response. Statement 3 offers a possible strategy to use in working with the client's concern but is premature at this point since the client's problem hasn't adequately been defined.

Let us try one more client problem during this phase of training. Please listen to the following client segment:

CL: . . . and one time . . . I was walking down the hallway in the school. I got the funniest feeling that I wasn't walking at all but that I was sliding along the floor like a snake . . . like I was really a snake; it was creepy.

On page 4 of your workbook under segment 5 are four possible counselor responses. Please circle the correct CTRL. You will have 30 seconds. (Time lapse)

The correct CTRL for this client segment is response number 3 since the response asks for further information regarding the client's situation that she has just described. With this counselor lead, one can predict that the client will provide more information relating to her concern. Choice 1 represents an attempt to reflect on the client's experience but may not lead to any additional, concrete information. Response number 2 asks for a possible cause of the experience but may be totally unrelated to the client's situation. In this setting today, you have to base your responses on the information provided. Thus, response number 3 is the appropriate CTRL. Response lead number 4 is also an incorrect CTRL, being classified instead as a reflective statement.

This concludes Phase 2 of training. We are now ready to move on to a more difficult phase. During Phase 3, you will be asked to place yourself in the role of a counselor who is working with various clients. Taped client segments will be presented, and you will be asked to respond in writing with an appropriate CTRL. Use pages 5 and 6 of your workbook which are labeled "Phase 3, Counselor Responses for Client Segments."

Please listen to the following client segment:

CL: I just feel depressed. Nothing goes right. It's really affecting my school work. My grades are slipping and I know I'm not doing well. I feel down no matter how hard I try.

Please write an appropriate CTRL for this segment. You will have 45 seconds. (Time lapse)

You should have completed writing your response at this time. Before comparing your response to a model answer, let us go back and review what the client said.

How did the client feel? Please answer orally. (Time lapse) If you said depressed, you were correct; if not, you may be missing important information presented by the client.

What overt sign stated by the client reflected this depression? (Time lapse) Recall, the client stated, "It's really affecting my school work. My grades are slipping . . ." If you identified the feeling and the overt sign of the depression, you have listened well.

We now have the following information: (a) the client is depressed and (b) her grades are slipping. However, at this point we aren't sure what she means when she says, "I feel down no matter how hard I try." Look at your response to the client. Does your response ask the client in some way to clarify or describe this "feeling down"? (Time lapse) A possible model response is found on page 7 of your workbook. Notice that the modeled response is specific in asking for a description of the feeling inside. (Time lapse) Now rate your response on the scale found on page 8 of your workbook. You will notice that the same symbols (-, 0, +) are found on pages 5 and 6 where you have been asked to write your counselor tacting response leads. Please circle the appropriate rating of your response. If you have any questions regarding the appropriateness of your answer, circle the "0" meaning that you are unable to rate the response.

Please listen to client segment number 2:

CL: My father died last month, and since then life has been miserable. My mother has really taken it hard. She cries an awful lot and she's very depressed. I don't know what to do to help her.

Please write an appropriate CTRL on page 5 in the space provided for segment 2. You will have 45 seconds. (Time lapse)

You should have completed writing your response by this time. Let us again go back and analyze what the client said. The client was describing an incident in his life and the various consequences that it has had for him. The client stated that his father had died, his mother cries a lot and feels depressed, and that he feels miserable and is uncertain how to help her. We have now identified four areas of the

client's concern that we may want additional information on. Analyze your response to see if it asks for additional information on any of the following topics:

1. The fact that the client feels his life is miserable.

2. When, where, or how often the client reports that the mother cries.

3. When, where, or how often the mother feels depressed or how the depression manifests itself.

4. What attempts the client makes or thinks about making to help his mother or change the situation.

As shown in this example, a short client statement can need a lot of additional clarification before the concern can be fully understood. One possible counselor lead is found on page 7. Compare your response to this model, but remember that your lead can deal with any of the four areas just described. (Time lapse) Now rate your response using the scale on page 8. (Time lapse)

Let us try another example. Please listen to segment number 3:

CL: I just don't seem to be able to do anything right. No matter how hard I try, it's never good enough. Somebody is always criticizing the way I've done it. Nobody ever tells me I've done something right, and now I feel like I can't do anything right at all.

