

1973

## Counselor reputation and previous performance as an influence upon counselee interaction and attitude in a group experience

Janice Lee Harris

*College of William & Mary - School of Education*

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The College of William and Mary in Virginia,  
Ed.D., 1973  
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EXPERIENCE

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A Dissertation  
Presented to the  
Faculty of the School of Education  
College of William and Mary in Virginia

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

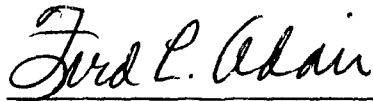
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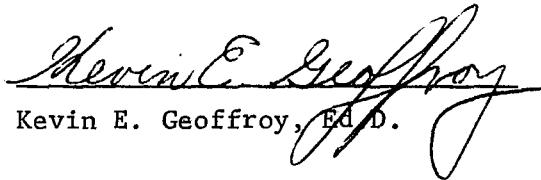
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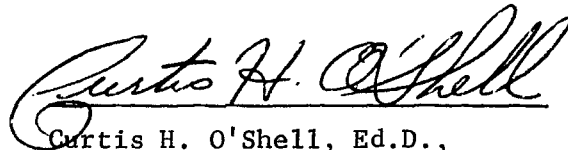
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Chairman of Doctoral Committee

## Abstract

### COUNSELOR REPUTATION AND PREVIOUS PERFORMANCE AS AN INFLUENCE UPON COUNSELEE INTERACTION AND ATTITUDE IN A GROUP EXPERIENCE

Janice Lee HARRIS, Ed.D.

The College of William and Mary in Virginia, 1973

Chairman: Curtis H. O'Shell

The purpose of this study was to determine the effects of counselor reputation and previous performance upon counselee interaction and attitude concerning a group counseling experience. To measure the consequences of positive and negative communications concerning counselor reputation, dissimilar verbal labels were introduced to groups prior to similar counseling experiences. It was suggested that labels may affect cue-producing responses which, in turn, affect emotional reactions to labeled stimuli patterns. According to the hypothesis of acquired distinctiveness of cues, dissimilar labels applied to similar conditions should increase the possibility of discriminatory responses.

The students randomly drawn from a junior high school population consisted of 54 males and 54 females. Subjects were randomly assigned to one of nine groups of equal numbers and sexes. One of three treatments was randomly assigned to each group. Treatments, provided by a confederate peer, consisted of positive-labeled reputation counseling, negative-labeled reputation counseling, and the absence of labels. Three counselors, who were unaware of treatment labels, were randomly assigned to three groups representing each kind of treatment. Each group participated in a single, 30-minute counseling session.

Independent scoring of the nine, audio-taped counseling protocols was implemented by three judges according to the revised Bales' Interaction Process Analysis (IPA). Pearson's coefficient of correlation was computed for nine combinations of judges' composite scores for counselors, male counsees, and female counsees. Interjudge reliability was deemed adequate for the study.

Frequency counts of counselor and counselee interaction for the 12 IPA categories and a composite category were analyzed by the analysis of variance (ANOVA). ANOVA was computed for each item of a five-item counselee attitude questionnaire. Least significant difference tests were computed.

The following results were found to be statistically significant at the .05 level or better:

- a. For all IPA categories except for 9 and 10, there were

verbal differences among counselors for groups receiving positive and negative labels.

b. Compared to male counselees, female counselees indicated a more frequent desire to participate in other counseling groups.

c. Groups who heard negative labels engaged in more frequent interaction than did positive- or no-label groups. Under the influence of negative labels, verbal interaction was more frequent for males than for females.

d. Dramatization, agreement, giving suggestion, and giving and asking for opinion differed among groups according to counselor effect.

e. Groups who heard no labels provided information more frequently than did negative treatment groups.

f. Negative treatment groups asked for information more frequently than did positive treatment groups. Male counselees asked for information more frequently than did females.

g. Regardless of sex, negative-labeled groups displayed greater tension and more unfriendliness than did positive- or no-label groups.

The most consistent finding was that verbal labeling of counselor reputation influenced certain overt counselor and counselee behavior. In general, client attitude was not influenced by the manner of labeling.

### Acknowledgments

This investigation has been conducted with a keen awareness of the contributions of many individuals. There is a special indebtedness to family members and personal friends who have provided understanding and encouragement in generous amounts.

Thanks are extended to the investigator's doctoral committee, especially to the Chairman, Professor Curtis H. O'Shell, who has been both friend and advisor. Appreciation is also extended to the Norfolk City School System and especially to Dr. Norman Holthouse, Director of Research; Dr. Rita Holthouse, Director of Guidance; Mr. Donald Beamon, Principal; and the students, faculty, and staff of Blair Junior High School whose cooperation and assistance made the research proposal a reality.

