INCREASING EMPATHIC CAPABILITIES OF EDUCATIONAL CHANGE AGENTS: EVALUATION OF THE EFFECT OF A THREE-PHASE INSTRUCTIONAL STRATEGY

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THESIS

This is to certify that the

thesis entitled

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Arthur L. Savage, Jr.

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ABSTRACT

INCREASING EMPATHIC CAPABILITIES OF EDUCATIONAL CHANGE AGENTS: EVALUATION OF THE EFFECT OF A THREE-PHASE INSTRUCTIONAL STRATEGY

By

Arthur L. Savage, Jr.

The present research was an attempt to adapt an existing instructional strategy to the training of instructional developers relative to the improvement of their interpersonal communication skills with emphasis on their empathic capabilities. The adaptation was evaluated as to its effectiveness in increasing the affective sensitivity and co-orientational accuracy of the subjects.

The experimental treatment was administered in three phases: (1) a filmed lecture-demonstration dealing with the ability of the subjects as interviewers with emphasis on the identification of interviewer responses as exploratory or non-exploratory, listening or non-listening, honest labeling or distorting, and cognitive or affective. The lecture was followed by a practice session in response discrimination with feedback. (2) Videotape Recall of Affect Simulation (VRAS) during which the subjects viewed and responded to six stimulus films illustrative of various kinds of remarks or

comments typical of communication between the instructional developer and his client. The subjects were videotaped during the viewing of and responding to the vignettes; later they were assisted by a trained recall worker to analyze and understand their cognitive and affective reactions to the films while viewing a playback of the videotape. (3) Interpersonal Process Recall (IPR) in which one subject in the role of an instructional developer conducted a simulated interview with another subject in the role of an instructor-client. This activity was also videotaped and the same recall process described in Phase II (above) was conducted. In the recall process, the recall worker encourages the subject to stop the playback frequently and comment upon any thought or emotional feeling which the subject experienced during the original activity. Though the recall worker urges the subject to critique his own behavior, at no time does he offer evaluative comments on the subject's responses.

The subjects (N = 13) were doctoral candidates in Instructional Development and Technology in the Department of Secondary Education and Curriculum at Michigan State University. They were also Fellows in two special media institutes funded by the United States Office of Education. The subjects were not randomly drawn from a defined population, but were selected for the study upon the basis of the Fellowships held in the two institutes. The research was begun in the

Winter Term and concluded in the Spring Term of the 1972-73 academic year.

The subjects were given two pre-tests and two-post-tests with the experimental treatment as an intervening variable. The pre-tests were measures of affective sensitivity and co-orientational accuracy. The findings permitted the rejection of the null hypothesis relative to affective sensitivity, but would not permit the rejection of the hypothesis relative to co-orientational accuracy beyond the .05 level of confidence. It was inferred that the experimental treatment increased the subjects' ability to assess the affective state of another. It was not determined whether the failure to reject the null hypothesis relative to co-orientational accuracy was due to inadequacies in the experimental treatment, inadequacies in the measuring instruments, or to limitations inherent in the design of the study.

Two conclusions were made from the findings summarized above.

1. The subjects' ability to accurately assess the affective state of another did increase from pre-test to post-test. The precise cause of the increase is not known.

2. The subjects' ability to predict the opinions and belief system of another (co-orientational accuracy) did not increase from pre-test to post-test.

INCREASING EMPATHIC CAPABILITIES OF EDUCATIONAL CHANGE AGENTS: EVALUATION OF THE EFFECT OF A THREE-PHASE INSTRUCTIONAL STRATEGY

By

Arthur L. Savage, Jr.

A DISSERTATION

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DEDICATION

MOTHER AND DAD

Most of my early formative years were spent during the Depression of the 1930s. Many in our small Mississippi town lost much in the way of material possessions. This proved to be rigorous support for their contention that education, once attained, was something that could never be lost. Though she did not live to see this symbol of ultimate attainment, I strongly feel that she knows that one of her greatest ambitions for me has been realized.

and

BONNIE

Climbing with another may be prompted by a will to reach peaks that a person cannot reach alone.

--Walter Kaufmann

ACKNOWLEDGEMENTS

So many participated in this study and made such selfless contributions, that the researcher has taken great care to see that no one who made a contribution to its achievement is omitted.

First, the Guidance Committee:

...Dr. Erling S. Jorgensen, the major professor, whose sage counsel and advice and ready wit made the project not only a scholarly work ... but a pleasure to do;

...Dr. Kent L. Gustafson whose dissertation served as a model for this one and who provided the original idea; who as teacher and friend helped shape much of my academic career;

...Dr. Ronald G. Rex who before this project was undertaken had become a close friend, and who I hope will remain such long after it has been put away;

...Dr. Norman Kagan who initially developed the experimental treatments herein utilized, and whose scholarly background in interpersonal relations provided a major source of knowledge and in-put for this study;

...and Dr. Thomas F. Baldwin, the cognate advisor, who has served as a model for me from the outset of my academic career, and who epitomizes for me scholarly inquirer,

dedicated researcher, outstanding teacher, and dear friend; ... to these gentlemen belong the major credit for whatever appears herein. The researcher was merely a medium through which they all expressed themselves.

Deep appreciation goes to the faculty members who served as actors for the stimulus films. Mr. Barry D. Bratton, Dr. Sarah Boling, Dr. Nicholas J. Fiel, Dr. Ronald G. Rex, Mr. Richard E. Snoke, Jr., and Dr. Robert C. Ward endured incredible problems and complications ... and turned in most professional performances. With reference to the making of the films, most sincere thanks goes, also, to Mr. James R. Respress, without whose expert technical knowledge of both film and electronic recording technique, the films would not have been possible.

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The subjects in the study probably endured as many hardships and inconveniences as any involved in the project. In spite of heavy demands on their time by classes, projects,

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The recall workers volunteered their time and considerable talents, and the researcher is deeply grateful to Dr. Michael J. Doyle, M.D., Mr. John Casbergue, Mr. Sam Ramtu, and Mr. Harold J. Spooner.

All those noted above played essential roles in the study itself, but there were those who made major contributions to the study without being directly involved in it. Specific reference is made to Dr. Paul W. F. Witt for whom the researcher worked as graduate administrative assistant during the course of the research, and who always saw to it that duties and responsibilities never interferred with the research; to Virginia B. Foster who has pulled more than one doctoral candidate through his program with ready words of encouragement and genuine concern; and especially to the late Professor Leo A. Martin who served as friend, teacher, and sagacious advisor for more than a quarter of a century,

and without whose assistance and support this project would never have become a reality.

Finally, to Katie and the late George Smith who gave me she who means more to me than life itself ... and who probably paid more dearly than anyone for the attainment of this goal.

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CHAPTER I

INTRODUCTION AND THEORY OF STUDY

Introduction

The research reported in this report was conducted at Michigan State University during the winter and spring quarters of the 1972-73 academic year. The primary purpose of the study was to develop an instructional strategy that would increase the interpersonal communication skills of doctoral candidates in Instructional Development and Technology within the Department of Secondary Education and Curriculum in the College of Education. An additional purpose of the study was to evaluate the proposed instructional strategy as to its capability to assist the subjects to enter into a more empathic, or accurate, relationship with another.

The experimental experiences included a filmed lecture and demonstration dealing with the identification and classification of various types of responses characteristic of interpersonal communication between two individuals. In a second experience, the subjects viewed and reacted to specially designed and produced stimulus films which simulated specific affects on the part of faculty members. During the

viewing sessions, the subject was videotaped to assist him in later recalling his feelings and emotions while viewing and responding to the films. A third experience involved the simulation of a two-person interview during which the subject attempted to identify and react to the cognitive and affective dimensions of the comments of the interviewee. This process was also videotaped to assist the subject in appraising his reactions to the interviewee during subsequent playback of the videotape in the presence of a recall worker.

If the experimental strategies employed in this study enable practitioners of instructional development and technology to enter into more empathic relationships with their clients and to establish more open and facilitative channels of communication, the instructional developer's mission to assist in the solution of instructional problems and to provide alternative modalities of instruction will be considerably enhanced.

Importance of the Study

Students who enroll in the study of Instructional Development and Technology at Michigan State University come to the academic program from varied backgrounds of educational and professional experience. Some come directly from master's degree programs in education or other disciplines with no practical experience as classroom teachers; some come as former classroom teachers or administrators in

elementary and secondary school systems; and some have been librarians or audio-visual co-ordinators. Their previous experiences as students or educators are investigated and documented prior to their acceptance into the doctoral program. Proposed programs of study have as a referencial base the candidate's cognitive and psychomotor skills derived from previous educational and/or practical experiences. Upon these bases, the candidates' academic programs are designed and formulated to bridge the perceived gaps between entry behavior and competencies and desired terminal behavior and competencies. The constituent experiences of each student's academic program are intended to expand cognitive skills and competencies, and, to somewhat a lesser degree, psychomotor skills and competencies. There are, however, no provisions made in the academic programs, as they are presently constituted, to deal with the students' deficiencies in empathic capabilities, especially as such deficiencies are related to interpersonal communication skills. By and large, the student leaves the academic program with essentially the same interpersonal communication skills, or lack of skills, that he brought to the program. He receives no instructional experiences which are specifically designed to assist him to function successfully as a change agent within an educational system, which is what many perceive a large portion of his role to be.

Thiagarajan (1973) indicates that the need for highly-developed interpersonal communication skills by instructional developers is critical in forming productive relationships with those who come to him for assistance. Further, he indicates that lack of training in interpersonal communication skills is common. With specific reference to his cooperative endeavors with subject matter experts, he says:

> Ever since my early days in the programmed instruction business, I have been trained to function as an instructional developer (ID) along with a subject matter expert (SME). The advantages of such team work have been repeatedly pointed out to me. But nobody warned me about the problems of working with all those insecure and paranoid teammates. None of the programming courses, workshops, or other textbooks seem to have as an objective the improvement of interpersonal communication skills so vital for an SME and an ID to work together (p. 1).

It is not intended that the previous citation reflect the divers negative psychic conditions of subject matter experts, but rather to point up the critical need for highly-developed interpersonal communication skills by instructional developers.

Further support for this position is contributed by Davies (1973). He notes that the field of instructional development is a design form which involves systematic intervention into an on-going operational system, and comments as follows regarding the importance of an open and facilitative relationship between the instructional developer and his client organization:

> Instructional developers and evaluators, therefore, need to develop a special relationship with their client organization--whether it be a complete school, college within that school, division, department or small team of instructors responsible for teaching a specific course. This relationship, if it is overlooked or undervalued, can threaten, undermine, and even nullify the very accomplishment of the task itself. Creating and nurturing healthy, helpful and enriching relationships between developers/evaluators and their clients does take a great deal of time and effort, but the investment yields a very high return indeed in the form of goodwill, cooperation and general feelings of satisfaction (p. 1).

The successess of alumni of the Instructional Development and Technology emphasis at Michigan State University bear strong witness to the general excellence of the academic program as it has been constituted for the past several years. These persons, as students, did not have the benefit of training in interpersonal communication. One wonders what might have been accomplished in the intervening years had such experiences been available to them as students as they passed through the program.

The experimental training techniques utilized in this study have had a measure of success in training personnel counselors, psychologists, and physicians in establishing facilitative rapport with their clients. If these techniques can be adapted to the setting of professional educators, and instructional developers in particular, then the current academic program in Instructional Development and Technology can be improved by academic experiences that will train instructional developers to function in their perceived roles.

That is the main potential of this particular piece of research. The techniques which were utilized are simple enough to be adaptable to any academic program which has as its purpose the training of instructional developers.

Definitions

A number of terms used in the subsequent discussion require specific definition. Such terms as "empathy" and "affect" are more commonly found in the literature of psychological inquiry; terms such as "change agent" are more applicable to the literature in the field of communication theory. Inasmuch as these terms may not be commonly employed in the standard vocabulary of the educator, it is deemed advisable to establish a common referent.

Affect

The feeling, emotions, or mental state of an individual, especially during interpersonal communication.

Affective Sensitivity

The quantifiable ability of one individual to assess and personally identify with the mental state of another. The term is usually synonymous with other such terms as "empathy," "co-orientation," "co-orientational accuracy," and "'real' accuracy."

Recall Worker

Kagan's term for a specially trained individual to aid subjects in recalling feelings and emotions during videotape playback of simulations.

Simulation

Use of film and projector to create situations of predetermined and demonstrated affect to subjects; also refers to the assumption of specified roles in dyadic communications.

Simulator

Small room containing two chairs, film projector, film, screen and partially concealed television camera, monitor, videotape recorder, and microphone.

Accuracy

Term employed by Wackman referring to a comparison of individual A's prediction of individual B's rating of any given Object (O). Represented: ApBrO.

Agreement

Term employed by Wackman referring to the comparison of individual A's rating of any given Object (O), and individual B's rating of the same object. Represented as ArO and BrO respectively.

Congruence

Term employed by Wackman referring to the comparison of individual A's prediction of individual B's rating of any given Object (O), represented ApBrO, and A's own rating of the Object (O).

Theory Underlying the Study

In order to establish an adequate theoretical base for the study, it is necessary to identify and more closely examine those elements involved in interpersonal communication. The theoretical position is that an instructional developer functions, in part, as a change agent, and that his ability to bring about change, including the adoption of innovation, is a direct function of his ability to enter into a facilitative relationship with his client. This may be an individual instructor or the collective members of an instructional organization, viz, an academic department or college. The balance of this section is devoted to a discussion of the role of the instructional developer and the dimensions of his relationship with his clients.

Elements of Interpersonal Communication

Even the most intuitive kind of observation would indicate that there are many elements involved in successful interpersonal communication. One of the most obvious is a

commonality of language. Unless dyads in interpersonal relations speak the same language, the likelihood of them establishing an effective relationship through interpersonal communication is remote. The same kind of observation might reasonably be made with regard to writing skills. The more effective communication will result if the initiator of a communication in written form is capable of putting his notions on paper in a lucid and cogent style.

Commonality of language and fluency of writing are perhaps the more basic elements involved in effective interpersonal communications. There are, however, other sophisticated elements about which one should be concerned. The concepts extroversion and affiliation were determined by Lorr and McNair (1965) to be main dimensions of interpersonal interaction. Titus and Hollander (1959) studied the dominance-submission relationship in dyads and found that complementarity between these two factors enhanced communication.

Argyle (1969) writes extensively of what he refers to as "social competence." It is his contention that it is comprised of cognitive skills which people can be trained to perform or to utilize in interpersonal transactions. He states, for example, that social anxiety is incapacitating, and that techniques have been devised to modify it. Training is available, also, to heighten awareness of both verbal and non-verbal elements of interaction. He further indicates that

the "poised and self-confident performer" should be able to present himself clearly to others without concealment, exaggeration, or embarrassment; that in so doing, his interpersonal relationships will be of a very positive nature.

Change Agent-Client Relationship

It has been previously noted that Davies suggests that the instructional developer systematically intervenes in an on-going operational system. He states that the purpose of such intervention is to increase the effectiveness of the instructional system. The inference is clear that his intervention is accompanied by the introduction of change. Miller (1971) and Davis et al. (1972) support the notion that the introduction of innovation into instructional systems is a prime function of the instructional developer. Nord (1973) states: "It means the instructional developer must act both in the capacity of product developer and change agent in a people world." (p. 8ff) (Italics supplied).

In further consideration of the instructional developer as change agent, Rogers and Shoemaker (1971) supply the following definition:

> A change agent is a professional who influences innovation-decisions in a direction deemed desirable by a change agency. In most cases, he seeks to secure the adoption of new ideas.... (p. 227).

It is the present contention that the interpersonal communication between the instructional developer, functioning

in the role of change agent, and his client is dependent on identifiable variables; that the relationship between the instructional developer and his client has a direct bearing on the regard that the client will hold for any proposed innovation or change. Newcomb (1953), in introducing his now widely-noted A-B-X theory of co-orientation, holds that the communication between individuals is not separable from their orientation toward the object of their communication. He said:

> ... communication among human beings performs the essential function of enabling two or more individuals to maintain simultaneous orientation toward one another as communicators and toward objects of communication (p. 393).