On page 6 in the space provided for segment 3, please write an appropriate CTRL. You will have 45 seconds. (Time lapse)

Once again, there are a variety of possible concerns you may have identified, but we are concerned here with the way you ask for additional information about the client's concern. The client is saying that she feels she is always being criticized. However, we don't know what the client considers criticism nor when, how often, or under what circumstances the behavior occurs. Look at your response and analyze your answer in terms of what additional information the client would provide because of your lead. Is your lead specific enough so that you could predict in advance the type of information the client would provide? Compare your answer to the model answer on page 7. Notice that the model answer allows us to predict with a high level of probability that the client will describe a specific situation when she has been criticized. (Time lapse) Now rate your response using the scale on page 8. (Time lapse)

At this point in the session you should be getting quite familiar with the concept of counselor tacting response leads. The use of concreteness in counseling is not designed to replace your use of empathy. Rather, both empathy and concreteness have their place in counseling

when used appropriately. In this session, you are practicing the skill of asking the client for additional information so that both you and the client can agree on the same components of the client's concern. An adequate understanding of the problem is one of the major determinants of successful counseling.

Please listen to the following client segment:

CL: I'm really in a spot. Two boys are interested in me, but I like only one of them. Yet, I hate to hurt the other boy. He's really very nice and kind, but I just don't like him the way I do Tom. I don't know what to do about this mess.

Please write an appropriate CTRL in the space provided on page 6. You will have 45 seconds. (Time lapse)

The concern presented by the client is a common problem faced by people of all ages. Yet, no situation is as clear-cut as it may appear. To be certain that the counselor and client are focusing in on the same aspects of the concern, one should have the client describe the concern in greater detail. A possible model response is found on page 7 of your workbook. Compare your response to this model answer and then rate your own response, using the scale on page 8. (Time lapse) Remember, this segment is striving for mastery learning of the counselor skill of concreteness. A second purpose is to build into you as future counselors a self-reinforcing system so that you will reward yourself for making correct responses. One method of self-reinforcement involves self-rating so that you yourself become the judge of what is correct. This allows for a system of internal reinforcement.

Please listen to the final training segment:

CL: Why do I always get into fights? Every day it seems--another fight. I don't really want to fight with the other guys, but somehow I don't seem to be able to stop it. You know how some people say "another day, another dollar." Well, with me it's "another day, another fight."

Please respond with an appropriate written CTRL in the space provided on page 6. You will have 45 seconds. (Time lapse)

This example may have been a little more difficult for you to respond to with an appropriate CTRL. One possible response is found on page 7 of your workbook. Notice that the model response asks for additional clarification about the client's fights. An attempt is made by the counselor to have the client express the concern in specific terms. Rate your response using the scale on page 8. Reinforce yourself for a correct response through a thought such as "You got it right" or "I feel I know how to make appropriate CTRL's." (Time lapse)

Let us review the responses that you have made during Phase 3. Look at each response that you have made on pages 5 and 6. Your responses should show improvement from the first response you made to the one you just completed. (Time lapse) A brief review of what you have learned today will help you clarify everything in your mind. Such a review is found on page 9 of your manual. (1) A CTRL is not a vague lead that leaves the client in doubt about what you, as a counselor, expect of him. (2) A CTRL is more than a reflection or summary statement. Using only a reflective or summary statement does not allow you, as a counselor, to predict what the client will talk about. (3) A CTRL requests specific information from the client. A CTRL allows for prediction as to the content the client will discuss. In summary, a CTRL elicits a specific and measurable response from the client which is stated in terms of behaviors and conditions.

This concludes the training session. I hope you have enjoyed the experience and have learned how to apply the concept of concreteness in your counseling. You may review any materials you have, such as the workbook. When you have completed your review, please report to the supervisor.

APPENDIX C

WORKBOOK FOR INSTRUCTION ON THE COUNSELOR SKILL OF CONCRETENESS

Introduction

Concreteness

This presentation focuses on a specific counselor skill called concreteness. Concreteness refers to describing the client's concern in specific and measurable terminology. The concept of concreteness has been emphasized in the work of Carkhuff and Truax, who listed the following skills as essential to counselors: empathy, positive regard, genuineness, and concreteness. One can visualize concreteness in counseling as ranging from a high abstract level to a low concrete level. A possible comparison to illustrate this point would be a step ladder. Statements high on the ladder would be generally abstract and on a very intellectual level. As one goes down the ladder, responses become very specific and measurable. A behavioral objective written in measurable terms would be an excellent example of a concrete statement.

Concreteness is useful in counseling and serves three basic functions as identified by Truax and Carkhuff.

1. The use of concreteness ensures that the counselor's responses do not become too general or abstract, but instead remain focused on the client's feelings and experiences.

2. The use of concreteness encourages the counselor to be accurate in determining what the client is saying and not to assume any information that hasn't been verified by the client.