These citations are, by necessity, a brief and incomplete acknowledgment of indebtedness. To identify all individuals who have contributed to this effort would be impossible. Nevertheless, it is hoped that each individual has somehow perceived the investigator's sincere gratitude.



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COUNSELOR REPUTATION AND PREVIOUS  
PERFORMANCE AS AN INFLUENCE UPON  
COUNSELEE INTERACTION AND  
ATTITUDE IN A GROUP  
EXPERIENCE

## Chapter 1

### Introduction

Traditionally, students have debated among themselves the teaching reputations of educators. Evidence of this kind of student contention is exemplified in the writings of Plato (404 B.C. [ circa ] ). Today, the debate is applicable not only to teachers, but to school counselors as well.

The purpose of the investigation has been to attempt to determine what effects, if any, counselor reputation and previous performance have upon counselee interaction in a group experience. Of specific concern was the relation between peer influence and counselee attitude and interaction in a group situation.

While attitude and group interaction are partly influenced by direct experiences, it is possible that individual reaction to a situation can occur as a result of subtle and indirect means. Through theory and research, it has been suggested that emotional reactions to a situation may be affected by the labeling of a situation.

An attempt was made to determine the extent to which verbal labels could be experimentally manipulated to elicit different counselee responses to similar circumstances. Of central importance were the existence and degree of relationships between verbal labels by counselee peers and (a) counselee interaction in a group, (b) counselee attitude toward a counseling experience, and (c) counselee persuasibility as related to sex.

Despite widespread interest and concern, the effects of counselor reputation and past performance upon counselees remain enigmatic. The dearth of experimental evidence has generated this investigation of theory concerning cue-producing responses.

#### Theoretical Background

The major stimulus of the investigation has been the theoretical discussion of acquired distinctiveness of cues by Dollard and Miller. It has been proposed that, through labeling, cue-producing responses can have important effects on emotional responses. The act of labeling a statement, person, process, or event is believed to mediate the generalization of emotions that have been learned in response to other similar conditions (Miller & Dollard, 1941; Dollard & Miller, 1950).

Corresponding results are possible through nonverbal, cue-producing responses; however, subtle, covert or internal actions are not as well understood. Nonverbal, cue-producing responses become attached to verbal labels in the process of social maturation and learning. Social learning involves easily observable verbal expressions which may influence perception, lead to relevant discrimination, and elicit other cue-producing responses (Dollard & Miller, 1950; Miller, 1948).

Dollard and Miller (1950) distinguished between verbal and nonverbal responses in the following behavioral terms:

The sudden generalized change mediated by verbal hypothesis (or other cue-producing responses) is often called insight; the

slow piecemeal accumulation of specific changes in the absence of any such verbal response is usually called trial and error [ p. 109 ].

Verbal labeling is especially important because language has traditionally been used for comparisons and discriminations. The use of words to describe objects and events exerts great influence upon subsequent attitudes and behaviors (Dollard & Miller, 1950; Festinger, 1950; Spiker, 1956).

Motivation for the learning and use of verbal cue-responses stems from two factors. First, the use of labels helps to explain one's environment. Social training results in the expectation of individuals to understand the events in one's life. Second, a label will most quickly be learned if it seems plausible and relevant. Society places great emphasis upon the individual's ability to respond to verbal cues with appropriate emotion and behavior (Dollard & Miller, 1950; Festinger, 1950; Wheeler, 1970).

Dollard and Miller (1950) have distinguished between three levels of generalization and discrimination. The three levels are:

- a. those based on innate similarities and differences,
- b. those in which innate similarities or differences are enhanced by appropriate labels, and
- c. those in which labels mediate the transfer of previously-learned responses.

Level one is based only on similarities and differences. No labeling or other cue-producing responses are involved. Once a



"cue-response" is learned, the response may be generalized to similar cues. Through repeated reinforcement of the original cue, an individual may eventually establish subtle discriminations between similar cues.

At the second level, in which innate similarities or differences are enhanced by appropriate labels, attaching identical labels to different cues will increase generalization. Increased generalization is expected to result in a decrease in discrimination abilities. Conversely, the attachment of different labels to similar cues would decrease generalization. A decrease in generalization should result in an increase in discriminative ability.

The third level is indicative of labels that mediate the transfer of already-learned responses. Once an appropriate response has been associated with a particular label, the response can be immediately transferred to a new cue.

No labeling is involved in the first level of generalization and discrimination. At the second level, the label has been learned; however, the appropriate response must be learned. The third level is reached when the label and the appropriate response have been learned. Through planned or spontaneous reinforcement, the three levels of generalization and discrimination blend to obliterate any clear distinctions.