Rogers and Shoemaker (1971) also note that the change agent and his innovation are perceived in essentially the same light. It is their belief that unless the change agent is able to effect a facilitative relationship, the elements of which are notable, his chances of securing adoption of his proposed innovation are diminished. Their treatment of this relationship is specifically:

> Once a need for change is created, a change agent must develop rapport with his clients. He may enhance his relationship with his clients by creating an impression of credibility, trustworthiness, and empathy with their needs and problems. Clients must accept the change agent before they accept the innovations he promotes (p. 229).

It is perceived, therefore, that empathy plays a most highly contributory role in the establishment of a facilitative

interpersonal relationship between the change agent and his client. It seems reasonable to assume that change agents can anticipate a greater degree of success in their efforts to effect change if they are capable of establishing an empathic relationship with their clients.

Two other factors play important roles in productive interpersonal communication: homophily and heterophily. Again, Rogers and Shoemaker provide an apt definition: "Homophily is the degree to which pairs of individuals who interact are similar in certain attributes, such as beliefs, values, education, social status, and the like" (p. 240). Heterophily is noted to be an anonymn for homophily. They also provide a comment as to how homophily bears on communication:

> More effective communication occurs when source and receiver are homophilous. When they share common meanings, a mutual subculture language, and are alike in personal and social characteristics, the communication of ideas is likely to have a greater effect in terms of knowledge gain, attitude formation and change, and overt behavior change. When homophily is present in communication, therefore, interaction is likely to be more rewarding to both source and receiver (p. 15).

The implication is plain that homophily-heterophily are naturally-occurring states. One might readily suppose that a state of artificial homophily might be created for the express purpose of facilitating a more productive relationship, but this is not likely to produce a lasting relationship of increasing productivity over the long haul. In fact,

if the artificiality of the relationship is discovered by the client, dysfunctionalism is likely to occur.

The implications for the instructional developer as regards homophily are apparent. If he and his client are in a state of homophily, his expectations of success are enhanced; if the state of the relationship is characterized by heterophily, the instructional developer must exert greater effort in establishing a productive relationship with his client. The fact that homophily-heterophily are uncontrollable variables in interpersonal communication processes makes the empathic capabilities of the change agent that much more critical to the adoption of innovation.

Hypotheses

The preceding discussion generates the following hypotheses for testing. Identical hypotheses, stated in stastically testable form will be found in Chapter III.

H_1: Subject candidates in Instructional Development and Technology receiving the experimental treatment will have a significantly higher mean score on a measure of affective sensitivity from pretest to posttest.

H_2: Subject candidates in Instructional Development and Technology receiving the experimental treatment will have a significantly higher mean score on a measure of co-orientational accuracy from pretest to posttest.

Summary

The foregoing sections outlining the theory underlying the study have attempted to present a framework for the study. Briefly, the researcher has attempted to indicate the importance of interpersonal communication skills in the professional activities of the instructional developer as he functions in the role of change agent within an educational system. Some elements which have contributory capabilities toward successful interpersonal relationships between the instructional developer and his clients have been noted. These were empathy, accuracy, and homophily. The noted absence of training for future instructional developers in the improvement of interpersonal communication skills, and the importance of having these skills developed to a productive, functional level establishes a need for the development of an instructional strategy in this area. The design and testing of such a strategy should be appropriate objects of fruitful research.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

In the previous chapter, it was pointed out that one who functions as an instructional developer is often perceived as an innovator or change agent. As such, the probabilities of his success are directly tied to his ability to establish a facilitative communication relationship with his clients. It was also pointed out that his ability to establish an empathic relationship with those with whom he is professionally involved is a positive ingredient in facilitative communication. At the core of the instructional system herein proposed and tested is a treatment, the purpose of which is to heighten the subject's capabilities of entering into an empathic relationship with another--to increase his affective sensitivity. Affective sensitivity is only one aspect of the more global skill, empathy, which is characterized by Kagan *et al.* (1967) as the "ability to detect and describe the immediate affective state of another, or in terms of communication theory, the ability to receive and decode affective communication" (p. 463). This review of the literature will deal with studies in empathy as they relate to

measurements and scales designed to detect the amount and presence of empathic capability. It will also deal with systems and devices designed to heighten empathic capability.

Scales and Measurements

One of the earlier and more notable attempts to devise a scale to measure empathy was undertaken by Dymond (1949). She set forth her concept of empathy as "the imaginative transposing of oneself into the thinking, feeling, and acting of another, and so structuring the world as he does. (p. 127). A six-item, five-point rating scale was constructed. Different groups were given problem-oriented tasks to solve and were asked, during the problem-solving sessions, to note the structure and function of the group. Person A was asked to rate himself on the scale, to rate person B on the scale, and to indicate how he thought person B would rate him, A, on the scale. She found on test and re-test that empathy could be isolated and measured.

Chapman (1966) used a videotape recording technique to playback scenes of personnel counselors and their clients in which identifiable emotions were displayed. Subjects noted the presence or absence of empathic reaction, and responded to a three-choice multiple item instrument dealing with counselor effectiveness with regard to each emotional display.

It should be noted that most of the work done in the development of empathic scales and training has been

accomplished in the area of personnel counselor training. It was in this area that Campbell (1971) developed and validated a scale to measure affective sensitivity in personnel counselors. The videotape recording technique was again utilized employing actual counselor-client interviews. The subjects in the study were shown the recorded interviews and were asked to respond to multiple choice items consisting of one correct answer and two distractors dealing with the client's feelings about himself and his feelings about the counselor. The conclusion was reached that affective sensitivity is a measurable trait and that it can be developed through training.

It has been noted that the presence of empathy in dyadic communication is a facilitative ingredient, but it is necessary that the empathy offered by one member of the dyad be perceived by the other. This was the subject of a study by Caracena and Vicory (1969) in which they attempted to distinguish between empathy objectively offered and empathy achieved or successfully communicated. Utilizing VTRs of twenty-two counselor-client interviews, subjects were asked to rate the interviews as to empathy offered, considering such factors as verbal patterns in interchanges and verbal dominance. Other subjects rated the same interviews as to subjective behavior. Findings indicated that many factors enter into the perceptive realization of the empathic relationship,

and that the presence of empathy can be explicitly indicated, e.g., decreasing verbosity is associated with the presence of empathy.

As the counselor-client relationship has been the setting for studies of empathic relationships, the physician-patient setting has also been studied. When the patient presents himself at a clinic or a physician's office for treatment, he must be able to communicate to the physician the nature of his malady and other important data which the physician requires to arrive at an accurate diagnosis and subsequent treatment. It is important to note, however, that the burden of establishing a communicative relationship between the physician and the patient is most frequently on the physician rather than on the patient.

The physician-patient communication system was the subject of a study by Hawes (1971) in which interview styles between physician and patient were able to determine criterion behavior, and to establish whether interview styles had influence over the process of interviewing. Four physicians each interviewed four patients to obtain personal medical histories and to make preliminary diagnoses of possible disorders. Results of the interviews were later correlated with personal histories of the patients as they recorded them on self-administered questionnaires. Diagnoses were later correlated with actual clinical findings. The study concluded

that those physicians who conducted the interviews in a facilitative manner, i.e., one in which empathy was exhibited, obtained a significant correlation between both the personal medical history questionnaire completed by the patient and by the clinical findings of physical disorder.

Among communication researchers, predictive tests for empathic capability (co-orientational accuracy) have been the most popular in the literature. In such tests one person is asked to make predictive statements as to another's feelings about himself or a third party or object (see Dymond, 1949, above). Astin (1967) devised a situational test to assess empathy. The subjects estimated the value structure of others on the Allport-Vernon-Lindzey Study of Values. Other subjects responded to recorded statements by others. The two procedures were then compared by trained psychologists for ranking in terms of the amount of empathy represented in the A-V-L Study of Values and the responses to the recorded statements. It was found that the latter ranked higher in the quantity of empathy present.

The importance of empathy as an element in successful communication has been previously noted. One might naturally wonder if there are conditions, situations, or feelings which might inhibit the ability of a member of a dyad to exhibit empathy to the other. Zimmer and Anderson (1968) selected the construct of positive regard as a possible deterent to the

exhibition of empathy, and attempted to investigate a possible connection between them. Specifically, they sought to determine whether positive regard and empathy as constructs are influenced by isolated factors, and to discover whether positive regard and empathy can be described as one construct on a single dimension. A VTR counseling session with a client was rated by one set of judges for positive regard and by another set of judges for empathy-understanding. It was determined that positive regard and empathy are orthogonally-related factors, and that when they are looked at in terms of multiple factors are definable and public rather than undefinable and private. The implication is that where there is an absence of high positive regard, the likelihood of establishing an empathic relationship is diminished.

The multi-dimensional concept of empathy was studied by Greenberg et al. (1969) in an attempt to isolate individual factors, or dimensions, of empathic judgment. Thirty-one professional clinicians viewed eleven counselor-client sessions on VTR. Each rated the client's exhibited feelings on a twenty-six-item bi-polar scale of opposite adjectives which were descriptive of connotative or emotional qualities. Three empathic dimensions emerged from factor analysis: Dependency, Anger-Hostility, and Avoidance; these appeared in over fifty per cent of the ratings.

Several different methodologies for detecting the presence of empathy and for attempting to quantify it have been

produced, as will be noted. One of the more widely noted of these is the Bennet-Lennard Relationship Inventory. It was designed in 1962 as a measure of empathic understanding and unconditionality of regard. The reliability of the scale was established by Walker and Little (1969), through factor analysis. Subjects were divided among and interviewed in a therapeutic setting by sixteen counselors. The subjects then rated the counselors on a seven-point Likert-type instrument of sixty-four items selected from the B-L Inventory. The responses to the items were then intercorrelated using principle-component analysis with unity in the diagonals. Fifteen items were retained and rotated in the Equimax method. It was found that the unconditionality dimension of the B-L Inventory and the regard dimension define separate factors; that empathy and congruence are explained by a single factor, and that this is consistent with correlation data obtained by Bennet-Lennard. Low and non-significant correlation between unconditionality and level of regard supported the theoretical and operational separation of these two variables. High correlation between empathic understanding and congruence was found. The findings tended to support Dymond's (see above) findings of positive relationship between self insight and ability to understand others.

Perhaps the most notable of the empathy scales was devised by Truax in 1961 to be used in the training of personnel

counselors and is known as the Truax Accurate Empathy Scale. Its initial usage was to assist students in counseling to assess their own empathic capabilities in order that they might be able to enter into a more productive relationship with their clients. Truax comments on the importance of empathy in the counselor-client setting:

> Accurate empathy involves more than just the ability of the therapist to sense the client's or patient's "private world" as if it were his own. It also involves his ability to know what the patient means. Accurate empathy involves both the therapist's sensitivity to current feelings and his verbal facility to communicate this understanding in a language attuned to the client's feelings (p. 15).

A scale for the measurement of empathy has recently been developed by Kagan et al. (1971). Their instrument is called the Affective Sensitivity Scale. It provides that the subject watch videotaped sessions between counselor and client. At the conclusion of each exchange of comment between the two, the subject selects from among three choices a statement which most accurately summarizes the client's feelings with regard to himself. He then selects from among three choices a statement which most accurately summarizes the client's feelings with regard to the counselor. It is this instrument which was used in this study. Details of its application will be found in Chapter III

Empathy Training

Those involved in the design of various instructional systems and devices usually hold opinions as to the value of

feedback during or after the instructional sequence is concluded. This topic and its relationship to empathy training was investigated by Reddy (1969). The students involved were engaged in empathy training as a part of a personnel counseling program. The specific purpose of the study was to determine what effects were observable and differentiated when feedback was either immediate or delayed in teaching empathic capability. As a pre-test, the Truax Accurate Empathy Scale was administered. The subjects were divided into two groups. Each group viewed and verbally responded to a simulated psychotherapy training film. One group was given immediate feedback from a trained personnel counselor as to the quality of the response to each vignette. The other group saw the same training film, but no feedback was given until the entire array of vignettes had been viewed. Both groups were again given the Truax Accurate Empathy Scale as a post-test. It was reported that the group which received the immediate feedback showed significant gains over the group receiving delayed feedback.

Two different types of instructional settings for empathy training were reported by Anthony and Wain (1971). Applicants for training as Medical Corpsmen in the United States Army were randomly divided into two groups. The first group received six hours of classroom lecture and training films dealing with empathic understanding. The second group received ten hours of role-playing in which they portrayed

specific roles dealing with emotional problems. Each group received pre- and post-tests on a standardized empathy scale. The group involved in the role-playing exercises scored significantly higher on the post-test than did the classroom group. The researchers concluded from the study that empathy has a cognitive component, and that it is best taught in a setting that actively involves trainees in the process rather than treating them as passive listeners or mere observers.

The effects of various kinds of supervision during empathy training was the subject of a study by Blane (1968). The study was made to determine the effect of positive, negative, or no supervision experiences on measuring empathic understanding on counselor trainees. The subjects received the Carkhuff Empathy Understanding Scale II prior to testing. They were divided into three groups, and each subject interviewed two "clients" (stooges). Each interview was videotaped and played back in the presence of a trained psychologist. During the playback, one group got positive supervision of its interviewing technique, one group got negative supervision, and the third group got no supervision. The pre-tests showed no significant difference between groups; however, the post-test showed that all groups registered gains from pre-test to post-test. The greatest gains were exhibited by the group receiving the positive supervision, and the least gains were exhibited by the group which had received no supervision.

Another situational training setting is reported by Kagan and Schauble (1969) called Affect Simulation. In this treatment, the subject views brief filmed vignettes in which actors display specific affects (emotions). At the conclusion of each film vignette, the subject delivers a verbal response to the comment presented by the actor on the film. Usually six to eight vignettes are presented. The procedings are videotaped by means of a special effects generator so that both the film and the subject's face are presented on a split-screen playback. After all vignettes have been seen and responded to, the tape is replayed to the subject and a recall worker. It is the responsibility of the recall worker to assist the subject in re-creating his own thoughts and emotions as he sees them on the split screen. The subject is encouraged to analyze his reactions as to his own feelings when confronted with the simulated affect. A similar process was utilized in this study, and more detail as to its employment is reported in Chapter III.

Related Studies in Empathy

It has been noted that empathy in dyads enhances the overall communication capabilities, and Shapiro et al. (1969) investigated this phenomenon. The study was undertaken to determine whether psychotherapists who were high in genuiness, empathy, and warmth elicited greater self-exploration from

clients. The tests were conducted outside the therapeutic setting. The subjects were three groups of socially and professionally unrelated individuals. Each group was randomly divided into two sub-groups and clinical therapists interviewed each group. With one sub-group the therapist exhibited a warm genuine interest during the interview, while a detached, mechanistic interest was exhibited with the other sub-group. Each session was videotaped and rated by other therapists during playback for the amount of self-disclosure displayed in each sub-group. It was found that the subjects disclosed themselves more deeply to those to whom they perceived as offering high therapeutic conditions, and that they disclosed themselves differentially in a manner related to the amount of empathy, warmth, and genuineness they perceived in the interviewer. It is possible to conclude that the amount and degree of open communication which exists can be controlled by the amount of empathy each member of a dyad perceives in the other.

Another facet of this area of interpersonal perception was reported in studies by Crow and Hammond (1957). Actually, two studies were undertaken. The first was to investigate the generality of interpersonal perceptiveness when the influence of response sets was controlled. The second study investigated the generality of accuracy of interpersonal perceptions over time. These studies would seem to have a

particular bearing on the relationship between a change agent and his client with regard to the initial contact and the establishment of an on-going relationship. In the first study, the subjects (medical students) were asked to view videotaped interviews of patients and to indicate reticence, vocabulary levels, and personality dimensions. These data were correlated with data received from tests over the same topic areas administered to the patients themselves. Correlations were not significant, indicating that generalizability of interpersonal perceptiveness is not existant.

In the second study, a group of patients received the Minnesota Multiphasic Personality Scale three different times over a six-month period. Medical students involved with clinical treatment of the subjects were asked to estimate the patients' ratings of themselves. The patients' accuracy scores over time were consistent as was the medical students' appraisal of the ratings. Conclusions were that response set is more consistent over time than was differential accuracy, indicating that interpersonal perceptiveness improves as the relationship increases in tenure.