3. The use of concreteness also influences the client to be specific in describing his feelings and experiences.

Concreteness is most useful in counseling during the early phases of counseling when an attempt is being made to define a specific concern and the various elements of that concern, and again later in therapy when the emphasis is on the development of specific goals and assignments. Here at Michigan State University, the concept of concreteness would be most helpful in "Construct Model of Client Concern," Subsystem 5.0, "Implement Strategy," Subsystem 7.0, and in the "Evaluate Client Performance," Subsystem 8.0, stage of counseling.

The counselor exerts a great deal of control over the amount of concreteness in the counseling process. This control is exercised by the counselor through specific leads or responses on his part. A counselor response that elicits a concrete statement from the client is called a counselor tacting response lead, or CTRL.

In summary, the following points regarding the concept of concreteness have been covered:

1. Concreteness is a skill desirable in counselors.
2. Concreteness refers to a specific and measurable client response.
3. Counselors can elicit a concrete response from the client through the use of leads or questions which are called CTRL's, or counselor tacting response leads.

Phase 2

Counselor Response Alternatives
for Client Segments

Instructions: During Phase 2 of this session, you are asked to listen to a brief client segment presented by slides and audiotape. Next to each segment number below are listed four possible counselor leads. You, as a trainee, are asked to place yourself in the role of a counselor working with that client and choose the appropriate CTRL or counselor tacting response lead from the four alternatives. Please circle the correct CTRL for each segment.

Phase 2, Segment 1

1. "You never feel relaxed."
2. "Can you narrow that down? Give me an example when you were scared."
3. "Yes, go on."
4. "Do you have any other concerns besides being scared?"

Phase 2, Segment 2

1. "So you feel you are flunking out of school?"
2. "You aren't the only person who has trouble with reading. A lot of people in school need additional reading instruction."
3. "We have a new class starting in two weeks for people with reading difficulty. Would you like to join?"
4. "Could you help me understand what you are thinking about when you begin to read."

Phase 2, Segment 3

1. "What kind of things have you thought about doing after graduation?"

2. "How are your brother and sister doing in school?"

3. "You're telling me that you are uncertain about what to do with your life."

4. "It sounds like you have a lot to worry about."

Phase 2, Segment 4

1. "You have a hard time saying 'no' to people."

2. "Yes, I understand. Go on."

3. "We could train you to be assertive and say 'no' to people."

4. "I am confused. Give me an example."

Phase 2, Segment 5

1. "That's a very unusual experience you have just described."

2. "Were you on some type of drugs?"

3. "To help me understand, can you describe what else is going on around you when you feel this way?"

4. "You said you were feeling like a snake."

Phase 3

Counselor Responses for
Client Segments

Instructions: During Phase 3 of training, you are asked to listen to a brief client segment presented by slides and audiotape. Next to each segment number, respond in writing with an appropriate CTRL, or counselor tacting response lead.

Phase 3, Segment 1 (-, 0, +)

Phase 3, Segment 2 (-, 0, +)

Phase 3, Segment 3 (-, 0, +)

Phase 3, Segment 4 (-, 0, +)

Phase 3, Segment 5 (-, 0, +)

Phase 3

Model Answers

Presented here are "model" answers for Phase 3, client segments 1 through 5. Model answers are provided as a basis for comparison and should not be considered as the only possible answers. Use this page and the self-rating scale on the following page to evaluate your answers made during Phase 3 of training.

Phase 3, Segment 1

"Describe how you feel . . . inside . . . when you're down."

Phase 3, Segment 2

"When do you feel most miserable?"

Phase 3, Segment 3

"Give me a recent example of an incident when someone severely criticized you."

Phase 3, Segment 4

"What do you mean when you say you "hurt" the other boy?"

Phase 3, Segment 5

"Tell me about the most recent fight you have been involved in."

Self-Rating Scale of Concreteness

Instructions: This scale is provided to help you rate your counselor tacting response leads made during Phase 3 of training. Evaluate your responses using the following ratings:

(-) Response is not considered a counselor tacting response lead.

(0) Response may or may not be considered a counselor tacting response lead.

(+) Response is considered to be a counselor tacting response lead.

Description of response		Description of response
-abstract lead		-concrete lead
-asks for general content		-asks for specific content
	- 0 +	
-no definite client response may be predicted	⊢——⊣——⊣	-elicits measurable response from client

Scoring: (-) and (0) are unacceptable CTRL's.
(+) are acceptable CTRL's.

