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The assessment of anxiety with the counselor relationship skills of accurate empathy, nonpossessive warmth and genuineness

William Earhart Roberts

Iowa State University

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The assessment of anxiety with the counselor relationship skills of accurate empathy, nonpossessive warmth and genuineness

by

William Earhart Roberts

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TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>7</td>
</tr>
<tr>
<td>Research Problems</td>
<td>7</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>8</td>
</tr>
<tr>
<td>Definitions</td>
<td>10</td>
</tr>
<tr>
<td>REVIEW OF LITERATURE</td>
<td>13</td>
</tr>
<tr>
<td>Counselor Verbal Responding Skills</td>
<td>13</td>
</tr>
<tr>
<td>Studies of therapeutic conditions and outcome</td>
<td>18</td>
</tr>
<tr>
<td>Studies on causation</td>
<td>33</td>
</tr>
<tr>
<td>Assessment of Anxiety and the Counselors' Verbal Responding</td>
<td>36</td>
</tr>
<tr>
<td>Skills</td>
<td>49</td>
</tr>
<tr>
<td>Counselor anxiety and verbal responding skills</td>
<td></td>
</tr>
<tr>
<td>Nonverbal Behavior</td>
<td>56</td>
</tr>
<tr>
<td>Video-tape and Counselor Verbal Responding Skills Assessment</td>
<td>62</td>
</tr>
<tr>
<td>METHODOLOGY</td>
<td>70</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>70</td>
</tr>
<tr>
<td>Subjects</td>
<td>70</td>
</tr>
<tr>
<td>Data Collection Procedure</td>
<td>71</td>
</tr>
<tr>
<td>Physiological anxiety assessment procedure</td>
<td>75</td>
</tr>
<tr>
<td>Behavioral anxiety assessment procedure</td>
<td>76</td>
</tr>
<tr>
<td>Self-report anxiety assessment procedure</td>
<td>77</td>
</tr>
<tr>
<td>Counselor responding skills assessment procedure</td>
<td>77</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>78</td>
</tr>
<tr>
<td>Physiological anxiety assessment</td>
<td>80</td>
</tr>
<tr>
<td>Behavioral anxiety assessment</td>
<td>83</td>
</tr>
<tr>
<td>Self-report anxiety assessment</td>
<td>85</td>
</tr>
</tbody>
</table>
Verbal responding assessment: Scale for accurate empathy 86
Verbal responding assessment: Scale for nonpossessive warmth 87
Verbal responding assessment: Scale for genuineness 87
Subject simulation films: IPR video-tape vignettes 88

Organization of Data 89
Analysis of Data 91
Statistical model 96

FINDINGS 101

Introduction 101

Intra- and interreliability coefficients for the three verbal responding skills 102
Intra- and interreliability coefficients for behavioral nonverbal anxiety ratings 107
Pearson-Product moment correlations 109

Seduction Series Correlations 111
Aggression Series Correlations 114
Anger Series Correlations 117
Rejection Series Correlations 121

Summary of Correlation Findings of the Four IPR Series 124

Summary 125

Hypotheses 125

SUMMARY 146

Introduction 146
Purpose 146
Procedure 146
Findings 148

Introduction 148

Research Problems and Discussion 149
Research Problem 1 149
Physiological anxiety assessment 152
Behavioral anxiety assessment 155
Self-report anxiety assessment 156
Research Problem 2 160

Correlation coefficients 160

Analysis of variance findings 162
Research Problem 3 162
Findings of null Hypothesis II 163

Analysis of Descriptive Data 165

Research Findings Related to the Present Study 170

Recommendations and Implications for Further Study 173

Implications and Application of Present Findings for Counselor Education Programs 175

REFERENCES 178

ACKNOWLEDGMENTS 195

APPENDIX A: LETTER 196

APPENDIX B: A SCALE FOR THE MEASUREMENT OF ACCURATE EMPATHY 198

General Definition 198
Stage 1 199
Stage 2 199
Stage 3 199
Stage 4 199
Stage 5 200

APPENDIX C: A SCALE FOR THE MEASUREMENT OF NONPOSSESSIVE WARMTH 201

General Definition 201
Stage 1 201
Stage 2 201
Stage 3 201
Stage 4 202
Stage 5 202
APPENDIX D: A SCALE FOR THE MEASUREMENT OF COUNSELOR GENUINENESS FOR SELF-CONGRUENCE  

General Definition  
Stage 1  
Stage 2  
Stage 3  
Stage 4  
Stage 5  

APPENDIX E: TRANSCRIPT OF INTERPERSONAL PROCESS RECALL VIDEO-TAPE VIGNETTES  

Client Verbal Behavior  
Seduction  
Client Verbal Behavior  
Aggression  
Client Verbal Behavior  
Anger  
Client Verbal Behavior  
Rejection  

APPENDIX F: SUMMARY TABLE OF FIVE LEVELS FOR EACH OF THE THREE VERBAL RESPONDING SKILLS OF ACCURATE EMPATHY, NON-POSSESSIVE WARMTH, AND GENUINENESS  

APPENDIX G: SCHOOL COUNSELORS' RATING SHEET  

APPENDIX H: COUNSELOR TRAINEE SELF-REPORT ON VIEWING IPR VIGNETTES  

APPENDIX I: INSTRUCTIONS  

Finger Bottle  
Relaxation  

Evidence of a positive relationship between certain counselor relationship skills, e.g., accurate empathy, nonpossessive warmth, and genuineness, and various indices of client improvement (Carkhuff and Berenson, 1967; Truax and Carkhuff, 1967) has led to systematic efforts to teach these relationship skills to counselor trainees. Effective training with such skills has been reported for trainees ranging from graduate students and other professionals (Ivey et al., 1968) to parents (Carkhuff and Bierman, 1970), to college students (Payne and Gralinski, 1968) and to psychiatric inpatients (Pierce and Drasgow, 1969). Carkhuff (1971) recently has suggested that the teaching of counseling students be reconceptualized in utilizing training with facilitative communication skills.

The major conclusion which we can draw from any development of the concept of training as a mode of treatment is that effective treatment is a function of an effective helping relationship plus an effective helping program. When either relationship or program is present, benefits accrue. When both relationship and program are present, maximum benefits accrue.

The helping relationship is critical because it is the vehicle by which the counselor becomes both agent and model for the client. An effective relationship enables a low-level-functioning client to function at higher levels in critical areas of functioning. The most direct and effective modality for accomplishing this is to train the client directly in the conditions necessary to function at higher levels in those areas. (p. 128)

Extensive research on the importance of teaching counselor trainees these facilitative relationships and communication skills has been accomplished. Few studies, however, have investigated which particular client behaviors tend to create anxiety and fear reactions in the counselor
trainees which, in turn, would be predominant factors affecting their relationship skills. Two possible reasons exist for the counselor trainees' anxiety in dealing with the client's behavior; one is the lack of experience in managing such behaviors and the other is that perhaps they have a definite fear of such behavior from previous experiences. However, regardless of what the reason might be, this fear or anxiety reaction seems to manifest itself in physiological or behavioral characteristics.

In 1969, Norm Kagan combined two of his teaching research techniques, the Video-Tape Recall of Affect Simulation (VRAS) and the Interpersonal Process Recall (IPR), into one method enabling counselors and psychotherapists to accelerate client interpersonal growth with the use of video-tape simulation films. This new technique, which was later called simply "IPR," used the VRAS technique of teaching clients how to better manage difficult behaviors they had experienced in interpersonal relationships. It also applied the initial IPR technique, the simulated recall of video-tape, which attempted to accelerate client insight and change during psychotherapy. It seemed apparent to Kagan that training people in relationship skills, whether it be for new counselors or for the clients themselves, could be taught more efficiently with the use of video-tape techniques. Traditionally, counseling clients had attempted to learn how to cope with past traumatic experiences of family members and friends through the interpersonal relationship with the counselor or by initially obtaining insight in the counseling relationship and then, in turn, trying out new interpersonal skills on their own.

By having more success in coping with their own interpersonal relationships, beginning counselors may have sought to learn counseling
relationship skills by studying theories and by practicing on other students. Although these approaches may be relatively successful, their value in teaching interpersonal skills is still very limited in that there is no immediate feedback to either the client or the counselor revealing effective or noneffective behavior.

The IPR method led to the production of a series of video-tape vignette behaviors such as seduction, aggression, anger, and rejection portrayed by actors on a television screen. These behaviors may be viewed by a client and a counselor trainee. The client then is asked to respond verbally to the vignettes as if in actual conversation. Both the client's interactions and the vignette behaviors may also be video-taped. This last video-tape may then be played back to the client and the new counselor trainee with a supervising counselor helping to examine the client's verbal and behavioral reactions to the video-tape vignettes. In some cases, the actor directed seduction, aggression, anger, or rejection toward the viewer; in other cases, the actor reacted as if he were the recipient of these same behaviors (Kagan and Schauble, 1969). The initial IPR method video-tapes employed a supervising counselor or clinically trained "interrogator" during the replay session to the client and counselor trainee to assist in examining the underlying dynamics between client and vignettes in what was termed a "recall session" (Kagan et al., 1969).

Therefore, it was postulated that by using the IPR video-tape vignettes with counselor trainees, a research study could center on how certain client behaviors had possible anxiety effects on their relationship skills.
Anxiety, as defined by Barclay Martin (1961) consisted of three parts. First, it is similar and perhaps identical to the fear reaction; the neurophysiological bases are not completely known but would seem to involve the functions of the posterior hypothalamus and its effects upon the sympathetic nervous system. Second, although fear reaction may be largely innate, individuals tend to have variations in the manner in which the anxiety is expressed. It is likely a result of learning or constitutional predisposition. Third, it is proposed that anxiety represents only one of many arousal states that can be differentiated from a more general state of activation. As arousal becomes more intense, differentiation probably occurs and distinctive arousal states may emerge and relate to such constructs as anxiety, anger, hunger, sex, or other emotional or motivational states.

One of the few research studies assessing effects of counselor anxiety on counseling relationships was by Bandura in 1956. He investigated 32 clinical psychologists, eight psychiatrists, and two psychiatric social workers for possible counselor anxiety effect and insights into successful counseling outcome. The clinical settings represented in the study included a child guidance clinic, a community psychological clinic, a university student counseling center, and a Veterans Administration neuropsychiatric hospital. Counselors rated themselves as well as the other counselors for anxiety and insight on three central conflict areas—dependency, hostility, and sex. Counselor competence was defined in terms of the counselor's ability to facilitate improvement in client adjustment. Results indicated a negative relationship of a moderate degree between the
counselor's anxiety level and the ratings of counseling competence. Anxious counselors were rated to be less competent counselors than those who were low in anxiety. Further, there were no significant relationships between the counselor's degree of insight into the nature of their anxieties and ratings of counseling competence. Finally, no significant relationships were found between the counselor's self-ratings of anxiety and ratings of their counseling competence.

Similar studies have also indicated that when the client expresses tendencies that are threatening to the counselor, these elicited anxieties may induce a variety of responses in the counselor. Usually an avoidance type response appears (Dollard and Miller, 1950; Eldred et al., 1954; Fromm-Reichmann, 1950; Little, 1951; and Reich, 1951). However, past research studies used various types of anxiety assessment and seemed to pose questions as to what was the most accurate measure of counselor anxiety (physiological, behavioral, or self-report) and which type of anxiety assessment was most reliable.

Rosenthal (1955), Cattell and Gruen (1955), and Cattell and Scheier (1958) reported several factor analytic studies in which a variety of self-report, behavioral, and physiological measures were utilized. Cattell and Scheier (1958) found a factor they labeled anxiety which emerged in all these studies and was separable from a number of other factors. The above studies employed a substantial number of United States Air Force pilot trainees, children, and college students. Upon inspection of the factor loadings on anxiety in these various studies, it becomes apparent that the only measure with high and consistent loadings were
those utilizing self-report. Few, if any, behavioral and physiological measures had loadings over .30, and none of those that did were substantiated in other studies. For example, in Rosenthal's study (1955), the two highest loadings on the anxiety factor were Taylor Manifest Anxiety Scale, .85, and the questionnaire measures for nervous tension, .70. Four other measures with loadings above .30 were self-report measures. Rosenthal obtained several physiological measures under various conditions which included galvanic skin response, heart rate, salivary volume, and systolic blood pressure. None of these measures related to the anxiety factor to any degree.

A more recent viewpoint is expressed by Zajonc (1973). He hypothesized that physiological arousal was increased by the presence of other people, and that this arousal helped to account for the seemingly inconsistent findings in the literature on anxiety in social facilitation. The presence of other people may increase or facilitate performance of the individual, or it may decrease or interfere with performance. Zajonc reasoned that arousal should lead to the greater occurrence of dominant responses. If correct responses are dominant, performance is facilitated; if incorrect responses are dominant, performance is hampered. While many behavioral studies appear to support this hypothesis, research on the physiological underpinnings is only rudimentary. The fact that different indices of physiological arousal, whether electrocortical, biochemical, electrodermal, cardiovascular, or skeletal motor, exhibit low correlations, underscoring an important basic complication (Lacey, 1967).

Therefore, if anxiety is considered basically a fear reaction, an important research question is: Do certain types of intense client
behaviors such as seduction, aggression, anger, and rejection arouse an anxiety or fear reaction in the counselor trainee that constricts or arouses the expression of such positive verbal responding skills as accurate empathy, nonpossessive warmth, and genuineness?

Purpose of the Study

The purpose of this study was to investigate whether certain kinds of client behavior such as seduction, aggression, anger, and rejection had possible anxiety effects on a subject's verbal responding skills. The Truax scales of accurate empathy, nonpossessive warmth, and genuineness were utilized for assessing these verbal responding skills. Anxiety was assessed by physiological, behavioral, and self-report types of measurement.

Research Problems

In order to consider if the counselor trainee's anxiety patterns affects performance in the three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness, three research problems were formulated.

1. To determine if there was a significant relationship between the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness with his/her physiological, behavioral, and self-report types of anxiety assessment.

2. To determine which type of anxiety assessment (i.e., physiological, behavioral, or self-report) was the most effective in assessing the subjects' anxiety with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.
3. To determine if there were relationships between IPR videotape vignette client conditions of seduction, aggression, anger, and rejection and the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness.

As a matter of statistical procedure, Pearson Product Moment Correlations were calculated first to determine if there were viable relationships between the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness and the three types of anxiety assessment. Next, analyses of variance with the randomized block design were used for testing null hypotheses to determine if there were significant differences among the subjects' responses and their responses to the IPR video-tape client vignettes of seduction, aggression, anger, and rejection.

Hypotheses

To examine the above research problems, five null hypotheses and related subhypotheses were formulated.

Hypothesis I: There is no significant difference between the subjects' physiological sweat anxiety on the Palmar Finger Sweat Bottle scores and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis II: There is no significant difference between the combined or the individual subjects' verbal response scores of accurate empathy, nonpossessive warmth, and genuineness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis IIa: There is no significant difference between the combined subjects' verbal response scores of accurate empathy, nonpossessive warmth, and genuineness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.
Hypothesis IIb: There is no significant difference between the subjects' verbal response scores of accurate empathy and the IPR video-tape vignette conditions of seduction, aggression, anger, and rejection.

Hypothesis IIc: There is no significant difference between the subjects' verbal response scores of nonpossessive warmth, and the IPR video-tape vignette conditions of seduction, aggression, anger, and rejection.

Hypothesis III: There is no significant difference between the subjects' combined or individual behavioral scores of fidgetiness and overall nonverbal anxiety scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis IIIa: There is no significant difference between the subjects' combined behavioral scores of fidgetiness and overall nonverbal anxiety scores with the IPR video-tape client conditions of seduction, aggression, anger, and rejection.

Hypothesis IIIb: There is no significant difference between the subjects' behavioral anxiety scores of fidgetiness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis IIIc: There is no significant difference between the subjects' behavioral overall nonverbal anxiety scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis IV: There is no significant difference between either the subjects' combined self-report scores of fear and anxiety or their individual self-report scores of fear and anxiety with the IPR video-tape vignette conditions of seduction, aggression, anger, and rejection.

Hypothesis IVa: There is no significant difference between the subjects' combined self-report scores of fear and anxiety with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis IVb: There is no significant difference between the subjects' self-report scores of fear with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.
Hypothesis IVc: There is no significant difference between the subjects' self-report scores of anxiety with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis V: There is no significant difference between either the subjects' combined self-report scores of empathy and warmth or their individual self-report scores of empathy and warmth with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis Va: There is no significant difference between the subjects' combined self-report scores of empathy and warmth with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis Vb: There is no significant difference between the subjects' self-report scores of empathy with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Hypothesis Vc: There is no significant difference between the subjects' self-report scores of warmth with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Definitions

Research studies contain a diversity of terms utilized by researchers. To eliminate possible misconceptions of terms and concepts in this study, the following definitions are given.

Definitions 1 through 3 refer to the Truax Scales for Accurate Empathy, Nonpossessive Warmth, and Genuineness. Further information regarding the Truax scales is presented in Appendices B, C, and D.

1. Accurate empathy—This term is defined as the counselor's attitude and verbal ability to understand the client's "private world" as if it were his own. It also involves more than just his ability to know what the client means. Accurate empathy is both counselor sensitivity to
current feelings, and verbal facility to communicate this understanding with language attuned to the client's current feelings.

2. Nonpossessive warmth--This term is defined as the counselor's verbal expression of warmth and intimacy. These expressions communicate a caring by the counselor's voice, tone, and cadence to the client. Nonpossessive warmth for the client means acceptance of self by another as a person with human potentialities. It involves a nonpossessive caring for him as a separate person and, thus, a willingness to share joys and aspirations as well as depressions and failures. It involves valuing the client as a person, separate from an evaluation of his behavior or thoughts. Thus, a counselor can evaluate the client's behavior or thoughts and still express a high degree of warmth if it is clear to the client that his value as a person is uncontaminated.

3. Genuineness--This term is defined as counselor's honest and openness of verbal expressions to the client. A high level of genuineness does not mean that the counselor must overtly express his feelings but only that he does not deny them or present a facade. Thus, the counselor may be actively reflecting, interpreting, analyzing, or in other ways functioning as a counselor, but this functioning must be genuine so that one is being oneself rather than presenting a professional facade. The counselor's response must be sincere rather than phony and must express real feelings rather than defensiveness.

4. Anxiety--This term is defined as a construct similar and perhaps identical to a fear reaction. The anxiety reaction is largely innate, yet it is likely that, as a result of learning or constitutional predis-
position, individuals tend to vary in the manner the reaction is expressed. It also represents only one of many arousal states that can be differentiated from a more general state of activation as arousal becomes more intense.

A. Physiological anxiety is defined as a sweat response measured by the Palmar Sweat Bottle Method.

B. Behavioral anxiety is nonverbal anxiety expressed by the overt behavior of an individual. These nonverbal behaviors are expressed in three categories: fidgetiness, inhibition, and autonomia. Fidgetiness includes such behaviors as moving in a chair, shuffling feet, or poor eye contact. Inhibition includes such behaviors as pale face, dead pan expression, or trembling hands. Autonomia includes the playing with an object such as a pencil, blushing, or swallowing repeatedly.

C. Self-report anxiety is anxiety, tension, or nervousness that is experienced and reported by the individual.
REVIEW OF LITERATURE

The review of the literature is divided into four sections. The first section contains a review of the literature on the counselor's verbal responding skills which provide the necessary constructive therapeutic conditions for the client in the counseling relationship. The second investigates the limited research findings of how counselor anxiety affects their verbal responding skills and the various means used to assess the anxiety. The third section includes the literature on non-verbal behavior as both a means of communication in the counseling relationship and as a method for assessing the counselor's overt anxiety behavior. The fourth section discusses the research on the Interpersonal Process Recall method and the use of simulation films as possible devices for assessing counselor verbal responding skills.

Counselor Verbal Responding Skills

Impetus for research interest in counselors' characteristics has grown out of the pioneering work of Whitehorn and Betz (1954) who suggested that successful and unsuccessful counselors differed in their attitudinal approach to counseling. The successful counselors were warm and attempted to understand the client in a personal, immediate, and idiosyncratic way, whereas the less successful counselor tended to relate in a more impersonal manner, focusing upon psychopathology and a more external kind of "understanding." Although Betz (1963a) has continued to find support for his previous research, McNair et al. (1962) found that the relationship was more complex. They concluded that the relationship
between counselor characteristics and counseling outcome might be de-
pendent upon similarity of background and interest between client and
counselor.

The Whitehorn and Betz data are consistent, although not identical,
with three recurring themes in many of the theoretical formulations de-
signed to describe effective counseling: accurate empathic understanding
for the client, nonpossessive warmth for the client, and counselor genu-
ineness or authenticity. Psychoanalytic theorists (Alexander, 1948;
Halpern and Lesser, 1960; Ferenczi, 1930; Fenichel, 1945; Fliess, 1942;
Fromm-Reichmann, 1952; Reik, 1949; Shafer, 1959; and Sullivan, 1940),
client-centered theorists (Dymond, 1949; Jourard, 1959; Rogers, 1951;
Rogers and Truax, 1967; and Truax, 1961a), more eclectic theorists (Fox
and Goldin, 1964; Hobbs, 1962; Raush and Bordin, 1957; Strunk, 1958;
Strupp, 1960; and Truax and Carkhuff, 1963), and even behavioristic
theorists (Wolpe, 1958) stressed the importance of counselors being able
to: (1) sensitively and accurately understand the client, and accurately
and empathically know the client's "inner world" and respond in such a
manner as to communicate this deep understanding; (2) communicate a non-
possessive warmth and acceptance of the client; and (3) communicate their
own genuineness, authenticity, or integration within the counseling en-
counter. These three ingredients of the counseling relationship are
aspects of counselor responding skills which cut across the traditional
theories of counseling and appear to be common elements in a wide variety
of psychoanalytic, client-centered, eclectic, or learning theory oriented
approaches to counseling.
Of these three ingredients common to divergent theories, the counselors' responding skills of genuineness or authenticity are perhaps most basic. For a trusting relationship to occur, counselors must act as authentic persons. Theoretically, neither accurate empathy nor nonpossessive warmth can function properly without the counselors being genuine which involves an honest openness to experiences by counselors during the counseling relationship. It means that there is no professional facade or professional-confessional screen. It means that counselors are not denying feelings or experiences and that they do not hold themselves aloof from personal relationships.

The measurement of counselor genuineness from recorded counseling sessions uses a scale descriptively specifying levels along a continuum (Truax, 1962b). At its lowest level, the scale includes such descriptions as "... there is explicit evidence of a very considerable discrepancy between his/her experiencing and his/her current verbalizations," and "... the counselor makes striking contradictions in his/her statement ..." or, "the therapist may contradict verbal statements ... with voice qualities ...." At intermediate stages on the continuum "the counselor responds ... in a professional rather than a personal manner ... there is somewhat contrived or rehearsed quality ...." At higher values of the continuum, "there is neither implicit nor explicit evidence of defensiveness or the presence of a facade," and at the highest level "there is an openness to experiences and feelings by the counselor of all types--both pleasant and hurtful--without traces of defensiveness or retreat into professionalism ...." (Truax, 1962b)
The second important verbal responding skill is the communication of a nonpossessive warmth for the client. Theoretically, warmth serves as a precondition for the counselor's ability to sense, deeply and accurately, the client's inner experiences and feelings, and is a precondition for the trusting relationship assumed to be necessary for the client's use of accurate empathy in the process of self-exploration. It involves a willingness to share both the client's joys and aspirations, and depressions and failures. It means an acceptance of what is rather than focusing upon what should be. It means a warm acceptance of clients and their feelings and experiences without placing any conditions upon this warmth.

Nonpossessive warmth does not mean being paternalistic, sentimental, or superficially agreeable. The measurement of nonpossessive warmth specifies a continuum involving at the lower range such counselor behaviors as "the counselor acts in such a way as to make him/herself the locus of evaluation . . . (he/she) may be telling the client what would be 'best' for him or her, or may be in other ways actively either approving or disapproving of his/her behavior," or, the counselor "responds mechanically to the client and thus indicates little positive regard . . . or . . . ignores the client where an unconditional warm response would be expected complete passivity that communicates almost unconditional lack of regard." (Truax, 1962a)

At high values "the counselor clearly communicates a very deep interest and concern for the welfare of the client. Value judgments of thoughts and behaviors are for the most part absent . . . except that it is important to the counselor that he or she be more mature . . . or that
"the counselor him/herself is accepted and liked." At the highest level "... the client is free to be him or herself even if this means that he/she is regressing, being defensive, or even disliking or rejecting the counselor him or herself." (Truax, 1962b)

The third important ingredient of counseling verbal responding skills that changes people for the better is that of accurate empathic understanding requiring the counselor to be a listener, a thinker, and a talker. It involves both a sensitivity to what the client is currently feeling or experiencing and the verbal facility to communicate this understanding in a language attuned to the client's current feelings. The accurately empathic counselor not only indicates a sensitive understanding of the apparent feelings, but goes further to clarify and expand what is hinted at by voice, posture, and content cues.

The Truax Accurate Empathy Scale defines a continuum which specifies at its lower values such behaviors as "counselor seems completely unaware of even the most conspicuous of the client's feelings" (Truax, 1961b). "His or her responses are not appropriate to the mood and content of the client's statement and there is no determinable quality of empathy, hence no accuracy whatsoever," whereas at intermediate levels of the continuum the "counselor often responds accurately to more exposed feelings. The counselor also displays concern for more hidden feelings which he or she seems to sense must be present though he or she does not understand their nature," or "he or she shows awareness of many feelings and experiences which are not so evident ... but in these he/she tends to be somewhat inaccurate in his or her understanding." At the higher levels of the
continuum of accurate empathy, the counselor "shows awareness of the precise intensity of the most underlying emotions . . . his responses move only slightly beyond the area of the client's own awareness, so that feelings may be present which are not recognized by the client or the therapist," or "accurately interprets all of the client's present, acknowledged feelings. He moves into feelings and experiences that are only hinted at . . . and does so with sensitivity and accuracy. The therapist offers . . . additions to the patient's understanding so that not only are underlying emotions pointed to, but they are specifically talked about." To both accurately predict and effectively communicate what the client is currently experiencing and feeling, and, therefore, of "what he might well say were he more open and less defensive," is the quality of accurate empathic understanding (Truax, 1961b).

Recent research, with a variety of approaches, has focused upon these three important counselor verbal responding skills. Research to date can be grouped into three broad research categories: studies of client outcome in cases receiving relatively high levels of the three counseling conditions contrasted with those receiving relatively low levels; studies of accurate empathy, nonpossessive warmth, and counselor genuineness utilizing control groups in assessing client personality or behavioral change; and studies focusing on causation.

Studies of therapeutic conditions and outcome

Although a number of researchers, most notably Strupp (1958), have developed procedures to measure empathic ability of counselors, one of the first studies attempting to relate empathic ability of counselors to
client outcome was that by Halkides (1958) who selected brief samples from early and late counseling interviews from ten most successful and ten least successful counseling cases. Ratings were made using a very brief scale based on Rogers' (1957) writings to define the counselor level of empathic understanding, unconditional positive regard, and self-congruence. Her report indicated that the most successful cases received significantly higher levels of these three counselor-offered conditions than did the least successful ones.

Barrett-Lennard (1962) studied the client's reported perception of the level of these three counseling skill conditions to the client's personality change. His findings on 42 clients seen by 21 different counselors indicated that experienced counselors were perceived as offering significantly higher levels of empathy, warmth, and congruence than less experienced counselors.

A number of studies by Rogers, Truax, and Gendlin have demonstrated the positive relationship between the three responding skills of accurate empathy, nonpossessive warmth, and counselor genuineness, and the amount and direction of client's personality and behavioral change. One of the first studies (Truax, 1961c) compared the level of accurate empathy in four hospitalized patients who showed clear improvement on a variety of personality tests, and four who showed clear deterioration after six months of intensive psychotherapy. Two-minute samples were selected from the middle one-third of a total of 384 therapy sessions, then randomly assigned code numbers and submitted to judges, who had no knowledge of case outcome, for rating on the accurate empathy scale. The psycho-
therapy, involving test-improved patients, rated consistently higher on accurate empathy than the psychotherapy with test deteriorated patients. Further, the therapists did not tend to systematically vary their level of accurate empathy throughout the six months of intensive psychotherapy.

That initial finding, relating one of the three counselor responding skill conditions to case outcome, was clarified and extended by later studies which involved 14 schizophrenic patients from whom a four-minute tape-recorded sample was selected from every fifth interview throughout the course of psychotherapy (Truax, 1963). The 14 patients had been seen in intensive psychotherapy from six months to four and one-half years. Under-graduate students, who were naive with respect to theory and practice of psychotherapy, were trained in the use of the three scales in an effort to obtain more "objective" ratings that would be uncontaminated by the theoretic bias of the rater. The raters themselves were trained on the other data to minimize rate-rerate and inter-raters' reliabilities of .50. As in a number of other studies, the few college students hired through the student employment service who were unable to reach these minimum criteria, were discarded and new raters trained.