Interpersonal perceptiveness was also tested by Cronbach and Gleser (1953). This study investigated the ability of teachers to predict test scores of specific students as opposed to scores of students in general. Prior to administering tests to their classes, eight elementary school teachers were asked to estimate the mean score for the class

and also to estimate the score which would be achieved by specific students randomly selected from the class. Correlations for all teachers were high in the prediction of the class mean score, but no teacher exhibited the ability to predict the score ranges of individual students. Some teachers were able to predict the score range for some individuals on certain areas of the tests, but no correlations were significant for the overall test scores. The conclusion was that similarity is not a general quality; specific dimensions must be stated. This study should indicate to the instructional developer that the making of broad general assumptions about clients and/or prospective clients based on general similarities can produce a dysfunctional communication relationship. Each interpersonal relationship must be entered into in full cognizance of individual personality differences and abilities of interpersonal perceptiveness.

It is noted that various other psychological variables can have a bearing on the establishment of an empathic relationship in dyads. Tosi and Carlson (1970) investigated the relationship between levels of dogmatism in clients and perceptions of the counselor's empathy, level of regard, congruency, unconditionality, and positive regard. The subjects were college students seeking vocational education counseling, and each was given a test for dogmatism using the Rokeach Dogmatism Scale as a part of a battery of pre-interview tests.

After the interviewing and counseling sessions were completed, the subjects were given a Likert-type test asking for their ratings of the counselors which had attended them. Dogmatism scores and negative scores of counselors on the portion of the post-test related to empathy and positive regard achieved quite high correlations. The study supported Allen's previous claim that "high dogs" initially generate barriers to effective counselor relationships and affective involvement in facilitative interpersonal relationships.

It was mentioned in Chapter I that the innovator and the innovation for which he is attempting to attain adoption are often perceived in the same light, e.g., if the innovator is well received and regarded, his innovations are likely to be well received, also. Moore and Mizuba (1969), reported a classic account of the failure of the introduction of public and personal health practices in the rural closed societies of Peru. They note that the suggestion made to the rural Peruvians to boil water before drinking it or cooking with it did not achieve adoption because the change agent who proposed the idea was an "outsider," and mistrusted by the locals.

This same phenomenon was investigated by Berger (1969), who undertook to determine the relationship between the evaluation of the communicator and the degree of attitude change, and between the evaluation of the communicator and the retention of an attitude message. The subjects were randomly

divided into two groups, and were shown filmed messages which depicted labor unions in both favorable and unfavorable lights. The communicator in the filmed messages was described to the subjects prior to their viewing the film as articulate, intelligent, expert in the field, etc. The other group saw the same messages but without any prior information regarding the communicator. Pre- and post-tests to obtain attitudes of the subjects toward labor unions were administered. After seeing the filmed messages, both groups exhibited attitude change, but the group to whom the communicator had been represented in very positive terms showed much greater attitude change. After a time lapse of six weeks, the same post-test was re-administered to both groups. There was virtually no attitude change in the first group (the one to whom the communicator had been introduced), but significant change was noted in the second group. It was concluded that the positive evaluation of the communicator by the receiver of the message influences the retention of the message. This is particularly significant in attempting to alter attitudes.

Under certain circumstances, it is quite possible that the instructional developer will find himself in the role of a leader in an instructional design project. Some perceive this to be one of his main functions. The relationship between leadership and empathy was investigated by Bell and Hall (1954). Subjects in the study were randomly divided

into eighteen groups of five members each. A leader was not appointed or otherwise indicated. Prior to the study, each subject was given the Dymond Empathy Scale and the Guilford Leadership Scale. At the first meeting of each group, it was assigned a problem to be solved. At the conclusion of the first meeting, each group was asked to meet subsequently, prepared to designate one of their number the group leader. Correlations were obtained between the empathy scores and the leadership scores. It was determined that most of the groups picked as their leader the individual who had the highest positive correlation between leadership score and empathy score in the group. The findings supported the "need theory" of leadership selection, i.e., a group, left to its own devices, will select as its leader that individual which best meets the needs of the group. It should be obvious that the instructional developer who must operate as the leader of an instructional design team will function more effectively as such if he is capable of establishing empathic relationships with members of the team.

There is a widespread belief that empathy is a psychological phenomenon related more to the affective domain of learning than to the cognitive. In fact, Katz (1963) refers to empathy as "psychological understanding" (p. 40). Efforts have been made to investigate the possible relationship between empathy and other psychological characteristics, the

notable study being one done by Passons and Olsen (1969). Again, the study was done in the area of personnel counselor effectiveness, and investigated the ability to predict counselor effectiveness via other psychological characteristics of counselor trainees. A group of such trainees was given the Empathic Sensitivity Scale. Subsequently, the trainees were tested for characteristics deemed to be essential in effective counseling in interpersonal relations, viz: openmindedness, cognitive flexibility, ability to sense feelings, willingness to communicate feelings, and positive self-concept. Typical of the psychological tests used in the various areas was the Rokeach Dogmatism Scale for openmindedness. Each score on the five tests was correlated with the Empathic Sensitivity Scale scores. The correlations between these scores indicated a positive relationship between empathic sensitivity and the five variables.

In summary, it should be noted that most of the studies and experimentation designed to develop scales for the measurement of empathy and the instructional systems for teaching it have been developed in the field of personnel counseling. The literature does not indicate that much has been done to heighten empathic capabilities of individuals professionally involved in fields other than medicine and the social sciences. This researcher did not discover any literature which identified instructional systems designed and

operationalized for the purpose of increasing the affective sensitivity of instructional developers, or others in the field of professional education. Those who function as instructional developers and change agents within educational systems might indicate great need for this type of educational experience. With regard to interpersonal communication skills and education, Harris (1973) notes:

> Thomas Aquinas, who knew more about education and persuasion than almost anybody who ever lived, once said that when you want to convert someone to your point of view, you go over to where he is standing, take him by the hand (mentally speaking), and guide him to where you want to go. You don't stand across the room and shout at him. You don't call him a dummy. You don't order him to come over to where you are. You start where he is, and work from that position. That's the only way to get him to budge (p. 15).

CHAPTER III

DESIGN OF THE STUDY

The purpose of this study was to design and evaluate an instructional strategy which would increase the interpersonal communication skills of doctoral candidates in Instructional Development and Technology. The study concentrated on devising methods of increasing the subjects' ability to enter into empathic relationships with others, and to accurately determine the affective state of others. Chapter III presents a description of the three-phase experimental treatment used in the study. Also reported are the data collection procedures, the data collection instruments, and the type of data analysis. In addition, several limitations of the present research are considered.

The Sample

The subjects who participated in the study were first- and second-year doctoral candidates in Instructional Development and Technology in the Michigan State University Department of Secondary Education and Curriculum. They were Fellows in two specially-funded institutes under the auspices of the United States Office of Education. The Media Specialist

Institute consisted of seven first-year doctoral candidates and one second-year candidate. The Research Utilization Project, the second Institute, consisted of five first-year candidates, making a total of thirteen subjects.

The subjects were not randomly drawn, but were selected as members of the two media specialist groups because such procedure presented certain advantages to the researcher: the total number of subjects was administratively manageable in light of the limited physical facilities for administering the treatments; the subjects were all assigned study space and desks in the same office building as the researcher and thus a maximum of communication between the researcher and the subjects was possible with a minimum of effort; the participation of the subjects in the study was sanctioned by the two faculty directors of the institutes and was included as a part of the subjects' academic program and for which they received partial academic credit; and it was hoped that because the subjects were holders of special fellowships, all subjects would complete the experimental treatment. Additionally, it was inferred by the researcher that the subjects would be typical of doctoral candidates in Instructional Development and Technology. It should be noted, however, that no claim of typicality of all such doctoral candidates is made, and no attempt at generalization beyond the parameters of the sample will be attempted.

The Treatment

The three-phase experimental treatment used in the study was adapted from a course designed by Kagan (1971) and has been widely used in the training of personnel counselors, physicians, and others involved in the studies of social sciences and interpersonal relations. The treatment was modified by the researcher for application in the training of instructional developers.

Phase I

In the first phase, the subjects were assembled in a conference room where, in addition to chairs, there was a portable videotape recorder and a television set. The subjects viewed a videotape lecture and demonstration by Dr. Norman Kagan. The videotape was Unit I of his instructional package Influencing Human Interaction. The purpose of the unit is to improve the ability of the subjects as interviewers, to teach them to listen more closely, to become more deeply involved, and to respond to others in such a way as to encourage the others to go further, to explore deeper, to cooperate, and to change. The subjects are taught to discriminate between different kinds of specific responses on the part of interviewers, viz: exploratory vs. non-exploratory; affective vs. cognitive; listening vs. non-listening; and honest labeling vs. distorting. The demonstrations of

these kinds of responses are provided during the videotape by personnel counselors working with actors. Provisions are also made for the subjects to practice listening and responding to remarks made by the actors.

At the conclusion of Unit I, the subjects were shown a portion of Unit III of Influencing Human Interaction, which is a videotape of an actual counseling session with a counselor and a client. At the conclusion of each response made by the counselor to his client, the videotape was stopped, and the subjects were asked to identify the nature of the response according to each of the four dichotomous categories detailed above. Each subject's identifications were made in writing. There were a total of thirteen counselor responses which were identified by the subjects.

At the conclusion of the interview, the tape was rewound, and the subjects saw a repeat of the same interview. During this viewing, each response made by the counselor was discussed with the subjects by a trained personnel counselor, who provided the subjects with feedback on their initial classification of the responses. The entire process from the beginning of the lecture to the conclusion of the feedback session took approximately two hours.

Phase II

The second phase was devised by Kagan et al. (1967) and is called Videotape Recall of Affect Simulation (VRAS).

It is a technique wherein clients are confronted with films which encourage them to engage in simulated interpersonal relations. Both the client and film are videotaped while the client watches the film. The videotape is then played back to the client while his recall worker helps him examine his reactions to the film. In some cases, an actor directs affection or rejection toward the viewer; in others the actor reacts as if he had been rejected or seduced (Kagan et al., 1969).

The films used in the VRAS were jointly developed through the efforts of the researcher and Dr. Kent L. Gustafson. In order that the filmed confrontations be as realistic as possible, actors were not used. Inasmuch as instructional developers will be dealing, in the main, with faculty members and/or colleagues, these films were made in color using members of the faculty at Michigan State University. The scripts for each filmed vignette were written by the researcher and approved and edited for affect and content by Dr. Norman Kagan. Four of the six films used in this portion of the treatment were filmed on a small sound stage, and two were filmed on location in the respective faculty members' offices on the campus. (Scripts for each of the films appear as Appendix A.)

The films contained both male and female instructors. The affects presented ranged from warmth and open reception to open hostility and personal threat. All were judged to be

representative of kinds of communication situations an instructional developer might be expected to encounter in his transactions with faculty-clients.

The facility for administering this phase of the experimental treatment was originally designed by Kagan (1967). It originally consisted of a room in which was situated a motion picture projector, viewing screen, two television cameras, a television monitor, two comfortable chairs, and a small coffee table. The television cameras were partially concealed behind plywood panels perforated in a symmetrical pattern. Sound was picked up by a partially-concealed microphone near the subject. The videotape recorder and split-screen generator were located in a nearby room.

Due to the non-availability of the originally-developed facility at the time this treatment was to be administered, alternative arrangements and some slight modifications in equipment and layout of the facility were necessary.

A small sound stage was selected and equipped with the motion picture projector and viewing screen. The subject was seated so that the projector was behind and above him, projecting the picture over his head onto the screen. Only one television camera was used. It was located beneath the projection screen and slightly behind it, focused on the face of the subject. The microphone was suspended out of sight above the subject's head. When the projector was running, neither the camera nor the microphone were visible to the subject.

It should be noted that no effort was made to conceal the television camera, the microphone, or the motion picture projector. The subjects knew in advance they were being videotaped. It was deemed advisable that the camera, microphone, and other gear be as unobtrusive as possible so as to minimize any possible self-consciousness on the part of the subjects while being videotaped.

The videotape recorder and the monitor were in an adjacent room along with two chairs. It was deemed advisable, also, to have this equipment out of sight of the subject to avoid any unnecessary anxiety that its presence might have generated. It was from this adjacent room, which was to the rear of the subject, that the recall worker viewed the films along with the subject. (A diagram appears as Appendix B.)

It was not possible to obtain a split screen generator for this portion of the treatment, so that much of the treatment as detailed above was eliminated. Instead, the sound track of the motion picture film was recorded on the same videotape which recorded the subject as he watched the film.

After the subject had viewed and responded to the six vignettes, he went into the adjacent room where the videotape recorder and monitor were located, and went through the recall process with the recall worker. In this process, the subject and the recall worker view the tape recording together. The subject is encouraged to stop the playback whenever he recalled a particular thought, feeling, or emotion which he had

experienced during either the viewing of the vignette or during his response to it. If the subject permitted the recording to run for a long while without stopping it, the worker would ask him to stop it and attempt to recall what he had thought or felt at that particular instant. If the subject passed over any notable physical or verbal reaction to the film, the worker asked him to stop the tape and discuss it. The subject was also asked to evaluate his handling of each situation based on his thoughts and feelings. If he expressed dissatisfaction with his reactive behavior, the subject was asked to suggest possible alternative methods of handling the situation. In no case did the recall worker make any type of comment that would tend to place an evaluation on the subject's reactive behavior. He did ask the subject frequently if he thought that his reactions would have tended to establish a facilitative, workable communication relationship with a client who exhibited each particular affect.

Phase III

The third phase of the treatment was also developed by Kagan et al. (1967), and is called Interpersonal Process Recall (IPR). It is a technique using stimulated recall of videotape to accelerate insight and change. The facilities and equipment used in IPR are similar to that used in the VRAS technique, i.e., a television camera, a videotape recorder,

and a television monitor. No motion picture projectors or screens are used, nor is a split-screen generator required.

Two comfortable chairs are arranged at forty-five degree angles to each other, and the television camera is arranged so that the faces and upper torsos of the subjects are in simultaneous view. The microphone was suspended above and between the subjects, and the videotape recorder was placed to one side out of sight of the subjects. (A diagram of the equipment arrangement appears as Appendix C.)

This phase of the treatment was administered in two stages. In the first stage, one subject was designated as the "Instructional Developer" and the other subject his "Client" (faculty member). Prior to the interview, the "Client" was told by the researcher to demonstrate, to the best of his ability, a specific affect. These included and were limited to "anxiety," "elation," "threat," "depression," "open cooperation," and "hostility." These affects were written on index cards and were arranged in random order. They were then assigned to each "Client" in serial rotation so that if any "Client" drew the same affect more than once, it would be due to pure chance. (In an interview with the researcher, Dr. Kagan stated that the "role-playing" involved in having one of the subjects assume and display a specific role might be beneficial in assisting the subject to become more familiar with certain dimensions of that affect.)

The "Instructional Developer" was not advised as to what affect he might confront in his interview with his "Client." A setting for the interview was provided in order that it might have some cognitive meaning and focus for the participants. Each was told that the instructor had experienced an instructional problem, and had requested assistance from the campus "Learning Service." The "Instructional Developer" had come to the instructor's office in response to that request, and that this interview would be the first encounter between the two. With these instructions, the tape recorder was started, and the participants began the interview.

During the course of the interview, the recall worker monitored the progress and content of the interview from an adjacent room, as did the researcher. When the interview had gone on for approximately six to eight minutes, the participants were told to stop. The subject who had played the role of the "Client" was excused, and the "Instructional Developer" and the recall worker sat down and viewed a playback of the interview. Again, the same recall process was employed by the recall worker that was described in the previous section dealing with the VRAS technique.

At the conclusion of the recall session, the subject who had previously played the role of the "Client" was called back into the room, and the entire process was repeated with the same two subjects in reversed roles. A different affect was assigned to the new "Client." Again the IPR process was

repeated with the pairs in reversed roles, and the new "Instructional Developer" was conducted through a recall session at the conclusion of the interviewer.

The second stage of this phase of the treatment was essentially the same process as the first, but with two differences. Care was taken so that the same pairs were not involved in the second round of interviewing. Also, during the recall process, the subject in the role of the "Client" was not excused as before, but stayed in the room with the "Instructional Developer" and the recall worker and participated in simultaneous recall. Again, during these recall sessions, the videotape playback was stopped and started by either the recall worker or the subject(s). During these sessions, the recall worker attempted to get the subjects to interrogate themselves and gain insight into their own behavior. Gustafson (1969) notes:

> He encourages the subject to deal with basic or recurring fears and aspirations rather than linger over one or two responses or gestures which he may initially have chosen to discuss. The recall worker constantly seeks to cultivate the subject's own awareness of his behavior, and through this awareness to understand the motivation and belief system underlying his behavior (p. 55).