Summary Statements on Concreteness

1. A CTRL is not a vague lead.
   a. "Tell me more about it."
   b. "Go on."
   c. "Give me an example."
2. A CTRL is not only a reflection or summary.
   a. "Sounds like a very unusual experience."
   b. "You seem to be enjoying math class."
   c. "You are saying that you often feel hurt by others."
3. A CTRL is specific in what the counselor requests from the client.
   a. "What do you mean when you say you feel depressed?"
   b. "Give me an example of when you feel hostile."
   c. "What's going on in your head when you stare at boys?"

A CTRL is a counselor statement which elicits a <u>specific</u> and <u>measurable</u> response from the client. The concern is expressed in terms of behaviors and conditions.

APPENDIX D

TRAINING SLIDE SEQUENCE

APPENDIX D

TRAINING SLIDE SEQUENCE

This list is a description of the slides to be used in training and the corresponding slide sequence. The list is given as a reference in case you as a trainee are uncertain which slide should be viewed. Please leave this list in the room when you have finished the session.

slide 1	supervisor
slide 2	supervisor
slide 3	black woman (college age)
slide 4	woman (college age)
slide 5	woman (same as slide 4)
slide 6	older man
slide 7	black man (college age)
slide 8	supervisor
slide 9	older woman
slide 10	man (college age)
slide 11	woman (high school age)
slide 12	older man
slide 13	woman (high school age)
slide 14	supervisor
slide 15	woman (high school age)
slide 16	man (college age)
slide 17	older woman
slide 18	woman (college age)
slide 19	man (high school age)
slide 20	supervisor

APPENDIX E

ASSIGNMENT FORMS FOR TRAINEES AND SUPERVISORS

APPENDIX E

ASSIGNMENT FORMS FOR TRAINEES AND SUPERVISORS

Assignment for Trainees:

Trainee_____

Please report to room_____ at_____

You will receive additional instructions at that time. Please use the following code number for this session. Code Number_____

Assignment for Supervisor:

Supervisor_____

You will be working with trainee_____ in room_____ at_____. The trainee is to receive_____ instruction.

APPENDIX F

SUPERVISOR'S AND RATER'S GUIDELINES

APPENDIX F

SUPERVISOR'S AND RATER'S GUIDELINES

Counselor Tacting Response Leads (CTRL's) Concreteness

Counselor Tacting Response Leads (CTRL's)

Counselor tacting response leads are statements made by the counselor which will evoke a specific concrete client response, i.e., a verbal response which either describes a particular abstract concept in more operational or behavioral terms, or which gives specific examples of whatever the client is trying to communicate. A counselor response would be considered a CTRL if it requests a behavioral description of a particular idea or concept, or if it requests a description of environmental conditions related by the client.

Classes of Client Responses

Four classes of client verbal tacting responses may be delineated:

1. those which offer operational definitions to previous abstract references (e.g., "When I said that I do poorly in school, I meant that I have three C's and two D's in my classes."),

2. those which are physiological and behavioral descriptions of emotional experiences (e.g., "When I said that I get upset, I mean that my face turns red, that my voice gets high pitched, and I start crying."),

3. those which tie generalizations about events to specific stimulus events (e.g., "One time when I felt angry was when my mother forced me to go to school when I felt sick all over."),

4. those which tie generalizations about events to a variety of other specific stimulus conditions (e.g., "I also felt angry when my boyfriend went out with another girl, and the time when the teacher wouldn't accept my report because it was five minutes late.").

Concreteness

Counselor tacting response leads may also be referred to by the term "concreteness." Concreteness involves expressing the concern in specific and measurable terminology. Concreteness is a variable largely under the therapist's control. Truax and Carkhuff (1964) and Carkhuff and Berenson (1967) have identified three basic functions of concreteness:

1. It ensures that the therapist's responses do not become too intellectual and abstract, but remain focused on the client's feelings and experiences.
2. It encourages the therapist to be accurate in his understanding of the client's statements and feelings and to verify or clarify any assumed interpretations.
3. It influences the client to be specific in describing feelings and experiences.

Use in Counseling

Concreteness fits into the counseling process during the early phase of counseling when an attempt is being made to define the concern and again in later parts of therapy when the emphasis is on the development of specific goals and assignments. In the "Systematic Counseling Process" taught at Michigan State University, concreteness would be most applicable in helping to "Construct Model of Client Concerns," (Subsystem 5.0), "Implement Strategy," (Subsystem 7.0), and again in "Evaluate Client Performance," (Subsystem 8.0).