Using the five raters on the accurate empathy scale who had no knowledge of the therapists, the patients, the case outcomes, or the order in which the samples given to them for rating were arranged, a comparison was made between the mean level of accurate empathy offered by the therapist for each case and personality and behavioral change in the patient. The correlation between accurate empathy and the case outcome as measured by the Final Outcome Criterion (which included psychological
test change data, diagnostic evaluations of personality change, and a
measure of time actually spent out of the hospital since initiation of
therapy) was .77. A second outcome criterion was obtained from blind
evaluations of degree of change in personality functioning based primarily
on the Rorschach and MMPI in both pre-therapy and late in therapy, by two
experienced diagnosticians. The correlation between these diagnostic
evaluations of constructive personality change and the average level of
accurate empathy offered by the therapist was significant at the .05
level. Also, both the highest and the lowest levels of accurate empathy
for each case were significantly related at the .05 level to case outcome.

Using identical procedures, but with a different set of four raters
who were trained on the Unconditional Positive Regard Scale, the correla­
tion between the level of nonpossessive warmth offered by the therapist
for each case and the Final Outcome Criterion was .73, p<.01, while the
correlation with the diagnostic evaluation of change was .45, p<.05.
Since the three counselor verbal responding skills tended to show similar
relationships, one might assume a relatively high intercorrelation between
the measures of the three therapeutic conditions themselves. Accurate
empathy measures correlated .54 with nonpossessive warmth measures, and
.49 with therapist genuineness measures, while warmth and genuineness
correlated .25, indicating that between 6 percent and 30 percent of the
variation in one measure is common to another (Truax, 1963).

Studying this same patient population, Spotts (1962) also found that
positive regard or warmth, regardless of conditionality, was significantly
associated with constructive personality change. Wharton (1962) studied the effect of therapist communicated level of positive regard during the first 30 interviews upon patient outcome measures obtained two and one-half years after the beginning of the therapy research. The Spotts-Wharton scale of Positive Regard (1962) was used. This scale aimed at measuring a continuum of therapist warmth, interest, and attentiveness to the client extending from deep prizing and nonpossessive caring down through mere diagnostic or intellectual interest to mere curiosity or indifference. Using pre and post measures such as the MMPI, Q-Sort, and hospitalization rate data, the therapy cases were divided into three groups: successful cases in which patients showed both test improvement and hospital discharge, failure cases in which patients showed both test deterioration and continued hospitalization, and indeterminate cases, in which patients showed a mixed outcome on the various behavioral and personality measures. Successful cases in therapy had received significantly higher levels of positive regard throughout the first 30 sessions of therapy when compared to both the failure and indeterminate cases combined. The deteriorated and mixed outcome patients had received approximately equivalent levels of positive regard from their therapists.

Gendlin and Geist (1962) used procedures similar to Wharton (1962) and Truax et al. (1962), dividing the therapy patients into those showing constructive change, those showing deteriorative change, and those essentially unchanged or mixed. The authors then compared levels of therapist congruence of genuineness communicated to the patient throughout the total course of psychotherapy and case outcome. The lowest level of therapist
self-congruence for each case was positively related to outcome in the predicted direction. Mean level of congruence (genuineness) was not significantly related to outcome, although the means for the improved and mixed outcome patients were both higher than the mean level of congruence for the negatively changed or deteriorated patients. The authors concluded that there are instances of extreme therapist incongruence, and that these may invalidate the effects of higher levels offered by the therapist. Further, it may be that in measuring one condition alone, such as congruence, one can determine only where that condition prevents therapy by being extremely low.

In an effort to extend the findings obtained with hospitalized schizophrenics to an outpatient population, Truax (1962c) obtained an additional 14 cases of which seven were relative successes and seven were relative failures from Stanford University and the University of Chicago. For the 14 hospitalized patients and 14 outpatients, the level of accurate empathy offered in therapy was significantly higher for successful cases than for failure cases. An analysis of the distribution of the ratings of accurate empathy suggested that the failure cases were typified by a large frequency of low and moderate levels of accurate empathy. In particular, the failure cases had a high frequency of therapist responses characterized as inaccuracy of the therapist in responding to "preconscious" material.

To further clarify the relationship between empathy and outcome, a study of complete interviews from early and late therapy of these 14 schizophrenic patients was competed by Truax (1962c). Consecutive five-
minute samples were made throughout the 28 interviews, thus covering every single moment of therapeutic interaction during those sessions. Since counselors vary in their level of accurate empathy from moment to moment, an analysis could be made on those data of high and low moments of accurate empathy, as well as mean or average levels of accurate empathy. Thus, the questions in this research study were: "Is the average level of accurate empathy the important factor, or does the patient respond most to those rare moments of highly accurate empathy?" and "Do occasional quite low levels of accurate empathy impede the process of therapy?" The analysis of these data indicated that patients who received, on the average, higher levels of empathy showed improvement, but the highest moments of accurate empathy obtained throughout the interviews was more predictive of outcome when compared to cases in which the highest moments were relatively lower.

The findings of this research study indicated there was no relationship between the level of the lowest moments of accurate empathy and case outcome. This study was of practical and theoretical significance since it indicated that a counselor would be more helpful by striving for deeper understanding, even at the risk of occasional misunderstanding; that the occasional low moments of accurate empathy had no relationship to outcome; and that outcome was significantly affected at the .05 level by both the average levels and the very highest moments of accurate empathy.

Although several studies have now indicated that counselor empathy levels do not tend to vary systematically across time in therapy with patients (Truax, 1963; Melloh, 1964), the Cartwright and Lerner study
(1963), using a different measure of empathic understanding, reported results indicating that the counselor's final, but not his initial, level of empathic understanding of the client was related to improvement in counseling. Continuing the line of investigation using the Accurate Empathy Scale, Bergin and Soloman (1963) presented evidence indicating that the level of accurate empathy as measured from tape-recorded therapy conducted by fourth-year post-graduate clinical psychology students was significantly (.05 level) related to the counselor's ability to produce outcome as judged by supervisors.

The work of Strupp et al. (1963) further extended the available data with respect to counselor warmth. Studying a population of counselors who were analytically oriented, they found substantial correlations (significant at the .05 level or beyond) between the counselors' ratings of outcome of therapy and the clients' ratings of specific emotional attitudinal variables, particularly the counselors' feeling of warmth and liking for the client.

Some additional evidence for the importance of empathy and warmth is available in a study of Combs and Soper (1963) who reported finding that effective counselors tended to assume the internal rather than the external frame of reference with others, to be people- rather than thing- oriented, and to see people as able, dependable, and friendly, rather than unable, undependable, and unfriendly.

Lesser (1961) reported findings suggesting that the therapist's ability to accurately predict the degree of similarity between him/herself and his/her patient's Q-Sort was significantly and positively related to
the patient's progress. This, too, would seem to suggest that the sensitive, empathic counselor who is able to accurately assess the client and himself or herself is perhaps most effective.

A final study available dealt with 40 outpatients treated by resident psychiatrists at the Phipps Psychiatric Clinic at Johns Hopkins (Truax et al., 1966b). Patients treated by therapists offering high levels of combined accurate empathy, nonpossessive warmth, and genuineness showed significantly greater improvement in comparison to patients receiving relatively lower levels of these conditions on two of the three basic measures of overall patient improvement. Further, on the overall measures of improvement, comparisons were made between the percentage of patients improved vs. nonimproved or deteriorated patients. While the overall improvement rate for the 40 patients combined was 70 percent, the therapists who provided high levels of empathy, warmth, and genuineness produced a 90 percent improvement rate in their patients. Those who offered relatively lower levels of conditions produced only a 50 percent rate of improvement in their patients. Thus, the Hopkins data again suggested that psychotherapy tends to be helpful, improvement rate greater than 70 percent, which is the expectancy for spontaneous improvement, when high levels of therapeutic conditions are offered, but harmful, less than 70 percent rate of improvement, when the therapeutic conditions are low.

Truax et al. (1965) attempted to extend the findings to group psychotherapy. That study involved 40 hospitalized mental patients, all relatively chronic cases, who were given group therapy sessions twice weekly over a three-month, time-limited period. Patients receiving high levels
of accurate empathy showed improvement equal to or greater than that of patients receiving relatively low levels of accurate empathy on all sub-scales of the MMPI, which was administered pre- and post-therapy. Statistically significant differences (.05 level) favoring high empathy occurred on the Pt scale, the Sc scale, and the Welsch Anxiety Index obtained from the MMPI. This data on the therapist's genuineness was surprisingly in direct opposition to the prediction. There was a uniform tendency on all subscales for the patients who had received relatively low levels of therapist genuineness to show greater improvement than those receiving high levels. Like the Johns Hopkins study (Truax, 1966b), where slight negative findings for warmth seemed due to a negative correlation of warmth with both empathy and genuineness, the negative findings in this study for genuineness seemed due to a negative correlation between genuineness and both empathy and warmth in this sample of therapists. In the Truax (1963) study of 14 schizophrenics receiving individual psychotherapy and 14 carefully matched control patients, analyses were carried out to compare the effects of high and low conditions with control conditions. Patients had been randomly assigned to either therapy or control conditions with the matched pairs. The mean value of the three research scales for each case was examined and the therapy patients then divided at the closest significant gap in level of conditions so as to divide the treated group into halves: Six patients had received relatively high levels of conditions while eight had received relatively low levels. Using the clinician "blind" analysis of pre- and post-test battery information to establish levels of overall psychological functioning, patients receiving
high levels of condition showed an overall gain in psychological functioning.

By contrast, patients who received rather low levels of accurate empathy, nonpossessive warmth, and genuineness showed a loss in psychological functioning. Control patients showed moderate gains. An overall test of the differences proved statistically significant at the .05 level. Considering the number of patients at or above the median change in psychological functioning, the control group had a rough 50-50 split, while all patients in the group receiving low levels of conditions were below the median. The patients receiving high conditions showed positive change.

Looking more closely at individual psychological test measures, the following findings emerged. On measures of anxiety level, patients who received low conditions showed a marked increase in anxiety level, and the controls showed almost no change. The patients who received high conditions showed a marked increase in anxiety level and the controls showed a marked drop in anxiety level. Using the Q-Sort measure of change in self-concepts, both the control group and the patients receiving high conditions in therapy showed a slight positive gain, while the patients receiving low conditions in therapy showed a significant change toward poorer adjustment and self-concepts. On the MMPI, significant differences between the three groups in the predicted direction occurred on the sum of Clinical Scales, D, Pd, Sc, and Si. No differences, however, were observed on any of the subscales of the Wittenborn Psychiatric Rating Scale as filled out by ward attendants. In terms of the hospitalization
experience of the three groups during a three and one-half year period after the initiation of psychotherapy, patients receiving high conditions in psychotherapy showed more time out of the hospital than those receiving either low conditions or the controls, while patients who received low conditions did not differ from the controls.

In a related study, Wargo (1962) studied the effects of accurate empathy, positive regard, and unconditional positive regard upon the Barron Ego Strength Scale (1953) developed to predict psychotherapeutic outcome and the LH4 scale developed by Meeker (1958) to predict length of hospitalization. Positive change in ego strength was significantly greater for patients receiving high conditions; differences were in the same direction for the LH4 scale, but reached statistical significance at the .05 level only with the unconditional positive regard scale. When all therapy cases of both high and low conditions were compared with control cases, there were no significant differences in change for the Ego Strength scale or the LH4 scale. Thus, Wargo says,

The findings would indicate that the therapists who present to the client low degrees of unconditional positive regard, accurate empathy, and positive regard, may be facilitating loss of ego strength .... It may well be, then, that no therapy is better than low conditions therapy, but that high conditions constitute the essential ingredient in constructive personality change during therapy.

Working with a quite different population, Dickenson and Truax (1966) investigated the effects of time-limited group counseling upon college academic achievement with a group of emotionally disturbed college under-achievers. Using a matched counseling and control population of 48 clients, those receiving group counseling showed significant improvement
over the control clients. This finding held both in terms of the average increase in level of academic achievement and in terms of the number of students with passing grades in the semester following group counseling. Further, when those receiving high levels and those receiving only moderate levels of counseling conditions in group therapy were compared with the control population, those receiving high conditions showed the greatest positive gain, while those receiving only moderate levels did not differ from the control population. One of the more important findings from that study was that the total group of clients receiving counseling functioned post-therapy on the level predicted by their college entrance exam scores: They were no longer "underachievers," while the control population continued to achieve in college grades at a level significantly at or beyond the .05 level below their predicted level.

Another study by Truax et al. (1966a) was aimed at evaluating the effects of high conditions therapy with female juvenile delinquents. This study was of particular significance since only counselors who, on the basis of prior research, were known to provide high verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness served as group counselors. A total of 70 institutionalized delinquents were assigned on a random basis to a control group of 30 delinquents and a counseling group of 40 delinquents. The treatment group received 24 sessions of group counseling, but in all other respects received the same institutional treatment as that given the control group. On all eleven psychological test measures obtained pre- and post-counseling, the delinquents receiving high conditions group counseling showed improvement
beyond that seen in the control group. In particular, they showed significant gains over the control group toward more adequate self-concepts, toward perceiving parents and authority figures as more reasonable and less threatening; they also showed gains on a psychological test measure specifically designed to differentiate between delinquent and nondelinquent. When institutionalization rates were examined during a one-year follow-up period, the delinquents receiving the verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness from counselors in group therapy spent significantly more time out of the institution than did the control group.

Taken together, the evidence is relatively strong in suggesting that counselors who are accurately empathic, nonpossessively warm in verbal responding skills, and who are able to express genuineness in relationships with clients are, indeed, effective. The greater degree to which these elements were present in the counseling relationship, the greater was the resulting positive personality change in the client.

A program for applying these three verbal responding skills to training was initially developed using an integrated, didactic, and experiential approach (Truax et al., 1964). To evaluate the effectiveness of the training program, Carkhuff and Truax (1965a) compared the post-training levels of empathy, warmth, and genuineness in a group of clinical psychology trainees and a group of lay persons such as psychiatric aides in a hospital setting with the levels of therapeutic conditions provided by a group of experienced and highly skilled therapists. The findings indicated that the levels of empathy and warmth post-training for the lay
group and the clinical psychology trainees did not differ significantly from that of the group of experienced therapists. The experienced therapists, however, showed a significantly higher level of genuineness in comparison to the lay trainees, while the psychology trainees averaged a level of genuineness midway between the experienced therapists and the trained psychiatric aides. The differences, while statistically significant at the .05 level, were not large.

In subsequent research, Carkhuff and Truax (1965b) studied the effects on patient outcome of the lay persons who had had the four-month training program and who were communicating, on the average, a relatively high level of empathy, warmth, and genuineness. Five volunteer but otherwise unselected trainees from the lay group were assigned as lay group counselors to eight different groups of hospitalized mental patients. A total of 150 chronic hospitalized were randomly assigned either to the treatment groups or to a control group receiving no treatment. The lay group counselors, under supervision, met on a twice-a-week basis with the patients during a three-month period. Although the five lay counselors had had no training in personality dynamics, psychopathology, and so on, the findings from this study indicated significantly, at or beyond the .05 level, greater personality and behavioral change in the patients receiving the lay group counseling than the patients serving as control subjects.

This study, then, suggests that these three verbal responding skills are teachable, and that these ingredients produce some positive effects even in the absence of expert knowledge. The second approach to the question of causation was a simple experimental aimed at determining the immediate effects of empathy and warmth upon the patient's engagement in
self-exploration during the therapeutic hour. Truax and Carkhuff (1965b) studied the level of self-exploration during portions of interviews in which the level of empathy and warmth was experimentally raised and lowered. They found that an experimentally induced drop in accurate empathy and warmth elicited a clear effect with hospitalized patients in the form of a consequent drop in the level of patient self-exploration. Similarly, an increase in the level of accurate empathy produced a consequent significant rise in the level of patient self-exploration.

Studies on causation

A further question of causation concerns the interaction of counselors and client in producing the level of empathy, warmth, and genuineness occurring in counseling. It seems likely that in the process of counseling, the client will to some degree determine the levels of empathy, warmth, or genuineness that they receive. In spite of this possibility, research to date suggests that it is the counselor, and not the client, who primarily determines the level of these verbal responding skills occurring in counseling. Thus, in a study by Truax (1961c) eight different therapists offered psychotherapy to 24 patients living in a continuing treatment ward of a state hospital. When tape recordings were selected where the same eight therapists saw the same eight patients in a balance research design, it was found that different therapists indeed produced different levels of empathy, warmth, and genuineness, but that different patients did not tend to elicit different levels of conditions from the set of eight therapists. The findings were also confirmed in a study by Truax et al. (1966c) which indicated that when patients were randomly
assigned to therapists and to screening interviewers, different levels of verbal responding conditions were attributable to therapists rather than to patients.

The present research evidence, in reality only the beginning steps toward specifying aspects of counseling that lead to constructive or deteriorative client change, does represent significant advancement toward understanding and enhancing the counseling process. Empathy, warmth, and genuineness seem to be consistently found by research to be characteristic of the counselor's verbal responding skills which change people for the better. Further research must be aimed at developing further evidence to define more solidly the contexts within which accurate empathy, nonpossessive warmth, and genuineness are indeed specifying the exact behaviors and characteristics relevant to change. For example, since empathy seems to be of significance, it becomes important to know which specific verbal and nonverbal behaviors, emanating from both the client and counselor, are among those now labeled as empathic or warm which enhance a trusting relationship. For example, is the tonal quality of the counselor's voice significant, or only the understanding?

Also, the research evidence indicates that other counselor characteristics besides empathy, warmth, and genuineness are important for successful client outcome. The number of positive findings seem to provide an answer to the seemingly incongruent evidence suggesting that there is no difference in improvement between patients receiving counseling and those receiving no treatment. A careful review of literature would suggest that the evidence has grown even stronger for the former position
since Eysenck's review (1952). A careful review of the evidence, however, also suggests that different therapists, even different clinics and treatment institutions, produce radically different improvement rates. Some individual therapists and even individual clinics tend to slower deteriorative rates in psychoneurotics well beyond the 70 percent improvement rate typical of the untreated patient, while others produce improvement rates far below the spontaneous improvement rates.

The work of Strupp (1960b) and his co-workers provides evidence on this point. In his study of warmth and empathy, primarily based on ratings of therapist responses to standardized sound films of patient in-interviews behavior, their data suggest that less than one-third of the therapists could be rated overall as having a warm positive attitude while more than one-third were rated overall as having cold or rejecting attitudes. Those data dealt with a sample of 237 therapists. Further, his findings held separately for psychiatrists, psychologists, social workers, and for eclectically oriented, client-centered oriented, and psycho-analytically oriented therapists. This general finding seems to be as true of therapists who themselves had been analyzed as for those who had no personal therapy. Further, analyzing the verbal responses of 126 psychiatrists, Strupp and his co-workers carefully rated 2,474 responses and found that only 4.6 percent could be classified as communicating any degree of warmth. Over 95 percent of the individual responses were either neutral or communicated coldness and rejection.

An implication of these findings suggests that a sizable number of counselors are unable to provide high levels of empathy, warmth, and
genuineness and are therefore likely to provide the verbal responding skills and behavior that change people for the worse. Perhaps one of the reasons is the therapeutic training of the counselor, in that the counselor doesn't have the opportunity to learn which counseling skills effect positive client change and apply them. Also, certain client behaviors the counselor has not learned to handle create an anxiety reaction in the counselor which in turn can subsequently constrict verbal responding and relationship skills.

Assessment of Anxiety and the Counselors'
Verbal Responding Skills

In terms of productivity during the past two decades, few areas of study have matched the output of research on anxiety and its assessment. While the inundation of papers on anxiety have impressed some researchers and troubled others, it seems appropriate to inquire into the major areas in which anxiety has been assessed. The purpose of this section is not to present a general review of all studies dealing with anxiety, but rather to attempt to abstract from the literature major trends in the assessment of anxiety and the limited current research on the effect of counselor anxiety on their verbal responding skills in the counseling relationship.

In view of the centrality of the concept of anxiety in personality theory, it is somewhat surprising that attempts to assess this construct objectively have developed only since the early 1950's. Also, counselor educators concerned with personality functioning might well be surprised at the context in which the first widely used anxiety scale was developed.
A group of experimental psychologists interested in problems of learning was responsible for the development of Taylor's Manifest Anxiety Scale (MAS) (Farber, 1955; Taylor, 1951, 1953, 1956). The main interest was in the assessment of Hull's "drive theory" in human subjects who were being studied in learning situations.

Whereas the work stemming from the University of Iowa was concerned with the relationship of MAS to drive, other researchers have inquired into the relationship between anxiety measures and a host of varied behavior and situations (Eickhorn and Tracktir, 1955; Eriksen and Wechsler, 1955; Fiedler et al., 1958; Janis, 1955; M. T. Mednick, 1957; Rosenbaum, 1956; Siegal, 1954; Taft, 1957; Westrope, 1953; Wolf, 1955). Motivated by the need for measures of personality relevant to such variables as intellectual performance, reaction to stress, and ability to learn, psychologists seized upon the objective, easily-administered MAS. In view of the absence of measures of individual differences in anxiety, the motivation underlying the swift adoptions of the MAS seems clear. However, the criticism of Jenkins and Lykken (1957) that in some research projects involving the MAS the rationale for its use has been lacking seems to be a just one.

The availability of the MAS served to stimulate its use by researchers with varied interests and has also encouraged other investigators to construct other measures of anxiety better fitted to their specific needs (Prokasy and Raskin, 1973; Bendig, 1956; Dixon et al., 1957; Lykken, 1957; Mandler and Sarason, 1952; Welsh, 1952, 1956). As a result, measures for specific anxieties such as test anxiety, social anxiety, and anxiety in
children are now readily available. There is reason to believe that the various measures of anxiety in current use are not all assessing the same thing because of the scales themselves, as well as the variation of definitions of anxiety, between the researchers (Martin, 1961; Feldman and Siegel, 1958; Goodstein, 1954; Gordon and Sarason, 1955; Jackson and Bloomberg, 1958; Lauterbach, 1958; Sarason, 1959b; Sinick, 1956; Windle, 1955; Zimet and Blackbill, 1956). An important current problem is the clarification of the similarities and differences among existing anxiety indices.

As a definition, it is proposed that the construct of anxiety be considered similar and perhaps identical to the reaction of fear, the neurophysiological bases for which are not completely known but would seem to especially involve the functions of the posterior hypothalamus and its effects upon the sympathetic nervous system, the adrenal modula, and the pituitary-adrenocortical system (Martin, 1961). The brain stem reticular formation may also play a part in this reaction. This reaction may be largely innate, yet, it is likely that as a result of learning or constitutional predisposition individuals tend to vary in the manner of anxiety reaction expressed. It is further proposed that anxiety represents only one of many arousal states that can be differentiated from a more general state of activation as arousal becomes more intense. As arousal becomes more intense, differentiation probably occurs, and distinctive arousal states may emerge relating to such constructs as anxiety, anger, hunger, sex, or other emotional or motivational states. Anxiety also possesses the property of being highly learnable; that is, the
hypothetical response becomes readily conditioned to stimuli that do not elicit the response.

The observable response from which one might infer the strength of the anxiety reaction are of three basic types: physiological, behavioral, and self-report responses. From the point of view of assessment, the stimuli that evoke anxiety become important only if one wants to know what situations, thoughts, or feelings elicit anxiety. Thus, the common distinction between anxiety and fear in terms of the latter being in response to a realistic danger and the former being a response to unrealistic or unknown threats is basically a stimulus defined difference and does not necessarily involve a difference in response (Martin, 1961).

As anxiety is defined clinically, it is typically assumed that it has important physiological correlates. On the basis of assumptions of this type, many investigators have sought relationships between anxiety and a variety of physiological measures such as galvanic skin response, heart rate, palmar sweat conductance, polygraph, blood pressure, respiration; etc. Although work in this area seems only to be getting underway, the results to date have either been largely negative or not statistically significant at the .05 level. Measures of questionnaire-defined anxiety, such as MAS, do not seem to relate consistently to physiological responding (Beam, 1955; Berry and Martin, 1957; Calvin et al., 1956; Lotsof and Downing, 1956; Raphelson, 1957). Although these findings can be taken as reflecting poorly on the validity of MAS-type scales, it may also be that these scales are tapping aspects of anxiety other than autonomic functioning. It is known that there are marked individual differences among
subjects in their physiological response patterns under stress conditions (Lacey, 1950; Lacey et al., 1953). Consequently, in research relating anxiety and autonomic response, it would seem desirable to investigate patterns of physiological responding rather than only one physiological response. Ax (1953) reports a study in which a variety of physiological measures were obtained from normals under conditions presented in counterbalanced order that were designed to elicit fear and anger, respectively. The fear condition was ingeniously contrived to make the subject think that the apparatus was faulty and that he was in real danger of receiving a severe, perhaps even fatal, electric shock. Anger was aroused by an obnoxious assistant who generally insulted and belittled the subject. Schachter (1957) repeated Ax's study using hypertensive, potential hypertensive, and normotensive subjects, and added a pain experience with a cold pressor test to the fear and anger situations. All subjects received the treatments in the same order: pain, fear, anger. Lewinsohn (1956) obtained three physiological measures plus a measure of finger tremor on groups in normals, anxiety reaction patients, ulcer patients, and hypertensive patients, subjected in counterbalanced order to the cold pressor test and a failure experience accompanied by criticism and electric shock. Another study that is highly relevant to the issue but which employed different research strategy is that of Funkenstein et al. (1957). After stressing their college student subjects, they determined in a post-test interview whether a subject had tended to experience anger outwardly directed, anger inwardly directed, or anxiety. The scores obtained were limited to blood pressure and ballistocardiographic measures. The results of these four studies are summarized in Table 1.
Table 1. Comparison of physiological measures associated with different emotional arousal states in four studies

<table>
<thead>
<tr>
<th>Measure</th>
<th>Ax Fear</th>
<th>Anger</th>
<th>Schachter Fear</th>
<th>Anger</th>
<th>Pain</th>
<th>Lewinsohn Fear</th>
<th>Pain</th>
<th>Funkenstein Fear</th>
<th>Anger-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic blood pressure</td>
<td>20.4</td>
<td>19.2</td>
<td>22.5</td>
<td>21.1</td>
<td>17.8</td>
<td>19.6%*</td>
<td>13.1%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diastolic blood pressure</td>
<td>14.5*</td>
<td>17.8*</td>
<td>13.7</td>
<td>14.5</td>
<td>11.8</td>
<td>9.7%</td>
<td>22.8%</td>
<td></td>
<td></td>
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<tr>
<td>Heart rate (+)</td>
<td>30.3</td>
<td>25.8</td>
<td>18.7*</td>
<td>10.8*</td>
<td>0.3*</td>
<td>5.4*</td>
<td>0.9*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart rate (-)</td>
<td>4.0*</td>
<td>6.0*</td>
<td>6.7*</td>
<td>3.0*</td>
<td>-0.25*</td>
<td>61.9%*</td>
<td>-3.2%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiac output</td>
<td>6.7*</td>
<td>3.0*</td>
<td>-0.25*</td>
<td>61.9%*</td>
<td>-3.2%*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peripheral resistance</td>
<td>4.0*</td>
<td>6.0*</td>
<td>6.7*</td>
<td>3.0*</td>
<td>-0.25*</td>
<td>61.9%*</td>
<td>-3.2%*</td>
<td></td>
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</tr>
<tr>
<td>Hand temperature (-)</td>
<td>.045</td>
<td>.050</td>
<td>.036*</td>
<td>.030*</td>
<td>.024*</td>
<td>-19.3%*</td>
<td>32.9%*</td>
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<tr>
<td>Palmar conductance</td>
<td>14.8*</td>
<td>9.4*</td>
<td>-1.99a*</td>
<td>-2.18a*</td>
<td>-2.33a*</td>
<td>-19.3%*</td>
<td>32.9%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Largest deflection in stress GSR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.52</td>
<td>2.15</td>
<td></td>
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<tr>
<td>No. GSRs</td>
<td>4.7*</td>
<td>11.6*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory rate</td>
<td>6.0*</td>
<td>2.3*</td>
<td>2.8*</td>
<td>2.1*</td>
<td>0.7*</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Frontalis muscle tension</td>
<td>3.34*</td>
<td>4.35*</td>
<td>1.30</td>
<td>2.26</td>
<td>1.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. muscle potential peaks</td>
<td>12.2*</td>
<td>10.5*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finger tremor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87</td>
<td>118</td>
<td></td>
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<tr>
<td>Salivary output</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.9</td>
<td>7.9</td>
<td></td>
</tr>
</tbody>
</table>

*Schachter used the transformation, log 1/(Ri - R2), where R1 = initial resistance and R2 = lowest resistance during stress. The smallest negative number, -1.99, for fear accordingly refers to the largest decrease in resistance.