Whenever learning on the three levels has been accomplished, verbal labeling can be extremely effective in producing certain behavioral or attitudinal responses. Dollard and Miller (1950) have

described the effectiveness and the complexity of labeling by stating that:

Calling a person "an enemy" is a relatively simple response that can be learned quickly. But if the necessary subunits have been learned, the word "enemy" can elicit the performance of a complicated variety of habits, including the emotional responses of hate and fear and the intricate instrumental responses involved in caution, avoidance, defense, and offense. Through patterning (Hull, 1943), the responses to the same verbal cue may be different when it occurs in the context of different environmental cues. Thus one set of responses may be elicited at a formal social event, and another in a competitive situation. The responses may vary with the presence of the individual's friends, of the enemy's friends, and with the particular advantages and disadvantages that the enemy has at the moment. To learn all of these responses separately for each new enemy would be exceedingly laborious; to learn the one verbal response that mediates them in different contexts is much easier. Later, of course, the responses mediated by the label can be refined by further learning dependent on characteristics specific to this particular enemy.

Changing one verbal response from "friend" to "enemy" is an economical way of changing a large number of complex instrumental and emotional responses. Similarly, labeling an object as "expensive and fragile," a wire as "high voltage," an idea as "the Chief's," or an act as "dishonest," may immediately elicit

motivations that originally were slowly learned [ p. 108 ].

Verbal labels provide an economical method of changing complex emotional and behavioral responses. Words such as "good," "evil," "bright," or "dull" can be expected to elicit emotions that were originally learned during a long period of growth and social maturation. According to the Dollard and Miller (1950) theory of acquired distinctiveness of cues, a single verbal label can produce sudden and dramatic responses.

#### Statement of the Problem

A review of the literature has suggested that labels may affect cue-producing responses which, in turn, affect emotional reactions to labeled stimuli patterns. According to postulations by Dollard and Miller, the use of relevant labels should enable an experimenter to manipulate the expressions of certain behaviors and attitudes of subjects. It is believed that the attitudes and behaviors of subjects toward similar situations will vary according to the labels attached by the experimenter. If labeling has no effect upon behavioral and attitudinal responses, then similar conditions can be expected to elicit responses that are unaffected by the manner of verbal cues (Miller & Dollard, 1941; Dollard & Miller, 1950).

By identifying two different conditions by identical labels, one may increase the likelihood that an individual will behave in the same manner in both situations. The application of dissimilar labels may increase the possibility of a sharp discrimination between

two similar conditions.

The general problem of the study has been to demonstrate experimentally that the effects of verbal labeling upon attitude and behavior are amenable to experimental observation and control, and to test the parameters of the study as conceptualized by the theoretical discussion of acquired distinctiveness of cues. An attempt has been made to discover:

a. What measurable differences in counseling interaction behavior are elicited by group counseling sessions that are similar except for the attachment of separate, dissimilar labels?

b. Does the attachment of separate, dissimilar labels to similar group counseling experiences elicit different attitudes toward the perceived effectiveness of the experience?

c. Is persuasibility, as indicated by responses to verbal labels, related to sex?

#### Hypotheses

The three research hypotheses have been identified by numbers and have been formally stated as follows:

Hypothesis 1. There are no significant differences between counselors for groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling with respect to measured behavioral interaction analysis.

Hypothesis 2. There are no significant differences between groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling on a measure of

client attitude toward the effectiveness of the counseling experience.

Hypothesis 3. There are no significant differences between males and females on any elicited responses to counseling experiences that have a "positive-labeled reputation" or a "negative-labeled reputation."

#### Purpose of the Investigation

The major purpose of the investigation was to focus attention upon the effects that counselor reputation and past performance had upon the public image of the school counselor. The specific purpose of the investigator was that of formulating an experimental design to determine the extent to which measurable counselee attitudes and behaviors could be experimentally manipulated through the use of verbal cues as described by Dollard and Miller (Miller & Dollard, 1941; Dollard & Miller, 1950).

An attempt was made to determine the possibility of mediation through labels that were relevant to the subjects. The object of the study was to learn whether or not the investigator, through cue-response based upon the previous social learning of the subjects, could manipulate the attitudinal or behavioral responses of the subjects to a group counseling experience. The investigation was conducted on the rationale that if labels can be used to elicit certain behaviors, and if generalization can occur in which a cue in one situation may become attached to another situation, an understanding of the conditions that influence the public image of school counselors could become more nearly apparent.

### Definitions of Terms

For the purposes of the investigation, the following terms have been defined:

Attitude. Attitude shall refer to a disposition to respond positively or negatively to an object, event, or issue (Di Vesta & Bossart, 1958).

Counselee. Counselee shall refer to the students in the junior high school population who have actually participated in a counseling process. For the purposes of the study, the terms "counselee," "client," and "subject" are interchangeable.