Guidelines for Evaluating Counselor Tacting Response Leads (CTRL's)

1. Ratings are based on the counselor's statements, not those of the clients.
2. A CTRL is a counselor statement that will cause the client to describe an abstract concern in terms of specific measurable behaviors and/or environmental conditions.
3. A CTRL is specific in the information that it requests.
4. A CTRL elicits a description, clarification, example, or elaboration of some previous client statement.
5. A CTRL is not simply a summary of what the client has said nor simply a reflection of the client's feelings, but asks for additional specific information.
6. A CTRL may include aspects of empathy, but also requests a description or example of the feelings discussed.
7. A summary statement followed by a question such as "Is that it?" or "Is that correct?" is not a CTRL.
8. Only one CTRL is to be recorded per counselor response. Even if the counselor asks several questions before the client responds, count this as one CTRL.
9. A CTRL may be a question that asks when, how many, how often, etc.
10. A CTRL may also ask for additional information such as "What does listening to the radio do for your being uptight?" The key is if the counselor statement is asking for specific and measurable responses from the client.

Examples of Appropriate CTRL's

#1

Cl: I just feel depressed. Nothing goes right. It's really affecting my schoolwork. My grades are slipping and I know I'm not doing well. I feel down no matter how hard I try. (F)

Co: Describe what you mean by feeling depressed, feeling down. (M)

#2
Cl: I've never really had any close friends. It seems that everyone around me has friends but me. No matter how hard I try, I never feel as though I'm accepted. (M)

Co: Can you describe an example of how you have tried to make friends but then felt you were rejected? (M)

#3
Cl: I have this problem. It seems that I have no interest in girls, but boys fascinate me. I just love to sit in class and stare at boys. I could do this for hours. (M)

Co: What's going on in your head when you stare at boys? (F)

Examples of Inappropriate CTRL's

#4
Cl: . . . and one time . . . I was walking down the hallway in the school. I got the funniest feeling that I wasn't walking at all but that I was sliding along the floor like a snake . . . like I was really a snake; it was creepy. (F)

Co: Sounds like a very unusual experience. (M)

#5
Cl: I am flunking out of school . . . losing my boyfriend . . . fighting with my roommates . . . losing my grant. I really feel depressed. (F)

Co: Tell me more about it. (F)

#6
Cl: I've been on ADC for two years, and I'm tired of living off other people. I want to find a job, but no one wants to hire a woman with only one hand. (F)

Co: You sure seem to be having a hard time of making it. (F)

Summary

1. A CTRL is not a vague lead,
   a. "Tell me more about it"
   b. "Go on"
   c. "Give me an example"

2. A CTRL is not only a reflection or summary,
   a. "Sounds like a very unusual experience"
   b. "You seem to enjoy math class"
   c. "You are saying that you often feel hurt by others"

3. A CTRL is specific in what the counselor requests from the client,
   a. "What do you mean when you say you feel depressed?"
   b. "Give me an example of when you feel hostile."
   c. "What's going on in your head when you stare at boys?"

A CTRL is a counselor statement which elicits a specific and measurable response from the client. The concern is expressed in terms of behaviors and conditions.

APPENDIX G

INSTRUCTIONS FOR SUPERVISORS (TRAINING)

APPENDIX G

INSTRUCTIONS FOR SUPERVISORS (TRAINING)

This memo is designed to provide additional information on what I am asking you to do on April 9. The specific counselor skill that will be taught is called concreteness. Concreteness is taught through the use of counselor tacting response leads or CTRL's. This simply involves teaching the counselor trainees how to ask specific questions so that one could predict how the client will respond. This is explained in the attached pages.

You, as supervisors, will be working individually with two MA students, teaching them how to use CTRL's. The training will be divided into three phases. Phase 1 involves an introduction to the concept of concreteness, with appropriate and inappropriate examples. This phase has been prerecorded and requires no input on your part. Total time of Phase 1 is about eight minutes. Phase 2 involves the presentation on audiotape of short client segments (such as on the posttest), where the trainees are asked to choose an appropriate CTRL from a list of four possible choices. During this phase you will be asked to provide feedback on which answer is correct and why it is correct. Phase 3 involves the trainees listening to short client segments and responding in writing with a CTRL they devise themselves. During this phase, you will be asked to evaluate the appropriateness of their answers, give additional instructions on the skill of concreteness, and possibly role play, devise additional practice examples, or

provide some additional training as requested. The total time spent with each trainee will be 45 minutes, which will be enforced.

Each supervisor will work with two trainees during each class period on an individual basis. Both trainees will receive identical Phase 1 training. Trainees will receive different training during Phases 2 and 3. One trainee will receive immediate instruction following each response he or she makes. Thus, the trainee will receive feedback at 10 places during the session. The second trainee will receive instruction only after the Phase 2 segment is completed and again after the Phase 3 segment is completed. The second trainee will receive instruction at only two places during the session, but each period of instruction will last a longer period of time.