*Significant at the .05 level; for Schachter this is based on an overall analysis of variance for the three conditions.
In spite of some of the inconsistent findings among these studies, there does appear to be evidence for distinguishable response patterns that can be tentatively associated with the constructs of fear, which is described as anxiety and anger. For example, diastolic blood pressure increased more for anger than for fear situations in all three studies in which fear and anger states were thought to be aroused. Heart rate increased more in fear than anger situations in all three studies and were significant at the .05 level in two studies. Maximum anxiety decrease was significant at the .05 level in anger rather than the fear situation in the one study in which it was reported. Cardiac output increased and was significant at the .05 level more in fear than anger situations in the two studies in which it was reported, and peripheral resistance decreased significantly at the .05 level more in fear than anger situations in both studies where it was reported. Palmar conductance increased significantly at the .05 level more in fear than anger situations in the two studies where it was reported. Numbers of discrete GSRs, however, were significantly higher at the .05 level in anger than fear situations in the one study where this was assessed. Respiration rate increased significantly at the .05 level more in fear than anger situations in the two studies reporting this measure. Frontalis muscle tension increased more in fear than anger situations in the two studies assessing it, but was significant at the .05 level in only one study.

The findings of Lacey (1950), Lacey and Van Lehn (1952), and Lacey et al. (1953), even though based on stressors that for the most part cannot be accepted as clearly anxiety arousing, provide such a strong argument for individual patterns of autonomic response that they should
not be ignored in this context. Lacey et al. (1953) used various samples of college students and mothers of children in the Fel's longitudinal research program with various stressors such as a cold pressor test, hyperventilation, mental-arithmetic, and word fluency. He found that different subjects have different patterns of autonomic response which are reproducible over time and are consistent over these different stressors. Thus, one subject may respond to the stress by a large increase in heart rate and only a small increase in skin conductance and others may respond with the opposite pattern. To the extent that such findings can be generalized to a clearly fear arousing situation the conclusion is clear that one cannot expect intercorrelations among autonomic change scores to be very substantial. The point to be emphasized here, however, is not that several autonomic measures might not for almost all people increase under anxiety arousing circumstances, but that those measures which show the most or least increase vary from person to person. Such a state of affairs is not necessarily disastrous to one interested in using physiological measures in assessing anxiety. The point, however, remains clear that for a given individual some physiological measures may be much more sensitive indicators of change in anxiety level than others.

A somewhat similar point of view is expressed by Zajonc (1973) who hypothesized that physiological arousal is increased by the presence of other people and that this arousal helps account for the seemingly inconsistent findings in the literature on anxiety in social facilitation. Sometimes the presence of other people increases or facilitates performance of the individual and sometimes it seems to decrease or interfere
Zajonc reasoned that arousal should lead to the greater occurrence of dominant responses. If correct responses are dominant, performance is facilitated; if incorrect responses are dominant, performance is hampered. While many behavioral studies appear to support this hypothesis, research on the physiological underpinnings is only rudimentary. The fact that the different indices of physiological arousal, whether electrocortical, biochemical, electrodermal, cardiovascular, or skeletal motor, are in and of themselves poorly correlated, underscores an important basic complication (Lacey, 1967).

The meaning of these different response patterns, which could be few in number, may be clarified by further knowledge about their correlation with behavioral and self-report measures. The same question is asked here as was asked with respect to physiological measures: Is there some pattern of behavioral effects associated with anxiety that can be distinguished from behavioral effects resulting from other arousal states? The research most relevant to the question was that in the general area of the effects of stress on performance. This research, unfortunately, does not provide a clear answer to the question—because of two major shortcomings. First, most such studies tend to be limited to one dependent variable for the good reason that it is much more difficult to measure simultaneously a variety of appropriate behavioral responses than physiological responses. Second, few studies attempt to contrast a fear arousal state with other kinds of arousal states. Another general drawback to most behavioral measures for the purposes of assessment is that their relationship to the anxiety construct is not a monotonic one; for
example, a low score on a certain performance may be associated with a very low or very high state of anxiety (Martin, 1961).

The following behavioral studies, then, can be seen as only suggestive of measures likely to be sensitive to the effects of anxiety and are not intended to represent an extensive coverage of the research on the effects of stress on performance. Summaries of research in this area are provided by Hanfmann (1950); Lazarus et al. (1952); Easterbrook (1959); Sarason (1960); and more recently Martin (1961). A loose empirical generalization that emerges from studies in this area is that tasks most likely to be affected by stress are learning and memory tasks involving novel or relatively poorly learned responses where incorrect competing responses are both numerous and relatively strong and perceptual tasks in which conditions are imposed that make appropriate discriminations difficult.

Many investigators have studied the reactions of subjects differing in scores on anxiety scales to situations posing personal threat or stress for subjects. Typically, the stress has been created by means of verbal instructions; e.g., informing subject he/she is about to take an intelligence test. Most investigators have assumed that high anxious subjects would have greater sensitivity to implied personal threat than would low anxious subjects.

Although some investigators (Cox and Sarason, 1954; Farber and Spence, 1956; Gynther, 1957; Taylor, 1951) have presented evidence not consistent with this assumption, the bulk of the available findings suggest that high anxious subjects are affected more detrimentally by
motivating conditions or failure reports than are subjects lower in the anxiety score distribution (Davidson et al., 1956; Gordon and Berlyne, 1954; Korchin and Levine, 1957; Lucas, 1952; Mandler and Sarason, 1952; Nicholson, 1958; Sarason, 1956, 1957a, 1957b, 1959c, 1959d; Sarason et al., 1952; Sarason and Palola, 1960; Truax and Martin, 1957; Westrope, 1953). An illustration of this type of study is that of Davidson et al. (1956) in which three variables were studied: (a) MAS scores, (b) reports of subjects of levels of failure, and (c) speed of presentation to task stimuli. Significant interactions were obtained among all of the variables, and the authors concluded that high anxious subjects are more sensitive to experimental stress than low anxious subjects. In this connection it is interesting to note that high anxious subjects have been found to be more self-deprecatory, more self-preoccupied, and generally less content with themselves than subjects lower in the distribution of anxiety scores (Bendig, 1958; Cowen et al., 1957; Doris and Sarason, 1955; Fiedler et al., 1958; Holtzman and Bitterman, 1956; Trapp and Kausler, 1958; Westrope, 1953; Wolf, 1955). It may well be that highly motivating or ego involving instructions serve the function of arousing these self-oriented tendencies. The results of these studies on anxiety and stress have led to what might be called a habit interpretation of anxiety (Child, 1954; Davidson et al., 1956; S. A. Mednick, 1957; Nicholson, 1958; Sampson and Bindra, 1954; Sarason, 1959c, 1959b). More information is needed to clarify the conditions, such as those in the family and school room environments, which are associated with the development of heightened responsiveness to stress.
One kind of behavioral measure that would appear promising from an assessment point of view is speech disturbance. Mahl (1956, 1959) has developed a system for reliability scoring speech disturbances of various kinds and has shown certain of these disturbances to be related to variation in anxiety as assessed in psychotherapeutic interviews. Dibner (1956) has employed a similar measure. Easterbrook (1959) makes a plausible case for the idea that many of the disorganizing effects of emotion can be accounted for on the basis of cue utilization: namely, that increased "drive" or "emotion" leads to a constriction of the perceptual field or decrease in the number of cues that can be attended to.

Therefore, if anxiety proves to be a distinguishable arousal state, research on its effects on performance would be greatly facilitated if it could be assessed independently, perhaps by a combination of physiological, behavioral, and self-report measures.

Studies oriented toward assessing the intercorrelations among a number of behavioral manifestations of anxiety are beset by a special problem. Physiological measures can usually be obtained simultaneously, but many behavioral effects on anxiety can be assessed only by presenting the subject with a series of tasks to perform. Unknown order effect may well distort the correlations obtained.

There have been several studies of this type in which a number of behavior measures, selected on the basis of previously reported relationships to anxiety, were intercorrelated. Martin (1958, 1959), in two successive studies using college subjects, found the intercorrelations to be quite low, but a factor analysis still suggested the presence of a dimension that might be labeled anxiety.
Rosenthal (1955), Cattell and Gruen (1955), and Scheier and Cattell (1958) reported several factor analytic studies in which a variety of self-report, behavioral, and in some cases, physiological measures were obtained. They found a factor, which they label anxiety, emerging in all their studies that is separable from a number of other personality factors after relatively blind rotations to oblique simple structure. These studies employed substantial numbers in five different samples of subjects involving USAF pilot trainees, children, and college students. Upon inspection of factor loadings on anxiety in these various studies as summarized by Cattell and Scheier (1958) it becomes apparent, however, that the only measures with high loadings and the only measures whose loadings are consistent from study to study are those based on self-report type measures. Few, if any, behavioral or physiological measures have loadings over .30 and none of those that do are substantiated in any of the other samples. For example, in Rosenthal's study (1955) the three highest loadings on the anxiety factor were Taylor MAS, .85; questionnaire measure of an anxious insecurity, .84; and a questionnaire measure of nervous tension, .70. The other four measures with loadings above .30 were also self-report type measures. Rosenthal obtained several physiological measures under various conditions which include GSR, heart rate, salivary volume, systolic and blood pressure. None of these physiological measures were related to this anxiety factor to any degree.

Holtzman and Bitterman (1956) intercorrelated 41 measures obtained on 135 cadets in an Air ROTC unit. These measures included ratings, personality tests, stress tests, perceptual tests, GSR conditioning, and
amount of uric acid and glycine in the urine. The intercorrelations among the different kinds of measurements were quite low and a factor analysis yielded seven factors which were almost entirely determined by clusters of measures taken from the same test measure. Therefore, perhaps the most parsimonious statement that one can make concerning what is assessed by existing scales of anxiety is that they measure the extent to which an individual or counselor is willing to admit to experiencing anxiety in certain conditions.

It now seems appropriate to turn to the limited research on the conditions which seem to create anxiety in counselors which would constrict their expressing the important verbal responding skills of empathy, warmth, and genuineness. The bulk of the research in counseling has been largely client-oriented. Although the personality characteristics of the counselor have been generally assigned a crucial role in the treatment process, comparatively little attention has been given to the systematic study of the counselor variable of anxiety and how it constricts the counselor in displaying the relationship behaviors necessary to the growth of the client.

Counselor anxiety and verbal responding skills

It is generally agreed that anxiety serves as an important motivational determinant in the development and maintenance of maladaptive behavior and that the effectiveness of counseling depends upon the modification or elimination of the client's underlying anxieties. Thus, the client's anxieties and the defenses developed against them constitute the focus of the counseling interviews. The counselor's permissive and non-anxious response to the client's anxious and conflictful expressions
provides one of the important conditions that lead to the alleviation of the client's anxieties (Dollard and Miller, 1950; Fromm-Reichmann, 1950). In practice, however, this ideal is not always attained since the common anxiety-provoking situations for the client are likely also to be anxiety laden for everyone to some degree, including the counselor (Dollard and Miller, 1950; Reusch and Prestwood, 1949). When the client expresses tendencies that are threatening to the counselor, the anxieties so elicited often motivate a variety of responses in the counselor designed at avoiding the anxiety-producing interaction (Dollard and Miller, 1950; Eldred et al., 1954; Fromm-Reichmann, 1950; Little, 1951; Reich, 1951). The most frequent reactions observed and described include counselor-initiated interruptions in the form of questions that serve to divert the discussion, premature interpretations that block the client's expressions, paraphrasing the client's statements without essential clarification, unnecessary reassurance, unwitting disapproval or the counselor's nonverbal anxiety behaviors themselves. Such reactions not only may impede the progress of counseling but may actually produce a negative counseling effect by reinforcing the strength of the client's anxieties.

With regard to insight, which is interpreted to mean that the cues to the individual's motivations and behaviors have verbal-ideational representation, it is assumed that such symbolization facilitates discriminative, planful, and voluntary behavior (Dollard and Miller, 1950; Shaffer, 1947; Shaw, 1946). If this is the case, then counselors who are aware of cues to their anxieties will be better able to control consciously and adapt reactions for therapeutic ends and thereby function at a more effective level than will counselors who lack such insight.
Bandura (1956) investigated 32 clinical psychologists, eight psychiatrists, and two psychiatric social workers for their anxiety effect and insight in successful counseling outcome. The clinical settings represented in the study included a child guidance clinic, a community psychologic clinic, a university student counseling center, and a VA neuropsychiatric hospital. Each counselor rated himself as well as the other counselors for anxiety and insight measures by three central conflict areas—dependency, hostility, and sex. Counseling competence was defined in terms of the counselor's ability to facilitate improvement in the adjustment of clients. Results indicated a negative relationship of moderate degree between the counselor's anxiety level and ratings of counseling competence. Anxious counselors were rated to be less competent than those who were low in anxiety. Further, there was no significant relationship between the degree of insight the counselors possessed into the nature of their anxieties and ratings of counseling competence. Finally, no significant relationships at the .05 level were found between the counselors self-ratings of anxiety and ratings of their counseling competence.

Pennscott and Brown (1972) measured the relationship between anxiety and the development of empathy in counselor trainees involved in a full-year counseling and guidance institute program. Twenty-nine counselor trainees were assessed for anxiety by the Taylor Manifest Anxiety Scale at three different times during an academic year. Empathy was assessed through the use of a scale for the measurement of accurate empathy by the judges listening to audio tape recordings. The empathy level of trainees
did not increase during the semester in which it was measured. Findings indicated a decrease in trainee anxiety, but it apparently had little or no relationship to the increase of empathy in their counseling ability. The authors suggest that one explanation may be that the task complexity and personal threat experienced by a counselor trainee in a counseling situation are not adequately measured by a paper-and-pencil test administered in a group setting. Also, the empathy and anxiety measures might have correlated to a higher degree had it been possible to assess them in an actual counseling situation. Similar results were found in studies by Brams (1961) and Dispenzieri and Balinsky (1963). However, all three of these studies attempted to assess anxiety by paper and pencil methods.

Truax (1966a) suggested that the effectiveness of therapists who offered high levels of genuineness, warmth, and empathy may be due to the therapists functioning as powerful, positive reinforcers. In a study partially exploring these suggestions, Truax (1966b) found that patients who were reinforced the most for self-exploration manifested higher levels of exploration. Further, Truax suggested that high levels of counselor genuineness, empathy, and warmth can effectively modify the response rate of selected behavior.

Moreover, a study by Holder et al. (1967) suggested that set was an important variable in studies dealing with the conditions of genuineness, warmth, and empathy. Set, within the context, refers to the readiness or the lack of anxiety of a person to perceive and to respond to a situation in a particular way. These authors found that the depth of client self-exploration was relative significantly at the .05 level to the experi-
mental manipulation of these conditions if the counselors were low in the conditions of genuineness, warmth and empathy. Other studies by Sullivan (1954) and Balinsky and Burger (1959) have also indicated the need for the counselor to be free of his own anxiety in order to help a patient or troubled employee toward emotional growth and maturity.

Gellen (1970) proposed that affect-produced physiological responses were a function of empathy. Ninety subjects (30 high school counselors, 30 graduate counseling trainees, and 30 graduate students in science) participated in the study. The subjects were measured for respiration, heart rate, finger blood volume, and skin conductance while matching a series of 11 tape-recorded dramatic dialogues excerpted from television plays to slides taken from the Squires Empathy Test. The major finding was that counselors in the sample displayed higher arousal than the sample of scientists during the presentation of dialogues depicting human interactions. Also, the degree of empathy in counselors and counselor trainees were found to be indexed by finger blood volume but not the other measures of respiration, heart rate, or skin conductance.

There have been several studies measuring the effect of systematic desensitization on the training of counselors. Monke (1971) attempted to determine whether the technique of desensitization would reduce the initial anxiety experienced by the beginning counselor before and during his first counseling session. Using 30 counselor trainees, the treatment consisted of two sessions of relaxation and five of desensitization. The criterion measures employed included physiological measures using heart rate and skin resistance, audio tape evaluations, and self-reports.
Analyses of the data revealed significantly less at the .05 level self-reported anxiety in the experimental group. No differences were found in heart rate, skin resistance, and audio tape evaluation measures. In another study, Maleski (1971) theorized that the effectiveness of the systematic desensitization technique in reducing situational anxiety depends in part on the subject's awareness. Three modified versions of systematic desensitization which include systematic desensitization alone, systematic desensitization plus suggestion, and systematic desensitization plus awareness, and three control procedures which include attention placebo, contact control, noncontact control were used with 60 speech-phobic subjects in a time-limited, pre-test/post-test treatment design. The behaviors of four therapists were monitored. The hypothesis was not supported because the awareness manipulation was unsuccessful due to therapist procedural differences.

Finally, Tien-Teh Lin (1972) explored the effects of counselor self-confidence on counseling relationships. He found the degree of perceived counselor empathy, genuineness, concreteness, warmth, intimacy, expertness, regard and congruence by the client was significantly related at the .05 level to the level of the counselor self-confidence. Twenty-four subjects were randomly assigned to three counselors and to both individual and group sessions. Counselors were rated by their clients for the relationship skills of accurate empathy, nonpossessive warmth, and genuineness after being given an O'Neals Self Concept measure (O'Neal, 1969). This study showed that the client's self-confidence and counselor setting have little relevance to the client's perception of the counselor's relationship skills. More importantly, counselor functioning level with the
facilitative ingredients was a resultant expression of counselors themselves and nothing else. Further, this study also suggests that the more confidence counselors have in themselves and their counseling skills, the less anxious and fearful they are in dealing with difficult client behaviors.

In summary, there is reason to believe that the various measures of anxiety in current use are not all assessing the same thing because of the scales themselves (i.e., physiological, behavioral, and self-report), and the variation anxiety definition among the researchers. In fact, research on anxiety assessment suggests those measures which show the most or least increase vary from person to person and seem to be due to individual differences.

A fairly recent and significant study (Zajonc, 1973), which could be applicable to counselors, is that the presence of other people sometimes increases or facilitates performance of the individual, and sometimes leads to a decrease in performance. If the counselor's correct verbal and nonverbal responses are dominant, performance is facilitated; if incorrect responses are dominant, perhaps performance is hampered because the counselor becomes anxious.

Finally, in a number of studies (Tien-Teh Lin, 1972; Gellen, 1970; Holder et al., 1967; Bandura, 1956), counselors' anxiety seem to have a direct effect on their verbal responding skills in the counseling relationship. However, it would also seem important to consider what nonverbal behaviors between the counselor and client affect client growth in the counseling relationship.
Psychologists have long considered nonverbal behavior significant in communication. In 1927, Sapir wrote, "We respond to gestures with an extreme alertness and, one might almost say, in accordance with an elaborate and secret code that is written nowhere, known by none, and understood by all." Not until the 1950's did studies appear which reported systematic efforts to transcribe gestures and other nonverbal behaviors and to understand the culturally prescribed codes that moderate their use and significance in human communication (Duncan, 1969). A list of nonverbal communication modalities might include: (a) body motion or kinesi behavior: gestures and other body movements, including facial expression, eye movement, and posture; (b) paralanguage: voice qualities, speech nonfluencies, and such nonlanguage sounds as laughing, yawning, and grunting; (c) proxemics: use of social and personal space and man's perception of it; (d) olfaction; (e) skin sensitivity to touch and temperature; and (f) use of artifacts, such as dress and cosmetics (Hall, 1966).

Of the nonverbal modalities, body motion, paralanguage, and proxemics have received the most extensive attention by investigators. A pioneering investigator can be identified for each of these three areas—George Trager for paralanguage, Ray Birdwhistell for kinesi, and E. T. Hall for proxemics. For Trager (1958), paralanguage has two principal components: vocalizations and voice qualities. Voice qualities are "modifications of all the language and other noises," and include such things as pitch, range, resonance, articulation control, and vocal lip control. Vocalizations are "variegated . . . noises, not having the structure of language."
Vocalizations include: vocal characterizers, such as laughing, crying, and belching; the vocal qualifiers of intensity, pitch height, and extent; and vocal segregates, such as "English 'uh-uh' for negation, 'uh-huh' for affirmation, and 'uh' for hesitation . . ." Paralinguistic systems significantly related to Trager's are to be found in Pittenger and Smith (1957), Pittenger et al. (1960), and Hockett (1971).

Detailed and comprehensive systems for transcribing body motion have been developed by Birdwhistell (1970). He first took on the task of developing a transcription system which provided a symbol for virtually every possible human movement, analogous to phonetic transcription for speech. This system of microkinesthetic recording, describing his research procedure and findings for a complex four-way interaction, was presented in Body Motion (1970).

Condon and Ogston (1967a, 1967b) investigated body flow and process units. Such a process unit occurs when two or more body parts simultaneously change and sustain their direction of movement. These authors found a high degree of "self-synchrony" among the body parts and the phonetic articulations of normal speakers (1967b). Changes of direction of movement of body parts tended to mass at the onset of new phonetic segments and particularly at the onset of syllables. With such patients diagnosed as schizophrenic or aphasic, Condon and Ogston found varying degrees of disruption of self-synchrony for pathological speakers.

More remarkable was their discovery that same sort of motion-flow synchrony occurs between interactants. That is, the movements of both people in a dialogue will be changed and sustained in precise coordina-
tion, and these movements will be additionally coordinated with phonetic speech segments and syllables when one is speaking. These findings have been verified with a variety of dyads and with groups of varying sizes (Condon and Ogston, 1966).

Hall has studied proxemic structures in a variety of cultures. For Americans, he has described four distinct distances or zones for human interaction that are classified as intimate, personal, social, and public, each of which has a close and a distant stage (Hall, 1966). These distances of personal and social space have varying functions of human communication modalities: kinesthetic, thermal, olfactory, visual, and oral-aural.

Yet, these structural studies have not assessed the relative contributions of different factors in counselor training, especially in the area of counselors' anxiety and how it may affect their verbal and nonverbal responsiveness in the counseling session. For example, research on nonverbal behavior has not examined the additive effects of gestures, postures, and other movements, but rather has considered the structural characteristics of nonverbal systems or the correlation of external variables with specific nonverbal behaviors. Duncan (1969) makes the distinction between these two broad research strategies: (a) the structural approach, in which an underlying system or set of rules somewhat analogous to those for languages is sought for nonverbal behaviors, and (b) the external variable approach, in which statistical relationships are sought between specified nonverbal behaviors and other variables, such as the
communication situation, subject's personality characteristics, other nonverbal behaviors, or judgments of observers.

Ekman and Friesen (1968), discussing the external variable approach with body motion, have differentiated four types of body motion cues: (a) body acts which have clear movements; (b) body positions which have no movement of a body part; (c) facial expressions; and (d) head orientations. These authors find that reliable agreements can be obtained among observers of body motion, that rates of occurrence of specific body acts can differentiate among patients and within patients at different stages of treatment, and that body motions provide information about emotional states. Further, there are observer agreements about the ongoing interpersonal relationship, the psychodynamics and ego defenses, and that there are complex interrelationships between the nonverbal behavior of body motion and the content and noncontent aspects of speech.

Fretz (1965) and Island (1966) related counselor nonverbal interview behavior to supervisor's rating (Island) and the counselor ratings of the nonverbal relationship between themselves and their supervisors (Fretz). Both found many nonverbal behaviors to be correlated with the ratings. Scheflen (1964) found that American speakers shift their head and eyes to signal the end of structural units or ideas. Some head and eye movements signal pauses following which the speaker plans to resume verbalization and others signal pauses following which the audience responds.

Similarly, Charney (1966) found high levels of postural congruence between client and therapist to be associated with positive, interpersonal, specific, and present-bound verbalization, while incongruent gestures
were associated with self-oriented, negational, nonspecific, self-contradic-
tory, and nonreferenced verbal material. From this he suggested that postural congruence or interactional synchrony be considered a sign of rapport in psychotherapy. Sainsbury (1955) and Dittmann (1962) provided evidence that vocalization of emotionally laden material in therapy is correlated with increased frequency of body movement. Dittmann found that movements of the hands, head, and many leg movements were associated with depressed moods. In an unusual study, White (1953) reported that a slight rearrangement of furniture produced changes in patient-doctor relationships. He noted that a desk between him and his patients was a barrier to communication. By removing the desk on alternate days, he found 55 percent of his patients at ease when no desk was present while only 11 percent appeared at ease with the desk.

A parallel might be drawn between the study of nonfluences as a part of speech and the study of visual interaction as a part of body motion. Exline (1963) has pointed out a variety of terms have been used to describe the act of one person's looking into the eyes of another. Exline used "visual interaction," Lambert and Lambert (1964) suggested "use of the line of regard," and Argyle and Dean (1965) used "eye contact." These researchers, taking the psychological approach, have studied the effects on visual interaction of such variables as sex of interactants, speaking versus listening, effective quality of the interaction, personality characteristics of the interactants, and the distance between interactants. All of these variables, with the exception of distance, have been studied by Exline, one of the most active investigators of visual interaction to
date. Perhaps the most powerful single variable was sex; Exline's results have indicated distinctly different patterns of visual interaction for male and female subjects. Although both male and female subjects tended to look less at the experimenter when the interaction had an aversive quality, females generally looked more (Exline et al., 1965); in positively toned interactions, females tended to increase their looking, while males decreased it (Exline and Winters, 1965). Within male and female groups, Exline (1963; Exline et al., 1966) found more competitive and Machiavellian subjects showed less decrement in visual interaction under stressful conditions.

All investigators of visual interaction found that both males and females made more use of this line of regard when listening than when speaking. With regard to distance, Argyle and Dean (1965) found an inverse relationship between visual interaction and distance between interactants. Sex of interactants was also a significant variable. These studies and others (Kleck, 1968; Argyle et al., 1968; Hutt and Ownstead, 1966; Kendon, 1967) suggested a relationship between verbal and nonverbal behavior. Nonverbal behavior helped punctuate and monitor interaction, confirms verbal content, and clarifies the meaning of verbal responses.

Although there have been extensive studies on nonverbal and verbal behavior between the counselor and client, few research studies have investigated how certain intense client behaviors are related to certain anxiety reactions in the counselor and there is no research on how anxiety itself constricts the counselor from displaying certain positive verbal responding skills to the client such as empathy, warmth, and genuineness.
Video-tape and Counselor Verbal Responding Skills Assessment

The advent of television and video-tape recording introduced procedures readily applicable to counseling and teaching. As early as 1953, closed-circuit television was used in a mental hospital where ongoing group psychotherapy sessions could be viewed by other patients as they passed television sets placed in the halls (Tucker et al., 1957). Reportedly, patients who experienced this brief vicarious exposure improved. Moore et al. (1965) conducted the first controlled experiment with video procedures, which subsequently became a classic study. These findings supported the use of television techniques in facilitating improvement in psychiatrically ill patients. Other authors have indicated the positive effects of the use of television modalities in therapy (Danet, 1968; Rogers, 1968; Stoller, 1967; Walz and Johnston, 1963).

In 1963, Norm Kagan began experimenting with video-tape as an attempt to develop a test of situational empathy or affective sensitivity (Campbell et al., 1971; Danish and Kagan, 1971; Greenberg et al., 1969). Counseling and therapy sessions were video-taped in an attempt to gather brief episodes which could then be played to groups of subjects. Multiple choice items were constructed to determine a subject's ability to identify the thoughts and feelings of the client. In order to create useful multiple-choice items, a procedure was devised whereby the video-taped participants themselves would help in the process of generating items. Immediately after each counseling or therapy session, the two parties were seated in separate rooms to review individually the video-tape of their session. Each participant was joined by a member of the research team. A
remote control stop-start switch was wired into each room so that the tape
replay could be stopped instantly by any of the participants. Role of
team members was very carefully defined. They were to assist the client
or therapist to relive and talk about the session with special emphasis on
covert processes. In order not to distort the data they had to avoid
interpretations and judgments while encouraging, facilitating and probing.
Their task was that of clinical interrogator or "inquirer."

The results (statements made by the participants) were significant.
The amount of rapid acceleration of participant awareness, owning up to
feelings, self-analysis and critique, insights and motivation to improve,
suggested immediately that the process of stimulated recall using video-
tape together with the unorthodox supervisor-as-respectful-inquirer role
was a powerful new educational and research tool.

This apparent potency of technique led to a series of research stud-
ies in several areas. Studies of nonverbal behavior were undertaken as
well as studies of learning "style" and teacher-student interaction (Kagan
et al., 1967). An effective sensitivity scale was ultimately developed
which proved useful for a variety of practical and research purposes
(Campbell et al., 1971; Danish and Kagan, 1971; Greenberg et al., 1969).
By video-taping counseling and therapy sessions and conducting recall
sessions with clients, therapists, or both, new understandings of the
nature of the helping relationship emerged. Because subjects seemed
motivated and able to analyze and critique their own behavior, this video-
tape procedure seemed to have potential for accelerating client progress
in therapy, and so a series of studies were implemented until this
potential was adequately developed. Interpersonal Process Recall (IPR) was the term Kagan and his colleagues eventually selected for the basic process of reviewing a video-tape with a person trained in the recall technique.