The Recall Workers

The recall workers used the VRAS, and IPR treatments included the researcher and four Fellows from the Office of Medical Education Research and Development at Michigan State University. The five workers had been the recipents of

special training in recall counseling during the fall term of 1972. The Fellows were prepared to work in the course in Doctor-Patient Relationships in the College of Human Medicine at Michigan State University, and the researcher was prepared for this study. The training was conducted by Drs. Norman Kagan, John Schneider, and Arnold Werner. There was a "refresher session" for the workers conducted in the winter quarter by Dr. Kagan.

The training sessions for the workers included a review of the rationale, functions, and technique of the recall process. Next the workers viewed a series of videotapes of recall sessions conducted by trained recall workers, during which they were asked to identify spots in the interview in which the subject might be encouraged to stop. They were asked to indicate why that spot was chosen and to frame questions which might be asked of a subject at that time. The recall trainee was taught to identify both verbal and nonverbal cues which are indicative of various affects, viz: changes in voice tone, posture, and facial expression. The workers then engaged in interviews with each other and subsequent recall sessions under the supervision of skilled recall workers.

Instrumentation

Affective Sensitivity

Affective sensitivity was measured twice during the experiment, in a pre-test and a post-test. The pre-test was administered to the assembled subjects prior to their receiving Phase I, and the post-test was administered to the assembled subjects subsequent to the completion of the second stage of Phase III.

Both pre-test and post-test employed the Affective Sensitivity Scale (see Appendix D for samples of test items).

The Affective Sensitivity Scale (ASS) is reported by Kagan et al. (1971). It is a situational test involving clients and personnel counselors; both male and female clients and counselors are involved. The subjects view videotaped scenes taken from actual counseling sessions, representative of typical sessions; they vary in emotional depth and content of client concern. Each showing of a videotaped sequence is followed by the subject's answering several multiple-choice items to describe the affective states which the client may be experiencing. A subject must choose from among three sentences the one which most clearly defines what he, the subject, thinks the client feels about the content of client communication. He also chooses from among three other sentences which describe the client's feelings about the counselor.

A two-way assessment of the reliability of the scale has been made. Internal consistency reliability coefficients range between .58 and .77, with the majority of the coefficients in the .70s. A test-retest coefficient of correlation was .75 over a two-week period (Campbell, 1967; Kagan et al., 1967).

Several studies have assessed the validity of the scale, notably a validity study using two one-year-long National Defense Education Act Institute groups. Findings indicate that these groups did increase their affective sensitivity, and that the increases were not caused by the practice effect of the pre-testing and post-testing by a study using a placebo group (Kagan et al., 1967).

Form B of the ASS, which was used in this study, contains sixty-six items, and required approximately two-hours for its administration. The subjects were assembled in a small conference room containing, in addition to a table and chairs, a videotape recorder and monitor. The purpose of the test as well as its mechanics were explained to the subjects, and they were lead through the provided sample item. The videotape containing the ASS was started and stopped after each verbal transaction between client and counselor, and the subjects were given ample time to record their selection from the multiple items. At the conclusion of the pre-test, the answer sheets were collected and scored by three independent blind scorers. No discrepancies in scoring were noted, and

each subject's test score was recorded by the researcher. The scorers were the researcher and two doctoral students not involved in the study.

Co-orientational Accuracy

Co-orientational accuracy (empathy) was measured twice during the experiment, in a pre-test and a post-test. The pre-test was administered to the subjects prior to their receiving Phase I, and the post-test was administered subsequen to Phase III.

A situational test was devised by the researcher after a procedure suggested by Wackman (1969). His procedure is based on a general model of co-orientation originally devised by Newcomb (1953), and revised by Chaffee et al. (1969). See Figure 1.

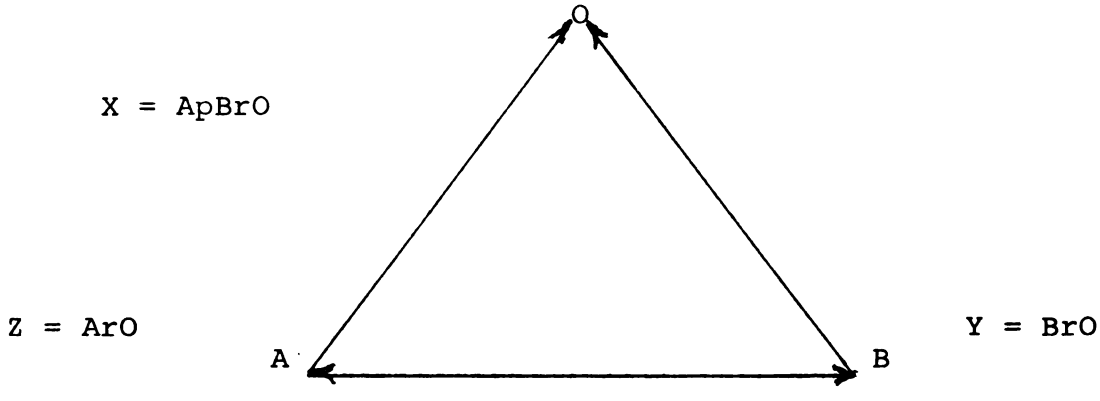

Figure 1. A General Model of Co-orientation.

A and B are two persons, both orienting to an object O and to each other. The object is a general concept, referring

to any object of cognition. The ratings of the object, ArO and BrO, may involve any kind of cognition--attitudinal or attributive kinds of items.

The three co-orientation concepts in the model involve comparisons among the sets of ratings, taken two at a time:

1) accuracy is the comparison between X and Y, A's prediction of B's rating of object O, and B's rating of O.

2) agreement is the comparison between Z and Y, A's rating of O and B's rating of O.

3) congruency is the comparison between X and Z, A's prediction of B's rating of O and A's own rating of O (Wackman, 1969, p. 2).

Several things should be noted about the general co-orientation model. First, the object O is a general concept, which may be any object of cognition, such as a political object, a book, a person (as in person perception research), etc. Second, the rating of the object, ArO and BrO, may involve any kind of cognition. Thus, the items may be attitudinal kinds of items, measuring A's attitude toward the object, or they may be attributive kinds of items, measuring A's beliefs concerning the object (Wackman, 1969).

Two Likert-type instruments of twenty-five items each were generated for measures of attitude. The Likert-type, or summated rating scale, was chosen because of its adaptability to behavioral research and its ease of development and because

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it "... yields about the same results as the more laboriously constructed, equal-appearing interval scale" (Kerlinger, 1964, p. 487). Each item in each instrument was a five-point anchored statement ranging from "strongly disagree" to "strongly agree." The topics for the two instruments were "accountability in higher education," and "use of behavioral objectives in teaching." (Samples of the instruments appear as Appendices E and F respectively.) The two topic areas were selected because they represent areas of interest to most professional educators, and because they would likely represent areas which would generate specific notions during the interviews.

Thirteen Michigan State University faculty members were selected to serve as interviewees, one for each subject. Care was taken to select instructors in whose classes the subjects were not enrolled as students. Specific appointments were made by the researcher for each of the subjects with each faculty member, with the understanding that the subject would appear at the faculty member's office at the appointed hour.

Prior to the subject's appointment with the faculty member-interviewee, the interviewee was sent a copy of one of the attitudinal instruments, and was told that the topic covered in the instrument would be the area of the subject's interview with him. The interviewee was told to restrict

the interview to twenty minutes, and to answer the subject's questions in the topic area as fully, completely, and honestly as possible. Additionally, the interviewee was sent two extra copies of the same attitudinal instrument along with a set of instructions to be given to the subject at the conclusion of the interview. The subject was advised as to the name of his interviewee, time and place of the appointment, and the designated topic area of the interview. He was further instructed that he could ask any question he so desired in the topic area, and that the interviewee would attempt to supply as comprehensive answers as possible.

At the conclusion of the interview, the interviewee passed on to the subject the two extra questionnaires and the instructions as to their completion. Each subject was told to complete one instrument reflecting his own views and attitudes in the topic area. He was told to complete the second instrument reflecting his predictions as to how the interviewee would complete the same instrument. He was then told, as was the interviewee, to return the instruments to the researcher.

Prior to the utilization of either of the instruments, each item of each instrument was rated for polarity by three blind raters. Raters included the researcher, and two other doctoral candidates not involved in the study. There was concensus on all items on both instruments with one exception on

each. In these instances, two of the three raters agreed on polarity and one disagreed. It was decided to accept the polarity rating of the two raters who agreed.

In constructing the instruments, all items for each instrument were written on index cards and shuffled. Each item was drawn from the pile of cards in order to establish a random order of polarity and to off-set the possibility of response set being a factor in the completion of the instruments.

In the post-test, the identical procedure was followed as in the pre-test. In the administration of the post-test, care was taken to insure that each subject did not interview the same instructor that he had seen on the pre-test, and that he did not discuss the same topic area he used in the pre-test.

All instruments were again scored by three blind scorers, and no discrepancies were noted in the scoring. The scorers were the researcher and two doctoral candidates not involved in the study.

The Experimental Design

The experimental design for the present research incorporates one experimental group (N = 13). A pre-test-post-test design was employed to collect data on affective sensitivity and co-orientational accuracy. The subjects received an

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experimental treatment in three phases spread over a period of approximately eighteen weeks. The first phase was administered to the subjects as a group. The second phase was administered individually to each subject. The third phase was administered to the subjects singly and in pairs.

Statistical Hypotheses

To evaluate the effectiveness of the three experimental treatments and the underlying theoretical positions relating to affective sensitivity and co-orientational accuracy as teachable skills, the following statistical hypotheses were generated and tested. Each null hypothesis tested is presented first, followed by an accompanying alternate hypothesis.

Null Hypothesis$_1$:

> No difference will be found between the group mean scores between the pre-test and the post-test as measured by the Affective Sensitivity Scale.
>
> Symbolically: $\overline{T}_1 = \overline{T}_2$

Alternate Hypothesis$_1$:

> Subjects, after receiving the experimental treatment, will have a higher group mean score on the post-test for affective sensitivity than they did on the pre-test.
>
> Symbolically: $\overline{T}_1 \neq \overline{T}_2$

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Null Hypothesis$_2$:

No difference will be found between the group mean scores between the pre-test and the post-test as measured in terms of co-orientational accuracy.

Symbolically: $\overline{T}_1 = \overline{T}_2$

Alternate Hypothesis$_2$:

Subjects, after receiving the experimental treatment, will have a higher group mean score on the post-test for co-orientational accuracy than they did on the pre-test.

Symbolically: $\overline{T}_1 \neq \overline{T}_2$

Analysis of the Data

For each of the statistical hypotheses presented above, the test of significance is based on analysis of variance. Since the experimental group is a single group involved in a pre-test-post-test design, the test for significance will be a matched-pair t test. Kerlinger (1964) states:

> The benefits to be derived from matching are sometimes considerable. It is imperative to use a matching design of some sort when objects in the environment are naturally matched. To have matched objects in a research experiment and not to take advantage of the variance due to the matching is a statistical and design blunder (p. 308).

It should be noted that pairing should be made on some *a priori* basis, and, since the pre-test and the post-test are made on the same subjects, this condition is deemed by the researcher to have been met.

Further comment on the desirability of using the matched-pairs design is offered by Senter (1969):

> The paired-observation technique is easier computationally, and it reduces the effects of some sources of random sampling variation that can obscure "real" differences between sets of data (lead to Beta error). The net result of the paired-observation technique is that it will produce larger (more significant) t ratios with a given mean difference if there is any positive relationship between the pairs of scores (p. 202).

The computational procedure for matched-pairs will also be found in Senter (p. 197ff).

The use of the matched-pairs computational technique in the test for co-orientational accuracy requires comment. It was previously noted in this chapter that Wackman (1969) has devised a new measure of co-orientational accuracy which was employed in this study. Wackman's method is referred to as the Profile Similarity (PS) method.

Generally, any relational concept measured by comparing two sets of responses is typically measured by the difference, or D^2, score method (Kerlinger, 1964). Typically, A's accuracy in predicting B's ratings on an object is scored by taking the difference between A's prediction of B's rating and B's actual rating on each item of a set of items referring to object O. The total D score of accuracy would be the sum of the absolute differences on each item. A major problem with the D score is that it is very complex mathematically, involving a number of components. The varied components and

the mathematical complexities are well illustrated by Cronbach (1953, 1955), in his analysis of the D and D^2 scores.

The PS method for measuring these relational concepts, in this case accuracy, would be scored by correlating A's prediction of B's responses and B's actual responses over the set of items referring to O.

The two methods tend to emphasize two different aspects of the similarity of two sets of responses. The D score method tends to emphasize similarity between absolute levels of responses, while the PS method tends to emphasize relative similarity of responses over a set of items. A high accuracy score here would indicate that A is accurately predicting B's relative pattern of responses (Wackman, 1969).

Wackman further notes that the D score method for determining accuracy does not allow for the contamination injected into the measure by projection and anti-projection, i.e., A rates object O as he thinks B rates object O because of A's perceived similarity between himself and B--he projects his perceived personality similarities into the ratings. In the case of anti-projection, A perceives himself different from B, so rates object O oppositely from what he perceives B's rating of O to be. Wackman's method, using a partial correlation technique, partials out chance accuracy and yields what he has called "real" accuracy. It is the

partial correlation technique across all items for all subjects that was used in this study.

The partial correlations for all instruments and items were converted to Fisher's Z (McNemar, 1969), and pre-test and post-test comparison for significance was made using the matched-pairs t test as previously indicated.

An alpha level of .05 was selected for rejecting the null hypothesis. But since the present research is exploring the application of established instructional techniques to novel situations, we shall report and discuss probability levels between .05 and .10 as indicating potential levels of future research.

Chapter IV reports the results of all computations with their accompanying significance tests.

Limitations of the Study

Possibly the most serious limitation of the study is found in the experimental design. Campbell and Stanley (1963) indicate that the one-group pre-test post-test design can be confounded by several extraneous variables; among them are: history--intervening events between pre-test and post-test; maturation--intervening biological or psychological processes affecting the subjects; testing--the effect of the pre-test itself; instrument decay--autonomous changes in the measuring instrument; and statistical regression--the phenomenon which

finds subjects scoring toward the extremes in a pre-test regressing toward the mean on a post-test. The authors state that these factors are possible sources of comtamination in this particular study design. In the present study, it is questionable whether the pre-test or instrument decay, for example, affected the gain scores. In neither of the pre-test situations were the subjects given any feedback regarding their scores on either instrument. In the situational interview pre-test, care was taken that no subject saw the same interviewee in the post-test that he saw in the pre-test, nor did he use the same topic area as a subject of the interview. As to instrument decay, changes in the instrument, it is not believed that such was probable, though it was possible. Statistical regression is a non-controllable, and this certainly could have been a source of contamination.

A second limitation is found in the size of the sample (N = 13). The small sample size means any difference between the pre-test and post-test scores has to be larger than is needed for a larger sample in order to obtain significant differences between them. The small N was necessary for two reasons: (1) the facilities for administering the VRAS and IPR stages of the experimental treatments were limited both in size and availability to the researcher; it was not possible to set up the equipment needed for the treatment and leave it in position for use over periods of several days at

a time; and (2) the thirteen subjects represented nearly all of the full-time, on-campus doctoral candidates in Instructional Development and Technology at the time the research was undertaken.

A third limitation is the fact that the subjects did not represent a "sample" of a population; they were, in fact, a population. Inferences which can be drawn from the findings of the study cannot be generalized beyond the subjects themselves. As a pragmatic consideration, it is a fact that the subjects are reasonably representative of students who have enrolled for graduate work in the Instructional Development and Technology emphasis area. One might make the purely pragmatic (but not statistical) inference that the findings generated by this research are applicable to those students who follow these subjects through the academic program.

A fourth limitation of the present study was the inability to control for the Hawthorne effect. There is no question that the subjects knew that they were participating in experimental research--a process to which the few remaining full-time and part-time doctoral candidates were not subjected. Considering the effect that research participation has been known to have on subjects, it is probable that the present research subjects responded positively to the treatment over and above any improvement due to the treatment.