My committee required a minimum level of expertise on the part of the supervisors I use. The level established is 80% correct CTRL's on the post test. The test involves 25 items. Please take the test after reading the attached material and return the completed test to me as soon as possible.

Specific times and trainees will be assigned to you by Friday. A general time frame is 8:30 to 10:15 and 4:30 to 6:15 on Tuesday, April 9. Thank you for your help. You may not realize how much your help is appreciated until you're doing your own experiment.

APPENDIX H

INSTRUCTIONS FOR PRACTICUM SUPERVISORS

APPENDIX H

INSTRUCTIONS FOR PRACTICUM SUPERVISORS

During spring term, 1974, the members of the MA counselor training program will be involved in a research project. The project calls for a follow-up measure involving a taped interview from the subject's practicum setting. From the tapes a five-minute segment will be taken and rated for a specific counselor skill. The following requirements must be met:

1. tape is clear and easily understood,
2. tape was recorded after April 9,
3. tape includes at least a five-minute segment dealing with Subsystem 5.0, "Construct Model of Client Concern."

One tape will be needed from each student. Please place the tapes inside my desk drawer (4EE). I promise (I hope) one-day service. That is, any tape delivered to my desk by 4:00 will be returned the following morning. Please indicate on the tape the beginning and ending of the segment involving discussing the client's concern.

Thank you much for your help.

APPENDIX I

WRITTEN TEST FRAMES
SHORT-TERM FORM

APPENDIX I

WRITTEN TEST FRAMES
SHORT-TERM FORM

Code_____

Instructions

The following pages contain a series of client statements made by high school, college, and adult age clients. Each client statement has been taken from actual counseling sessions. Each statement was considered to be a critical incident or turning point in the direction of movement in the counseling process.

You are asked to place yourself in the role of the counselor who is working with each client. Clients are being seen individually. A relationship has been established by you and you are discussing the various components of the client's concern. After reading carefully each client's statement, respond in written form as if you were with him/her as a counselor in an actual counseling session.

The results of this exercise will in no way affect your grade for this class. Your written responses will be coded to insure anonymity and confidentiality.

Test Frames

1. Client (CL): This is frustrating. I know that counseling could help me, but it makes me feel worse--not better. It's very discouraging and I don't like that. It just makes me feel worse!

   Counselor (CO):

2. CL: This has been a trouble all my life. Even when I was little. Now, when I have to give a presentation, or something, all these feelings from all my life build up inside of me.

   CO:

3. CL: I'm nervous, I guess. I'm not sure if it is nervousness, really. Some kind of feeling like that, I guess. It's hard to explain.

   CO:

4. CL: I've never, well, with rare exceptions, ever really had close friends. I don't seem to fit in too good. I've got a pretty bad feeling. Could count my friends on one hand. Something happens, I guess, between me and other people.

   CO:

5. CL: I have put applications in all the places I have known of that work very much, never at Motorola but . . . they have to take a physical there and I fear that. But G.E. will be hiring shortly and maybe they'll pick me up.

   CO:

6. CL: I can't seem to sleep at night. I'll be awake in bed and toss and turn, but I just can't fall asleep. I'm awake for hours, and then I am just dead tired in school. It's affecting my school work and my relations with my friends, too.

   CO:

7. CL: Oh, well, I'm not a stupid person. I mean I've got a certain amount of intelligence. And, uh, I find it fairly easy to get along with people; although I'm terribly shy, and it's hard for me to . . . to . . . to force myself . . . I have to really force myself to do some things, especially by myself. I usually have to have somebody with me to hold my hand, so to speak.

CO:

8. CL: I'm always getting into trouble with the teachers. They never seem to appreciate me or anything like that. They're always so bossy and order you around and everything. They never show any respect or anything like that. All they do is order you around; screw 'em! I think I'll quit school.

CO:

9. CL: People! People really disgust me. They're so good. I mean the way they carry on so, and the way they treat you all the time. People are mean and cruel. It's a rotten world with rotten people. I'm sick of the whole thing.

CO:

10. CL: Here I am, a leader in the school. People like me. I think, and respect me; but yet, I don't have any confidence in myself. I just don't think I am capable of anything.

CO:

11. CL: Whatever I do I can justify it to myself. It doesn't make any difference what it is--no matter how wrong or evil. I can make myself feel better about doing it.

CO:

12. CL: There are these funny feelings sometimes when I think something is going to happen. It's occurring more and more. Nothing happens, but I can't seem to shake this feeling. Sometimes it really builds up inside of me.