Video-tape affect simulation films were also developed to involve interpersonal stress situations (Danish and Kagan, 1969; Kagan and Schauble, 1969). These video-tape simulations had counseling clients react to filmed vignettes of actors looking directly at the client and portraying aggression, seduction, and fear of the client's aggression and seduction. The rationale beyond the affect simulation films could be accelerated if clients were exposed to different kinds and degrees of emotional situations, if client reactions to these situations were videotaped, and if clients were given the opportunity to view their behaviors with a counselor after each exposure (Kagan and Schauble, 1969; Danish and Kagan, 1969; Danish and Brodsky, 1970).

An early version of the IPR model was used in conjunction with a graduate practicum (Kagan et al., 1967; Goldberg, 1967). The IPR methods were compared with intensive "traditional" supervision. The traditional supervision was one in which a student's supervisor observed each of his interviews through a one-way mirror and then immediately spent an hour reviewing the session with the student, using an audio-tape of the interview at the discretion of the supervisor or student. The IPR model did not include the affect simulation films on which adequate experimental work had not yet been done. Each treatment was limited to a total of only ten hours over an eight-week period. Though hardly an adequate length of
training to achieve competence, there were large, statistically significant differences at the .05 level in counseling skills as rated by independent judges between the groups in favor of the IPR treatment. A second criterion, client satisfaction, also significantly (.05 level) favored the experimental treatment. The findings were replicated with different sample groups in each of three academic quarters.

Spivack and Kagan (1972) compared an IPR model which included the affect simulation films with a traditional seminar approach to a pre-practicum course. The traditional approach used video-tape, audio-tape and film demonstrations, small group discussion, and lectures on theory. Significant differences at the .05 level in favor of the IPR model were found on interview behavior after 15 hours of training. The findings were replicated during the second half of the course.

Dendy (1971) provided a 50-hour program to undergraduate students, most of whom were sophomores. The program was conducted over a six month period. Among his findings were significant improvement in interviewing skills, significant growth on an affective sensitivity scale, and no loss of skills during a three month no-training period. Most important of all, before the program was undertaken, independent judges rated the sophomores' interview skills and also rated tapes of Ph.D. level supervising counselors employed at the university's counseling center. Both groups interviewed clients from the same client pool. Before the 50-hour program, there were large differences favoring the Ph.D.s but, after training, independent judges found no significant differences between the
groups on scales of empathy and other basic therapeutic communication skills.

Archer (1971) then found that these same undergraduates could, in turn, train other undergraduates so that the peer-instructed students scored significantly higher than other students who experienced an encounter group of similar duration. They also scored higher than a comparable no-treatment group, not only on measures of affective sensitivity and self-actualization, but also on scales given to roommates and other peers not in the study. When given lists of all participants, dormitory residents selected the IPR trained students as the ones he "would be willing to talk to about a personal problem" significantly more frequently than he rated either the encounter-trained student or the control group member. Apparently then, dormitory residents were able to identify the increased therapeutic skills of those peer-instructed students in the IPR group. A nonhypothesized observation is that the residents described the dorm as a better place to live in than it previously had been. There was a complete absence of suicide attempts during the remainder of the academic year--apparently students who behaved in depressed ways were not permitted to go unnoticed by their trained peers.

It must be pointed out, however, that the undergraduates used in both the Dendy and the Archer studies were carefully selected and all were highly motivated. Heiserman (1971) applied a 16-hour variation of the model to a population of court case-workers who did not seem to perceive their role as requiring or including counseling skills. No significant gains were found.
Grzegorek (1970) applied the method to the in-service teaching of 42 counselors employed in all of the state prisons of Michigan. His 50-hour program compared one model which emphasized trainee's own effect and cognition with an identical program in which reference to the trainee's own effect was avoided whenever possible and instead additional time was devoted to client (inmate) recall and examination of client dynamics. The basic question was, "Must we probe a trainee's own feelings or is it enough to help him learn response modes and about client dynamics?" Only the affect groups made significant pre-post gains in interview behavior, suggesting that trainee's exploration of his own effect is a crucial part of the IPR model.

In the summer of 1971, most of the teaching staff of the Spohn Junior High School in Hammond, Indiana, were paid to participate in an in-service workshop. Units I and II of the IPR model were included and accounted for most of the program, which also included encounter sessions conducted by consultants. During the next ten-month school year, the typical student expulsion rate, 150 to 170 annually during each of the previous few years, was found to have been reduced to near zero while expulsions in the other schools within the system had not appreciably changed. Teacher attendance improved as did student attendance. Expulsion rate and attendance were not themes dealt with directly during the training nor were any administrative edicts issued. Teachers simply seemed to find work somewhat more satisfying and apparently became reluctant to "throw" people out of school, thus effecting an important change in the lives of students.
Schauble (1970) used eight hours of IPR as an adjunct therapy with clients at a college counseling center. He found statistically significant differences at the .05 level on several process measures favoring the IPR clients over other clients of the same therapists who were given equivalent treatment time. Schauble's data contained evidence to support the applicability of IPR to therapy, but it also helps understand the function which the technology performs. One of his therapists was rated lower than the other on a scale of therapist functioning, although each had equally excellent reputations and more than adequate training credentials. Clients of the lower functioning therapist made few, if any, gains in traditional therapy, but all of his clients gained at least somewhat when he had the aid of the technology.

Harston (1973) conducted IPR groups as a counseling experience for clients and with YMCA volunteers as a sensitivity experience. IPR was used with half of the groups and significant gains at the .05 level in several self-reported and judge-rated dimensions were found favoring the IPR over the traditional group methods.

Thus, the Interpersonal Process Recall has been found to be an effective method through the use of video-taping both in assessing the counselor's verbal responding skills and nonverbal behavior characteristics which in turn affect the client in the counseling relationship. Further, the affect simulation films have been found to be an effective adjunct to the IPR method in teaching clients which behaviors they have difficulty managing in their interpersonal relationships. The affect simulation films used with the counselor trainee, rather than the client, in a
simulated counseling session would seem to offer an effective research tool to assess which client behaviors affect the counselor's verbal responding skills.
METHODOLOGY

Purpose of the Study

The purpose of this study was to investigate whether certain kinds of client behaviors—seduction, aggression, anger, and rejection had possible anxiety affects on a subject's verbal responding skills. The Truax scales of accurate empathy, nonpossessive warmth, and genuineness were utilized for assessing the subjects' verbal responding skills. Their anxiety was assessed by a physiological, behavioral, and self-report type of measurement.

Subjects

The sample for this study consisted of five male and 11 female subjects enrolled in "Techniques of Counseling Secondary Students (533B)" in the College of Education at Iowa State University. Nine of the subjects were single and seven married. These subjects were selected because they were enrolled in one of the more advanced counseling courses in which students learned a varied theoretical counseling base and because this course dealt with the application of counselor responding skills.

The median was utilized to investigate the nuisance variables of the sample which were differences in age, educational background, counseling experience, and years out of college before resuming graduate study. These characteristics were considered pertinent factors in terms of the subjects' maturity and could have a direct effect on how the subjects related interpersonally.
The medians were used for three reasons: First, the sample size was very small with only 16 subjects. Second, there was a wide range of age, educational experience, and years the subjects had been out of college before returning to graduate study. Third, there was a limited frequency of these characteristics among the subjects.

Age range of the subjects was 21 to 47 years with a median age of 26.5. They ranged from 4.0 to 7.3 college years of education with a median educational level of 4.83. Counseling experience range was 0.0 to 3.5 with a median of .6. Those subjects who returned to college after an absence due to employment, pregnancy, etc., showed an absence range of 0.0 to 25.0 with a median of 3.5.

Data Collection Procedure

As a partial course requirement, the 16 subjects were asked to view 24 Kagan Interpersonal Recall video-tape (IPR) vignettes during the seventh week of the winter (1976) quarter and give a verbal counseling response to each vignette. Prior to the viewing, the sample group received a complete explanation of the study. The participants were informed as to the what, how and why of the study. Thus, there was no aspect of the research project that the subjects were not aware of beforehand other than the statistical treatment of the data and what each vignette contained.

In conjunction with this openness, specific instructions (Appendix I) were given to the group. Instructions contained the time, place, and specific tasks the subjects were to perform, e.g., washing the hands and placing the nonwriting arm in a sling to avoid contamination.
The data collection began by recording the subjects' verbal responses and behavioral mannerisms on video-tape as each subject responded to 24 IPR video-tape vignettes containing the four client behaviors—seduction, aggression, anger, and rejection. These 24 video-tape vignettes were selected from 72 original Kagan IPR video-tape vignettes after they had been classified and serialized by one certified school counselor and two certified school psychologists.

The video-tape client vignette selection procedure began by the researcher asking the three raters to view the IPR video-tape client vignettes. Initially, they were asked to classify each of the 72 vignettes into one of the four client behaviors—seduction, aggression, anger, and rejection. Then they were asked to rate the potency level of each vignette.

The potency level (forcefulness of client) was rated on a one-to-ten scale. A rating of one was considered the least potent and a ten rating was considered the most potent. A potency rating was given to each vignette only after the raters went through several training sessions and each rater was consistently rating the potency level of the vignettes at the same level with the other two raters. A final potency rating was given to each vignette by averaging these three ratings. The researcher selected six video-tape client vignettes for each of the four behaviors—two low, two medium, and two high potency vignettes. This enabled the researcher to present each video-tape vignette client series from a low to high potency level so that any anxiety effect would be cumulative and therefore more likely to be greatest immediately at the conclusion of each series.
Four different presentations of the same four client behaviors of seduction, aggression, anger, and rejection were filmed so the subjects would have a different serialization order of presentation. This was done to control any possible presentation effect on the data. Random numbers were used to assign the four presentations given each subject; thus, four subjects viewed the 24 video-tape vignettes in each of the four different serializations.

A verbal example of each of the vignette series viewed by the subjects follows:

**Seduction:** White female; Age, in her 20's; Vignette #14; High potency.

"Oh, I've worked for you for such a long time. I just love to be with you. (sigh) Um, I don't know how to tell you. I don't usually go around telling people things like this. Everytime I'm with you, I get so hot. So real. And, if you don't come over here and kiss me pretty soon, I'm going to go out of my mind!"

**Aggression:** Black male; Age, in his 20's; Vignette #54; High potency.

"What's wrong. Come on. I dare you! Come on, what's wrong with you? I dare you to come on in and stare right in my face. Come on, you chicken, what's wrong with you?"

**Anger:** White male; age, in his 30's; Vignette #60; High potency.

"Now all right, God damn it! I've had it! Now maybe that idiot that you spend your time with thinks you're funny, but I don't. Now you just calm down, Charlie, and let me tell you what I think of you. You're so God damned stupid that you can't sit still for two minutes and take in two grains of information. You haven't got the where-with-all to learn to sit still and to conduct yourself like a normal human being, and I've had it with you! Now have you got it? Because I know, fella. I know just how stupid and weak and silly you are. You may fool them, those clowns around you, but you don't fool me for one minute. Now just bug off!"
Rejection: White female; age, in her 20's; Vignette #44; High potency.

"Well, that's very interesting. We are just not suited for one another. That's all, we're just not suited for one another. Well, that's part of your personality problem. It's something, isn't it. Just don't dump on me. I really don't like you! Is what I'm trying to say. You don't understand. I don't like you. I just don't feel anything for you. Look, you make me sick! I mean you make me want to vomit. You understand that?"

A transcript of each video-tape vignette utilized in the study can be found in Appendix E.

A thirty second pause following the filming of each IPR video-tape client vignettes allowed the subjects to give an appropriate counseling response which was recorded on video-tape.

The subjects were instructed to identify the client's significant feelings and provide a helpful response for client movement toward self-exploration. They were instructed to respond immediately to each client with one response. Further, the subjects were informed that several vignettes displayed clients who would use nonverbal stimuli. Subjects were required, however, to give an appropriate counseling response even though the client did not say anything or give a verbal response which seemed out of context for the situation, i.e., addressing the counselor as if he were a teacher or someone of the opposite sex.

In summary, the IPR video-tape client vignettes selected for this research project dealt with four types of client behaviors, seduction, aggression, anger, and rejection. Each client behavior series was arranged in terms of potency; e.g., each subject viewed six separate video-tape client vignettes dealing with aggression from least to most potency (forcefulness). While this aspect of the research project
occurred, it was necessary to consider assessment and procedural aspects. For clarification purposes, procedural aspects will be discussed next and followed by instrumentation.

**Physiological anxiety assessment procedure**

The Palmar Finger Sweat Bottle was selected as the physiological measure and assessed the subject's anxiety by measuring the amount of sodium chloride ions excreted by the subject's fingers after they viewed each series of IPR vignettes. Subjects were asked to wash their hands and then return to the vignette viewing room in the counseling laboratory. Each subject was instructed to immerse the fingers of the nonwriting hand in a bowl of distilled water and rub the thumb over the other fingers before drying the fingers with a towel. Subjects then took one of the sweat bottles labeled with their name and inverted it on their clean index finger for five seconds. Then the sweat bottle was set down and the subject rested seven minutes before repeating the sweat sample procedure, using a new bottle. These sweat samples were taken to establish a relaxation baseline before any video-tape client vignettes were shown.

This baseline sweat sample represented the degree of subject pre-test anxiety. The subject also took a sweat sample with a new bottle before and after each series of IPR client video-tape vignettes. At the completion of a series, subjects were instructed to close their eyes and think of something pleasant for seven minutes before viewing the next series. Hopefully, this relaxation period would reduce the anxiety level and prevent cumulative anxiety effect. Thus, each subject had a total of nine sweat bottles, consisting of one baseline bottle prior to the viewing and
a sweat bottle before and after each of the four IPR video-tape client vignette series.

Behavioral anxiety assessment procedure

The subjects were video- and audio-taped by a graduate assistant while they viewed the IPR video-tape client vignettes. Each of the three raters were thus able to rate the subjects' nonverbal behavior mannerisms and verbal responding skills individually at a later date by replaying each subject's video-tape. A behavioral nonverbal assessment (Appendix G) was employed by having three raters assess 13 nonverbal behavior mannerisms.

Self-report anxiety assessment procedure

The third type of anxiety assessment was a self-report Likert scale checklist of 16 emotional terms (Appendix H). These 16 emotional terms, which included only two terms (fear and anxiety) for anxiety assessment, were selected from several self-report studies (Martin, 1961). A one rating indicated subjects experienced no feeling about a series of video-tape client vignettes and a five rating indicated they felt a maximum amount of feeling. Each subject completed a self-report sheet upon completion of the finger sweat bottle procedure and after viewing a complete series of six vignettes.

Counselor responding skills assessment procedure

The three Truax scales of accurate empathy, nonpossessive warmth, and genuineness were selected to assess the subject's verbal responding skills. Each subject was to give a counseling response to each one of the 24 IPR video-tape client vignettes. As previously indicated, the
subjects' verbal responses were recorded along with their behavioral non-verbal mannerisms on video-tape so that they could be examined at a later date. Each of the three Truax scales (Appendices B, C, and D) utilized a one to five graduated scale with a one rating indicating little or no empathy, warmth, or genuineness and a five rating indicating the highest degree.

The following outline is a summary of the procedural treatment of each subject.

1. Subject hears explanation of the study.
2. Subject receives specific instruction sheet and hears each procedure explained in detail.
3. Subject arrives in a room opposite the counseling laboratory ten minutes prior to viewing the IPR video-tape vignettes.
4. Subject washes hands.
5. Subject places the nonwriting arm in a sling after entering and being seated in the counseling laboratory.
6. Subject takes baseline finger bottle sweat sample.
7. Subject relaxes seven minutes.
8. Subject takes another sweat sample.
9. Subject views and responds to six serialized client video-tape vignettes.
10. Subject takes another sweat sample.
11. Subject completes self-report form.
12. Subject relaxes seven minutes.
13. Subject takes another sweat sample.
14. Subject repeats numbers 9, 10, 11, 12, and 13.
To facilitate this complex data collecting procedure, it was necessary to train two graduate assistants a total of six hours on the fundamentals of the video-tape vignette presentation. Each assistant was put through five dry runs of the complete data collection procedure. A two-way mirror between the counseling laboratory and the camera room enabled the graduate assistants to video-tape the subjects while they were viewing the IPR vignettes. Instructions to the subjects were given via a microphone. Thus, a standardized procedure was possible by using cues. Figure 1 illustrates the laboratory setting.

Two video-recorder Sony AV-3600's were used; one to present the IPR video-tape vignettes to the subject and the other, coupled to a Sony video camera, was used to record each subject's verbal and nonverbal responses. A third video-recorder for use in case of equipment breakdown was set up but was not needed.

Instrumentation

Instrumentation in this study consisted of three types of anxiety assessments; i.e., physiological, behavioral, and self-report which were measured along with the subjects' verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness. Twenty-four of Kagan Interpersonal Process Recall (IPR) video-tape client vignettes provided subjects the stimuli for client conditions of seduction, aggression, anger, and rejection.

An overview of the literature suggested three different types of anxiety assessment: physiological, behavioral, and self-report. Although
Figure 1. Video-tape vignette procedure
the research suggested the self-report assessment procedure was the most reliable, it appeared that these three types of anxiety assessment were probably measuring three separate reactions to stress. Therefore, all three types of assessment were used to examine the possibility of a relationship between the subjects' verbal responding skills and anxiety.

Studies have emphasized the importance of each counselor developing these particular responding skills for an effective counseling relationship. The main purpose of this research study was to determine if there is a relationship between counselor anxiety and responding skills.

**Physiological anxiety assessment**

A new Palmar sweat measure described by Strahan, Todd, and Inglis (1974) holds special promise for field assessment of physiological anxiety and stress. If a small bottle of distilled water is inverted on a palm or fingertip for five to ten seconds, ions from the sweat are collected (primarily sodium and chloride ions) and increase conductivity. Conductivity can then be measured in a laboratory and establish a sweat index.

Small polyethylene bottles of about 60 to 120 cc capacity are convenient for sweat collection. An inner neck diameter of 12 mm is an appropriate size for finger measurement. Studies to date have mainly used such bottles filled with 30 cc of distilled water. Although the amount of water and neck diameter are critical features, inasmuch as they bear directly on the concentration of ions in the sweat solution, the amount of time the bottle is applied to the skin does not seem relevant.

Using the sweat bottle calls for firm placement of the fingertip on the bottle opening followed by careful inversion for the specified time of
five seconds. It is advantageous to shake the bottle gently, the resulting homogenization minimizing error in the event of spilling and hastening the ion collection. After returning the bottle to its upright position, the finger is removed, using a scraping motion to keep residual drops in the bottle which is capped securely for later laboratory measurement. Sweat solutions apparently may be stored indefinitely without change in conductivity.

If reasonably pure distilled water is used, slight variations in purity from one source or batch to the next will have little effect on sweat measurement. The conductance contribution of the water will be small relative to that of the sweat sample. Using distilled water from a medical school pharmacy, a chemistry department storeroom, or a supermarket, water-only readings of about one to two volts have been recorded at the 50 megohm setting, with corresponding reciprocals of 1 and 0.5. Sweat sample recordings have ranged from about 0.1 to 0.8 volts, with corresponding reciprocals of 10 and 1.25.

To assess the amount of collected sweat ions, a very weak but constant alternating current is passed through the sweat solution and the drop in voltage recorded. More sweat ions result in a lower voltage drop. Reciprocals of the voltage readings permit expression in conventional conductance units.

Alternating current from ordinary 60-cycle 110-volt lines is used to minimize polarization, and nonpolarizing electrodes are employed as well. The single-throw double-pole switch, which places half the resistance on each side of the circuit, is a safety feature to minimize the possibility
of shock in case of equipment malfunction. A high input impedance voltmeter of about 1 megohm is required. The inexpensive Heathkit IM-17 can be used with satisfactory results.

Consistency of measurement necessitates that electrode spacing remain constant. A Plexiglas electrode holder serves this purpose in conjunction with a 12 mm finger bottle and the In Viva Metric Systems GE-CH electrodes. The electrodes are 50 mm by 5 mm pyrex glass cylinders with wire leads at one end and disks of porous silver-silver chloride platinum-black at the other. The disks, 4 mm in diameter, are set flush in the cylinders. The electrodes are inserted in the drilled holder so that the wire leads extend out of the top end and the disks are 62 mm from the holder flange with epoxy cement affixing the cylinders in place. When the holder is pushed down to its flange in a finger bottle, the electrode disks are about 20 mm from the bottom of the bottle, roughly midway into the 30 cc of water typically used, and having their centers 5.6 mm apart.

For measurement, a sweat bottle is uncapped and the electrode holder inserted. A gentle agitation of the bottle while a reading is taken has been the practice in recording since slightly different values were found without this mild shaking. Dipping the electrodes in distilled water between recordings, though maybe an unnecessary precaution, ensures that ions from one sweat bottle will not be carried over to the next.

Sweat bottle measurement has been employed in more than a dozen unrelated studies. Samples have been taken in a classroom on examination and nonexamination days, during airline flights, in homes, in hospital rooms before and after surgery, and in the laboratory under various conditions. Reliability appears quite adequate. Alternate forms were utilized
with different fingers or palms for a coefficient of stability. The coefficients in Table 2 were derived from data gathered in quiet or resting-state periods. These conditions were optimal for reliability assessment. Further evidence of consistency of measurement was implied by the often substantial correlations found between measurements taken in quiet periods and those obtained under stressful or arousing circumstances. Two kinds of validation data have been collected thus far: concurrent and construct. One might not expect concurrent validities to be especially high, since different aspects of Palmar sweating are measured by diverse sweat and electrodermal methods and a nonsudorific component as well as generally attributed to skin conductance (Edelberg, 1972). One would, however, hope to see good evidence of construct validity. The data, though not abundant, are encouragingly positive.

Behavioral anxiety assessment

The school counselors' rating sheet in Appendix G was devised for rating the subjects' verbal responses to the IPR vignettes for accurate empathy (AE), nonpossessive warmth (NPW), and genuineness (G); secondly, the subjects' nonverbal anxiety behaviors; and thirdly, the subjects' overall anxiety for a particular behavior series. Clevenger and King (1954) initially developed the nonverbal anxiety behavior part of this rating sheet from terms used in books dealing with stage fright and public speaking. Clevinger and King classified these 13 nonverbal anxiety behaviors into three major areas: fidgetiness, inhibition, and autonomia. Fidgetiness includes the symptoms of shuffling feet, swaying, swinging arms, stiff arms, lacking eye contact, or pacing back and forth. Inhibi-
Table 2. Some illustrative sweat bottle reliability coefficients\(^a\)

<table>
<thead>
<tr>
<th>Kind of reliability</th>
<th>Skin site and preparation</th>
<th>Sweat collection setting</th>
<th>Sample size</th>
<th>Reliability coefficient</th>
<th>Other remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test-retest</td>
<td>Washed fingers</td>
<td>Laboratory</td>
<td>20</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>1/2 hour interval</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test-retest</td>
<td>Unwashed fingers</td>
<td>Hospital</td>
<td>20</td>
<td>.84</td>
<td>Data collected from recuperating surgical patients</td>
</tr>
<tr>
<td>1-day interval</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test-retest</td>
<td>Unwashed palms</td>
<td>Classroom</td>
<td>22</td>
<td>.73</td>
<td>Subjects collected their own data</td>
</tr>
<tr>
<td>4-day interval</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternate hands</td>
<td>Unwashed palms</td>
<td>Laboratory</td>
<td>26</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>Alternate hands</td>
<td>Washed fingers</td>
<td>Laboratory</td>
<td>26</td>
<td>.93</td>
<td>Same subjects as preceding entry</td>
</tr>
<tr>
<td>Alternate hands</td>
<td>Unwashed palms</td>
<td>Commercial airplanes</td>
<td>22</td>
<td>.78</td>
<td>Subjects collected their own data</td>
</tr>
<tr>
<td>Alternate hands</td>
<td>Unwashed palms</td>
<td>Laboratory</td>
<td>22</td>
<td>.90</td>
<td>Subjects collected their own data</td>
</tr>
<tr>
<td>Combination</td>
<td>Unwashed fingers</td>
<td>Laboratory</td>
<td>13</td>
<td>.93</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Note: p<.001 for all correlations.
tion includes deadpan expression, trembling knees, hands in pocket, pale face, starting to sweat while speaking, tense face, and trembling hands. Autonomia includes moistening lips, playing with something, blushing, breathing heavily, and repeated swallowing. Clevenger and King's study with 96 students, enrolled in six sections of a beginning speech course, found 90 percent of the students' nonverbal behavioral anxiety was fidgetiness.

Ekman and Friesen (1968) used the coefficient of stability in finding reliable agreements among observers of body motion. Validity measures of nonverbal behavior in the literature were predominantly the content type. The Sainsbury (1955) study found a correlation between vocal emotionally laden material in therapy and increased frequency of body movements. Studies by Kleck, 1968; Argyle et al., 1968; Hutt and Ownstead, 1966; and Kendon, 1967, assessed the relationship between verbal and nonverbal behavior.

**Self-report anxiety assessment**

The subject's self-report sheet listed 16 emotional terms to enable the subject to rate the degree of feelings experienced while viewing the IPR vignettes. Only the four emotional terms of empathy, warmth, fearful, and anxious were relevant in this study. Each term was rated on a five point scale from "not at all" to "maximum" feeling. Self-report studies by Rosenthal (1955), Holtzman and Bitterman (1956) and more recently a study by Monke (1971) used a combination of rational equivalence and coefficient of stability forms of realibility. Construct and content validity measures have been most frequently employed in the self-report
research studies with limited predictive validity. Two such studies were the Tien-Teh Lin study (1972) which explored the effects of counselor self-confidence on counseling relationships and the Monke study (1971) on desensitization of the beginning counselor.

Three Truax scales were used in this study to assess the subjects' verbal responding skills.

**Verbal responding assessment: Scale for accurate empathy**

The Truax Scale for Accurate Empathy (Truax, 1962a) is an instrument defining five degrees of counselor empathic responses. At its lower values it specifies such behaviors as the "Counselor seems completely unaware of even the most conspicuous of the client's feelings. His responses are not appropriate to the mood and content of the client's statement and there is no determinable quality of empathy, hence no accuracy whatsoever." Whereas, at the intermediate levels of the continuum, the "Counselor often responds accurately to more exposed feelings. He also displays concern for more hidden feelings which he seems to sense must be present though he does not understand their nature," or "He shows awareness of many feelings and experiences which are not so evident . . . but in these he tends to be somewhat inaccurate in his understanding." At the higher levels of the continuum of accurate empathy, the "Counselor shows awareness of the precise intensity of most underlying emotions . . . his responses move only slightly beyond the area of the client's own awareness, so that feelings may be present which are not recognized by the client or the counselor or, accurately interprets all of the client's present, acknowledged feelings. He moves into feelings and experiences
that are only hinted at . . . and does so with sensitivity and accuracy. The counselor offers . . . additions to the patient's understanding so that not only are underlying emotions pointed to, but are specifically talked about." To both accurately predict and effectively communicate what the other person is currently experiencing and feeling and; therefore, of "what he might say were he more open and less defensive," is the quality of accurate empathic understanding. The Scale of Accurate Empathy may be found in Appendix B.

**Verbal respondent assessment: Scale for nonpossessive warmth**

The Truax Scale for Nonpossessive Warmth (Truax, 1962b) is an instrument defining five degrees of counselor verbal warmth. At its lower levels it specifies such behaviors as, "Counselor is giving clear negative regard for his client. His responses are mechanical, indicating little nonpossessive warmth." At the intermediate levels of the continuum the "Counselor shows neither explicit nor implicit evidence of dislike or disinterest but does not show positive expression of warmth. Interest is present but not warmth." At the higher levels of the continuum of nonpossessive warmth, the "Counselor expresses warmth and intimacy in his voice tone and cadence. At this state his voice and manner communicate a deep caring for the client without attempts to dominate him." The Scale for Nonpossessive Warmth may be found in Appendix C.

**Verbal responding assessment: Scale for genuineness**

The Truax Scale for Counselor Genuineness (Truax, 1962c) is an instrument defining five degrees of counselor verbal genuineness. It begins at a very low level where the counselor presents "a facade or defends and denies feelings" and continues to a high level where the counselor is
"freely and deeply himself." A high level of genuineness does not mean
that the counselor overtly expresses his feelings but that, "He does not
deny them or present a facade." Thus, the counselor "may be actively re-
reflecting, interpreting, analyzing, or in other ways functioning as a
counselor; but this functioning must be genuine so that he is being him-
self in the moment rather than presenting a professional facade." His
response "must be sincere rather than phony; it must express his real
feelings or being rather than defensiveness." The Scale for Counselor
Genuineness may be found in Appendix D.