Summary

The experimental treatment was adapted from processes previously shown to be effective in training personnel counselors, medical students and others. The three phases of the treatment consisted of (1) a lecture-demonstration by videotape followed by a training exercise with feedback; (2) the use of Videotape Recall of Affect Simulation in which the subjects viewed and responded to six filmed vignettes, and were subsequently aided in their recall of their emotional and cognitive reactions by a trained recall worker; and (3) the use of Interpersonal Process Recall in which each subject alternately played the role of instructional developer and client in an interview setting followed by aided recall with videotape and a trained recall worker who assisted the subject in an analysis of his emotional and cognitive reactions to various elements of the interview.

The subjects were first- and second-year doctoral candidates in Instructional Development and Technology at Michigan State University who were Fellows in two media specialist institutes funded by the United States Office of Education.

Two instruments were employed to collect data for the research. Each instrument was administered as pre-test and post-test on the same group of subjects. The first instrument was the Affective Sensitivity Scale, the reliability and validity of which have been established. The second

instrument was a twenty-five item Likert-type attitudinal instrument designed to measure the degree of co-orientational accuracy between the subjects who were paired with faculty members in an interview setting in which the subject and interviewee discussed previously-assigned topics.

The recall workers used in the present research had been previously trained for similar activities in instructional procedures in other disciplines.

Data were analyzed in a matched-pairs procedure between pre-test and post-test, with a matched-pairs t test determining significance. Two statistical hypotheses were generated and tested using the above procedure.

There are several limitations to the study. The research design itself using one group in a pre-test and post-test setting incurred possible contamination from such extraneous variables as history, maturation, instrument decay, and statistical regression. The fact that the subjects represented a population rather than a sample, limits generalization beyond the parameters of the population. The Hawthorne effect probably was a source of limitation, as was the small size of the sample necessitated by limited physical facilities for administering the treatments and the small total number of available subjects.

CHAPTER IV

FINDINGS

Findings

A compilation of the findings of the study are reported in this chapter. The effect of the three experimental treatments on affective sensitivity and co-orientational accuracy are individually discussed. Although the research findings will be discussed in detail, conclusions based on the findings will be reported in Chapter V. It should be noted that there was no mortality among the subjects which permits the matched-pairs observations described in Chapter III.

The first hypothesis tested in the present study was:

$H_o 1$: No difference will be found between the group mean scores between the pre-test and the post-test as measured by the Affective Sensitivity Scale.

The first step in the analysis was to compute a correlation coefficient between the pre-test and post-test. The correlation coefficient was .87, which is somewhat higher than those obtained during the developmental processes of the Affective Sensitivity Scale.

No analysis of variance was conducted on the pre-test data since the matched-pairs technique offers a substantial

degree of control over chance variability (sampling variation). In this regard, Senter (1969) states:

> It should be relatively clear that if observations are made on the same individual twice (or on individuals closely related) the amount of chance variability expected to occur among scores is considerably less than it would be if these scores were to be randomly selected from totally unrelated individuals (p. 196).

The mean score on the pre-test for all subjects was 32.5 and the mean score on the post-test was 38.2. Standard deviations were 7.12 on the pre-test, and 8.76 on the post-test. These data are reported for informational purposes only since they are not involved in the matched-pairs comparison. The score distribution on which the significance test is based is the mean difference of all scores, and this was computed at 5.62 from pre-test to post-test. The critical value for a mean difference of 5.62 was computed at 4.496. The critical value of t (two-tailed) at .05 Alpha is 2.179. These data are reported in Table 1.

Table 1. Comparison of Pre-test and Post-test Means and Mean Difference of the Affective Sensitivity Scale

Pre-test		Post-test		M gain	M d	df	t
M	SD	M	SD				
32.5	7.12	38.2	8.76	5.7	5.62	12	4.496

t = 2.179 at Alpha .05

This analysis indicates that the mean difference of 5.62 observed between the pre-test and the post-test is too large to be reasonably attributed to sampling variation. Assuming that all factors other than the treatment effect were either eliminated from the experiment or equated by the matching technique, it can be inferred that the increase from pre-test to post-test was significantly influenced by the intervening treatment. The null hypothesis can be rejected, and support can be inferred for the alternate hypothesis of a higher mean score on the post-test than on the pre-test for affective sensitivity. Since rejection of the null hypothesis does not indicate the direction of the difference between pre-test and post-test scores, the mean of each test must be examined for direction. The post-test mean of 38.2 is greater than the pre-test mean of 32.5 supporting the directional hypothesis presented in Chapter III that the experimental treatment does increase the subject's affective sensitivity.

The second hypothesis tested was:

$H_o 2$: No difference will be found between the group mean scores between the pre-test and the post-test as measured in terms of co-orientational accuracy.

Data on co-orientational accuracy was collected by providing specific topics of discussion for interviews between the subjects and faculty members at Michigan State University.

At the conclusion of each interview, both pre-test and post-test, the faculty member (interviewee) completed a twenty-five item Likert-type instrument registering his views and opinions of the assigned discussion topic. Each of the subjects was given two copies of the identical instrument by the interviewee at the conclusion of the interview. The subject was asked to complete one of the instruments so that it reflected his own views and opinions of the topic. He was asked to complete the second instrument so that it reflected the interviewee's views and opinions. The attitudinal instruments were constructed on a five-point anchored scale ranging from "strongly disagree" to "strongly agree."

The reader will recall from the co-orientation model presented in Chapter III, that person A's prediction about person B's ratings of object O (ApBrO) is represented by X, that B's ratings of object O (BrO) are represented by Y, and that A's ratings of object O (ArO) are represented by Z.

After scoring each instrument, simple correlations were obtained between each item on each instrument scored by each subject and his interviewee; thus, the following correlations were computed: r_{xy}, r_{xz}, and r_{yz}. The first correlation, therefore, was between each item of the subject's perceptions of the interviewee's ratings and the interviewee's ratings, ApBrO. The second correlation was between the subject's perceptions of the interviewee's ratings and his own ratings,

ApBrO and ArO. The third correlation was between the subject's ratings and the interviewee's rating ArO and BrO. The three correlations were summed and a mean obtained for each. Again, these data were derived for informational purposes of the reader who may be interested in computing data by the D method. The mean for each correlation was used in computing a partial correlation, partialing for z, in both pre-test and post-test. These data are reported in Table 2.

Table 2. Comparison of Pre-test and Post-test correlation Means, Including Comparison of Partial Correlation

	Pre-test	Post-test	Gain
r_{xy}	.202	.316	.114
r_{xz}	.449	.460	.011
r_{yz}	.306	.192	-.114
$r_{xy \cdot z}$	.076	.262	.186

For the purposes of testing for significance, the simple correlations across the three instruments were used in computing partial correlations for z for each subject on both pre-test and post-test. Each partial correlation was transformed to Fisher's Z and summed. Means for both pre-test and

post-test were computed and compared using the matched-pair technique previously described. Table 3 reports these data.

Table 3. Comparison of Pre-test and Post-test Mean and Mean Difference of Measure of Co-orientation

Mean of Zs		Gain	M d	df	t
Pre-test	Post-test				
.09104	.30129	.21115	.1838	12	1.356

t = 2.179 at Alpha .05 (two-tailed).

The resulting value of 1.356 is less than the critical value of 2.179 indicating that the experimental treatment was not a source of significant difference between the pre-test and the post-test; in fact, it indicates that no significant difference was observed. The null hypothesis was not rejected. Thus, there is no support for the hypothesis that there would be an increase in mean scores between pre-test and post-test on the measure of co-orientational accuracy.

Discussion of the Findings

A comparison of the pre-test and post-test scores to produce a mean difference failed to reject the null hypothesis of no difference between pre-test and post-test scores on the measure of co-orientational accuracy.

There are several probable explanations for the failure to produce significant difference. Several of the subjects reported of their own volition to the researcher that the twenty minutes allotted for the interviews was not long enough for them to obtain the information they felt they needed in order to assess the attitudes and beliefs of the interviewee with regard to the topic areas. After both the pre-test and post-test experiences, some subjects reported that most of the twenty minutes was spent in discussing extraneous matters. Some reported that the interviewees expended most of the time interrogating the subjects as to the nature of the research project and seeking information as to how the attitudinal instruments were to figure in the testing procedure. Other subjects reported that the interviewees expended the time asking them questions relating to their personal backgrounds and doctoral programs. The subjects who were involved in these kinds of situations reported that it was extremely difficult to keep the interview oriented toward the topic area, and consequently they had little or no time to interogate the interviewee regarding more germane matters.

The selection of topics of discussion seems to have posed more of a problem than was anticipated. The researcher attempted to select topics about which professional educators would have a reasonably broad base of information and

interest. One topic, "accountability in higher education," seemed to pose no problem, but the topic "use of behavioral objectives in teaching" caused difficulty. Well over half of the subjects indicated that they had to spend at least half of the allotted interview time explaining what behavioral objectives were to the interviewee in spite of the fact that a definition was provided at the top of the instrument in an attempt to forestall just such an occurrence. After the pre-test, three of the subjects reported back to the researcher that their interviewees had extremely negative, nearly hostile, attitudes about behavioral objectives. Five of the subjects reported the same information after the post-test. Observations of the attitudinal instruments completed by these interviewees did not appear, however, to reflect what might be termed an extremely negative attitude toward this topic. There can be little doubt that the instruments reported negative attitudes in all cases, but the respondents did not utilize nearly as many "strongly disagree" and "strongly agree" responses as the subjects involved seemed to indicate on the ApBrO instrument. One of two things obviously happened: either the interviewees' ratings on the instruments did not reflect their true feelings, or the subjects read more into the interviewees' diatribes than existed. It is also interesting to note that most of the subjects reflected very positive attitudes toward the use of behavioral objectives.

Another cause of the failure to achieve significance might be attributed to personality variables among the subjects. While the subjects never received any standardized personality inventories in connection with the research, the researcher was able to personally observe the subjects at close range over the academic year. As a result, it was possible to make some kinds of intuitive personality assessments with regard to introversion-extroversion. Those subjects who exhibited either neutral or extroverted orientations toward their environment appeared to exhibit the greatest individual gain scores on the post-test measures of co-orientational accuracy. Those who were introverted confessed higher anxiety levels in the simulations and exhibited lesser gains in the post-test.

It is notable that all the partial correlations for individual subjects did not move in the same direction. Of the thirteen subjects, ten showed an increase from pre-test to post-test when partialing for z; three showed decreases. As it is not possible to accurately account for the increases, neither can the decreases be accounted for. It will be remembered that during the post-testing, more subjects reported the behavioral objectives topic to be more of a controversial issue than a topic of inquiry and discussion than they did on the pre-test. It is possible that this situation accounted for the post-test decreases on the partial correlations. This conjecture may tend to be supported by the fact that

the r_{yz} correlation mean decreased from .306 to .192 pre-test to post-test. It will be recalled that the r_{yz} correlation is a comparison of the interviewees' ratings with the subjects' ratings. One might also conjecture that these data indicate that there was less similarity between the views of the subjects and their interviewees as they were paired in the post-test. This factor would appear to vitiate the intended positive effect of the experimental treatment.

The notion of personality variables previously noted could have also been an unforeseen source of vitiation of the treatment. If those subjects who exhibited tendencies toward introversion were paired with interviewees of decided extroversion characteristics and found the interview situation to be an uncomfortable one, then the decrease in the r_{yz} correlation may be accounted for.

It is interesting to note that the critical value of t for the rejection of the null hypothesis at the .05 level of confidence was 2.179. As noted the critical value of the mean difference 1.356 would not permit the rejection of the null hypothesis at that level of confidence. Because the experimental treatment was an adaptation of an existing and previously validated treatment, an examination of a possible rejection of the null hypothesis at the .10 Alpha was made. The critical value of t at this level is 1.782, meaning that the null hypothesis could not have been rejected at .10 Alpha either.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The present research studied the effect of a three-phase experimental treatment on the abilities of doctoral candidates in Instructional Development and Technology to enter into empathic relationships with others. This capability was measured in two dimensions: (1) the ability of the subjects to accurately assess the affective state of others, and (2) the ability of the subjects to accurately predict the opinions and belief systems of others with regard to specific topics.

The treatment's first phase consisted of a filmed lecture-demonstration which dealt with the ability to discriminate between various kinds of responses made by an interviewer in a dyadic setting. The subjects were shown various responses by means of videotape recording, and classified them as either exploratory or non-exploratory, affective or cognitive, listening or non-listening, and labeling or distorting.

The second phase of the treatment required the subjects to view six stimulus films in which faculty or staff members

at Michigan State University, serving as actors, portrayed specific affective states. The subjects were videotaped as they watched the stimulus films and as they verbally responded to the films. In responding, the subjects were instructed to deal with either the cognitive or affective content of the films, or both if they felt such was possible. After viewing all six of the filmed vignettes, the subjects watched a playback of the videotape made of them. They were aided by trained recall workers in analyzing the affective and cognitive elements in their reactions and responses to the vignettes. The subjects were encouraged to critique their own performances and to suggest more appropriate alternative ways of responding in those cases where they felt such was needed. Subjects were given access to the start-stop switch of the videotape recorder, and were instructed to stop the playback whenever they felt the need to comment on their performance or at the recall of a particular thought or feeling stimulated by the playback. The recall workers also had access to the start-stop switch, and stopped the playback whenever they felt that comment or interrogation relative to the subjects' responses was required.

The third phase of the treatment required the subjects to engage in a simulated interview with each other. One subject played the role of an instructional developer, and another subject played the role of a faculty member who was

seeking a solution to an instructional problem. The subject in the role of the faculty member was instructed prior to the interview to do his best to display a specific state. These included "anxiety," "elation," "threat," "depression," "open cooperation," and "hostility." The subject in the role of the instructional developer was not advised as to what affective state he would encounter in the interview. He was instructed to deal with whatever affective state was displayed by the other member of the dyad in a manner which he judged would best lead to an on-going facilitative relationship; one that would more likely lead to the ready adoption of any innovative instructional methodologies which might be proposed at a later date as a solution to the instructional problem.

Each interview was recorded, with most of them running approximately six to eight minutes in length. At the conclusion of each interview, the subject in the role of the faculty member was temporarily excused and the other subject was joined by a recall worker. The videotape of the interview was played back, and the subject and the recall worker went through the critique process described above. As before, the subject was asked to stop the playback frequently and to comment on his handling of the interview with regard to its cognitive and affective content. At the conclusion of the recall process, the subject who had taken the role of the faculty member was called back into the room. The process of

simulated interview between instructional developer and faculty member was repeated with the two subjects in reversed roles. Again the faculty member was given an affective state to display during the interview. Recall was done with the second subject in the manner previously described.

The simulated interviews were repeated a second time with different subjects in the dyads. The second round of interviews was identical to the first with one exception. At the conclusion of the interview, the subject in the role of the faculty member was not excused for the recall session. He stayed in the room and participated in what is referred to as "simultaneous recall." In this process, both the interviewer and the interviewee participate in the recall process with the recall worker. Both subjects are encouraged to stop the playback and comment on the behavior of either subject.

Two measurement techniques of empathic capability were employed as both pre-test and post-test. The first technique is a measurement of the ability of the subject to accurately describe and assess the affective state of another, and is called the Affective Sensitivity Scale. The subjects watched a videotape of actual counseling sessions between a client and a professional personnel counselor. At specific points during the verbal exchanges between the client and the counselor, the videotape was stopped. The subjects were asked to select from among three statements the one that most

accurately described the inner feelings of the client with regard to either himself or the state of the interview. The subjects also selected one statement from three choices the one which most accurately described the client's thoughts and/or feelings regarding the counselor. The Affective Sensitivity Scale contains a total of sixty-six items. The instruments were scored for the number of correct responses by three blind scorers. There were no discrepancies noted in the scoring of either the pre-test or the post-test.

The second technique for measuring empathic capability was a situational test of co-orientational accuracy. Each subject was paired with a Michigan State University faculty member for the purpose of an interview in the faculty member's office. The dyads were assigned one of two topics for discussion during the interview: "accountability in higher education," or "the use of behavioral objectives in teaching." The topics were assigned several days in advance of the appointed time of each interview. The subjects were told at the time the topics were assigned that they could pose any questions in the topic area that they wished. They were also told that the faculty member with whom they were to talk had agreed to answer all questions as comprehensively and conscientiously as possible. The interviews were limited to twenty minutes in length.