CO:

13. CL: When I'm in this particular class, I get all wound up and want to scream or run out of there.

CO:

14. CL: I can't decide whether to stay in school or not. I know, everyone says you gotta get an education. You gotta get a diploma. But school just doesn't interest me. I'd rather get a job in the auto shop working on cars. That's what I'm really interested in. Not sitting all day in a classroom.

CO:

15. CL: No matter how small a thing it is I do wrong, it bothers me for days afterwards. Guilt, I guess you'd call it. But it's getting out of hand. I have to do something about it. Could you help me? I realize I shouldn't be doing some things, but even when I don't, it still gets to me and I can't do my work with this stuff on my mind.

CO:

16. CL: Just a born loser, I guess. All my life nothing has worked out. Like having the opposite of a Midas' touch. Everything turns sour. I don't know what I'm going to do. I get very frightened at all this.

CO:

17. CL: It's forgetting. Everything. Well, not everything exactly. Just things I'd want to forget, yet have to remember at the same time. Know what I mean? It's hard to explain . . . well, you know . . . don't you?

CO:

18. CL: There's nothing wrong with me at all. The principal sent me in to talk to you so that you "can straighten me out" as he put it. I guess he thinks I need to be straightened out, but there's nothing wrong with me at all.

CO:

19. CL: It's my family. We just don't seem to get along well. We constantly fight and bicker with each other. It's getting so bad that I really dread coming home after school. No matter how hard I try, I just can't seem to avoid these arguments.

CO:

20. CL: I was talking about forcing myself on somebody. If somebody does let me know that I am forcing myself on them, that would hurt me--and did hurt me. I fear feelings of being rejected by others. This social rejection, and such.

CO:

21. CL: It's this friend of mine. He's worrying quite a bit lately. It seems everything worries him no matter how small a matter it is. Could you tell me why he's worrying so much and how can I help him?

CO:

22. CL: I've been feeling terrible, . . . Blahh. It's hard to explain. It's like nothingness. Do you know what I mean?

CO:

23. CL: It just seems that nobody cares about me. Nobody seems to want me. Nobody is interested in me. I'm really not very pretty (handsome); I know that, but I just wish somebody would show me that they care about me.

CO:

24. CL: Elevators. I never go on them. I haven't ridden on one in years. Always walk. But that's the problem! Sometimes I lose out on a lot by walking. We went to Chicago a couple of weeks ago. Everybody went to the restaurant on the top floor. I didn't. This thing about elevators is really buggin' me more and more.

CO:

25. CL: Boy, I freeze up on tests. Just can't take them, and with the ACT's coming up, I'm concerned. Thought maybe you could help me.

CO:

APPENDIX J

PERSONAL REACTION SCALES

APPENDIX J

PERSONAL REACTION SCALES Code_____

Instructions: The following questions are designed to measure your personal reactions toward the training experience dealing with the counselor skill of concreteness. For this section there are no right or wrong answers, but please answer each question. A single statement is given which is followed by a series of antonyms (words have opposite meanings) arranged on opposite ends of a 7-point scale. Each pair of words is a separate question. Circle the number (1-7) that indicates your feelings toward the statement.

Scoring: A 4 indicates a neutral feeling about the concept. A response closer to either end (1 or 7) indicates a stronger agreement with the concept on that end of the continuum. For example, if you were asked to respond to the following statement:

I feel the instructional experience was:

useful 1 2 3 4 5 6 7 useless,

a rating of 4 would indicate a neutral reaction toward the experience, while a rating of 1 would mean you felt the experience was very useful, and a rating of 7 would mean you felt the experience was useless.

Statement: I feel the instructional experience that I have participated in was:

useful	1	2	3	4	5	6	7	useless
meaningless	1	2	3	4	5	6	7	meaningful
important	1	2	3	4	5	6	7	unimportant

artificial	1	2	3	4	5	6	7	realistic
successful	1	2	3	4	5	6	7	unsuccessful

Statement: I feel my knowledge of the concept of concreteness is:

adequate	1	2	3	4	5	6	7	inadequate
useful	1	2	3	4	5	6	7	useless
non-applicable	1	2	3	4	5	6	7	applicable
unimportant	1	2	3	4	5	6	7	important

Statement: I feel the method of presentation for teaching the skill of concreteness was:

boring	1	2	3	4	5	6	7	interesting
personal	1	2	3	4	5	6	7	impersonal
negative	1	2	3	4	5	6	7	positive
humanistic	1	2	3	4	5	6	7	mechanistic

Statement: I feel the test on concreteness was:

challenging	1	2	3	4	5	6	7	easy
short	1	2	3	4	5	6	7	long
realistic	1	2	3	4	5	6	7	unrealistic
boring	1	2	3	4	5	6	7	interesting

Statement: My feelings toward myself as a counselor as a result of the training experience on concreteness are that I am more:

qualified	1	2	3	4	5	6	7	unqualified
nervous	1	2	3	4	5	6	7	relaxed
prepared	1	2	3	4	5	6	7	unprepared
encouraged	1	2	3	4	5	6	7	discouraged

On the back please include any comments about the training experience that you have had. Also include any suggestions on how the training experience could be improved.