The measurement of accurate empathy, nonpossessive warmth, and
genuineness has been employed in more than 50 studies of diverse setting.
Samples have been applied in hospital settings with schizophrenic patients
(Truax, 1961c); with outpatients at Stanford University and University of
Chicago (Truax, 1962c); the training of post graduate students in clinical
psychology (Bergin and Soloman, 1963); with therapists who were analyti-
cally oriented (Strupp, Wallach, Wogan, and Jenkins, 1963); and with thera-
pists conducting group psychotherapy (Truax, Carkhuff, and Kodman, 1965).
Reliability appears quite adequate with the coefficient of stability in
these studies. Predictive validity seems predominantly used as a valida-
tion procedure with these three scales in the research literature.

The last instrument used in this study was the Interpersonal Process
Recall (IPR) video-tape vignettes. These IPR simulation films were used
to elicit the subjects' verbal, nonverbal, and self-report responses.

Subject simulation films: IPR video-tape vignettes

Twenty-four Interpersonal Process Recall (IPR) video-tape vignettes
were selected from 72 original Kagan IPR vignettes as simulation films to
which the subjects responded. These simulation films had been developed to portray interpersonal stress situations (Danish and Kagan, 1969; Kagan and Schauble, 1969). Actors in the vignettes look directly at the viewer and portray the behaviors of seduction, aggression, anger, and rejection. Although originally developed for viewer growth by exposing them to different kinds and degrees of interpersonal stress situations, the procedures have been applied to the training and supervision of counselors (Goldberg, 1967; Ward et al., 1972). These studies have used content and predictive validity measures and a coefficient of stability for reliability.

Organization of Data

Four sets of data from the subjects have been collected in this study.

1. Finger sweat bottles
2. Verbal responses
3. Nonverbal behavioral responses
4. Self-report responses

Before proceeding to the statistical analysis, it was necessary to transform the data in a manner appropriate for computer analysis. This process varied with the type of data collected. Thus, the following deals separately with each of the four types of data and explains this transformation.

The finger sweat (physiological assessment) bottles were labeled with the subjects' names and numbered one to nine by the research assistants.
After used by the subjects they were delivered to the laboratory in the Psychology Department at Iowa State University where the amount of sweat ions in each was established—utilizing the reciprocals of the voltage readings to permit expression in conventional units.

Video-taping during the procedure provided for collecting verbal and nonverbal behavior of subjects. In order to analyze the data on the video-tapes, three certified school counselors from Marshalltown, Iowa, were asked to assist. These counselors were trained as raters in using the three Truax Scales of Accurate Empathy, Nonpossessive Warmth, and Genuineness. The training was accomplished with ten one-hour sessions in which the raters were given both counselor and client statements and then asked to rate the counselor statements on the three Truax scales. Training sessions continued until each rater was adept at using the Truax scales as consistent with the others.

After each video-taped series, the raters then scored the subjects' verbal responses on the three Truax scales, tallied subjects' behavioral nonverbal anxiety mannerisms for fidgetiness, inhibition, and autonomia scores, and rated the subjects on their overall behavioral anxiety. The fourth set of data were the self-report forms each subject completed after each video-taped series.

After coding the subjects' verbal responses, sweat bottle scores, behavioral nonverbal scores, and self-report scores, these data were punched on computer cards in the client vignette series order of seduction, aggression, anger, and rejection for computer programming purposes.
Analysis of Data

Pearson-Product moment correlations were initially calculated between each of the 14 dependent variables as the first analysis in the study to determine if there was a viable association between the subjects' verbal responding skills and the three different types of anxiety assessment. The formula used for calculating the correlation coefficients was:

\[
r = \frac{\Sigma xy}{(n-1)\sqrt{\frac{\Sigma x^2}{(n-1)}\frac{\Sigma y^2}{(n-1)}}}
\]

Two dependent variables were defined to have a positive relationship when either the large values of one variable were associated with the large values of the second; or when the small values of the first dependent variable were associated with the small values of the second. On the other hand, a negative relationship was defined when the large values of one variable were associated with a small value of the second; or when the small values of the first variable were associated with the large values of the second (Edwards, 1964).

For clarification, the dependent variables in the study for which correlation coefficients were initially calculated are listed below:

1. Physiological assessment via Palmar Finger Sweat Bottles (X_1)
2. Three verbal responding skills assessments: accurate empathy (X_2), nonpossessive warmth (X_3), genuineness (X_4), and then the three verbal skills combined (X_5)
3. Three behavioral nonverbal anxiety assessments: fidgetiness (X_6), overall behavioral nonverbal anxiety scores (X_7), and the
combined scores of fidgetiness and overall behavioral nonverbal anxiety ($X_g$)

4. Three individual self-report anxiety assessments: fear ($X_9$), anxiety ($X_{10}$), and the combined self-report scores of fear and anxiety ($X_{11}$)

5. Three individual self-report scores assessments: empathy ($X_{12}$), warmth ($X_{13}$), and the combined self-report scores of empathy and warmth ($X_{14}$)

Because of the small sample of subject responses in the three verbal responding skill areas, the two behavioral nonverbal assessment areas, and the four self-report areas, the subjects' scores were combined in order to give more accurate correlation coefficient relationships between the dependent variables.

After the correlation coefficients between the 14 dependent variables were established, a second analysis of data was conducted. This was a Randomized Block Design analysis, which consisted of analyzing the interaction effects between the independent, dependent, and nuisance variables. Independent variables in this study were defined as those that were under control of the experimenter--the four video-tape IPR vignette client conditions of seduction, aggression, anger, and rejection. Dependent variables were those that reflected any effects associated with manipulation of the independent variables--the three verbal responding skills, the three types of anxiety assessment, and the two self-report scores. Nuisance variables were defined as those undesired sources of variation that may have affected the dependent variables such as the subject's previous
counseling experience, education, sex, age, years out of college before returning to graduate study, and marital status. These particular nuisance variables could have a direct relationship on the subject's maturity level and possibly could affect the subject's responding skills. One method of controlling these nuisance variables was to assign the subjects randomly to the experimental conditions (Kirk, 1968).

The randomized block design procedure was selected for this study to determine if the manipulation of any of the four independent variable IPR video-tape client conditions (seduction, aggression, anger, and rejection) reflected any effects on the dependent variables; i.e., the subject's three verbal responding skills and the three types of anxiety assessment. By blocking the nuisance variables of individual differences, it was assumed this design would minimize the variability among subjects that tended to mask or to obscure treatment effects of the IPR video-tape vignettes. Simply stated, blocking was defined as where the nuisance variables (sex, counseling experience, etc.) of the 16 subjects were minimized by randomly selecting the order of presentation for the subjects to view the IPR video-tape vignettes.

A control group in this study was not considered necessary as homogeneity within blocks could be achieved by (1) use of litter mates or identical twins, (2) use of tests to match subjects on relevant variables, or (3) use of a subject as his own control (Kirk, 1968). This research study was designed to match subjects with themselves as their own control and is appropriate if it can be assumed that each subject was the same when each treatment level was presented. Therefore, since each of the
subjects had no prior exposure to the IPR video-tape vignettes and the video-tape vignettes were presented at one sitting, it was assumed the homogeneity condition was met.

The subjects' verbal and nonverbal responses were matched against their own responses and those of the other subjects by using the randomized block design. This design seemed appropriate as it met, in addition to the general assumptions of analysis of variance, the following three conditions:

1. One treatment with "k" equaled two or more treatment levels.
   Each one of the four video-tape behavior series of seduction, aggression, anger, and aggression was considered a treatment level.

2. Subjects were assigned to blocks so that the variability among subjects within any block was less than the variability among the blocks; i.e., subjects' verbal responding skills or their level of anxiety would vary less with the subjects than between the treatment conditions.

3. Random assignment of treatment levels to the units within each block was used. A table of random numbers was used to assign which of the four client series the subject was to view.

Two-way analyses of variances were conducted between subjects' verbal responding skills and the three different types of anxiety assessments, and between the subjects' verbal responding skills and the four IPR video-tape client treatment conditions.
The analysis of variance used in this study was a fixed-effects model involving two sets of fixed effects (Glass and Stanley, 1970). One factor; e.g., the row factor or the four video-tape vignette client conditions comprise a set of four fixed effects; the column factor or the subjects themselves were also a fixed factor because they were selected from one particular class of graduate students.

To measure if any treatment effects were present after the analysis of variance was calculated, the Scheffé method of comparing means was utilized. This procedure is used if the overall F test of significance leads to the rejection of a null hypothesis. The Scheffé formula used in this research study was:

\[
S = \sqrt{(K-1)F_{V_1V_2} \frac{MS}{\text{error}}} \left[ \sum_{j=1}^{k} \frac{(C_j)^2}{n_j} \right]
\]

\(F_{V_1V_2}\) = tabled value of F for \(V_1\) and \(V_2\) degrees of freedom

\(k\) = number of treatment levels

\(C_j\) = coefficient of the contrast

\(n_j\) = number of scores in the \(j\)th treatment level

The Scheffé method for comparing means was used for two reasons: The sample was small and it is a more flexible and conservative test for mean comparison. Further, and quoting from Snedecor and Cochran (1967) in Statistical Methods on pages 270 and 271:

When several different comparisons are being made, one or two of the comparisons may show significant effects even if the initial F-test shows significance. Scheffé has given a general method that provides a conservative test in this situation.
**Statistical model**

The statistical analysis for Hypothesis I, the Finger Sweat Bottle scores, was a single classification randomized block analysis of variance for equal frequencies with the following model:

\[ X_{ij} = \mu + \beta_j + \pi_i + e_{ij} \]

- \( X_{ij} \) = physiological sweat anxiety for an individual
- \( \mu \) = grand mean
- \( \beta_j \) = effect of treatment (seduction, aggression, anger, or rejection vignettes) with the assumption
  \[ \sum_{j} \beta_j = 0 \]
- \( \pi_i \) = effect of block with the assumption
  \[ \sum_{i} \pi_i = 0 \]
- \( e_{ij} \) = experimental error, which is assumed to be normally and independently distributed with a mean of zero and a variance of \( \sigma^2 \)

The statistical analysis for Hypothesis II with the Truax Scales of Accurate Empathy, Nonpossessive Warmth, and Genuineness scores was a multiple classification randomized block analysis of variance for equal frequencies with the following model:

\[ X_{ij} = \mu + \beta_j + \pi_i + e_{ij} \]

- \( X_{ij} \) = response of an individual
- \( \mu \) = grand mean
\( \beta_j \) = effect of treatment (seduction, aggression, anger, or rejection vignettes) with the assumption
\[
\sum_j \beta_j = 0
\]
\( \pi_i \) = effect of block with the assumption
\[
\sum_i \pi_i = 0
\]
\( e_{ij} \) = experimental error, which is assumed to be normally and independently distributed with a mean of zero and a variance \( \sigma^2 \)

Using this model, four separate analyses were completed:

1. Combined verbal response scores of Accurate Empathy, Nonpossessive Warmth, and Genuineness
2. Accurate Empathy verbal response scores
3. Nonpossessive warmth verbal response scores
4. Genuineness verbal response scores

The statistical analysis for Hypothesis III with the behavioral anxiety scores of fidgetiness and overall nonverbal was a multiple classification randomized block analysis of variance for equal frequencies with the following model:

\[
X_{ij} = \mu + \beta_j + \pi_i + e_{ij}
\]
\( X_{ij} \) = response of an individual
\( \mu \) = grand mean
\( \beta_j = \text{effect of treatment (seduction, aggression, anger, or rejection) with the assumption} \)

\[ \sum_j \beta_j = 0 \]

\( \pi_i = \text{effect of block with the assumption} \)

\[ \sum_i \pi_i = 0 \]

\( e_{ij} = \text{experimental error, which is assumed to be normally and independently distributed with a mean of zero and a variance } \sigma^2 \)

Using this model, three separate analyses were completed:

1. Combined scores of fidgetiness and overall nonverbal behavioral anxiety scores
2. Fidgetiness behavioral anxiety scores
3. Overall nonverbal behavioral anxiety scores

The statistical analysis for Hypothesis IV with the self-report fear and anxiety scores was a multiple classification randomized block analysis of variance for equal frequencies with the following model:

\[ X_{ij} = \mu + \beta_j + \pi_i + e_{ij} \]

\( X_{ij} = \text{response of an individual} \)

\( \mu = \text{grand mean} \)

\( \beta_j = \text{effect of treatment (seduction, aggression, anger, or rejection) with the assumption} \)

\[ \sum_j \beta_j = 0 \]
\[ \pi_i = \text{effect of block with the assumption} \]

\[ \begin{align*}
\sum_i \pi_i &= 0 \\
\end{align*} \]

\[ e_{ij} = \text{experimental error, which is assumed to be normally and independently distributed with a mean of zero and a variance } \sigma^2 \]

Using this mode, three separate analyses were completed:

(1) Combined self-report Fear and Anxiety scores
(2) Self-report Fear scores
(3) Self-report Anxiety scores

The statistical analysis for Hypothesis V with the self-report, empathy and warmth scores was a multiple classification randomized block analysis of variance for equal frequencies with the following model:

\[ X_{ij} = \mu + \beta_j + \pi_i + e_{ij} \]

\[ \mu = \text{grand mean} \]

\[ \beta_j = \text{effect of treatment (seduction, aggression, anger, and rejection) with the assumption} \]

\[ \begin{align*}
\sum_j \beta_j &= 0 \\
\end{align*} \]

\[ \pi_i = \text{effect of block with the assumption} \]

\[ \begin{align*}
\sum_i \pi_i &= 0 \\
\end{align*} \]

\[ e_{ij} = \text{experimental error, which is assumed to be normally and independently distributed with a mean of zero and a variance } \sigma^2 \]
Using this mode, three separate analyses were completed:

1. Combined self-report empathy and warmth scores
2. Self-report empathy scores
3. Self-report warmth scores

The computer program used to solve the multiple classification analysis of variance for equal "N's" was the Statistical Analysis System program used at the Iowa State University Computer Center.
FINDINGS

Introduction

Included in this chapter are three sections which describe the findings of this research study. The first section describes the Spearman Brown intra- and interreliability coefficients among the three raters who rated the verbal responding skills and behavioral anxiety mannerisms of the 16 subjects. Included are appropriate tables illustrating how closely the raters agreed on the three verbal responding skills. The Spearman Brown formula was selected from Statistical Methods (Snedecor and Cochran, 1967) to measure the rater's interreliability coefficients for the subject's overall behavioral nonverbal anxiety rating. Each of the four IPR video-tape vignette client conditions are listed in separate tables which illustrate the interrater correlations between each of the three raters, followed by a discussion of the interrater coefficient across the three raters. This section is concluded with a description of the average interreliability coefficient across the four IPR film conditions.

The second part of this chapter describes the Pearson-Product Moment correlations findings between each of the 14 dependent variables in the study. These correlations are illustrated in correlation matrix tables for each of the four IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection. Each correlation matrix illustrates associations between the subjects' verbal responding skills and the three different types of anxiety assessments.
The third and final section deals with hypotheses pertinent to the Randomized Block Design. The hypotheses and subhypotheses are given first, followed by the corresponding analysis of variance tables for the Randomized Block Design. If the null hypothesis was rejected because the overall F test was significant, the Scheffé method of mean comparison was used to describe the source of any treatment effects.

**Intra- and interreliability coefficients for the three verbal responding skills**

The intrareliability correlations among the three raters in Tables 3, 4, 5, and 6 illustrate the three verbal response skill areas with each of the four IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection. The intrareliability correlations are those correlations calculated among the raters themselves; whereas, the interreliability coefficient is the average of the intrareliability correlations which gives an overall average agreement for the three raters. Snedecor and Cochran in *Statistical Methods* (1967) consider a low agreement range from .49 to .59 (.49 considered significant at the .05 level), whereas a medium agreement range from .60 to .69 (.60 considered significant at the .01 level) and a high agreement from .70 to higher.

The findings in Table 3 indicate the raters had between a low to high intrarater reliability agreement for the three verbal responding skills with the IPR seduction video-tape vignettes. All the correlations were significant at the .05 level with some significant at the .01 level. Using the Spearman Brown formula for interreliability, the three raters had an average combined high agreement of .842 for the verbal responding
Table 3. Intrareliability correlations of three raters for the verbal response skills of accurate empathy, nonpossessive warmth, and genuineness with the IPR seduction video-tape vignettes

<table>
<thead>
<tr>
<th>Raters</th>
<th>Skill</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accurate Empathy</td>
<td>1.000</td>
<td>0.574*</td>
<td>0.822**</td>
</tr>
<tr>
<td>2</td>
<td>Nonpossessive Warmth</td>
<td>1.000</td>
<td>0.525*</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Genuineness</td>
<td>1.000</td>
<td>0.678**</td>
<td></td>
</tr>
</tbody>
</table>

* .490 needed for correlation significance at the .05 level.
** .600 needed for correlation significance at the .01 level.

skill of empathy. Similarly, the raters showed high interreliability coefficients for the verbal skills of nonpossessive warmth at .807 and genuineness at .814.

The findings in Table 4 indicate the first and second raters had poor intrareliability agreement (not significant at the .05 level of significance) for all three verbal responding skills with the IPR aggression video-tape vignettes. Likewise, the second and third raters had poor
Table 4. Intrareliability correlations of three raters for the verbal response skills of accurate empathy, nonpossessive warmth, and genuineness with the IPR aggression video-tape vignettes

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th>Skill</th>
</tr>
</thead>
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<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.000</td>
<td>.213</td>
<td>.717**</td>
<td>Accurate Empathy</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1.000</td>
<td>.251</td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.455</td>
<td>.778**</td>
<td>Nonpossessive Warmth</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1.000</td>
<td>.311**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.331</td>
<td>.816**</td>
<td>Genuineness</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1.000</td>
<td>.171</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

*.490 needed for correlation significance at the .05 level.

**.600 needed for correlation significance at the .01 level.

Intrareliability agreement in the three skill areas. However, the first and third raters show high intrareliability agreement in all of the three skill areas at the .01 level of significance. The average combined interreliability coefficients across the three raters were adequate with the verbal responding skills of accurate empathy at .661 or a medium agreement while both nonpossessive warmth at .761 and genuineness at .701 were high agreements.
Table 5. Intrareliability correlations of three raters for the verbal response skills of accurate empathy, nonpossessive warmth, and genuineness with IPR anger video-tape vignettes

<table>
<thead>
<tr>
<th></th>
<th>Raters</th>
<th>Skill</th>
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<td>2</td>
</tr>
<tr>
<td>1</td>
<td>1.000</td>
<td>.385</td>
</tr>
<tr>
<td>2</td>
<td>1.000</td>
<td>.238</td>
</tr>
<tr>
<td>3</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.000</td>
<td>.500*</td>
</tr>
<tr>
<td>2</td>
<td>1.000</td>
<td>.049</td>
</tr>
<tr>
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<td>1.000</td>
<td></td>
</tr>
<tr>
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<td>1.000</td>
<td>.399</td>
</tr>
<tr>
<td>2</td>
<td>1.000</td>
<td>.020</td>
</tr>
<tr>
<td>3</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

*.490 needed for correlation significance at the .05 level.

**.600 needed for correlation significance at the .01 level.

The three raters revealed more difficulty in agreeing among themselves with the IPR video-tape anger vignettes than with any other series. The findings in Table 5 indicate only two raters had intrareliability agreements at the .05 level of significance for each of the three verbal skill areas. The first and third raters had a low agreement intrareliability correlation for the verbal skill areas of accurate empathy and genuineness; whereas, the first and second raters showed low agreement for the verbal skill of nonpossessive warmth. None of the other intrareliab-
Table 6. Intrareliability correlation matrix of three raters for the verbal response skills of accurate empathy, nonpossessive warmth, and genuineness with the IPR rejection video-tape vignettes

<table>
<thead>
<tr>
<th>Raters</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Skill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.000</td>
<td>.429</td>
<td>.770**</td>
<td>Accurate Empathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1.000</td>
<td>.369</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.000</td>
<td>.259</td>
<td>.756**</td>
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<td>.679**</td>
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</table>

*.490 needed for correlation significance at the .05 level.
**.600 needed for correlation significance at the .01 level.

Reliability correlations were significant. The interreliability coefficients indicated a lower but adequate agreement among raters than was shown in the IPR video-tape vignette series of seduction and aggression. Accurate empathy had a .655 or medium agreement, nonpossessive warmth a .613 or medium agreement, and genuineness a .572 or low agreement.

On the IPR rejection video-tape vignettes (Table 6), there were high intracorrelation agreements between the first and third raters at the .01
level of significance in each of the three verbal responding skill areas. The first and second raters or the second and third raters reached no significant level of agreement in the three verbal response areas. Still the intracorrelations were correlated positively enough to signify adequate interreliability coefficients. Accurate empathy had an interreliability coefficient of .767 or high agreement, nonpossessive warmth had an interreliability coefficient of .684 or medium agreement, and genuineness had an interreliability coefficient of .679 or medium agreement.

In summary, the rater interreliability coefficients for each of the three verbal responding skills of the IPR video-tape vignette conditions of seduction, aggression, anger, and rejection were within an acceptable range. By averaging the three verbal response skill coefficients, the results indicated an average interreliability coefficient for each series. Seduction series had an average interreliability coefficient of .821, aggression .708, anger .613, and rejection .710.

Intra- and interreliability coefficients for behavioral nonverbal anxiety ratings

Fidgetiness scores, or Factor I, did not have a sufficient and consistent number of tallies among the three raters in the five factors to derive correlations. It had been assumed that the raters, who were certified school counselors, would be able to identify such behavioral anxiety mannerisms as moving in a chair, poor eye contact, tense posture, shuffling feet, and swaying without any formal training sessions. This assumption proved to be false for a number of reasons. First, the video camera did not cover the lower half of the subjects' torsos, such as the
legs and feet because of distance problems, thus raters were unable to identify these above listed mannerisms. Secondly, the camera video-taping of the subjects' facial expressions proved to be at the wrong angle to focus on eye contact because of video-taping space limitations. Thirdly, the raters would rate other behavioral mannerisms not included in the fidgetiness factor or could not identify the stated mannerisms consistently because of the lack of specific training in this area.

The findings in Table 7 illustrate the intrareliability correlations among the three raters for the overall behavioral nonverbal anxiety ratings with each of the four IPR video-tape vignette client conditions. There were only two intrareliability correlations which reached a high agreement at the .01 level of significance in the four matrixes. The first significant correlation occurred between the first and second raters with the seduction video-tape vignettes. The other significant correlation was between the second and third raters with the rejection video-tape vignettes. None of the other intrareliability correlations were significant. In fact, the anger matrix indicates two of the three raters had negative intrareliability correlations.

Only two of the four IPR video-tape vignette client conditions showed significant interreliability coefficients. These IPR client conditions were seduction at .711 and rejection at .697. Both interreliability coefficients were in high agreement among the three raters. By averaging across the four IPR video-tape vignette series, an interreliability coefficient was obtained for overall nonverbal anxiety rating with the three raters. This coefficient of .356 did not reach the minimum of low agree-
Table 7. Intrareliability correlation matrixes of three raters for the overall behavioral nonverbal ratings with the IPR video-tape client conditions of seduction, aggression, anger, and rejection

<table>
<thead>
<tr>
<th></th>
<th>Seduction raters</th>
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<th>Aggression raters</th>
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<table>
<thead>
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</table>

*.49 needed for correlation significance at the .05 level.

**.60 needed for correlation significance at the .01 level.

ment for the three raters. Thus, the overall behavioral nonverbal anxiety interreliability coefficient is not within an acceptable range.

Pearson-Product moment correlations

Pearson-Product moment correlations were initially calculated between each of the 14 dependent variables as the first analysis to determine probability of viable association between the subjects' verbal responding skills and the three different types of anxiety assessment. Two dependent variables were found to have a positive relationship when either the large
values of one variable were associated with the large values of the second; and/or when the small values of the first dependent variable were associated with the small values of the second. On the other hand, a negative relationship was defined when the large values of one dependent variable were associated with the small values of the second; and/or when the small values of the first dependent variable were associated with the large values of the second (Edwards, 1964).

The findings in Tables 8, 9, 10, and 11 illustrate the four correlation matrixes which were designed for each of the four IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection. Each matrix contains correlations of the 14 dependent variables which include the subjects' three verbal responding skills and three types of anxiety assessment. The Palmar sweat bottle (SB) or the physiological assessment is listed first. Second, the three Truax verbal responding skills are listed separately (SE\(_4\) = empathy; SW\(_4\) = warmth; SG\(_4\) = genuineness) and the three skills combined (S\(_4\)). The two individual behavioral anxiety assessments come next (N\(_1\) = fidgetiness, OS = overall behavioral nonverbal anxiety rating) followed by these two scores combined into one variable score (SRRANX).

Third, the six self-report scores (SF = fear; SA = anxiety; Sanx = fear and anxiety scores combined; SW = warmth; SE = empathy; SEM = warmth and empathy scores combined) individual scores are listed and followed by the combined individual scores. It should be noted that the first letter of every symbol for the dependent variables changes with each of the four matrixes for the purpose of differentiating the four client
conditions of seduction, aggression, anger, and rejection. For example, the verbal responding skill of empathy is listed SE₄ for seduction series, GE₄ for aggression series, NE₄ for anger series, and RE₄ for rejection series. There were only two exceptions to this rule of the first letter of the symbol being changed. One is the sweat bottle or physiological anxiety assessment in which the subnumbers change next to the symbol. Therefore, SB₃ = sweat bottle scores for seduction series; SB₅ = sweat bottle scores for aggression series; SB₇ = sweat bottle scores for anger series; and SB₉ = sweat bottle scores for rejection series. The other exception is the two individual scores N₁ and OS for the behavioral nonverbal anxiety assessment. N which designates fidgetiness scores is N₁ = seduction series, N₂ = aggression series, N₃ = anger series, and N₄ = rejection series. Overall behavioral nonverbal anxiety scores designated by "O" will be OS = seduction series, OG = aggression series, ON = anger series, and OR = rejection series.

Each correlation matrix table is presented, followed by an explanation of the significance of the correlations. There is a summary for each of the four IPR series. A discussion of the correlation findings for the four IPR series concludes the correlation section.

Seduction Series Correlations

The seduction series correlations in Table 8 indicated positive relationships, significant at or beyond the .05 level, between the subject's physiological sweat anxiety and each of the verbal responding skills. The subjects' verbal response scores of accurate empathy, nonpossessive
Table 8. Correlation coefficients of subjects' physiological verbal, behavioral, and self-report responses to the IPR seduction videotape vignettes

<table>
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<tr>
<th></th>
<th>SB3</th>
<th>SE4</th>
<th>SW4</th>
<th>SG4</th>
<th>S4</th>
<th>N1</th>
<th>OS</th>
<th>SrAANX</th>
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</table>

*aKey: SB3 = post sweat bottle measure scores  
SE4 = Truax accurate empathy verbal response scores  
SW4 = Truax nonpossessive warmth verbal response scores  
SG4 = Truax genuineness verbal response scores  
S4 = combined Truax verbal response scores of accurate empathy, nonpossessive warmth, and genuineness  
N1 = fidgetiness behavioral anxiety scores  
OS = overall nonverbal behavioral anxiety scores  
SrAANX = combined behavioral anxiety  
SF = self-report fear scores  
SA = self-report anxiety scores  
Sanx = combined self-report anxiety scores of fear and anxiety  
SW = self-report warmth scores  
SE = self-report empathy scores  
SEM = self-report combined scores of empathy and warmth  

*.49 needed for correlation significance at the .05 level.  
**.60 needed for correlation significance at the .01 level.
<table>
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<td>.94**</td>
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</table>
warmth, and genuineness all had a high positive relationship, greater than the .01 level of significance, among themselves. Likewise, the subjects' self-report measures of empathy and warmth indicated a high positive relationship at the .01 level of significance or beyond. The nonverbal behavioral anxiety assessments showed positive relationships with each other at or beyond the .05 level of significance.

In summary, the trends in the data for the IPR seduction series are as follows:

1. There were positive relationships, greater than the .05 level of significance, between the physiological sweat bottle assessment and all three of the subjects' verbal responding skills of accurate empathy, nonpossessive warmth and genuineness. The three verbal responding skills showed high positive relationships among themselves, greater than the .01 level of significance.

2. There were negative relationships, which were not significant at .05 level, between the behavioral and self-report anxiety assessments and each of the three verbal responding skills.

3. The behavioral anxiety indices were negatively related, not significant at the .05 level, with the three verbal responding skills, the sweat bottle or physiological assessment, and the self-report indices.