At the conclusion of the interview, each faculty member completed a twenty-five item Likert-type instrument which

called for an expression of his opinions in the topic area on a five-point anchored scale ranging from "strongly disagree" to "strongly agree." The subject completed two copies of the same instrument. On one, he was instructed to reflect his own personal views in the topic area; on the second copy he was instructed to attempt to predict the way his interviewee would respond, based on whatever information he had been able to gather during the interview. All respondents were asked to return the instruments to the researcher. In no case from pre-test to post-test, did a subject interview the same faculty member, nor did a subject have the same topic of discussion in both interviews.

Polarity of the items in each instrument was determined by three blind raters prior to the assemblying of the instruments. Items on each instrument were randomly arranged in order to obviate the possibility of response set. After the administration of the pre-test and the post-test, each instrument was scored by three blind raters; no discrepancies in scoring were found. Correlations among the items of each interview instrument were computed, and partial correlations of all instruments were computed holding constant the instruments which reflected the subjects' ratings of the topics.

Each of the two results of the pre-test and post-test was compared by the matched pairs technique for mean difference, and two-tailed t tests for significance were conducted.

The pre-test was administered early in January, 1973, and the post-test toward the end of May, 1973: the time lapse from pre-test to post-test was approximately eighteen weeks.

The following two hypotheses were examined using the matched pairs analysis of variance:

1. No difference will be found between the group mean scores between pre-test and post-test as measured by the Affective Sensitivity Scale.
2. No difference will be found between the group mean scores between the pre-test and the post-test as measured in terms of co-orientational accuracy.

An initial purpose of this study was to test an adaptation of an existing instructional methodology for increasing empathic capabilities of personnel counselors and other social scientists to application in the training of professional educators. The core of the experimental treatment has been used with notable success by Kagan (1972) and Rowe (1972). It was hoped that with certain changes in methodology and instructional materials, the treatment would be effective in training instructional developers. One change involved the stimulus films used in Phase II (VRAS) of this study. The stimulus films used in the original version of the treatment involve settings and content more applicable to the training of personnel counselors than instructional developers. It was decided to produce a new series of stimulus films in color which would have a higher degree of typicality to the types of interpersonal communication

situations encountered by those involved in instructional development. It was the making of the new films which may have provided what could be a source of vitiation of the experimental treatment.

It has been noted that the pre- and post-test were separated by approximately eighteen weeks. When the study was initially planned, it was intended that the treatment be completed within a ten week period, or less. Unanticipated delays were encountered in the making of the new stimulus films. The filming equipment, which was leased from an out-of-town supplier was not available when promised. After the equipment was obtained and the vignettes shot, the film processing house experienced unaccountable delays in developing the film and conforming the optical track.

A second source of delay was the unexpected nonavailability of the original VRAS simulator. An alternate facility was necessary, and it required some additional time to locate a suitable facility and arrange to borrow the necessary equipment from different sources.

The nonavailability of the original VRAS simulator may have caused a more serious problem than loss of time. The original facility was a small intimate room draped and carpeted in a most attractive manner. It would seem to be quite suitable for and conducive to the kind of unselfconscious state of mind subjects require to view and react to the stimulus films most beneficially.

The alternative arrangement used for the VRAS was a rather large sound stage furnished only with that equipment required for the simulation. This facility did not have a split-screen generator available; the sound track of the stimulus films was recorded instead for use as a referant in the recall process. It was thought at the time this decision was made that not having a simultaneous recording of the subjects' physical reactions to the film and the film's visuals would not be a factor as far as the VRAS process is concerned. Subsequent occurrences during the VRAS recall process proved this assumption to be erroneous. It was noted during the recall that some subjects were having difficulty in bringing to mind an accurate mental picture of the actor in the film. They also mentioned that hearing the sound track of the film without seeing the actor's face and facial expressions was a deterant to their being able to recall some of their own emotional reactions to the film. The availability of a split-screen generator would have eliminated this problem.

In addition, it was noted by the researcher and other recall workers that some of the subjects seemed distracted by having to frame and deliver a response to what was obviously an empty projection screen hanging some distance away in an almost empty room. Some remarked that they "felt foolish" and were self-conscious in this situation.

The findings permitted the rejection of the first null hypothesis beyond the .05 level of confidence, but not the second. The rejection of the null hypothesis infers support for the hypothesis that the experimental treatment increased the affective sensitivity of the subjects. It should be noted, however, that no definite decision regarding the validity of this finding can be made without additional research to confirm or contradict the present finding.

Rejection of the null hypothesis relative to co-orientational accuracy was not possible. The failure to reject the null hypothesis may have been due to the failure of the experimental treatment to increase the subjects' ability to accurately predict and assess the interviewees' beliefs and attitudes, to the instrument's incapability to accurately measure precise degrees or co-orientational accuracy, or to the various limitations in the study design detailed in Chapter III.

Conclusions

Some conclusions are made from the findings summarized above.

1. It appears that the experimental treatment played a significant role in increasing the subjects' capabilities to correctly assess and identify the affective state of others. The original treatment from which the experimental treatment

used in this study was adapted normally exposes the subject to thirty hours of instruction. Some versions of the original treatment have exposed the subjects to fifty hours of instruction. In the present research each subject received approximately five hours of instruction. Nevertheless, as a result, group mean scores increased from 32.5 on the pre-test to 38.2 on the post-test, a gain of 5.7. Rowe (1972), in repeated administrations of the ASS using one-group designs with essentially this same type of treatment intervening between pre- and post-test, realized gain scores of slightly less than 5.7 in all instances. Her application of the experimental treatment exposed the subjects to fifty hours of instruction. These data would tend to support the original validation studies conducted during the development of the ASS (see Chapter III). It will be recalled that the mean difference between pre-test and post-test reported in Chapter IV was 5.62 with a critical value of 4.496. This was significant beyond the .05 level of confidence which was established for the rejection of the null hypothesis. It is interesting to note that the critical value of 4.496 would also have permitted rejection of the null hypothesis beyond the .01 level of confidence ($t = 3.055$ at .01 Alpha). Again, it should be emphasized that this result was attained with five hours of instruction per subject in place of the usual thirty to fifty hours of instruction.

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It is not intended that the limitations inherent in the study design be completely ignored. It would appear, however, that the sizeable gain score from pre-test to post-test was affected more by the experimental treatment than by the design-affiliated intervening variables previously noted, and certainly more than could be attributed to pure chance or sample variation.

2. The capabilities of the subjects to enter into a state of co-orientational accuracy with others did not increase as a result of the experimental treatment, or for any other reason according to a comparison of the attitudinal instruments. The failure to reject the null hypothesis relative to co-orientational accuracy may have several probable explanations. First, it is possible that the attitudinal instruments did not accurately measure the subjects' capabilities in the area of co-orientational accuracy. Second, the utilization of a rather controversial topic for the test interviews may have inhibited the subjects' ability to gather information as to the interviewees' beliefs and value systems to the extent needed to accurately respond to the test instruments. Third, the experimental treatment did not in fact have any instructional ability as far as co-orientational accuracy is concerned. It will be noted that the two test instruments actually measured two different dimensions of empathic capability: the ability to identify and assess the psychological state of another; and the ability to predict

the responses of another in both cognitive and affective domains. It was intended that the one three-phase experimental treatment increase subjects' capabilities in two areas. Based on the findings, one can only conclude that the treatment was effective in improving one capability but not effective in improving the other. Fourth, the original instructional model calls for a rather compressed time period for the treatment. The fact that the administration of the three phases was spread over eighteen weeks instead of ten weeks as initially planned might have had a negative effect on the potential cumulative effect of the treatment; what exact effect the uncontrollable delay might have had is unknown.

Implications for Future Research

Since the present research explores the modification and adaption of proven techniques of instruction to a novel application, the study should be replicated to provide a second independent set of findings. Any replication should utilize a study design which incorporates experimental and control groups randomly drawn from a well-defined population. The one-group pre-test/post-test design represents the most serious flaw in the present study. This would be eliminated by having available for comparisons findings produced by a two-group design. The fact that the present study was made

using what amounted to a population is a hindrance to meaningful generalizations beyond the parameters of the population.

Any replication undertaken should utilize the simulator originally designed by Kagan et al. (1967) which contains the split-screen generator and more intimate physical surroundings. As previously noted, the recording of only the voice track of the stimulus films did not provide a satisfactory referent for the recall process in Phase II of the treatment. The more intimate surroundings and closer quarters of the original simulator would tend to eliminate much of the self-consciousness exhibited by the subjects in the present research.

In planning a replication of this study, attention should be given to selecting topic areas for the interview portion of the tests for co-orientational accuracy. There is probably no way to completely eliminate controversy in the topic areas, but care should be taken in the selection of topic areas to ensure that topics which have obvious undertones of controversy are not used. In the present research, it was apparent from the subjects' comments that the behavioral objectives topic was one of a controversial nature. They reported that some interviewees had extremely negative attitudes about behavioral objectives, and that they expended most of the interview time in what amounted to a monologue.

The subjects felt that they did not get sufficient time to put questions to the interviewee that would have given them the necessary background information to make a more accurate prediction of the interviewees' opinions across the wide range of items used in the test instrument.

An increase in the interview time from twenty minutes to thirty minutes or more might be considered. All subjects reported that some of the allotted time was expended in various social amenities and extraneous conversation. While a facilitative atmosphere for the interview can be established by observing certain social conventions inherent in the first meeting of two persons who are not previously acquainted, these activities consume time which could be more profitably spent as far as information gathering is concerned. It would appear that extending the time of the interview by ten or fifteen minutes would not be burdensome on either interviewee or interviewer.

It is recommended that any replication of the present research be done over less than eighteen weeks elapsed time. As has been noted, it was intended that this study be completed in ten weeks or less; unanticipated delays extended the total time required for the study to nearly double that which was initially intended. It is certainly not known what the end result of the extended time frame was on the post-testing. It has been observed that the end result of the treatment had no positive effect on the post-test for

co-orientational accuracy. Phase I of the treatment, it will be recalled, was a lecture-demonstration on interviewing techniques, and it is of interest to speculate what effect this portion of the treatment might have had on the post-test interviews for co-orientational accuracy had the post-tests been more closely related to Phase I in time.

Other delays between pre-test and post-test can result from the difficulty in scheduling subjects' participation in the various phases of the treatment. The researcher found it necessary to administer the three phases of the treatment at the convenience of the subjects' schedules. On occasion, this caused time to be lost. It is not deemed to have been of significance in this study, but it should be a concern of any who attempt a replication of this study.

Any replication of the study should be done with a greater N than was used in this study. Although there was no subject mortality in the present group, the small sample (N = 13) required much larger gain scores to produce significance than would have been required with a larger number of subjects with regard to the measure of co-orientational accuracy.

Before undertaking future research, consideration should be given to the fact that the null hypothesis relative to co-orientational accuracy was not rejected in the present study. As has been noted, the present study was designed to attempt to increase empathic capability in two areas with one

treatment. The fact that the null hypothesis relative to the ASS was rejected beyond the .05 level of confidence permits the inference that the treatment was effective in the attempt to increase the subjects' empathic capabilities relative to assessment of the affective state of others. The inference is even stronger when one recalls that the gain scores were of such magnitude to have permitted rejection of the null hypothesis beyond the .01 level of confidence. However, it would appear that the treatment as presently constituted does not have an effect on the subjects' ability to enter into a state of co-orientational accuracy with others.

In addition to the compression of time and the elimination of controversial topics, the following two recommendations are made to the future researcher in an effort to increase the treatment's effectiveness as it relates to co-orientational accuracy: (1) Kagan's original instructional model (Influencing Human Interaction, 1972), on which the experimental treatment in the present research was based, contains a unit dealing with Inquirer Training. Kagan states the purpose of the Inquirer Training to be: "... to give you an opportunity to learn about and experiment with assertive but non-judgemental, non-hostile, interviewer leads" (p. IV-1). It is felt that this additional training as an interviewer would enhance the over-all treatment and enable the subject to become more adept at information gathering as a

facilitative interviewer. (2) During the IPR interviews which constitute Phase III of the present research, the interviewer was instructed to deal with either the cognitive or affective content of the statements made by the interviewee. The only admonition was to conduct the interview in such a manner that an on-going, functional communication link would be established. A change in that procedure is recommended for future replication of this study. It is recommended that in future interviews, the interviewee be assigned not only an affective state to portray, as was done in this study, but the core of a belief system relative to a topical area. The topics could include such areas of instructional interest as "behavioral objectives," "modular instruction," "mediated instruction," "behavior alteration," or "mastery methodology." The interviewer would not only have to deal with the assigned affective state encountered in the interviewee, but would have to conduct the interview in such a way that he elicited accurate information relative to the topic area. During the recall process, which would be simultaneous recall during both of the interviews, the recall worker would assist the interviewer to deal with his feelings and emotions as is usually done; and would assist the interviewer in a comparison of the information he had gathered during the interview with the assumed belief system of the interviewee.

It is not known what implications for future research might be held in racial differences. In the present study,

four of the subjects were black males; the rest of the sample was composed of whites. All of the faculty members who participated in the test interviews and in the stimulus films as actors were white. It is recommended that future research be done with faculty members as interviewees having a multi-racial composition if the sample is multi-racial. Another point of concern to future researchers using multi-racial samples is the fact that one of the actors in the stimulus films was an attractive white female. A trained psychologist who viewed the vignette in which she appeared noted that there was an obvious sensual undertone to her portrayal. It was noted that the responses of some of the black male subjects to her differed markedly in both cognitive and affective content from other's responses. It is conceivable that matters of racial concern could have been a factor that militated against any positive instructional benefit intended in the VRAS and against some subject's ability to gather information which would have been helpful in their making accurate predictions of belief during the test interviews.

Implications for Education

There can be little doubt that the experimental treatment used in the present research has been successful in training persons whose professional achievement is geared to their ability to communicate with others, e.g., Rowe (1972).

It was the purpose of this research to determine if this instructional strategy could be adapted to the training of instructional developers/change agents. The findings suggest that this has been done. It is regrettable that the research reported here cannot claim positive results in both of the dimensions of empathic capability. However, it has been demonstrated to a reasonable degree that instructional development trainees can be taught to more accurately assess the affective state of others and have gained insight into the many facets of affective sensitivity. It is deemed advisable that academic programs which have as their goal the training of instructional developers/change agents institute this type of instructional strategy if such is presently not available. It is believed that this treatment with the modifications suggested above will also prove effective in enabling trainees to enter into a state of co-orientational accuracy with those who will become their clients. There can be little doubt that the ability to do so will enhance their probabilities of success. The lack of inferrable data in the present research indicating a failure of the experimental treatment to improve capabilities of co-orientational accuracy should not deter or discourage future research into the development of this proposed instructional strategy for application in the training of educational change agents.

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APPENDICES

APPENDIX A

SCRIPTS FOR THE FILMS

SCENE I.

Affective State--Nervous, obviously ill at ease. (Male actor).

I ... I GUESS I REALLY DO HAVE A PROBLEM. I KNOW ... I KNOW MY CLASSES AREN'T MUCH OF A CHALLENGE TO STUDENTS ANY MORE. THE KIDS ARE BORED ... DISINTERESTED ... BUT I'M AFRAID I JUST CAN'T MAKE THE CHANGES THAT YOU RECOMMEND. (Pause) I JUST CAN'T SEEM TO BRING MYSELF TO SERIOUSLY CONSIDER MAKING THESE KINDS OF CHANGES. I MEAN ... WELL ... IF MY STUDENTS ARE JUST BARELY HANGING ON NOW, WHAT THE HELL IS GOING TO HAPPEN TO THEM WHILE I'M TRYING TO INSTALL ALL THIS NEW STUFF? ALL OF THIS ACTUALLY MAKES ME FEEL OLD AND KIND OF USELESS.

SCENE II.

Affective State--Hostile, feels personal threat. (Male actor).

SO THAT'S WHAT YOU CALL "IDEAS?" WELL ... LET ME TELL YOU ONE THING ... AND YOU GET THIS STRAIGHT! THERE'S NOT A DAMN THING YOU CAN TELL ME ABOUT CLASSROOM TEACHING. WHEN YOU HAVE BEEN AT THIS GAME AS LONG AS I HAVE ... THEN YOU COME BACK AND MAYBE ... JUST MAYBE ... WE'LL DISCUSS IT. BUT FOR NOW, YOU GET THE HELL OUT OF HERE ... AND STAY OUT!

SCENE III.

Affective State--Openly responsive and warm, cooperative. (Female actor).