APPENDIX K

RATING FORM FOR AUDIOTAPED COUNSELING SEGMENTS

APPENDIX K

RATING FORM FOR AUDIOTAPED COUNSELING SEGMENTS

Subject's code_____ Rater's code_____

Instructions for raters:

Each tape contains a series of five-minute taped segments of counseling interviews. Each segment is preceded by a number from 1-60. Record the number for each segment as the subject's code. Listen and rate each segment following this procedure:

1. Listen and rate for one minute.
2. Stop the recorder and record the number of concrete responses made during the one-minute interval.
3. Repeat the process until the entire segment is rated.
4. If the taped segment does not equal five minutes, place an X through the boxes not used.

During the rating period, place a vertical line (1) in the appropriate box for each concrete response lead made by the counselor. Remember, you are only rating counselor response leads.

Example

Time in minutes

	1	2	3	4	5	
Make a vertical line (1) for each CTRL made	11	1111	1	111	1	Total CTRL(s)
Total CTRL(s) for each time period	2	4	1	3	1	11

APPENDIX L

RATING FORM FOR WRITTEN CTRL'S

APPENDIX L

RATING FORM FOR WRITTEN CTRL'S

Rater Code_____ Trainee Code_____

Using the guidelines for ratings of CTRL's, please read each client trainee statement and place a check (✓) in the appropriate box corresponding to the rating of that statement.

Statement	Appropriate CTRL'S	Inappropriate CTRL'S	Statement	Appropriate CTRL'S	Inappropriate CTRL'S
1			21		
2			22		
3			23		
4			24		
5			25		
6			Total	_____	_____
7					
8					
9					
10					
11					
12			Final Rating--Total Appropriate		
13			CTRL's _____		
14					
15					
16					
17					
18					
19					
20					

APPENDIX M

CORRELATIONS AMONG FOUR COVARIATES AND THREE DEPENDENT VARIABLES

APPENDIX M

CORRELATIONS AMONG FOUR COVARIATES AND THREE DEPENDENT VARIABLES

Table M-1

Correlations Among Four Covariates and Three Dependent Variables Based on Four Treatment Groups

Variables Compared	r*
Conventional scale and Social scale	.69
Realistic scale and transfer-of-training measure	.65
Conventional scale and long-term cognitive test	-.58
Short-term cognitive test and long-term cognitive test	.53
Social scale and audiotaped CTRL pretest	-.41
Social scale and long-term cognitive test	-.34
Conventional scale and short-term cognitive test	-.33
Social scale and short-term cognitive test	-.32

*Only correlations having an absolute value of .30 or larger are reported.

Table M-2

Correlations Among Four Covariates and Three Dependent Variables Based on Treatment X Control

Variables Compared	r*
Realistic scale and transfer-of-training measure	.57
Short-term cognitive test and long-term cognitive test	.55
Conventional scale and Social scale	.46
Conventional scale and long-term cognitive test	-.42
Social scale and long-term cognitive test	-.41
Social scale and audiotaped CTRL pretest	-.35
Social scale and short-term cognitive test	-.34

*Only correlations having an absolute value of .30 or larger are reported.

Table M-3

Correlations Among Four Covariates and Three Dependent Variables
Based on Treatment (Taken Individually) X Control

Variables Compared	r*
Social scale and Conventional scale	.64
Realistic scale and transfer-of-training measure	.58
Conventional scale and long-term cognitive test	-.57
Short-term cognitive test and long-term cognitive test	.53
Social scale and audiotaped CTRL pretest	-.39
Social scale and long-term cognitive test	-.33
Conventional scale and short-term cognitive test	-.32
Social scale and short-term cognitive test	-.31

*Only correlations having an absolute value of .30 or larger are reported.

Typed and Printed in the U.S.A.
Professional Thesis Preparation
Cliff and Paula Haughey
144 Maplewood Drive
East Lansing, Michigan 48823
Telephone (517) 337-1527