Aggression Series Correlations

The correlations in Table 9 indicate the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth and genuineness had positive relationships at or beyond the .01 level of significance.
Table 9. Correlation coefficients of subjects' physiological, verbal, behavioral, and self-report responses to the IPR aggression video-tape vignettes

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<th>GW4</th>
<th>GG4</th>
<th>G4</th>
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<tr>
<td>OG</td>
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</tr>
</tbody>
</table>

Key:  
SB5 = post sweat measure scores  
GE4 = Truax accurate empathy verbal response scores  
GW4 = Truax nonpossessive warmth verbal response scores  
GG4 = Truax genuineness verbal response scores  
G4 = combined Truax verbal response scores of accurate empathy, nonpossessive warmth, and genuineness  
N2 = fidgetiness behavioral anxiety scores  
OG = overall nonverbal behavioral scores  
GRAANX = combined behavioral anxiety scores of fidgetiness and overall nonverbal scores  
GF = self-report fear scores  
GA = self-report anxiety scores  
Ganx = combined self-report anxiety scores of fear and anxiety  
GW = self-report warmth scores  
GE = self-report empathy scores  
GEM = self-report combined scores of empathy and warmth

*.49 needed for correlation significance at the .05 level.  
**.60 needed for correlation significance at the .01 level.
<table>
<thead>
<tr>
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</table>
The subjects' self-report assessments of empathy and warmth showed positive relationships at or beyond the .05 level of significance with each other.

In summary, the trends in the data for the IPR aggression series are as follows:
1. There were positive relationships, at or beyond the .01 level of significance, among the three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness.
2. The three verbal responding skills of accurate empathy, nonpossessive warmth and genuineness did not have significant positive relationships with any of the three types of anxiety assessments.
3. The three behavioral indices indicated negative relationships (not significant) with the physiological sweat bottle anxiety assessment.
4. The two self-report anxiety indices had a negative relationships (not significant) with the sweat bottle assessment and the three behavioral assessments.

Anger Series Correlations

The correlations in Table 10 indicate the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness had positive relationships, significant at or beyond the .01 level, among themselves.

In summary, the trends in the data for the IPR anger series are as follows:
Table 10. Correlation coefficients of subjects' physiological, verbal, behavioral, and self-report responses to the IPR anger videotape vignettes

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<th>NG4</th>
<th>AN4</th>
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Key: SB7 = post sweat bottle measure scores  
NE4 = Truax accurate empathy verbal response scores  
NW4 = Truax nonpossessive warmth verbal response scores  
NG4 = Truax genuineness verbal response scores  
AN4 = combined Truax verbal response scores of accurate empathy, nonpossessive warmth, and genuineness  
N3 = fidgetiness behavioral anxiety scores  
ON = overall nonverbal behavior anxiety scores  
NRAANX = combined behavioral anxiety scores of fidgetiness and overall nonverbal scores  
NF = self-report fear scores  
NA = self-report anxiety scores  
Nanx = combined self-report anxiety scores of fear and anxiety  
NW = self-report warmth scores  
NE = self-report empathy scores  
NEM = self-report combined scores of empathy and warmth

*.49 needed for correlation significance at the .05 level.  
**.60 needed for correlation significance at the .01 level.
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<td>1.00</td>
<td>.85**</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>
1. There were positive relationships, at or beyond the .01 level of significance, among the three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness.

2. The three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness had a positive relationship, not significant at the .05 level, with the physiological sweat bottle anxiety assessment.

3. The combined self-report indices of fear and anxiety had positive relationships, not significant at the .05 level, with the three verbal responding skills, the physiological sweat bottle anxiety assessment and the behavioral anxiety indice of fidgetiness.

4. Self-report empathy indicated a significant relationship at the .05 level with the physiological sweat bottle anxiety assessment and a positive relationship, not significant at the .05 level, with the three verbal responding skills. Self-report warmth indicated a positive relationship, not significant at the .05 level, with the physiological sweat bottle anxiety assessment and a negative relationship, not significant at the .05 level, with the three verbal responding skills.

5. The three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness had negative relationships, significant at the .05 level and beyond, with the two behavioral indices of overall nonverbal rating and the combined indice of overall nonverbal rating and fidgetiness.
The correlations in Table 11 indicate the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness had significant positive relationships at the .01 level, among themselves.

In summary, the trends in the data for the IPR rejection series are as follows:

1. There were positive relationships, at or beyond the .01 level of significance, among the three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness.

2. The behavioral indices of fidgetiness and overall behavioral anxiety showed positive relationships, not significant at the .05 level, with the two self-report indices for anxiety.

3. The subjects' physiological sweat indice indicated a negative relationship, not significant at the .05 level, with the three verbal response skills of accurate empathy, nonpossessive warmth, and genuineness.

4. The behavioral indices of fidgetiness, overall behavioral anxiety, and the combined behavioral indices indicated a negative relationship, not significant at the .05 level, with the three verbal response skills of accurate empathy, nonpossessive warmth, and genuineness.

5. The self-report indices of empathy and warmth showed a positive relationship, not significant at the .05 level, with the three verbal responding skills and indicated a negative relationships, not significant at the .05 level, with the two behavioral indices, fidgetiness,
Table 11. Correlation coefficients of subjects' physiological, verbal, behavioral, and self-report responses to the IPR rejection video-tape vignettes

<table>
<thead>
<tr>
<th></th>
<th>SB9</th>
<th>RE4</th>
<th>RW4</th>
<th>RG4</th>
<th>R4</th>
<th>N4</th>
<th>OR</th>
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<td>.98**</td>
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</tbody>
</table>

*Key: SB9 = post sweat bottle measure scores  
RE4 = Truax accurate empathy verbal response scores  
RW4 = Truax nonpossessive warmth verbal response scores  
RG4 = Truax genuineness verbal response scores  
R4 = combined Truax verbal response scores of accurate empathy, nonpossessive warmth, and genuineness  
N4 = fidgetiness behavioral anxiety scores  
OR = overall nonverbal behavior anxiety scores  
RRANX = combined behavioral anxiety scores of fidgetiness and overall nonverbal scores  
RF = self-report fear scores  
RA = self-report anxiety scores  
Ranx = combined self-report anxiety scores of fear and anxiety  
RW = self-report warmth scores  
RE = self-report empathy scores  
REM = self-report combined scores of empathy and warmth

*.49 needed for correlation significance at the .05 level.  
**.60 needed for correlation significance at the .01 level.
<table>
<thead>
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</tbody>
</table>

** denotes statistical significance.
and overall behavioral anxiety, and the two self-report anxiety indices—fear and anxiety.

Summary of Correlation Findings of the Four IPR Series

The major correlation findings for the four IPR series are summarized here. The two major areas of consideration were first how the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness were correlated with the three different types of anxiety assessment; i.e., physiological; behavioral; and self-report and second, how well the three anxiety assessment areas correlate with each other.

The three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness indicated a positive relationship, significant at the .05 level, with the physiological sweat assessment in the seduction series and positively, but not significantly, in the anger series. Both the aggression and rejection series were negatively related and not significant at the .05 level. The three verbal responding skills indicated a negative relationship, not significant at the .05 level, with the behavioral nonverbal assessments in all four of the IPR client series and were significant at the .05 level with the anger and aggression series.

The IPR video-tape client vignettes had a definite effect on the subjects' three verbal responding skills, but the type of anxiety varied, depending on the client vignette series and which type of anxiety assessment. The physiological sweat bottle anxiety assessment was the best positive anxiety assessor of the three verbal responding skills with four significant relationships at or beyond the .05 level. The behavioral
indices had 11 significant negative relationships with the three verbal responding skills, at or beyond the .05 level. The self-report indices did not have any significant relationships with any of the three verbal responding skills.

Overall, there was sufficient evidence among the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness with the three different types of anxiety assessment to continue on to the Randomized Block analysis.

Hypotheses

The five major hypotheses and subhypotheses of the Randomized Block Design analysis are listed below, followed by the appropriate analysis of variance tables. If the overall F test was significant, the Scheffé test for mean comparison tables will be listed after the analysis of variance tables to illustrate if there were any treatment effects from the four IPR video-tape vignette series. A significant level of .01 was selected in the Scheffé S-Method tables, rather than .05, in order to determine the stronger potency (forcefulness) of the IPR treatment effects.

Hypothesis I: There is no significant difference between the subjects' physiological sweat anxiety on the Palmar Finger sweat bottle scores and the IPR video-tape vignette conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 12 reports an F value of 2.3387 for physiological sweat anxiety with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in analysis of variance. An F value of 2.82 was needed for acceptance at the .05 level. The respective means of the IPR video-tape
Table 12. Analysis of variance for Palmar Finger Sweat Bottle scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
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<th>F</th>
<th>P</th>
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<td>Subjects</td>
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<td>Vignettes x subjects</td>
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<tr>
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<td>34571589.0</td>
<td>548755.38</td>
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<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at .05 level.

**F value of 4.26 needed for significance at .01 level.

vignette client conditions are listed in Table 13. The IPR vignette client conditions did not have an overall significant effect on the subjects.

Table 13. Means of the IPR video-tape vignette client conditions for Palmar Finger Sweat Bottle

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1269.13</td>
<td>1252.69</td>
<td>1758.56</td>
<td>1529.19</td>
</tr>
</tbody>
</table>

Hypothesis II: There is no significant difference between the combined or the individual subjects' verbal response scores of accurate empathy, nonpossessive warmth, and genuineness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

Four subhypotheses are listed under the main hypothesis, which will first combined the three verbal responding skills and then list each one separately.
Hypothesis IIA: There is no significant difference between the combined subjects' verbal response scores of accurate empathy, nonpossessive warmth, and genuineness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis was rejected. Table 14 reports an F value of 3.86 for the subjects' combined verbal response scores of accurate empathy, nonpossessive warmth, and genuineness scores and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in analysis of variance. This value exceeded the F value of 2.82 needed for significance at the .05 level.

Since the overall F test was significant at the .05 level, the null hypothesis was rejected and the Scheffé S-Method for mean comparison was calculated. At the .05 level a score of 4.64 is required to indicate a significant treatment effect. The means are presented in Table 15. The significance difference scores between IPR vignette conditions are listed in parentheses which are as follows: rejection and seduction (7.23); anger and seduction (7.29); rejection and aggression (4.69); and anger and aggression (4.76).

Hypothesis IIB: There is no significant difference between the subjects' verbal response scores of accurate empathy and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis was rejected. Table 16 reports an F value of 4.8921 for the subjects' verbal response scores of accurate empathy and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. This value of 4.8921 exceeded the F value of 2.82 needed for significance at the .05 level.
**Table 14. Analysis of variance for combined Truax scales of accurate empathy, nonpossessive warmth, and genuineness**

<table>
<thead>
<tr>
<th>Sources</th>
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<th>ss</th>
<th>ms</th>
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</tr>
</thead>
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</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

**Table 15. Scheffé S-Method for mean comparison for the combined verbal response scores and the four treatment conditions of seduction, aggression, anger, and rejection**

<table>
<thead>
<tr>
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<td>4.76*</td>
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<td>7.06</td>
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</table>

*Value of 4.64 required for significance at the .01 level.
Table 16. Analysis of variance for Truax scale of accurate empathy scores

<table>
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<tr>
<th>Sources</th>
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<th>ms</th>
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<td>Subject responses</td>
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<td>10.8486**</td>
<td>.0001</td>
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<tr>
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<td>3111882.8</td>
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</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

Since the overall F test was significant at the .05 level, the null hypothesis was rejected and the Scheffé S-Method for mean comparison was calculated. Mean differences are reported in Table 17 and a score of 1.66 was needed for significant treatment effects at the .01 level. Significant differences in scores between the IPR vignette video-tape client conditions are as follows: anger and seduction (2.74); rejection and seduction (3.09); anger and aggression (1.70); and rejection and aggression (2.05).

Hypothesis IIc: There is no significant difference between the subjects' verbal response scores of nonpossessive warmth and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis was rejected. Table 18 reports an F value of 3.4673 for the subjects' verbal response scores of nonpossessive warmth and the IPR video-tape vignette conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. This value of
Table 17. Scheffé S-Method for mean comparison for the subjects' verbal response scores of accurate empathy and the vignette client conditions of seduction, aggression, anger, and rejection

<table>
<thead>
<tr>
<th></th>
<th>Seduction</th>
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<th>Rejection</th>
</tr>
</thead>
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<td>1.70*</td>
<td>2.05*</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>2.30</td>
<td></td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>Rejection</td>
<td>2.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Value of 1.66 needed for significance at the .01 level.

Table 18. Analysis of variance for Truax scale of nonpossessive warmth

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>640656.4</td>
<td>213552.141</td>
<td>3.4673</td>
<td>.0234</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>13494013.5</td>
<td>899600.899</td>
<td>14.6061**</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject responses</td>
<td>45</td>
<td>2771587.8</td>
<td>61590.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x vignettes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>16906257.7</td>
<td>268353.297</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.
3.4673 exceeded the F value of 2.82 needed for significance at the .05 level.

Since the overall F test was significant at the .05 level, the null hypothesis was rejected and the Scheffé S-Method for mean comparison was calculated. The mean differences are reported in Table 19 and a score of 1.56 was required for significant treatment effects at the .01 level. Significant differences in scores between the IPR vignette client conditions are as follows: rejection and seduction (2.22); anger and aggression (1.67), and rejection and aggression (1.56).

Table 19. Scheffé S-Method for mean comparison for the Truax verbal response scores of nonpossessive warmth and the vignette client conditions of seduction, aggression, anger, and rejection

<table>
<thead>
<tr>
<th></th>
<th>Seduction</th>
<th>Aggression</th>
<th>Rejection</th>
<th>Anger</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{X}_1$ = 2166.69</td>
<td>.66</td>
<td>2.22*</td>
<td>2.33</td>
</tr>
<tr>
<td>Seduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>$\bar{X}_2$ = 2232.56</td>
<td>1.56*</td>
<td>1.67*</td>
<td></td>
</tr>
<tr>
<td>Rejection</td>
<td>$\bar{X}_4$ = 2388.94</td>
<td></td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>$\bar{X}_3$ = 2399.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Value of 1.56 needed for significance at the .01 level.

Hypothesis II'd: There is no significant difference between the subjects' verbal response scores of genuineness and the IPR videotape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 20 reports an F value of 2.3728 for the subjects' verbal response scores of genuineness and the
Table 20. Analysis of variance for Truax scale of genuineness scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>500004.1</td>
<td>16668.04</td>
<td>2.3728</td>
<td>.0817</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>16130919.8</td>
<td>1075394.65</td>
<td>15.3103**</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>3160789.9</td>
<td>70239.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>19791713.8</td>
<td>314154.19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for acceptance at the .05 level. The respective means of the IPR video-tape client conditions are listed in Table 21. The IPR video-tape vignette client conditions did not have an overall significant effect on the subjects.

Table 21. Means of the IPR video-tape vignette client conditions and the subjects' verbal responding skill of genuineness scores

<table>
<thead>
<tr>
<th></th>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2149.25</td>
<td>2232.69</td>
<td>2340.63</td>
<td>2371.69</td>
</tr>
</tbody>
</table>

Hypothesis III: There is no significant difference between either the subjects' combined or individual behavioral scores of fidgetiness and overall nonverbal anxiety scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.
There are three subhypotheses listed under the main hypothesis, which combine the two behavioral nonverbal anxiety assessments of fidgetiness and overall behavioral anxiety scores and then lists each assessment separately.

Hypothesis IIIa: There is no significant difference between the subjects' combined behavioral scores of fidgetiness and overall nonverbal anxiety scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 22 reports an F value of 1.70 for the combined behavioral scores of fidgetiness and overall nonverbal anxiety scores, with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for acceptance at the .05 level. The respective means of the IPR video-tape client con-

Table 22. Analysis of variance for combined behavioral anxiety scores of fidgetiness and overall nonverbal scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>702188.5</td>
<td>234062.83</td>
<td>1.70</td>
<td>.1786</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>15951571.3</td>
<td>1063438.08</td>
<td>7.38**</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>6184772.0</td>
<td>137439.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>22838531.8</td>
<td>362516.38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.
ditions are listed in Table 23. The IPR video-tape vignette client conditions did not have an overall significant effect on the subject.

Table 23. Means of the IPR video-tape vignette client conditions and the subjects' combined behavioral anxiety scores of fidgetiness and overall nonverbal scores

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.63</td>
<td>25.73</td>
<td>26.77</td>
<td>26.74</td>
</tr>
</tbody>
</table>

Hypothesis IIIb: There is no significant difference between the subjects' behavioral anxiety scores of fidgetiness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis was rejected. Table 24 reports an F value of 6.3293 for the subjects' anxiety scores of fidgetiness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for acceptance at the .05 level.

Since the overall F test was significant at the .05 level, the null hypothesis was rejected and the Scheffé S-Method for mean comparison was calculated. At the .01 level a score of 1.47 was required to indicate significant treatment effects. The means are presented in Table 25. The significant difference in scores between the IPR video-tape client conditions are listed in parentheses, which are as follows: aggression and rejection (3.07); anger and rejection (3.07); aggression and seduction (1.57); anger and seduction (1.57); seduction and rejection (1.5).
Table 24. Analysis of variance for behavioral anxiety scores of fidgetiness

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>103.5625</td>
<td>34.5208</td>
<td>6.3293**</td>
<td>.0014</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>1593.9375</td>
<td>106.2625</td>
<td>19.4828</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>245.4375</td>
<td>5.4542</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>1942.9375</td>
<td>30.8403</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

Table 25. Scheffé S-Method for mean comparison for the behavioral score of fidgetiness with the vignette client conditions of seduction, aggression, anger, and rejection

<table>
<thead>
<tr>
<th></th>
<th>Rejection</th>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{X}_4$ = 7.31</td>
<td>1.5**</td>
<td>3.07**</td>
<td>3.07**</td>
</tr>
<tr>
<td>Rejection</td>
<td></td>
<td>$\bar{X}_1$ = 8.81</td>
<td>1.57**</td>
<td>1.57**</td>
</tr>
<tr>
<td>Seduction</td>
<td></td>
<td></td>
<td>$\bar{X}_2$ = 10.38</td>
<td>.00</td>
</tr>
<tr>
<td>Aggression</td>
<td></td>
<td></td>
<td></td>
<td>$\bar{X}_3$ = 10.38</td>
</tr>
</tbody>
</table>

*Value of 1.47 needed for significance at the .01 level.

Hypothesis IIIc: There is no significant difference between the subjects' behavioral overall nonverbal anxiety scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.
This hypothesis could not be rejected. Table 26 reports an F value of 1.72 for the subjects' overall nonverbal anxiety scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for acceptance at .05 level. The respective means of the

Table 26. Analysis of variance for overall nonverbal behavior anxiety scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>708373.1</td>
<td>236125.02</td>
<td>1.72</td>
<td>.1752</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>15750250.9</td>
<td>1050016.73</td>
<td>7.65**</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>6179239.9</td>
<td>137316.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>22637865.9</td>
<td>359331.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

IPR video-tape client conditions are listed in Table 27. The IPR video-tape vignette client conditions did not have an overall significant effect on the subjects.

Table 27. Means of the IPR video-tape vignette client conditions and the subjects' overall nonverbal behavior anxiety scores

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.854</td>
<td>2.562</td>
<td>2.667</td>
<td>2.687</td>
</tr>
</tbody>
</table>
Hypothesis IV: There is no significant difference between either the subjects' combined self-report scores of fear and anxiety or their individual self-report scores of fear and anxiety with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

There are three subhypotheses listed under the main hypothesis, which first combines the two self-report anxiety assessments of fear and anxiety and then lists each assessment separately.

Hypothesis IVa: There is no significant difference between the subjects' combined self-report scores of fear and anxiety with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 28 reports an F value of .9585 for the combined subjects' fear and anxiety scores and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for acceptance at the .05 level. The respective means of

Table 28. Analysis of variance for combined self-report fear and anxiety scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>6.9219</td>
<td>2.3073</td>
<td>0.9585</td>
<td>.5777</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>73.6094</td>
<td>4.9073</td>
<td>2.0385</td>
<td>.0332</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>108.3281</td>
<td>2.4073</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>188.8594</td>
<td>2.9977</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.
the IPR video-tape client conditions are listed in Table 29. The IPR video-tape vignette client conditions did not have an overall significant effect on the subjects.

Table 29. Means of the IPR video-tape vignette client conditions and the subjects' combined self-report fear and anxiety scores

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.13</td>
<td>4.50</td>
<td>5.38</td>
<td>4.81</td>
</tr>
</tbody>
</table>

Hypothesis IVb: There is no significant difference between the subjects' self-report scores of fear with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 30 reports an F value of .7823 for the subjects' fear scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for significance at the .05 level. The respective means of the IPR video-tape

Table 30. Analysis of variance for self-report fear scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>1.7969</td>
<td>0.5989</td>
<td>0.7823</td>
<td>.5128</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>28.3594</td>
<td>1.8906</td>
<td>2.4694**</td>
<td>.0099</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>34.4531</td>
<td>0.7656</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>64.6094</td>
<td>1.0255</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.
Table 31. Means of the IPR video-tape vignette client conditions and the subjects' self-report fear scores

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.19</td>
<td>1.81</td>
<td>2.25</td>
<td>2.06</td>
</tr>
</tbody>
</table>

Hypothesis IVc: There is no significant difference between the subjects' self-report scores of anxiety with the IPR video-tape vignette conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 32 reports an F value of .7786 for the subjects' anxiety scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for acceptance at the .05 level. The respective means of the IPR video-tape client conditions are listed in Table 33. The IPR video-tape vignette client conditions did not have an overall significant effect on the subjects.

Hypothesis V: There is no significant difference between either the subjects' combined self-report scores of empathy and warmth or their individual self-report scores of empathy and warmth with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

There are three subhypotheses listed under the main hypothesis which first combines the two self-report subject responses of empathy and warmth and then lists each assessment separately.
Table 32. Analysis of variance for self-report anxiety scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>1.875</td>
<td>.625</td>
<td>.7786</td>
<td>.5149</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>19.000</td>
<td>1.267</td>
<td>1.5779</td>
<td>.1189</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>36.125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>57.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

Table 33. Means of the IPR video-tape vignette client conditions and the subjects' self-report anxiety scores

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.94</td>
<td>2.69</td>
<td>3.13</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Hypothesis Va: There is no significant difference between the subjects' combined self-report scores of empathy and warmth with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 34 reports an F value of .0651 for the subjects' combined empathy and warmth scores with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. An F value of 2.82 was needed for acceptance at the .05 level. The respective means of
Table 34. Analysis of variance for combined self-report empathy and warmth scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>0.1719</td>
<td>.0573</td>
<td>.0651</td>
<td>.9773</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>96.8594</td>
<td>6.4573</td>
<td>7.3419</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>39.5781</td>
<td>.8795</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>136.6094</td>
<td>2.1684</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

the IPR video-tape vignette client conditions are listed in Table 35. The IPR video-tape vignette conditions did not have an overall significant effect on the subjects.

Table 35. Means of the IPR video-tape vignette client conditions and the subjects' combined self-report empathy and warmth scores

<table>
<thead>
<tr>
<th></th>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.00</td>
<td>5.13</td>
<td>5.06</td>
<td>5.13</td>
</tr>
</tbody>
</table>

Hypothesis Vb: There is no significant difference between the subjects' self-report scores of empathy with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 36 reports an F value of 1.2194 for the subjects' scores of empathy and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as
Table 36. Analysis of variance for self-report empathy scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>1.2969</td>
<td>.4323</td>
<td>1.2194</td>
<td>.3133</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>35.7347</td>
<td>2.3822</td>
<td>6.7199**</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>15.9531</td>
<td>.3545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

A main effect in the analysis of variance for the self-report scores. The respective means of the IPR video-tape vignette client conditions are listed in Table 37. The IPR video-tape vignette client conditions did not have an overall significant effect on the subjects.

Table 37. Means of the IPR video-tape vignette client conditions and the subjects' self-report empathy scores

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.75</td>
<td>3.00</td>
<td>3.13</td>
<td>3.06</td>
</tr>
</tbody>
</table>

Hypothesis Vc: There is no significant difference between the subjects' self-report scores of warmth with the vignette client conditions of seduction, aggression, anger, and rejection.

This hypothesis could not be rejected. Table 38 reports an F value of .6037 for the subjects' scores of warmth and the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection as a main effect in the analysis of variance. The respective means of the
Table 38. Analysis of variance for self-report warmth scores

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>ss</th>
<th>ms</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignettes</td>
<td>3</td>
<td>.8125</td>
<td>.2708</td>
<td>.6037</td>
<td>.6198</td>
</tr>
<tr>
<td>Subject responses</td>
<td>15</td>
<td>20.4375</td>
<td>1.3625</td>
<td>3.0372**</td>
<td>.0023</td>
</tr>
<tr>
<td>Subject responses x vignettes</td>
<td>45</td>
<td>20.1875</td>
<td>.4486</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>63</td>
<td>41.4375</td>
<td>.6577</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.

IPR video-tape vignette client conditions are listed in Table 39. The IPR video-tape vignette client conditions did not have an overall significant effect on the subjects.

Table 39. Means of the IPR video-tape vignette client conditions and the subjects' self-report warmth scores

<table>
<thead>
<tr>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.25</td>
<td>2.13</td>
<td>1.94</td>
<td>2.06</td>
</tr>
</tbody>
</table>

Table 40 is a summary of the null hypotheses discussed in this chapter. Of the five null hypotheses, only one was rejected, the null hypothesis of the subjects' combined and individual verbal responding skills with the four IPR video-tape client conditions of seduction, aggression, anger, and rejection. The combined verbal responding skills
Table 40. Analyses of variances for all hypotheses and subhypotheses with respective F values, significance value required, p value reached and appropriate table references

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>F value</th>
<th>Required for .05 level</th>
<th>Significant</th>
<th>p value</th>
<th>Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Physiological sweat bottle</td>
<td>2.3387</td>
<td>2.82</td>
<td>No</td>
<td>.0850</td>
<td>12</td>
</tr>
<tr>
<td>IIa</td>
<td>Combined verbal skills</td>
<td>3.86*</td>
<td>2.82</td>
<td>Yes</td>
<td>.0153</td>
<td>14</td>
</tr>
<tr>
<td>IIb</td>
<td>Accurate empathy</td>
<td>4.8921**</td>
<td>2.82</td>
<td>Yes</td>
<td>.0053</td>
<td>16</td>
</tr>
<tr>
<td>IIc</td>
<td>Nonpossessive warmth</td>
<td>3.4673**</td>
<td>2.82</td>
<td>Yes</td>
<td>.0234</td>
<td>18</td>
</tr>
<tr>
<td>IIId</td>
<td>Genuineness</td>
<td>2.3728</td>
<td>2.82</td>
<td>No</td>
<td>.0817</td>
<td>20</td>
</tr>
<tr>
<td>IIla</td>
<td>Combined behavioral</td>
<td>1.70</td>
<td>2.82</td>
<td>No</td>
<td>.1786</td>
<td>22</td>
</tr>
<tr>
<td>II Ib</td>
<td>Fidgetiness</td>
<td>6.3293**</td>
<td>2.82</td>
<td>Yes</td>
<td>.0014</td>
<td>24</td>
</tr>
<tr>
<td>IIIc</td>
<td>Overall nonverbal</td>
<td>1.72</td>
<td>2.82</td>
<td>No</td>
<td>.1752</td>
<td>26</td>
</tr>
<tr>
<td>IVa</td>
<td>Combined self-report</td>
<td>0.9585</td>
<td>2.82</td>
<td>No</td>
<td>.5777</td>
<td>30</td>
</tr>
<tr>
<td>IVb</td>
<td>fear and anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IVc</td>
<td>Self-report anxiety</td>
<td>0.7786</td>
<td>2.82</td>
<td>No</td>
<td>.5149</td>
<td>32</td>
</tr>
<tr>
<td>Va</td>
<td>Combined self-report</td>
<td>0.0651</td>
<td>2.82</td>
<td>No</td>
<td>.9773</td>
<td>34</td>
</tr>
<tr>
<td>Vb</td>
<td>empathy and warmth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vc</td>
<td>Self-report warmth</td>
<td>1.2194</td>
<td>2.82</td>
<td>No</td>
<td>.3133</td>
<td>36</td>
</tr>
</tbody>
</table>

*F value of 2.82 needed for significance at the .05 level.

**F value of 4.26 needed for significance at the .01 level.
were significant at the .05 level. These data and their relationships to the three research problems will be discussed in the next chapter.
SUMMARY

Introduction

Included in this chapter are five sections which describe the purpose, procedure, findings, related research, and recommendations for further study.

Purpose

The purpose of this study was to investigate whether client behaviors such as seduction, aggression, anger, and rejection had possible anxiety effects on verbal responding skills of counselor trainees. The Truax scales of accurate empathy, nonpossessive warmth, and genuineness were utilized for assessing subjects' verbal responding skills, and anxiety was assessed by physiological, behavioral, and self-report measurements.

Procedure

The sample for this study consisted of five males and eleven females enrolled in "Techniques of Counseling Secondary Students" in the College of Education at Iowa State University. Nine subjects were single and seven married.