BOY ... AM I EVER GLAD TO SEE YOU. YOU CAN'T IMAGINE THE MESS THIS DEPARTMENT IS IN. THE ENROLLMENTS ARE WAY OFF! THE DEAN IS CLIMBING THE WALLS HALF THE TIME ... AND MOST OF THESE CHARACTERS TEACH LIKE THEY NEVER HEARD OF JOHN DEWEY. IT'S JUST IMPOSSIBLE! NOW, WHAT CAN WE DO TO STRAIGHTEN THIS MESS OUT?

SCENE IV.

Affective State--Seemingly interested, but moderately defensive and anxious. (Male actor).

WELL ... AS CHAIRMAN, THE DEAN HAS PUT THE MONKEY SQUARELY ON MY BACK. THIS IS A REAL CAN OF WORMS! I JUST CAN'T GO TO MY GUYS AND TELL THEM SOME OUTSIDER IS COMING INTO THE DEPARTMENT AND CHANGE EVERYTHING WE'VE BEEN DOING FOR YEARS. HELL ... SOME OF THESE GUYS ARE NATIONALLY-RECOGNIZED EXPERTS ... AUTHORITIES IN THE FIELD! I JUST CAN'T GO TO THESE GUYS AND TELL THEM THEY DON'T KNOW WHAT THE HELL THEY'RE DOING IN THE CLASSROOM. (pause) EVEN IF THEY DON'T. YOU JUST CAN'T ASK THAT!

SCENE V.

Affective State--Obviously anxious and nervous, poor eye contact. (Male actor).

SCENE V--Continued

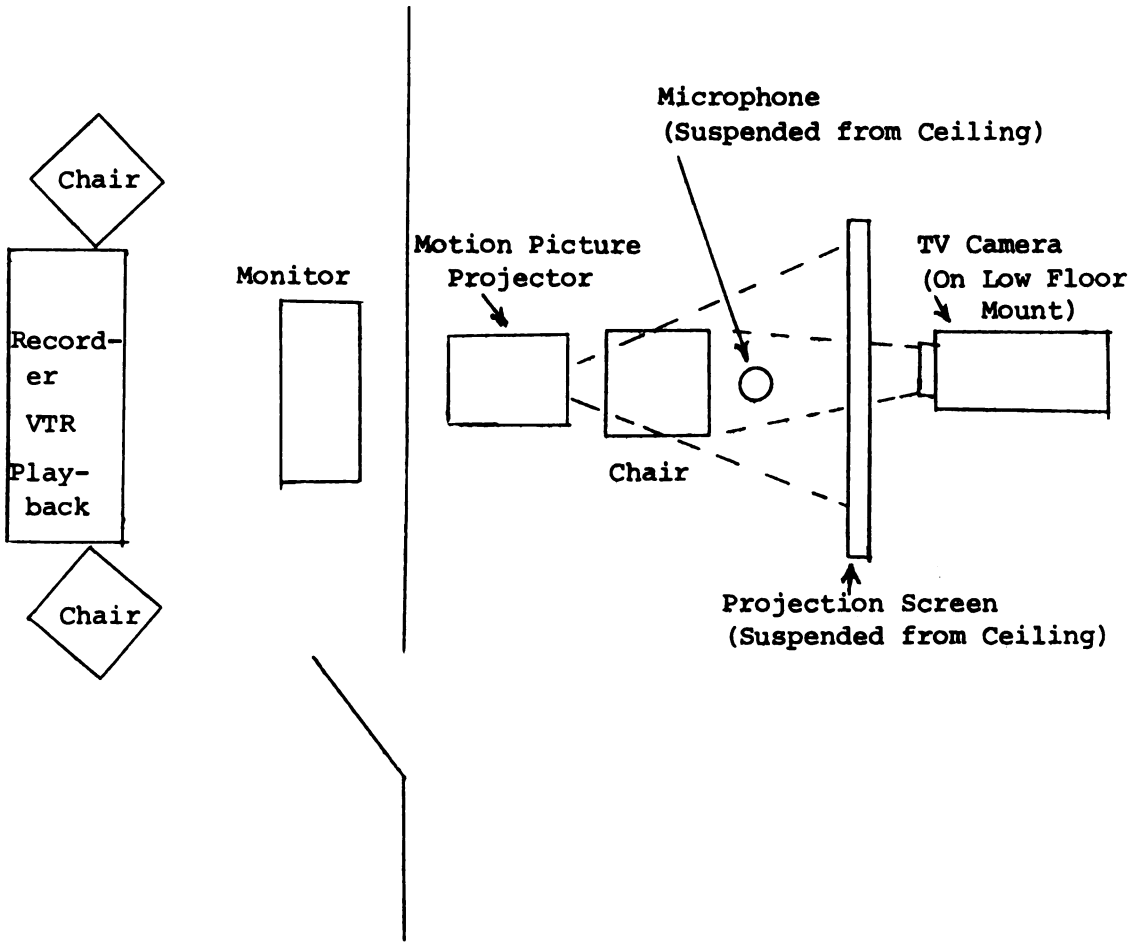
YOU'RE TALKING ABOUT WAY TOO MUCH MONEY! I'LL BE THE FIRST TO ADMIT THAT MAYBE WE'RE NOT DOING ALL WE CAN FOR OUR STUDENTS, BUT THERE ARE SOME THINGS ... (Pause) WELL, THE CHANGES YOU PROPOSE ... (Pause) WELL, I MEAN, HOW THE HELL IS THIS GOING TO LOOK TO THE PROVOST? (In a rush) THE FIRST THING THAT HE'S GOING TO SAY IS ... "IF THOSE PEOPLE OVER THERE HAVE PROBLEMS THAT ARE GOING TO TAKE THAT KIND OF MONEY TO CORRECT" ... WELL, HE JUST MIGHT THINK A FEW PERSONNEL CHANGES MIGHT BE LESS EXPENSIVE IN THE LONG RUN. (Longer pause and then more deliberately) YOU'RE GONNA PUT ME RIGHT BEHIND THE EIGHT BALL!

SCENE VI.

Affective State--Seemingly cordial and open. (Male actor). OH, I'VE SEEN THIS SYSTEM STUFF TRIED BEFORE. YOU GUYS ACTUALLY TALK A PRETTY GOOD GAME. (Pause) YOU KNOW, MAYBE YOUR IDEAS WILL WORK SOMEWHERE, BUT I'M JUST NOT THE ONE FOR GOING TO THAT MUCH TROUBLE ... WHEN I'M NOT REALLY CONVINCED THIS SYSTEM STUFF WILL WORK FOR ME. MAYBE SOME OF THE OTHER GUYS HERE WILL WANT TO TAKE A SHOT AT IT ... BUT I THINK I'LL PASS FOR THE TIME BEING. (Long pause, and reflectively) YOU KNOW, WHAT YOU ACTUALLY WANT ME TO DO IS ADMIT TO YOU AND THESE OTHER GUYS AROUND HERE THAT I'VE GOT CLASSROOM PROBLEMS, AND ... WELL ... I ...

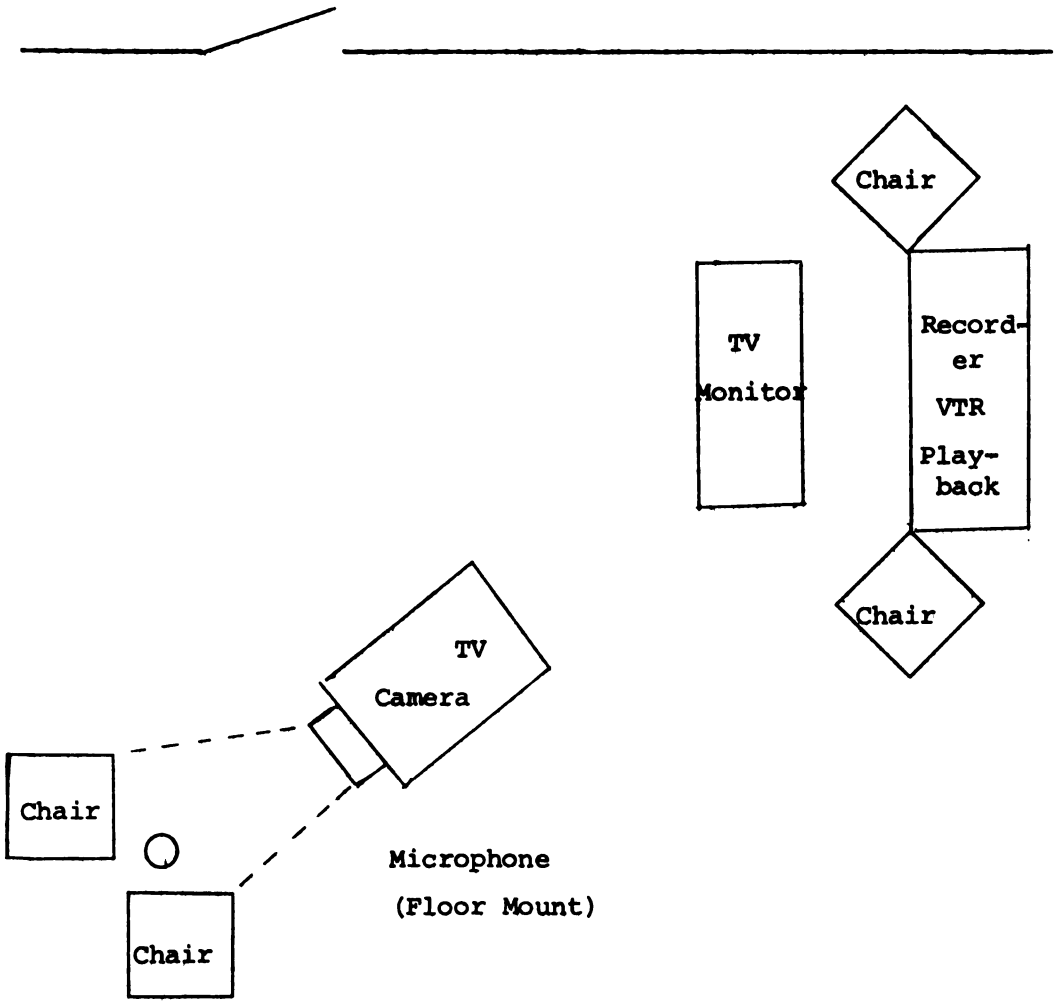
APPENDIX B

VIDEOTAPE RECORDER, MONITOR AND EQUIPMENT ARRANGEMENT



APPENDIX C

DIAGRAM OF EQUIPMENT ARRANGEMENT



APPENDIX D

SAMPLES OF TEST ITEMS

AFFECTIVE SENSITIVITY SCALE REVISED FORM B

SAMPLE ITEM

CLIENT I - Scene 1

Item 1 -
1. This exploring of my feelings is good. It makes me feel good.
2. I feel very sad and unhappy.
3. I'm groping and confused; I can't bring it all together.

CLIENT I - Scene 1.

Item 1 -
1. I feel sorry for my husband and the relationship we have.
2. I really don't understand what I feel. Yet, I do feel guilty about creating pain in others which returns to me.
3. I feel pleased at seeing a possible relationship between my feelings of anger and pain.

Item 2 -
1. He (counselor) doesn't have to like me. I just want him to agree with me and tell me I'm right.
2. I'm trying to please you. Do you like me?
3. He's really understanding me now.

CLIENT I - Scene 2.

Item 3 -
1. I feel calm and collected. I just want to think for a while.
2. Yes, that is when I get angry. I see it all clearly now.
3. I feel anxious and stimulated.

Item 4 -
1. I'll pretend I'm agreeing with him (counselor), but I don't see the connection at all.
2. I like what he's doing, I don't feel as uncomfortable now.
3. I wish he would stop pushing me in this direction.

CLIENT II - Scene 1.

Item 5 - 1. I'm pleased and happy; I feel good all over!
2. It was brought right back, that amazes me, but it hits quite bad, too. It hurts!
3. I'm not bothered by this. I can handle it. I'm confident.

Item 6 - 1. He's (counselor) caught me: careful, I'm not sure I want that.
2. I like him. He's trying to make the situation a little lighter and make me feel better about it.
3. I don't feel he understands. He's sarcastic. I don't like that.

Item 7 - 1. I feel a little uneasy and self-conscious, but not much.
2. This scares me. I feel frightened.
3. I feel flirtatious. I like this!

Item 8 - 1. I feel a little bit embarrassed, but that is all right as long as I can keep my composure.
2. I have a feeling of sadness.
3. I feel flustered and embarrassed.

Item 9 - 1. He's asking for some touchy material, but that's all right. It's about time he knew.
2. He's being very frank and open! I'm not sure I want that.
3. I want him to leave me alone--I want out of here. I don't like this.

CLIENT II - Scene 3.

Item 10 - 1. I'm getting so much attention. I really enjoy this. It makes me feel good.
2. I'm scared by what I'm feeling. I feel embarrassed and threatened.
3. I have the feeling that what I wanted was wrong, and I'm a little ashamed of myself.

Item 11 - 1. This is good. We're really moving into my feelings.
2. He's too perceptive; he's looking right through me.
3. He's getting a little sticky; I'm not sure I like that.

CLIENT III - Scene 1.

Item 12 - 1. I feel protective and defensive of what people may think about my family.
2. All this seems so pointless! I'm puzzled and bored.
3. We're having a nice conversation. Some of these things really make me think.

Item 13 - 1. This guy (counselor) embarrasses me with the questions he asks.
2. The questions he asks really make me think; I'm not sure I like that.
3. I can't follow this guy's line of thought. What's he trying to do?

CLIENT IV - Scene 1.

Item 14 - 1. I'm concerned about my physical condition. I'm worried about it.
2. I want pity. I want her to think, "Oh, you poor boy."
3. I feel good--nothing's bothering me, but I enjoy talking.

Item 15 - 1. She's too young to be counseling, and she's a girl. I'm not sure I like this.
2. She likes me; I know she does.
3. I'd like her to think I'm great.

CLIENT IV - Scene 2.

Item 16 - 1. I'm a little annoyed with my family's ambitions for me.
2. That's a helluva lot to ask! It makes me mad!
3. I feel sorry for myself, and I want others to feel the same.

Item 17 - 1. She (counselor) really understands me! She's with me now.
2. I don't feel much either way towards the counselor; she's not important to me.
3. I wonder if she appreciates the pressure that's put on me?

CLIENT IV - Scene 3.

Item 18 - 1. This whole thing makes me feel sad and unhappy.
2. It kind of angers me that they don't appreciate me when I feel I did my best. I wish I could tell them off.
3. No matter how well I do, I'm always criticized. It doesn't bother me too much, though, because I know that I did my best.

Item 19 - 1. I can tell that she understands what I'm saying. She's really with me.
2. I wish I could get out of here; I don't like her.
3. Understand what I'm saying; I want her to know how I feel.

CLIENT IV - Scene 4.

Item 20 - 1. I really want to be successful, and somehow I know that I can be.
2. That makes me feel kind of sad, unhappy. I don't want to believe that it's true--I want to be good.
3. I don't know what I feel here. It's all very confusing.

Item 21 - 1. I feel neutral towards her. I'm not paying any attention to her.
2. Please feel sorry for me and try to help me. I wish she would praise me.
3. I like talking to her. She can be trusted even to the point of telling her how I really feel about myself.

CLIENT V - Scene 1.

Item 22 - 1. I feel rejected and empty inside. Am I unlovable?
2. I feel a little lonely. I want my boy friend to pay a little more attention to me.
3. I really don't feel much here; I'm just kind of talking to fill up space.

Item 23 - 1. Please say it isn't fair, Mr. Counselor.
2. He really understands me. I can tell him anything.
3. I'm not sure I care what he says. It's kind of unimportant to me what he feels about me at this time.

CLIENT V - Scene 2.

Item 24 - 1. I'm afraid of marriage--insecure; it might not work out and I'd be lost.
2. I really can give him all the affection he needs, I feel I'm a worthwhile person to be desired. He wouldn't dare step out on me.
3. I'm really not too worried; it'd all work out in the end even if we have to go to a marriage counselor.

Item 25 - 1. I don't care if he (counselor) can help me or not. I'm not sure I want his help.
2. He's so sympathetic. That makes me feel good.
3. Can you help me?

CLIENT V - Scene 3.

Item 26 - 1. I feel I have some need to be liked, but it's not real strong.
2. I'm not lovable; I really don't like myself.
3. I'm a good person; I'm lovable. Down deep I know I am.