Data collection began by recording the subjects' verbal responses and behavioral mannerisms on video-tape as each subject responded to 24 Interpersonal Process Recall video-tape vignettes in which actors portrayed the four client behaviors of seduction, aggression, anger, and rejection. These 24 video-tape vignettes were selected from 72 original...
Kagan IPR video-tape vignettes by a panel consisting of one certified school counselor and two certified school psychologists rated each IPR vignette and coded them for the four client behaviors. Each of the four types of client behaviors were serialized in terms of potency; i.e., each client behavior series contained two low (least forceful), two medium, and two high potency (most forceful) vignettes.

To assess the subjects' verbal responding skills, the Truax Scales of Accurate Empathy, Nonpossessive Warmth, and Genuineness were used. Subjects were video-taped as they gave appropriate counseling responses to each of the 24 IPR video-taped client vignettes. These responses were then averaged for each subject in each of the four client series. While this aspect of the research project was taking place, it was necessary to attend to the three types of anxiety assessment. The Palmar Finger Sweat Bottle, selected as the physiological measure, assessed each subject's anxiety by measuring the amount of sodium chloride ions excreted by the subject's finger before and after viewing each series of IPR vignettes. The physiological assessment was a pre-post measure of anxiety, and the subject's change scores were utilized for statistical analysis.

The second type of anxiety assessment was the behavioral nonverbal and continuous type of measurement. Three raters recorded 13 nonverbal behavior mannerisms for each subject. A graduate assistant video-taped subjects as they viewed the 24 IPR video-tape client vignettes. Then the three raters, individually, rated each subject's nonverbal behavior mannerisms and verbal responding skills.
The third type of anxiety assessment was a self-report Likert scale checklist of 16 emotional terms referred to as the Student Counselor Self-Report Sheet. These terms were selected from several self-report studies. The terms were chosen to assess five degrees of fear or anxiety subjects may have experienced while viewing the IPR video-taped vignette series. Each subject completed a self-report anxiety checklist immediately after viewing each client vignette series.

Two types of statistical analyses were conducted to analyze the data. Pearson-Product moment correlations were initially calculated between each of the 14 dependent variables to determine if a viable association existed between the subjects' verbal responding skills and the three types of anxiety assessment. The second analysis was a Randomized Block Analysis which was a multiple classification analysis of variance for equal cell frequencies. A Scheffé test for mean differences was used when the null hypothesis was rejected to determine which IPR video-tape client series were perhaps affecting the subjects' verbal responding skills or anxiety.

Findings

Introduction

The findings of this research are summarized and discussed in this section as they apply to each of the three research problems in this study. Each research problem is presented separately, followed by appropriate summary tables and discussion of the findings.

The first research problem concerned both the correlation findings between the individual and combined verbal responding skills of accurate
empathy, nonpossessive warmth, and genuineness and whether or not there was a relationship between the three types of anxiety assessment. The second research problem relates the correlation findings with the analysis of variance findings calculated for Hypotheses I, III, IV, and V. These findings indicate which type(s) of anxiety assessment appear most closely related to the subjects' verbal responding skills. The third research problem deals with null Hypothesis II, which is concerned with whether or not client conditions of seduction, aggression, anger, and rejection affected the subjects' verbal responding skills and/or their physiological, behavioral, and self-report indices of anxiety.

Findings of these three research problems are compared with prior research findings in a separate section in this chapter. This research is a relationship study and not an experimental design which would have attempted to establish a cause and effect relationship between the subjects' verbal responding skills and the three different anxiety assessments.

Research Problems and Discussion

Research Problem 1

To determine if there is a significant relationship between the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness with his/her physiological, behavioral and self-report types of anxiety assessment.

In this research problem, the subjects' individual and combined responding skills were correlated with three different types of anxiety assessment. Correlation coefficients from Tables 8, 9, 10, and 11 are summarized in Tables 41 and 42. These tables show correlations between
Table 41. The physiological, behavioral, and combined self-report anxiety assessments with the combined and individual verbal responding skills in the four IPR client conditions

<table>
<thead>
<tr>
<th></th>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physiological anxiety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>.61**</td>
<td>-.12</td>
<td>.30</td>
<td>-.39</td>
</tr>
<tr>
<td>E</td>
<td>.66**</td>
<td>-.15</td>
<td>.31</td>
<td>-.42</td>
</tr>
<tr>
<td>W</td>
<td>.58*</td>
<td>-.07</td>
<td>.24</td>
<td>-.41</td>
</tr>
<tr>
<td>G</td>
<td>.59*</td>
<td>-.11</td>
<td>.33</td>
<td>-.31</td>
</tr>
<tr>
<td><strong>Combined behavioral anxiety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>-.33</td>
<td>-.51*</td>
<td>-.61**</td>
<td>-.36</td>
</tr>
<tr>
<td>E</td>
<td>-.38</td>
<td>-.49*</td>
<td>-.60**</td>
<td>-.39</td>
</tr>
<tr>
<td>W</td>
<td>-.38</td>
<td>-.48</td>
<td>-.59*</td>
<td>-.32</td>
</tr>
<tr>
<td>G</td>
<td>-.27</td>
<td>-.56*</td>
<td>-.60**</td>
<td>-.35</td>
</tr>
<tr>
<td><strong>Fidgetiness behavioral anxiety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>-.40</td>
<td>-.28</td>
<td>-.20</td>
<td>-.10</td>
</tr>
<tr>
<td>E</td>
<td>-.46</td>
<td>-.30</td>
<td>-.27</td>
<td>-.14</td>
</tr>
<tr>
<td>W</td>
<td>-.33</td>
<td>-.25</td>
<td>-.13</td>
<td>-.10</td>
</tr>
<tr>
<td>G</td>
<td>-.41</td>
<td>-.30</td>
<td>-.21</td>
<td>-.07</td>
</tr>
<tr>
<td><strong>Overall behavioral anxiety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>-.33</td>
<td>-.51*</td>
<td>-.61**</td>
<td>-.36</td>
</tr>
<tr>
<td>E</td>
<td>-.38</td>
<td>-.49*</td>
<td>-.60**</td>
<td>-.39</td>
</tr>
<tr>
<td>W</td>
<td>-.27</td>
<td>-.48</td>
<td>-.59*</td>
<td>-.32</td>
</tr>
<tr>
<td>G</td>
<td>-.34</td>
<td>-.55*</td>
<td>-.61**</td>
<td>-.35</td>
</tr>
<tr>
<td><strong>Combined self-report anxiety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>.22</td>
<td>.05</td>
<td>.18</td>
<td>.19</td>
</tr>
<tr>
<td>E</td>
<td>.22</td>
<td>.07</td>
<td>.09</td>
<td>.12</td>
</tr>
<tr>
<td>W</td>
<td>.21</td>
<td>.02</td>
<td>.20</td>
<td>.24</td>
</tr>
<tr>
<td>G</td>
<td>.21</td>
<td>.05</td>
<td>.27</td>
<td>.20</td>
</tr>
</tbody>
</table>

*Key: C = combined verbal skills  
E = accurate empathy  
W = nonpossessive warmth  
G = genuineness

*.49 needed for a correlation significance at the .05 level.  
**.60 needed for a correlation significance at the .01 level.
Table 42. The individual self-report anxiety assessments, the combined and individual self-report indices with the combined and individual verbal responding skills in the four IPR client conditions

<table>
<thead>
<tr>
<th></th>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-report fear</td>
<td>C</td>
<td>.25</td>
<td>-.08</td>
<td>.34</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>.24</td>
<td>-.08</td>
<td>.28</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>.25</td>
<td>-.08</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>.27</td>
<td>-.07</td>
<td>.40</td>
</tr>
<tr>
<td>Self-report anxiety</td>
<td>C</td>
<td>.15</td>
<td>.14</td>
<td>-.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>.18</td>
<td>.19</td>
<td>-.16</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>.14</td>
<td>.10</td>
<td>-.02</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>.12</td>
<td>.15</td>
<td>.02</td>
</tr>
<tr>
<td>Combined self-report empathy and warmth</td>
<td>C</td>
<td>-.01</td>
<td>.12</td>
<td>.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>.01</td>
<td>.13</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>-.03</td>
<td>.07</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>-.02</td>
<td>.17</td>
<td>.24</td>
</tr>
<tr>
<td>Self-report empathy</td>
<td>C</td>
<td>-.17</td>
<td>.09</td>
<td>.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>-.15</td>
<td>.13</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>-.19</td>
<td>.05</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>.19</td>
<td>.09</td>
<td>.38</td>
</tr>
<tr>
<td>Self-report warmth</td>
<td>C</td>
<td>.17</td>
<td>.13</td>
<td>-.08</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>G</td>
<td>.16</td>
<td>.21</td>
<td>-.09</td>
</tr>
</tbody>
</table>

Key: 
- C = combined verbal skills
- E = accurate empathy
- W = nonpossessive warmth
- G = genuineness

*.49 needed for a correlation significance at the .05 level.

**.60 needed for a correlation significance at the .01 level.
the seduction, aggression, anger, and rejection series and each of the 
anxiety assessments and provide an overall reference for these significant 
findings. Some significant positive and negative relationships are illus­
trated by scattergrams to indicate trends in the data. The significant 
physiological anxiety assessment is discussed first with the individual 
and combined verbal responding skills and followed by then the behavioral 
and self-report anxiety assessments.

**Physiological anxiety assessment**

Inspection of Table 41 reveals that there are four significant posi­
tive relationships, at or beyond the .05 level, only in the seduction 
series between the subjects' combined and the individual responding skills 
of accurate empathy, nonpossessive warmth, and genuineness with the 
physiological finger sweat bottle anxiety assessment. None of the other 
IPR client series reached a significance at the .05 level. With the re­
jection series, several negative relationships approached significance at 
the .05 level with the combined and individual verbal responding skills in 
the four client vignette series.

According to Glass and Stanley in *Statistical Methods in Education 
and Psychology* (1970), page 117, the scattergram of the subjects' sweat 
bottle anxiety assessment with the verbal responding skill of accurate 
empathy in the seduction series indicates a moderate direct relationship 
(about +.50). This scattergram, as with the scattergrams to follow, may 
be analyzed by dividing each scattergram graph into four theoretical 
quadrants, as illustrated below in Figure 2.
Figure 2. Diagram of the four theoretical quadrants in a scattergram graph between the subjects' anxiety and verbal responding skills.

A straight line is drawn between half of the 16 subjects' scores to indicate the trend of the data. If the correlation is significantly positive, the directionality of the line moves from the lower left hand corner of the X and Y axes toward the second quadrant. If the correlation is negative, as depicted in the right hand scattergram in Table 43, the directionality of the line moves from the lower right hand corner of the X axis in fourth quadrant. Since this correlation only approached a significance at the .05 level, the trend of the data moved from the fourth quadrant to the third quadrant. A perfect inverse relationship (-1.00) would be a straight line from the fourth quadrant to the first quadrant with all the scores falling directly on the line. Low positive or low negative correlations, which did not reach a significance at the .05 level, would
Table 43. Scattergrams of the physiological sweat bottle anxiety assessment with the responding skill of accurate empathy in both the seduction and rejection series

<table>
<thead>
<tr>
<th>Skill</th>
<th>Seduction Series</th>
<th>Rejection Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate empathy</td>
<td>( r = +.66 )</td>
<td>( r = -.42 )</td>
</tr>
</tbody>
</table>
be shown by a circle of subject scores in the middle of the scattergram that indicates an almost zero covariation of X and Y.

To understand the left scattergram in Table 43 which indicates a moderately direct relationship between the subjects' physiological anxiety scores and their verbal responding skill scores of accurate empathy in the seduction series, it is important to determine the nature of the positive correlation ($r = +.66$) between the two indices. The question arises whether this positive significant correlation at the .01 level was a result of both indices having high scores or both having low scores.

Most of the subjects' scores were in the third quadrant, which would mean that when the subjects' physiological anxiety scores were low, their verbal responding skill scores were also low.

The trend in the data indicates that as the subjects' physiological anxiety increased, so did their responding skills of accurate empathy. The scattergram at the right in Table 43 shows the subjects' physiological anxiety assessment and their responding skills of empathy in the rejection series and indicates a moderate inverse relationship ($-.42$) between the two indices (high skill, low anxiety). Because significant correlation at the .05 level is lacking in the aggression and anger series, little or no relationship can be noted graphically so no scattergram is provided.

Behavioral anxiety assessment

The behavioral nonverbal anxiety assessments had more significant correlations at the .05 level and beyond than did the physiological anxiety assessment with the subjects' verbal responding skills.
Table 41 indicates seven significant negative correlations at or beyond the .05 level between the subjects' combined behavioral anxiety ratings with their combined and individual verbal responding skills for the aggression and anger series. Similarly, there were seven significant negative correlations at or beyond the .05 level between the subjects' overall behavioral anxiety ratings and their combined and individual verbal responding skills. The behavioral anxiety assessment of fidgetiness failed to produce any significant correlations in all four client conditions.

Scattergrams in Table 44 show a moderate inverse relationship between the subjects' verbal responding skills of genuineness with their combined verbal responding skills, and the combined behavioral anxiety with the combined responding skills. In Table 45 both scattergrams indicate a moderately inverse relationship between the subjects' verbal responding skills of accurate empathy and the behavioral anxiety index of fidgetiness (r = .46) and between the subjects' verbal responding skills of nonpossessive warmth and their behavioral overall anxiety (-.59). These significant negative correlations resulted in the subjects' scores falling on or near the line from the fourth quadrant to the first quadrant, indicating that the higher the amount of behavioral anxiety experienced, the lower the amount of accurate empathy, nonpossessive warmth, and genuineness demonstrated.

Self-report anxiety assessment

The combined or individual self-report assessment had no significant or near significant positive or negative correlations at the .05 level.
Table 44. Scattergrams of the combined behavioral indices of fidgetiness and overall nonverbal rating with the verbal responding skills of genuineness in the aggression series and the three verbal responding skills combined in the anger series

- Genuineness in aggression series: $r = -0.56$
- Three verbal responding skills combined in anger series: $r = -0.61$
Table 45. Scattergrams of the two behavioral nonverbal indices of (1) fidgetiness with the verbal responding skill of accurate empathy; (2) the overall nonverbal rating with the verbal responding skill of nonpossessive warmth in the anger series

- Accurate empathy in seduction series: $r = -0.46$
- Nonpossessive warmth in anger series: $r = -0.59$
with either the combined or individual verbal responding skills. All the correlations in Tables 41 and 42 for the self-report anxiety indices were either low positive or low negative, which indicates almost no relationship between the subjects' self-report anxiety assessment and their verbal responding skills. Thus, it was decided not to draw scattergrams for those two indices with the four IPR client conditions.

In summary, significant relationships were evident between the subjects' three verbal responding skills and their physiological anxiety assessment, two of the behavioral anxiety assessments, and none with the self-report anxiety assessment. However, while some of the physiological and behavioral anxiety assessments were significant at or beyond the .05 level, they appear to present contradictory evidence. With the physiological assessment, there was evidence that as the subjects' anxiety increases, so did their verbal responding skills. This was diametrically opposed to the behavioral anxiety indices where the subjects' behavioral anxiety increased and their responding skills decreased.

The most obvious conclusion is that the physiological and the behavioral anxiety assessments are measuring different types of anxiety. A second factor to consider is the anxiety assessment methodology involved. The physiological anxiety assessment used in this study compared the change between scores taken at two different times (pre-post). However, with the behavioral anxiety indices, the assessment was based on continuous ratings of the subjects' behavioral mannerisms while they viewed the client vignettes.
Research Problem 2

To determine which type of anxiety assessment (i.e., physiological, behavioral, or self-report) is the most effective in assessing the subjects' anxiety with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This research problem is attended to by examining two different statistical procedures, the correlation coefficients in Table 41 and the analysis of variance results for Hypotheses I, II, IV and V presented in Table 40.

Correlation coefficients

Calculating correlation coefficients was the initial statistical procedure utilized to determine if there were significant relationships at the .05 level between the subjects' three verbal responding skills and their physiological, behavioral, and self-report anxiety assessments. The behavioral nonverbal anxiety indices had the most significant relationships with 14 correlation coefficients at or beyond the .05 level. Inspection of Table 41 reveals only four significant relationships at or beyond the .05 level in the seduction series with the subjects' combined and individual verbal responding skills and the physiological anxiety assessment. The other three client vignette conditions were not significantly correlated at the .05 level with the physiological anxiety assessment.

The behavioral nonverbal anxiety indices had a total of 14 significant negative relationships at or beyond the .05 level between themselves with the combined and individual verbal responding skills. As Table 41 indicates, seven of these significant negative relationships, at or beyond the .05 level, were between the subjects' combined behavioral anxiety indices and the combined and individual verbal responding skills. The
other seven significant negative relationships at or beyond the .05 level were between the individual behavioral anxiety indice and the subjects' combined and individual verbal responding skills. All 14 significant negative relationships, at or beyond the .05 level, were in the IPR videotape vignette series of aggression and anger. No significant relationships at the .05 level or beyond were in the seduction or rejection series.

Further, there were no significant positive or negative relationships among the four IPR client series between the behavioral anxiety index of fidgetiness with the combined or individual subjects' verbal responding skills.

The self-report combined and individual anxiety indices of fear and anxiety did not have any significant relationships, at or beyond the .05 level, with the combined or individual verbal responding skills. This finding was true for all four client vignette series.

While the first research problem focused specifically on the relationships between the subjects' verbal responding skills and the three anxiety assessments, this research problem presented the added dimension of the type of client conditions which resulted in more subject anxiety arousal. What appears to be a contradictory finding in the first research problem does not seem so when considering the second research problem. Varying client conditions affected different anxiety assessments. The client conditions of anger and aggression indicated that as the subjects' behavioral anxiety increased their verbal responding skills decreased. However, with client conditions of seduction, some results indicated that as the subjects' physiological anxiety increased so did their verbal
responding skills. Thus, the two previously identified possible explanations, when considered in relation to the first research problem (different types of anxiety and the different anxiety assessment methodologies), are clarified to a limited extent—different client conditions effected each type of anxiety assessment differently. Also, when the client condition of seduction is contrasted with that of anger and aggression, there is a possible explanation. Seduction is an arousal state with a positive valence, and as such, a higher level of functioning would be anticipated. Anger and aggression produce arousal at a more negative valence.

Analysis of variance findings

Inspection of Table 40 reveals that null Hypotheses I, III, IV, and V did not have significant F values at the .05 level and could not be rejected. However, null hypothesis IIIb, the behavioral anxiety index of fidgetiness was rejected as the overall F value of 6.3293 was significant at the .01 level. This analysis of variance finding is contrary to the correlation coefficient findings for the anxiety index of fidgetiness which was not significant at the .05 level for the four client conditions. A possible explanation for this contradiction is that the randomized block designed controlled the variance for individual differences; whereas, correlations simply establish whether a relationship is present or not.

Research Problem 3

To determine if there is relationship among IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection and the subjects' three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness.
This research problem is attended to by examining null Hypothesis II and related sub null hypotheses which were concerned with the combined and individual verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness.

Findings of null Hypothesis II

Hypothesis II. There is no significant difference between the subjects' combined individual verbal response scores of accurate empathy, nonpossessive warmth, and genuineness with the IPR video-tape vignette client conditions of seduction, aggression, anger, and rejection.

This major null hypothesis was rejected because three of the four sub null hypotheses were rejected. According to Table 40, Hypothesis IIa, which dealt with the combined verbal responding skills, had an overall $F$ value of 4.8921 which was significant at the .05 level with the four IPR client conditions. Furthermore, the Scheffé S-Method for mean comparison in Table 15 indicated significant mean differences at the .01 level between the subjects' verbal responding skills, between the anger and seduction series, the rejection and seduction series, the anger and aggression series, and the rejection and aggression series.

Null Hypothesis IIb, the subjects' verbal responding skills of accurate empathy with the four IPR client conditions, was rejected because the overall $F$ value of 4.89 was significant at the .01 level. Furthermore, the Scheffé S-Method for mean comparison in Table 17 indicated significant mean differences at the .01 level between the anger and seduction series, the rejection and seduction series, the anger and aggression series, and the rejection and aggression series.
Null Hypothesis IIc, the subjects' verbal responding skills of nonpossessive warmth with the four IPR client conditions, was rejected because the overall F value of 3.4673 was significant at the .01 level. In addition, the Scheffé S-Method for mean comparison in Table 19 indicated significant mean differences at the .01 level between the rejection and seduction series, the anger and seduction series, and the anger and aggression series.

Null Hypothesis IId, the subjects' verbal responding skills of genuineness with the four IPR client conditions, was the only sub null hypothesis not rejected because an overall F value of 2.3728 was found and a value of 2.82 was required for significance at the .05 level. Still, as Table 40 indicates, this sub null hypothesis reached a probability level of .0817 which was fairly close to the overall F value needed to reach significance at the .05 level.

Table 46 summarizes the Scheffé S-Method for mean differences of the subjects' three verbal responding skills with the four client conditions.

The subjects' mean differences were not significant at the .01 level between either the client conditions of seduction-aggression or the rejection-anger client conditions for the combined verbal responding skills and the verbal skills of accurate empathy. However, there were significant mean differences in these verbal skills between seduction-aggression series and the rejection-anger series.

The subjects' verbal responding skills of nonpossessive warmth with the client conditions of seduction-anger-aggression did not have significant mean differences at the .01 level. However, these subject skill
Table 46. Summary of the Scheffé test of mean differences for the four IPR client conditions

<table>
<thead>
<tr>
<th>Combined verbal responding skills</th>
<th>Seduction-aggression\textsuperscript{a}</th>
<th>Rejection-anger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate empathy</td>
<td>Seduction-aggression</td>
<td>Rejection-anger</td>
</tr>
<tr>
<td>Nonpossessive warmth</td>
<td>Seduction-anger-aggression</td>
<td>Rejection</td>
</tr>
<tr>
<td>Genuineness\textsuperscript{b}</td>
<td>Seduction-anger-aggression</td>
<td>Rejection</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Means between client conditions, which are underlined, are not significantly different at the .01 level.

\textsuperscript{b}The subject means are not significantly different among the four client conditions at the .01 level.

Means were different from the mean for the client condition of rejection. The subjects' verbal responding skills of genuineness had no significant mean differences at the .01 level between the four client conditions. Thus, there is sufficient evidence to indicate the four IPR client conditions do affect the subjects' three different types of verbal responding skills.

Analysis of Descriptive Data

This section will illustrate in Tables 47, 48, 49, and 50 the pictorial trends of the data for the IPR client conditions with the three verbal responding skills, the three types of anxiety assessment, and the two subject self-reports of empathy and warmth. The objective of these pictorial trends is to provide a view of the basic patterns of the subjects' responses to the four client conditions.
Table 47. Mean differences of the three verbal responding skills with the four IPR series of seduction, aggression, anger and rejection

<table>
<thead>
<tr>
<th>Skill</th>
<th>Seduction</th>
<th>Aggression</th>
<th>Anger</th>
<th>Rejection</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonpossessive Warmth</td>
<td>21.67</td>
<td>22.33</td>
<td>23.99</td>
<td>23.89</td>
<td>22.97</td>
</tr>
<tr>
<td>Genuineness</td>
<td>21.49</td>
<td>22.33</td>
<td>23.72</td>
<td>23.41</td>
<td>22.74</td>
</tr>
</tbody>
</table>

---the average subject mean level for the four IPR video-tape client vignette series.
Table 48. Mean differences of the physiological sweat bottle anxiety assessment and the two behavioral nonverbal anxiety assessments of fidgetiness and overall nonverbal rating with the four IPR series of seduction, aggression, anger, and rejection

<table>
<thead>
<tr>
<th></th>
<th>Finger Sweat Bottle</th>
<th>Fidgetiness</th>
<th>Overall Nonverbal Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seduction</td>
<td>S = 1266</td>
<td>S = 8.81</td>
<td>S = 2.854</td>
</tr>
<tr>
<td>Aggression</td>
<td>Ag = 1253</td>
<td>Ag = 10.38</td>
<td>Ag = 2.562</td>
</tr>
<tr>
<td>Anger</td>
<td>An = 1759</td>
<td>An = 10.38</td>
<td>An = 2.667</td>
</tr>
<tr>
<td>Rejection</td>
<td>Re = 1529</td>
<td>Re = 7.31</td>
<td>Re = 2.662</td>
</tr>
<tr>
<td>Overall</td>
<td>$\bar{X} = 1451$</td>
<td>Overall $\bar{X} = 9.22$</td>
<td>Overall $\bar{X} = 2.687$</td>
</tr>
</tbody>
</table>

---the average subject mean level for the four IPR video-tape client vignette series.
Table 49. Mean differences of the two self-report anxiety assessments of anxiety and fear with the four IPR series of seduction, aggression, anger, and rejection

<table>
<thead>
<tr>
<th></th>
<th>Anxiety</th>
<th>Fear</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Ag</td>
<td>2.8</td>
<td>3.0</td>
</tr>
<tr>
<td>An</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Re</td>
<td>1.0</td>
<td>3.0</td>
</tr>
<tr>
<td>S</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Seduction - S = 2.94
Aggression - Ag = 2.69
Anger - An = 3.13
Rejection - Re = 2.75
Overall $\bar{X} = 2.88$

$\text{---the average subject mean level for the four IPR video-tape client vignette series.}$

Table 47 illustrates the subjects' mean differences for the three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness. These three verbal responding skills followed the same basic mean pattern; i.e., the client condition means are serialized in the same manner across the three verbal responding skill areas. Seduction is always first, aggression second, anger third, and rejection fourth.

Table 48 illustrates the subjects' mean differences of the physiological anxiety assessment and the two behavioral nonverbal anxiety assessments of fidgetiness and overall nonverbal rating. With the physio-
Table 50. Mean differences of the two self-report feelings of empathy and warmth with the four IPR series of seduction, aggression, anger, and rejection

<table>
<thead>
<tr>
<th></th>
<th>Empathy</th>
<th></th>
<th>Warmth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>Ag</td>
<td>An</td>
</tr>
<tr>
<td>S</td>
<td>2.75</td>
<td></td>
<td>2.25</td>
</tr>
<tr>
<td>Ag</td>
<td>3.00</td>
<td>2.12</td>
<td>1.94</td>
</tr>
<tr>
<td>An</td>
<td>3.13</td>
<td></td>
<td>2.06</td>
</tr>
<tr>
<td>Re</td>
<td>3.06</td>
<td>2.06</td>
<td>2.09</td>
</tr>
<tr>
<td>Overall</td>
<td>$\bar{X} = 2.98$</td>
<td></td>
<td>$\bar{X} = 2.09$</td>
</tr>
</tbody>
</table>

---the average subject mean level for the four IPR video-tape client vignette series.

Logical assessment, anger produced the most subject anxiety arousal, followed by rejection, seduction, and aggression. In the behavioral assessment of fidgetiness, aggression and anger produced equal results and the most subject anxiety arousal, followed by seduction and rejection. On the other hand, the overall nonverbal behavior rating showed seduction series having the highest anxiety arousal, followed by anger, rejection, and aggression.
Table 49 illustrates the subjects' mean differences of the two self-report anxiety assessments of anxiety and fear which followed the same basic pattern relative to the four IPR client series. With the self-report index, anxiety the anger series resulted in the most subject anxiety arousal, followed by seduction, rejection, and aggression. Likewise, with the self-report fear index, the anger series obtained the most subject anxiety arousal, followed by seduction, rejection, and aggression.

Table 50 illustrates the subjects' mean differences on the two self-report feelings of empathy and warmth. These two self-report indices followed different patterns with the four IPR client series. The subjects' self-reported empathy means were the highest for the anger series followed by rejection, aggression, and seduction. On a same rating scale, the subjects' overall warmth means are lower than the overall empathy means. The most expressed warmth occurred with the seduction series followed by aggression, rejection, and anger.

In summary, the pictorial examination of the data indicated the subjects' verbal responding skills were most affected by the client condition of anger, followed by rejection, aggression, and seduction. Similar patterns were found for the subjects' physiological and self-report anxieties, but seduction showed a higher anxiety response than the aggression condition. The behavioral anxiety indices indicated inconsistent patterns among themselves and the other assessment areas.

Research Findings Related to the Present Study

The present research findings indicate that as the subjects' physiological anxiety is aroused, their verbal responding skills of accurate
empathy, nonpossessive warmth, and genuineness increased. This finding was consistent with the definition of anxiety given previously. "As arousal becomes more intense, differentiation probably occurs and distinctive arousal states may emerge relating to such constructs as anxiety, anger, hunger, sex, or other emotional or motivational states." It also supports the research of Zajonc (1973), who stated that, "Sometimes the presence of other people increases or facilitates performance of the individual, and sometimes it seems to decrease or interfere with performance." On the other hand, as far as behavioral anxiety assessment in this study was concerned, the three verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness decreased as the subjects experienced more behavioral anxiety. In fact, the more behavioral anxiety arousal subjects experienced, the less they were able to utilize the three verbal responding skills. This finding supports the Bandura (1956) research study in which anxious counselors were rated less competent. Bandura measured anxiety arousal in counselors who were counseling with actual clients which can be more threatening to the counselor and, therefore, decrease performance. The findings in this study are contrary to the Pennscott Brown study (1972) in which there was no increase in verbal empathic ability (judged by audio-tape) among the counselor trainees. So naturally no relationship was found to self-reported anxiety assessed by the Taylor Manifest anxiety scale.

A sufficient amount of evidence accrued with the analysis of variances for Hypotheses II, IIIb and the correlation coefficients to reveal relationships between the subjects' three combined verbal responding skills and the behavioral nonverbal anxiety assessment index of fidgeti-
ness for the four IPR client conditions. These findings support the research study of Charney (1966) who found high levels of postural congruence between client and therapist to be associated with positive, interpersonal, specific, and present-bound verbalization, while incongruent gestures were associated with self-oriented, negational, nonspecific, self-contradictory, and nonreferenced verbal material. Similarly, it supports the research evidence of Sainsbury (1955) and Dittmann (1962) who both found that vocalization of emotionally laden material in therapy is correlated with increased frequency of body movement. Although Sainsbury (1955) and Dittmann (1962) assessed body movements of the client with the emotionally laden material expressed by the counselor, the present research study indicates that the body movements (behavioral anxiety) of the counselor is directly related to emotionally-laden verbal material. The client condition of seduction seems to arouse the counselor trainee positively, whereas other client conditions such as anger and rejection had a negative emotional affect.

The self-report findings lend support to the Holder et al. (1967) study which found that readiness or the lack of anxiety of a person to perceive and to respond to a situation in a particular way had a direct relationship to their ability to express the conditions of empathy, warmth, and genuineness. Again the subjects experienced more physiological anxiety and arousal than they were willing to admit, or perhaps were even aware of, and record on the self-report anxiety index. This finding suggests that counselor trainees choose to consciously deny their anxiety resulting from certain counselor behaviors because it is socially unde-
sirable or that the physiological, behavioral, and self-report anxiety assessments measure three different reactions of the subject.

Recommendations and Implications for Further Study

The findings of the present research study indicate that anxiety in counselor trainees does affect their verbal responding skills of accurate empathy, nonpossessive warmth, and genuineness. As previous research on anxiety has revealed, the anxiety itself arouses or constricts counselor reaction physiologically, behaviorally, and verbally. In fact, the findings of this study indicate that the more physiological anxiety the counselor trainee had experienced, the more they expressed accurate empathy, nonpossessive warmth and genuineness through their verbal responding skills. The opposite effect was also true; the more behavioral anxiety the subjects experienced, the less they were able to utilize their responding skills.

Further research studies should utilize a much larger sample with stronger potency levels (forcefulness) in the video-tape vignette client conditions. It is difficult to assess whether or not correlations reach a significantly consistent level because of the small sample size; or because each video-taped client series was not potent enough. Further, the multiple classification analysis of variance using the randomized block design would become more effective by incorporating the type of anxiety assessment in future studies. This would provide for a more direct examination between the subjects' verbal responding skills and the various types of anxiety assessment. Another procedural recommendation is ob-
taining pre- and post-anxiety scores for all three types of anxiety assessment. Part of the present study assessment difficulty was due to the different approaches of measuring the physiological, behavioral, and self-report types of anxiety. The physiological anxiety assessment had pre-post measures, the behavioral had continuous scores, and the self-report was reported by the subjects at the end of each IPR client series.

Another study should have the IPR video-tape vignettes previewed and rated by potential subjects in a pilot study before using them with the actual research study. This would provide the researcher with a better idea as to the potency level reliability in terms of the subjects.

Human clients trained with a variety of behaviors, which counselors typically find difficult to handle, is a third recommendation. Although the counseling research is abundant concerning individual differences as well as each counselor's and client's interaction being different, it would seem advantageous to assess the counselor's responding skills and anxiety levels in actual counseling sessions. Few university counseling practicums have the counselor trainee actually identify behaviors they would have difficulty in responding to with clients and then learn how to constructively manage and respond to those difficult behaviors with positive responding skills. Another advantage of having actual clients in a research study is the verbal feedback that the client gives the counselor. No research, to date, indicates whether the verbal or behavioral feedback of the client actually enhances or constricts the counselor's verbal responding behavior. Subjects in this study were limited to only a few sentences following the client's presentation on the video-taped vignettes,
and the counselor trainee had no further client feedback responses to modify or effect their verbal responses and anxiety.

As far as the procedure is concerned, observation raters should be well trained in the client's nonverbal anxiety mannerisms. Reliability among the raters in the nonverbal and verbal skills areas should be obtained before the research study has begun. The raters in this study showed high interrater reliability in the verbal responding skills but not in the behavioral nonverbal areas. It had been assumed professional counselors would be skillful in this area. A better self-report instrument for the subjects would prove beneficial.

Implications and Application of Present Findings for Counselor Education Programs

The present research findings have teaching implications both for graduate training in counselor education and for counselors in various institutional settings. Counselor education programs have tended to provide a number of theoretical orientations so that counselor trainees have a wide variety of skills at their disposal. Although these theoretical approaches are diverse both in philosophy and counseling application, they have emphasized the importance of the counselor's own self-awareness and insight. Such theoretical orientations have included Abraham Maslow's self-actualization of the individual, Carl Rogers' client centered therapy, Fritz Perl's Gestalt psychology and the continuous growth of the person, Robert Carkhuff's comprehensive psychotherapeutic model on facilitative processes, and Sigmund Freud's psychoanalysis.
Counselors are taught a wide range of effective counseling skills; and, perhaps by this process they learn some degree of how their own personalities may affect the counseling interaction with the client. In fact, counselors in field settings such as schools, colleges, mental health centers, and other institutions are encouraged more and more towards continuing educational credit to maintain their certification. Generally speaking, counselors still have not had to become as accountable for their skills because of the bureaucratic nature of the institutional settings in which they are usually employed. At the same time, however, professionals, such as medical doctors and lawyers, have to base their professional skills on direct payment for services which they provide.

Thus, the present research study substantiates the importance of counselor educators providing counselor trainees with high level verbal responding skills which effect constructive client growth as well as skills in the effective management of their anxieties so that anxiety does not detract from the level of responding skill. Yet, for counselor trainees to become more aware of their anxieties, the counselor educator must provide more in depth didactic and learning experiences than many counselor education programs now provide. One such learning experience could be requiring the counselor trainee to go through a minimum of six weeks of individual counseling so they may learn to better understand their own fears and anxieties which in turn could limit possible effects on their responding skills. This procedure would seem to be most beneficial to the counselor trainee who has taken a complete battery of
personality inventories and can identify interpersonal difficulties they may have acquired.

The other major implication of the present research study is for the more effective use of video-taping procedures in providing better learning experiences for the counselor trainee. This would provide the counselor trainee a more thorough understanding and effective management of those overt and nonverbal client behaviors which may induce anxiety in themselves.
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APPENDIX A: LETTER

Dear Fellow Graduate Student:

You are being asked to participate in a research study as an experiential part of Education 533B, Techniques of Counseling. It is Dr. Hopper's and my feeling that the 30 minutes you invest can pay handsome dividends of professional growth and self-understanding. Therefore, on February 3 and 4, 1976, you are asked to select a 30 minute time slot and report to Room 205 about 10 minutes before your scheduled time.

Each of you will view a series of 24 vignettes of actors on a television screen, portraying various client behaviors, which you may typically encounter as a professional counselor. A pause occurs after each vignette, and you are asked to give within 30 seconds what you feel would be an appropriate counseling response into a microphone. You should attempt to identify the client's main feeling and help him or her move in some direction of self-exploration. Often, the client in the vignette will make a number of statements before you have an opportunity to respond. You are asked to respond to the client's overall statement and make your response in one or two sentences. You should give a counseling response even if the client on the vignette does not say anything, in an attempt to help that individual begin to talk about his or her feelings. Further, in one or two vignettes you will be addressed as if you were a teacher. You are to respond with an appropriate counseling response although some of the small details do not appear to make sense at the time.

The 24 vignettes will be shown in four series of six vignettes each. To begin, you are asked to wash your fingers carefully in the bowl of
distilled water by placing your fingers (of your nonwriting hand) in the water and rubbing your thumb over your other fingers before drying your fingers with a towel. Then, you are to take one of the sweat bottles labeled for you and invert it on your index fingers for five seconds. Set the bottle down, wait seven minutes, take another sweat sample bottle and repeat. Six vignettes will be then shown and you will have an opportunity to give your counseling responses after each one. You will be asked to again take one of the sweat bottles and invert it on your index finger after viewing six vignettes. Sit and relax for seven minutes before washing your fingers and taking another sweat sample. The second series of six vignettes will be shown to you and the whole procedure will again be repeated. Each of you will have nine sweat bottles (numbers 1 thru 9 with your name on it) which you will have used by the end of the 24 vignettes. Do not worry about getting the procedure incorrectly as Jule Stout and I will be in the observation room to help you.

I will send you the results by letter, designating by a magic marker, the effect of the Kagan vignettes on your counseling responses. Your identity will be kept confidential and indicated by social security number, so only you, Dr. Hopper, and I will know how well you did. This, of course, has no bearing whatsoever on your grade in the course. If you have any questions about the results, please contact me or Dr. Hopper, so we can discuss them with you.

Thank you for your time and participation.

William E. Roberts
604 Butler Street
Melbourne, IA 50162
(515) 482-3178
APPENDIX B: A SCALE FOR THE MEASUREMENT OF ACCURATE EMPATHY

General Definition

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

It is not necessary--indeed, it would seem undesirable--for the counselor to share the client's feelings in any sense that would require him to feel the same emotions. It is instead an appreciation and a sensitive awareness of those feelings. At deeper levels of empathy, it also involves enough understanding of patterns of human feelings and experience to sense feelings that the client only partially reveals. With such experience and knowledge, the counselor can communicate what the client clearly knows as well as meanings in the client's experience of which he is scarcely aware.

At a high level of accurate empathy the message "I am with you" is unmistakably clear--the counselor's remarks fit perfectly with the client's mood and content. His responses not only indicate his sensitive understanding of the obvious feelings, but also serve to clarify and expand the client's awareness of his own feelings or experiences. Such empathy is communicated by both the language used and all the voice qualities, which unerringly reflect the counselor's seriousness and depth of feeling. The counselor's intent concentration upon the client keeps him continuously aware of the client's shifting emotional content so that he can shift his own responses to correct for language or content errors when he temporarily loses touch and is not "with" the client.

At a low level of accurate empathy the counselor may go off on a tangent of his own or may misinterpret what the client is feeling. At a very low level he may be so preoccupied and interested in his own intellectual interpretations that he is scarcely aware of the client's "being." The counselor at this low level of accurate empathy may even be uninterested in the client, or may be concentrating on the intellectual content of what the client says rather than what he "is" at the moment, and so may ignore or misunderstand the client's current feelings and experiences. At this low level of empathy the counselor is doing something other than "listening," "understanding," or "being sensitive," he may be evaluating the client, giving advice, sermonizing, or simply reflecting upon his own feelings or experiences. Indeed, he may be accurately describing psychodynamics to the client--but in the wrong language for the client, or at the wrong time, when these dynamics are far removed from the client's current feelings, so that the interaction takes on the flavor of "teacher-pupil."
Stage 1

Counselor seems completely unaware of even the most conspicuous of the client's feelings. There is no determinable quality of empathy, and hence no accuracy whatsoever.

Also this may be true: His responses are not appropriate to the mood and content of the client's statements. The counselor may be bored and disinterested or actively offering advice, but he is not communicating an awareness of the client's current feelings.

Stage 2

Counselor often responds accurately to client's more exposed feelings. He also displays concern for the deeper, more hidden feelings, which he seems to sense must be present, though he does not understand their nature or sense their meaning to the client.

Stage 3

Counselor usually responds accurately to the client's more obvious feelings and occasionally recognizes some that are less apparent. This stage is distinguishable from Stage 2 in that the counselor does occasionally recognize less apparent feelings.

Also this may be true: In the process of this tentative probing, he may misinterpret some present feelings and anticipate some which are not current. Sensitivity and awareness do exist in the counselor, but he is not entirely "with" the client in the current situation or experience. The desire and effort to understand are both present, but his accuracy is low. He also may seem to have a theory about the client and may even know how or why the client feels a particular way, but he is definitely not "with" the client. In short, the counselor may be diagnostically accurate, but not empathically accurate in his sensitivity to the client's current feelings.

Stage 4

Counselor recognizes most of the client's present feelings, including those which are not readily apparent. In contrast to Stage 3, the counselor's statements contain an almost static quality in the sense that he handles those feelings that the client offers but does not bring new elements to life. He is "with" the client but does not encourage exploration. His manner of communicating his understanding is such that he makes of it a finished thing.

Also this may be true: Although he understands their content, he sometimes tends to misjudge the intensity of these veiled feelings, so that his responses are not always accurately suited to the exact mood of the client. The counselor does deal directly with feelings the client is currently experiencing although he may misjudge the intensity of those
less apparent. Although sensing the feelings, he often is unable to communicate meaning to them.

Stage 5

Counselor in this stage unerringly responds to the client's full range of feelings in their exact intensity. With sensitive accuracy, he expands the client's hints into a full-scale (though tentative) elaboration of feeling or experience. Few counselors ever attain, even for moments, this total accurate empathy.

Also this may be true: Without hesitation, he recognizes each emotional nuance and communicates an understanding of every deepest feeling. He is completely attuned to the client's feelings and reflects them in his words and voice. He shows precision both in understanding and in communication of this understanding, and expresses and experiences them without hesitancy.
APPENDIX C: A SCALE FOR THE MEASUREMENT OF NONPOSSESSIVE WARMTH

General Definition

The dimension of nonpossessive warmth ranges from a high level where the counselor warmly accepts the client's experience as part of that person, to a low level where the counselor evaluates a client or his feelings, expresses dislike or disapproval, or expresses warmth in a highly evaluative way.

Nonpossessive warmth for the client means accepting him as a person with human potentialities. It involves a nonpossessive caring for him as a separate person and, thus, a willingness to share equally his joys and aspirations or his depressions and failures. It involves valuing the client as a person, separate from any evaluation of his behavior or thoughts. Thus, a counselor can evaluate the client's behavior or his thoughts but still rate high on warmth if it is quite clear that his valuing of the individual as a person is uncontaminated. At its highest level this warmth involves a nonpossessive caring for the client as a separate person who is allowed to have own feelings and experience; a prizing of the client for himself regardless of his behavior.

It is not necessary, indeed, it would seem undesirable, for the counselor to be nonselective in reinforcing, or to sanction or approve thoughts and behaviors and their meaning to the client, but show a nonpossessive caring for the person but not for his behavior.

Stage 1

The counselor is giving clear negative regard. He may be telling the client what would be "best for him," or in other ways actively disapproving of his behavior. There is explicit evidence of a negative feeling for the client expressed by the counselor.

Stage 2

The counselor responds mechanically to the client, indicating little nonpossessive warmth. He may ignore the client or his feelings or display a lack of concern or interest. The counselor may ignore the client at times when a nonpossessively warm response would be expected; he shows a passivity that communicates lack of regard or concern.

Stage 3

The counselor shows neither explicit nor implicit evidence of dislike or disinterest but does not show positive expression of nonpossessive warmth. Interest is present but not warmth.
Stage 4

Nonpossessive warmth is present and there is explicit evidence that the counselor is concerned about the client's feelings and his whole being.

Stage 5

There is a warmth and intimacy expressed by the counselor's voice tone and cadence. At this stage his voice and manner communicates a deep caring for the client without attempts to dominate him. There is a tone of intimacy that occurs only in close relationships.
APPENDIX D: A SCALE FOR THE MEASUREMENT OF COUNSELOR GENUINENESS OR SELF-CONGRUENCE

General Definition

This scale is an attempt to define five degrees of counselor genuineness, beginning at a very low level where the counselor presents a facade or defends and denies feelings; and continuing to a high level where the counselor is freely and deeply himself. A high level of genuineness does not mean that the counselor must overtly express his feelings but only that he does not deny them or present a facade. Thus, the counselor may be actively reflecting, interpreting, analyzing, or in other ways functioning as a counselor; but this functioning must be genuine so that he is being himself in the moment rather than presenting a professional facade. Thus, the counselor's response must be sincere rather than phony; it must express his real feelings or being rather than defensiveness.

"Being himself" simply means that at the moment the counselor is really whatever his response denotes. It does not mean that he must disclose himself, but only that whatever he does show is a real aspect of himself, not a response growing out of defensiveness or a merely "professional" response that has been learned and repeated or a phony response.

Stage 1

The counselor is clearly defensive in the interaction, or there is explicit evidence of a very considerable discrepancy between what he says and what he experiences. There may be striking contradictions in the counselor's statements, the content of his verbalization may contradict the voice qualities or nonverbal cues (i.e., the upset counselor stating in a strained voice that he is "not bothered at all" by the client's anger). There is explicit evidence of defensiveness or phonyness.

Stage 2

One cannot tell whether the counselor is defensive or phony. He may respond appropriately but as a professional facade rather than in a personal manner, giving the impression that his responses are said because they sound good from a distance but do not express what he really feels or means. There is a somewhat contrived or rehearsed quality or air of professional facade present.

Stage 3

The counselor is implicitly either defensive or phony, although there is no explicit evidence.
Stage 4

There is neither implicit nor explicit evidence that the counselor is defensive or phony.

Stage 5

It is clear that the counselor is being himself without any doubt and is neither defensive or phony. He is completely honest in his reactions.
APPENDIX E: TRANSCRIPT OF INTERPERSONAL PROCESS

RECALL VIDEO-TAPE VIGNETTES

The video-tape presentation length of the following vignettes ranged from 15 seconds to one and one-half minutes. Thus, the typed scripts do not reflect the length of each presentation. There was considerable non-verbal behavior mannerism indicative of the client's emotion, which is impossible to describe without viewing the IPR video-tape vignettes.

Client Verbal Behavior

Seduction

Potency rating = PR; Low = 0-10; Medium = 11-20; High = 21-30

1. White Female, age 20's, Vignette No. 15, PR = 11
   "You are fantastic, fantastic!"

2. White Female, age 20's, Vignette No. 37, PR = 11
   "Hi. Remember me?"

3. White Male, age 27, Vignette No. 38, PR = 14
   "You want me. Admit it, you want me."

4. White Male, age 30, Vignette No. 18, PR = 17
   "You've got a fantastic mouth."

5. White Female, age 20's, Vignette No. 12, PR = 23
   "I'm very nervous. I don't know what to say to you. (Pause) Course I think you're very nice. (Pause) (Perhaps) if we just sit here for awhile and talk about something else. I don't know how to tell you. (Pause) Why don't you say something?" (Sigh)
6. White Female, age 20's, Vignette No. 14, PR = 25

"OK, I've worked you for such a long time. Just love to be with you. (Sigh) Um, I don't know how to tell you, I don't usually go around telling people things like this. Every time I'm with you I just get so hot. So real. And if you don't come over here and kiss me pretty soon, I am going to go out of my mind."

Client Verbal Behavior

Aggression

1. Female, age 30, Vignette No. 58, PR = 8

"I'd like you to feel free to tell me anything you consider important. I'm objective, and perhaps I can help you. I can't help you unless you tell me.

2. Black Male, age 18, Vignette No. 59, PR = 16, Silence

Rocking in chair looking happy.

3. White Male, age 17, Vignette No. 61, PR = 17, Silence

Doodling.

4. Female, age 17, Vignette No. 68, PR = 21

"My father said if this ever happened again he was gonna go to the school board and I think I'll tell him."

5. White Male, age 30's, Vignette No. 5, PR = 22

"Well, I've listened and I don't like your ideas one damn bit! As a matter of fact, they just about make me sick! I mean it's you and people like you that most of the stink and the misery we've got around us. And I'm just not fond of it, and I hate to see it, and
if it weren't for some of the proprieties of life, I think I'd like
to climb right over this table, and punch you right in the mouth!
As far as I'm concerned, you can pick up your ideas and notions and
get right the hell out of here. Now that's quite clear!

6. Black Male, age 17, Vignette No. 63, PR = 26
"I don't own a pencil. Will get you one—that's one for you. (Now
do your work." ) (Breaks pencil)

Client Verbal Behavior

Anger
1. White Male, age 28, Vignette No. 28, PR = 16
"You think I'm crazy, you think I'm crazy. Well, I'm not, I'm not."

2. White Male, age 20, Vignette No. 52, PR = 18
"Oh, you're too much. I don't care what you think. That's not true.
Where'd you get that, that's not true? Gee! It's not true at all!
I wouldn't do those things. What do you think I am? The hell with
you. I wouldn't do that! Oh, you're crazy."

3. White Male, age 30, Vignette No. 35, PR = 24
"God damn it, now just cut that out. Now just what the hell do you
think I am? I don't go for that kind of shit. I mean it. I don't
want you around here slobbering after me, now just stop it. You make
me sick to my stomach, I can't stand it. Yes, you coming around here
pawing after me and talk to me like that. I makes me sick to my
stomach. Stop it! Just stop it! Do you know it makes me sick to
watch you like that, to watch you behave like that. Don't you have
any shame for God's sake. Don't you even for 1 minute feel ashamed for acting that way? Just get away from me for God's sake."

4. White Male, age 20, Vignette No. 53, PR = 25
"Leave me alone! Get off my back! I'm getting sick and tired of you. Leave me alone. I don't care for you, I don't care for anybody, just leave me alone and get off my back, will ya? Just leave me alone!"

5. White Male, age 30's, Vignette No. 6, PR = 27
"You son of a bitch! Somebody ought to just kick your face right in! Honest to God, I'd just like to . . . Will you get the hell away from me? Before I come over there and just clobber the shit out of you, now get away, go on!"

6. White Male, age 30's, Vignette No. 22, PR = 27
"You SOB. Don't put people . . . . . . . . What kind of a lousy way is that to do to somebody? Why? Why? I hate your no good damn guts. Go on, get away. Get out, go on. I don't care. The hell with you, get away from me."

Client Verbal Behavior

Rejection

1. Female, age 30, Vignette No. 30, PR = 18
"You can do all the talking, I'm just sitting here like a fool listening to ya but it's not doing one bit of good. What am I suppose to do now? Cry? Moan? Tell me what am I suppose to do? Say all you want, that's not going to make me like you any more or any less. That's right. As far as I'm concerned, you're not even there."
2. Male, age 15, Vignette No. 66, PR = 21

"I like you as a person, but as a teacher, you just, you just don't. I don't know what it is but it's something that is just not right about you because all teachers just don't go out smiling the way you do. And knowing that the kids. What I'm trying to say is that as a person you'd be alright if you'd quit being so phoney. I mean we know that you don't really like us and think that we're great kids and go home to your husband and say, well gee that kid's a really nice kid and I'd really like to invite him over for supper sometime. We know it's not like this when you go home. You probably go home and tell your husband. Gee, I can't stand those kids or something like this. We know it's not really like that, when we get out of school and that it's just a big front you put on."

3. Female, age 28, Vignette No. 10, PR = 23

"Just, just what is your problem? Just why are you hanging around me? Like what is your bag? Like I don't need you. We don't have a thing in common. You don't need me, I don't need you. Just, just leave me alone cause I don't, we don't communicate no kind of way, none."

4. Female, age 23, Vignette No. 44, PR = 26

"Well, that's very interesting, we are just not suited for one another. That's all, we're just not suited for one another. Well, that's part of your personality problem, it's really something. Just don't dump on me. I really don't like you! Is what I'm trying to say. You don't understand. I don't like you. I just don't feel anything for you. Look, you make me sick! I mean you make me want to vomit. You understand that?"
5. Black Female, age 27, Vignette No. 50, PR = 26

"Ugh. I hate to tell you this but you've got bad breath! Jesus Christ!"

6. White Male, age 25, Vignette No. 60, PR = 26

"Now alright, God damn it! I've had it! Now maybe that idiot that you spend your time with thinks you're funny, but I don't. Now you just calm down, Charlie, and let me tell you what I think of you. You're so God damn stupid! that you can't sit still for 2 minutes and take in 2 grains of info. You haven't got the where with all to learn to sit still and to conduct yourself like a normal human being, and I've had it on you! Now have you got it? Because I know fellow, I know just how stupid and weak and silly you are, you may fool them, those clowns around you but don't fool me for 1 minute. Now just know it off!"
APPENDIX F: SUMMARY TABLE OF FIVE LEVELS FOR EACH OF
THE THREE VERBAL RESPONDING SKILLS OF ACCURATE
EMPATHY, NONPOSSESSIVE WARMTH, AND GENUINENESS

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low</td>
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<tr>
<td>2</td>
<td>Moderate</td>
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<td>3</td>
<td>High</td>
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<tr>
<td>4</td>
<td>Very High</td>
</tr>
<tr>
<td>5</td>
<td>Extreme</td>
</tr>
<tr>
<td>EMPATHY</td>
<td>WARMTH</td>
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<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
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<tr>
<td>2. Almost no accuracy of response. May be sensitive to obvious feelings, but doesn't understand their meaning.</td>
<td>2. Responds mechanically. Ignores. Lack of concern or interest. Passive</td>
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<tr>
<td>3. Often correctly responds to exposed feelings. Displays concern for more hidden feelings, though doesn't understand their meaning.</td>
<td>3. No explicit or implicit evidence of dislike or disinterest but no positive expression of warmth. Interest but not warmth.</td>
</tr>
<tr>
<td>4. Usually correctly responds to obvious feelings. Occasionally sees less apparent ones. High desire and effort, lower accuracy.</td>
<td>4. Warmth is present. Explicit evidence of concern.</td>
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<tr>
<td>5. Always responds accurately to obvious feelings. Has awareness of less evident ones. Not disruptive when not quite accurate.</td>
<td>5. Warmth and intimacy expressed (by voice, tone, cadence). Communicates caring without dominating. Close relationship.</td>
</tr>
</tbody>
</table>
APPENDIX G: SCHOOL COUNSELORS' RATING SHEET

Counselor Trainee's Name__________________________________________
Rater's Name___________________________________________________
IPR Vignette Behavior____________________________________________
Date________________________________________________________________

<table>
<thead>
<tr>
<th>Verbal (Truax Scale) (1-5)</th>
<th>AE</th>
<th>NPR</th>
<th>G</th>
<th>( \bar{X} )</th>
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<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>6.</td>
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\( \bar{X} = \) ___________________________

Nonverbal Anxiety Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Frequency</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. moves in chair</td>
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<tr>
<td>2. face pale</td>
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<td>3. swallows repeatedly</td>
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<td>4. poor eye contact</td>
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<td>5. blushes</td>
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<td>6. tense posture</td>
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<tr>
<td>7. knees tremble</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. breathes heavily</td>
<td></td>
<td></td>
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<tr>
<td>9. dead pan expression</td>
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<td></td>
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<tr>
<td>10. shuffles feet</td>
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<tr>
<td>11. sways</td>
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<td></td>
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<tr>
<td>12. plays with something</td>
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<td></td>
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<tr>
<td>13. hands tremble</td>
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</tbody>
</table>

Designate by checkmark, student's overall anxiety for behavior series. Not at all (1), Slightly (2), Average (3), More than average (4), Maximum (5)
APPENDIX H: COUNSELOR TRAINEE SELF-REPORT
ON VIEWING IPR VIGNETTES

Listed below are certain emotional feelings you may have experienced while viewing the IPR vignettes. Review each term and check the degree you may or may not have felt that particular feeling after viewing each series of six vignettes.

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Not at all</th>
<th>Sometimes</th>
<th>Average</th>
<th>More than average</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Warm</td>
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<tr>
<td>2. Fearful</td>
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<td>3. Confident</td>
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<td>4. Frustrated</td>
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<td>5. Sympathetic</td>
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<td>6. Agitated</td>
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<tr>
<td>7. Happy</td>
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<td>8. Sad</td>
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<td>9. Relaxed</td>
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<td>10. Anxious</td>
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<tr>
<td>11. Capable</td>
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<tr>
<td>12. Unprepared</td>
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<td>13. Positive</td>
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<tr>
<td>14. Negative</td>
<td></td>
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<tr>
<td>15. Empathic</td>
<td></td>
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<tr>
<td>16. Critical</td>
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</table>
APPENDIX I: INSTRUCTIONS

Finger Bottle

You may want to practice with the finger bottle while you are waiting to participate in the experiment.

1. Place your index finger tip squarely over the bottle.
2. Firmly maintaining contact (to avoid spilling) invert the bottle.
3. Count one thousand one, one thousand two, ..., for the proper time (usually five seconds).
4. Shake the hand-bottle once to mix up the contents.
5. Turn your hand over, remove the bottle with scraping motion to collect residual drops (but not too hard that the lip likely gets dirty).

Relaxation

Remember you are to relax between the four series of six vignettes. You should attempt to relax by sitting back in your chair, imagining something pleasant with your eyes closed or by laying your head down on your arms on the table in front of you.