Item 27 - 1. I feel dejected, kind of insecure. I want to be likable.
2. My main concern is that it's hard for me to take criticism. I usually think of myself as perfect.
3. I feel a little sad about all this; I do kind of want people to like me.

Item 28 - 1. He thinks well of me; I know he does, I can tell.
2. I want the counselor to really like me, but I'm not sure he does.
3. I like it when he asks questions like that. They make me really think about deeper values.

CLIENT V - Scene 4.

Item 29 - 1. I wouldn't want to be treated like he treats Mother, but I don't mind him (stepfather) too much.
2. I feel very little emotion about anything at this point.
3. I hate him (stepfather)!

CLIENT V - Scene 4 (cont'd)

Item 30 - 1. Boy, I'm happy that he (counselor) agrees with me. He sympathizes with me. I feel completely accepted.
2. I'm embarrassed to tell the counselor how strong my feelings really are.
3. I'm not sure he'll be able to help me much after all. I'll just have to work this out myself.

CLIENT V - Scene 5.

Item 31 - 1. I'm kind of feeling sorry for myself, but I'm not really too worried.
2. I want to move out of the house as soon as possible. I feel I would be better off on my own.
3. My own parents don't want me; I feel cut off and hurt.

Item 32 - 1. I don't feel he's (counselor) helpful at all, and if he can't help me and see my side, I'm not going to like him either.
2. He's got me in a spot, but I feel I can still get him to see me as a good girl who is persecuted.
3. I wish the counselor were my father. He's listening; he understands how I feel.

CLIENT VI - Scene 1.

Item 33 - 1. Disapprove! She'd kill me!
2. I feel jovial; this is real interesting.
3. I'm not sure how she would feel but the whole idea of her finding out excites me.

Item 34 - 1. He (counselor) understands me completely. He certainly is relaxed and comfortable.
2. I really don't care what he feels about me. I just want someone to talk to--anyone will do.
3. I was wondering how he would feel about me and what I'm saying.

CLIENT VI - Scene 2.

Item 35 - 1. I think my brother is okay. We have fun together.
2. I don't know what I'm saying here. I'm a little mixed up and confused.
3. I'm saying something that's important to me. I like Doug.

CLIENT VI - Scene 3.

Item 36 - 1. This is very confusing for me. I'm not sure I know what is going on.
2. This is how I really feel, I'm kind of starting to be myself.
3. I'm just talking to be talking here; this really doesn't mean much to me.

Item 37 - 1. I guess he's (counselor) is all right, but I'm still not sure he understands me.
2. Let's get going. I'm impatient! I want to move to more important matters.
3. I feel comfortable with him. He understands me.

CLIENT VI - Scene 4.

Item 38 - 1. I love my brother, but not romantically. We just have a good brother-sister relationship.
2. I don't know about feeling this way about Doug; it feels so good, but it concerns me, too.
3. I feel better about my relationship with Doug now. It helps to get it out in the open. Now I feel it's all right.

CLIENT VI - Scene 5.

Item 39 - 1. I'm not feeling much of anything here. I'm just kind of talking to be talking.
2. I'm mad at everyone at this point and don't know which way to turn; I guess I'm mad at myself, too.
3. Now I'm talking about things that are real. I'm not on stage anymore. She is a louse.

CLIENT VI - Scene 5 (cont'd)

Item 40 - 1. He (counselor) feels she's a bad person, too. I can tell; he agrees with me.
2. Don't you agree with me? I want to know what you think.
3. He thinks all this sounds petty. He doesn't understand.

CLIENT VII - Scene 1.

Item 41 - 1. I felt angry with my mother, but this made me feel guilty. I needed to make an excuse for her.
2. I'm really not angry with Mother. It's not her fault.
3. I'm in a very passive mood. I'm just relaxing and talking about things that interest me.

Item 42 - 1. This counselor is all right. I feel I can confide in him.
2. I feel uncomfortable. I'm not sure what this counselor wants me to do.
3. I feel he wants me to talk about myself, but I don't care. I'm going to talk about what I want to talk about.

CLIENT VII - Scene 2.

Item 43 - 1. I'm very sensitive; I'm very easily hurt.
2. I'm somewhat sensitive and easily hurt, but not deeply so.
3. I'm not too sensitive or easily hurt at all. I just like to make people think I am.

Item 44. 1. That makes me mad, I can do it--I know I can, but things just keep getting in my way.
2. It's really all his fault, if he just wouldn't have been such a joker.
3. This makes me feel guilty; I need to blame someone else instead of blaming myself.

Item 45 - 1. I'm neutral towards the counselor. I don't care how he feels about me.
2. I'm afraid he doesn't like me and what I'm saying about myself. I don't want him to be harsh with me.
3. He's easy to talk to. He understands what I'm like, and he still likes me. I can confide in him.

CLIENT VIII - Scene 1.

Item 46 - 1. Say, this is allright. I like this.
2. I'm not feeling anything deeply. I know what I need.
3. It's embarrassing and difficult. I feel a little annoyed.

Item 47 - 1. I feel I can rely on this guy, so I'll let him talk and I'll just answer his questions.
2. I wonder what you think about this--please respond. Give me some help.
3. The counselor is a good guy. I like his questions; they make it easier for me.

CLIENT VIII - Scene 2.

Item 48 - 1. I feel very unhappy about what I may eventually have to do.
2. I don't know what I feel; I'm confused about what I feel.
3. I'm damned uncomfortable; It's so confusing. I feel kind of "blah" about it all.

Item 49 - 1. He's (counselor) missing the point. He bugs me.
2. I really can't tell about this guy. I don't know how I feel about him.
3. He seems like a good guy. He asks questions. I like him.

CLIENT IX - Scene 1.

Item 50 - 1. I'm not sure how I feel about this counselor. I don't feel one way or the other about him.
2. I like the counselor very much--he makes me feel good.
3. He understands me pretty well and is trying to help. I guess I kind of like him.

CLIENT IX - Scene 2.

Item 51 - 1. Goody-goody people really don't know any better, so I can't be too disgusted with them, but it does make me angry.
2. I really don't mind people feeling superior to me. It just makes me a little angry.
3. It tears me up inside when people think they're better than I am. I want people to be the same as me.

CLIENT IX - Scene 2 (cont'd)

Item 52 - 1. I'm every bit as good as they are. I really feel I am. I know I am.
2. I kind of wished they liked me, but I can live without being a member of their group.
3. Those smart kids make me feel stupid.

Item 53 - 1. I feel sorry for them; they just don't realize what they're doing to people like me.
2. I feel I'm not as good as they are, and it really hurts when people act that way.
3. It makes me a little angry. I'm every bit as good as they are.

CLIENT IX - Scene 3.

Item 54 - 1. I feel a little insignificant, and this makes me a little unhappy.
2. I'm a nobody. I'm always left out.
3. I'm unhappy with school. That's what really is bothering me.

Item 55 - 1. He doesn't quite understand, but I don't care. It doesn't matter.
2. I don't feel one way or the other towards this counselor, we're just having a nice talk.
3. He (counselor) is really listening to me, and I feel he understands what I'm feeling.

CLIENT X - Scene 1.

Item 56 - 1. I'm feeling scared, concerned. Is this for me?
2. I just feel uncertain about what to talk about. If I once get started, I'll be all right.
3. I feel very deeply depressed.

Item 57 - 1. He (counselor) seems to be listening--can he understand how I feel?
2. He's really with me. I can tell he understands me.
3. He doesn't keep things moving enough. I don't like that.

CLIENT X - Scene 2.

Item 58 - 1. I'd like to think I could make it, but I'm not sure. I feel inadequate.
2. I just have an I-don't-care attitude; that's my real feeling towards all of this.
3. I'm confused here. I really don't have any definite feelings.

Item 59 - 1. I want to impress the counselor. I want him to believe I can do it.
2. He believes me; he thinks I can do it; I can tell.
3. I really don't care what the counselor thinks. It's not important to me.

CLIENT X - Scene 3.

Item 60 - 1. What's the use of looking ahead? I'm scared to think about it.
2. I can accept my situation. Really, things aren't so bad. Things may bother me a little, but really not much.
3. I just enjoy living for today.

Item 61 - 1. He's (counselor) all right. He really understands me.
2. Nobody can really understand this. I don't think he will be any different.
3. I don't care what he thinks or feels; he's not important to me anyway.

CLIENT X - Scene 4.

Item 62 - 1. I feel somewhat unhappy. I don't like to feel this way.
2. There's something about me; I just don't fit in, and that makes me feel real uncomfortable.
3. In some instances, I'm unsure of myself. I'm afraid I'll do the wrong thing, but I can handle this just by avoiding these situations.

CLIENT XI - Scene 1.

Item 63 - 1. I'm unhappy about all this, but I'm afraid to make a change.
2. It's not that I don't like school, it's just that I want to do the things I like most.
3. I'm not the student type. School bores me but it embarrasses me when I say it.

Item 64 - 1. The counselor is a nice guy. I like him, and I think he likes me.
2. I wonder what the counselor thinks of me. He'll probably think less of me for saying this.
3. I don't really care what he thinks of me. It doesn't really matter to me.

CLIENT XI - Scene 2.

Item 65 - 1. I've found some new dimensions. I like to feel that I can have some excitement, but this kind of scares me, too.
2. This doesn't really mean much. I'm not feeling much of anything.
3. This makes me feel very guilty; I'm very ashamed.

Item 66 - 1. I suppose he'll (counselor) tell me that's wrong, too. I'm not sure he understands me very well.
2. He's okay; he's listening to what I have to say. He really understands me and my feelings.
3. I don't care what he thinks or feels; it's not important. I don't have any feelings towards the counselor.

END OF AFFECTIVE SENSITIVITY SCALE

APPENDIX E

FACULTY INSTRUMENT OF ATTITUDE

Below are twenty-five statements regarding accountability in higher education. After each statement is a five-point scale ranging from "strongly disagree" to "strongly agree." Abbreviations are used for the five points on the continum as follows:

SD - Strongly disagree
D - Disagree
NO - No opinion
A - Agree
SA - Strongly agree

Please circle the letter(s) on the scale that most accurately represent your feeling regarding the statement, but circle only one point on each scale.

---

1. The college/university instructor should be accountable only to his conscience.

SD D NO A SA

2. Those outside the college/university community who clamor most loudly for faculty accountability usually have no idea of the regular duties and responsibilities of the instructor.

SD D NO A SA

3. People who pay instructors' salaries have a right to know what they're getting for their money.

SD D NO A SA

4. Instructors should be accountable only to their immediate academic superior.

SD D NO A SA

5. If the instructor is to be accountable, he should be accountable to his students.

SD D NO A SA

6. The concept of "academic freedom" would be violated by any imposed system of accountability.

SD D NO A SA

7. Unionization of faculty would, in fact, impose a system of faculty accountability.

SD D NO A SA

8. Any system of accountability would destroy the collegium setting of higher education.

SD D NO A SA

9. Any imposed system of accountability would destroy research as it is done in the academic setting today.

SD D NO A SA

10. The use of the Student Instructor Rating Report on this campus is actually a form of accountability.

SD D NO A SA

11. A strict form of accountability would probably protect the faculty member from the negative aspects of "publish or perish."

SD D NO A SA

12. A strictly-applied form of accountability would ultimately destroy the present tenure system.

SD D NO A SA

13. It is a beneficial expression of accountability to have top administrators answerable to boards of trustees or regents.

SD D NO A SA

14. The current clamor for accountability in higher education would likely be diminished if colleges/universities undertook a campaign to upgrade their images with the taxpayers.

SD D NO A SA

15. I believe that most of my faculty colleagues favor some form of accountability not presently in existence.

SD D NO A SA

16. A system of accountability would probably produce increased financial and physical resources in the long run.

SD D NO A SA

17. The current demands for accountability are most likely attributable to a lack of understanding between educators and state legislators.

SD D NO A SA

18. The most workable form of accountability would be one in which faculty members are accountable to each other rather than to administrators.

SD D NO A SA

19. A system of accountability would be productive only if those to whom the accounting is made have the educational and experiencial background for proper evaluation of the data reported.

SD D NO A SA

20. It is not possible that any system of accountability will produce students who are better qualified and capable of coping with their environments in a positive, productive fashion.

SD D NO A SA

21. Accountability may be productive in improving elementary and secondary education systems, but it can be only counterproductive in systems of higher education.

SD D NO A SA

22. A system of accountability would more likely benefit the newer, untenured faculty member than the older, tenured one.

SD D NO A SA

23. In all likelihood, current demands by state legislators would diminish if there was more student participation in university governance.

SD D NO A SA

24. A system of accountability would probably produce a more realistic distribution of resources than currently exists.

SD D NO A SA

25. At the present time, administrators are more likely to opt for some expression of accountability than are faculty members.

SD D NO A SA

Upon completion of this instrument, please return it to:

A. L. Savage, Jr.
116 Linton Hall
Campus

Thank you for your interest and cooperation.

APPENDIX F

FACULTY INSTRUMENT OF ATTITUDE

Below are twenty-five statements regarding the use of teaching objectives. You will encounter the term "behaviorally-oriented objectives" (BOO), and in order to establish a common referent for the term, the following definition is provided: "Behaviorally-oriented objectives are a description of the student's behavior at the end of the course. They contain the behavior he will exhibit, the conditions of testing, and the standards for adequacy of performance." (Yelon, 1971). After each statement is a five-point scale ranging from "strongly disagree" to "strongly agree." Abbreviations are used for the five points on the continum as follows:

SD - Strongly disagree
D - Disagree
NO - No opinion
A - Agree
SA - Strongly agree

Please circle the letter(s) on the scale that most accurately represent your feeling regarding the statement, but circle only one point on each scale.

---

1. My experience indicates that providing the student with definitive teaching objectives does not produce higher scores on examinations.

SD D NO A SA

2. Keeping course content relevant is made easier by the use of teaching objectives.

SD D NO A SA

3. Most of my teaching colleagues probably do not have a clear cognitive referent for the concept "behaviorally-oriented objectives."

SD D NO A SA

4. Teaching objectives provide students with a practical study guide.

SD D NO A SA

5. It has been my experience that students do not perform any better on evaluations (examinations) when they have been provided with teaching objectives.

SD D NO A SA

6. The utilization of BOO assists the instructor in determining what he actually wants his students to learn.

SD D NO A SA

7. Evaluations of student performance should be more valid if the course content has been based on BOO.

SD D NO A SA

8. The use of more ambiguous teaching objectives forces the student into more diligent study habits.

SD D NO A SA

9. I consider providing the student with acceptable performance criteria to be essential in good teaching.

SD D NO A SA

10. It has been my experience that students who have prior knowledge of performance criteria score better on evaluations.

SD D NO A SA

11. BOO are essential if the instructor is to make the best selection of instructional strategies and materials.

SD D NO A SA

12. Use of BOO should require a higher standard of acceptable performance on evaluations.

SD D NO A SA

13. Use of BOO permits the employment of more rigorous grading criteria.

SD D NO A SA

14. Using BOO is all right for straight undergraduate lecture courses, but is not productive for graduate seminars.

SD D NO A SA

15. Using teaching objectives permits the instructor to more easily establish priorities of importance among items comprising course content.

SD D NO A SA

16. Minimal statements of objectives are better because they permit the instructor wider latitude in course content.

SD D NO A SA

17. The use of teaching objectives tend to stiffle instructor's creativity.

SD D NO A SA

18. The use of BOO is better suited to vocational training than in processes of higher education.

SD D NO A SA

19. Teaching objectives in my courses today are far too complex to be stated in behavioral terms.

SD D NO A SA

20. BOO can best be used in situations where measures of cognitive learning will be employed.

SD D NO A SA

21. Evaluation of students' terminal behavior is more valid if course content is based on BOO.

SD D NO A SA

22. Providing the student with course objectives in behavioral terms turns the course into a "crip."

SD D NO A SA

23. BOO are not practical when teaching material in the affective domain.

SD D NO A SA

24. Use of BOO provides administrators with a ready source of evaluation of instructors' performance.

SD D NO A SA

25. The Code of Academic Responsibility should require all instructors to state all instructional objectives in umambiguous behavioral terms.

SD D NO A SA

Upon completion of this instrument, please return it to:

A. L. Savage, Jr.
116 Linton Hall
Campus

Thank you for your cooperation.