Cue. A cue is a stimulus that guides the responses of an organism. A cue may be provided by any quality that makes the stimulus distinctive (Hall & Lindzey, 1957).

Group counseling. The definition of group counseling, as presented in the study, has been formulated by 43 respondents in a survey of writers in the field. Gazda, Duncan, and Meadows (1967) have used the definitions of the respondents to generate the following composite definition of group counseling:

Group counseling is a dynamic interpersonal process focusing on conscious thought and behavior and involving the therapy functions of permissiveness, orientation to reality, catharsis and mutual trust, caring, understanding, acceptance, and support. The therapy functions are created and nurtured in a small group through the sharing of personal concerns with one's peers and the counselor(s). The group counselees are basically

normal individuals with various concerns which are not debilitating to the extent requiring extensive personality change. The group counselees may utilize the group interaction to increase understanding and acceptance of values and goals and to learn and/or unlearn certain attitudes and behaviors [ p. 306 ].

The process of group counseling provided the experimental vehicle and conditions for the testing of the hypotheses of the study. The topic of each group counseling session was "Concern for Your Future." Each group counseling session was conducted by one of three counselors, selected by the investigator, who were judged by the investigator to be qualified to lead and to participate in group counseling situations. Each of six groups was comprised of one randomly-assigned counselor and six boys and six girls who had been randomly selected, by sex, from the total school population. Randomly selected subjects were also randomly assigned, by sex, to experimental and control groups.

Interaction. Interaction shall refer to behaviors and interpersonal communications of the counselees as measured by the Bales Interaction Process Analysis (IPA) (Amidon & Hough, 1967; Bales, 1950, 1959, 1965, 1970; Borgatta & Crowther, 1965; Hare, Borgatta, & Bales, 1955; Newcomb, Turner, & Converse, 1965; Parsons & Bales, 1955).

Labels. Labels shall refer to verbal statements that are presumed to describe, in positive or negative terms, past or future group counseling experiences.

Negative-labeled reputation. The negative-labeled reputation provided one of the experimental variables. A member of the population was chosen by the investigator to participate as a confederate. The confederate was a ninth-grade student who posed as a peer and member of each experimental group. The negative-labeled reputation was verbalized by the confederate as follows:

You are really in for a waste of time. I visited a friend out of town last year and sat in on a group with (name of counselor) as the counselor. It was really awful. Besides being boring, it didn't help me a bit with any of the things that bothered me.

Positive-labeled reputation. The positive-labeled reputation was provided by the same confederate as a second experimental variable. The positive-labeled reputation was verbalized by the confederate to the counseling group as follows:

You are really in for a treat. I visited a friend out of town last year and sat in on a group with (name of counselor) as the counselor. It was really great. Besides being fun, it helped me to cope with a lot of things that had been bothering me.

Persuasibility. Persuasibility is used to describe a general tendency to accept consistently and be influenced by communications without concern for the topic or issue involved. It is the extent to which attitudes, beliefs, or opinions are indiscriminately influenced by persuasive communication (Bednar, 1970).



School counselor. For the purposes of the study, the American Personnel and Guidance Association (APGA) definition of a counselor is used. The following definition of a school counselor was adopted by the APGA at its 1964 annual convention in San Francisco, California:

School counselor is a term used in this policy statement to designate a counselor working in a secondary school setting, concerned with and accepting a responsibility for assisting all pupils, and having as his major concern the developmental needs and problems of youth. Counseling is perceived as involving a dynamic relationship between counselor and counselee, and thus the school counselor accepts the responsibility of involving himself in the lives of pupils with clear and humble knowledge of the implications [ Arbuckle, 1965, p. 86 ].

Junior high school. The term "junior high school" refers to public schools which are housed in buildings that are physically and administratively separate from senior and elementary schools. Junior high schools, in the study, refer only to grades seven, eight, and nine.

#### Limitations of the Investigation

There were certain limitations that were inherent in a study of this nature. In order to maintain maximum accuracy in the collection, analysis, and interpretation of data, the following limitations have been acknowledged by the investigator:

- a. There was an awareness of the differences in subjects

with regard to individual levels of verbal skills, past social learning, and the influences of previous exposures to counselors. That a variety of complex factors were involved has been unavoidable. Control of extraneous variables concerning subjects was enhanced by strict adherence to principles of randomization (Galfo & Miller, 1970; Kerlinger, 1964; Li, 1964; Sax, 1968).

b. The investigator was cognizant of individual differences concerning the school counselors. The problem was minimized by the selection of counselors who had had similar professional training and who were judged by the investigator to be qualified to conduct the group counseling sessions. For maximum control of counseling sessions, the investigator conducted a training session for the counselors. A structure for group counseling was presented verbally and in writing. Counselors were asked to study and practice according to the outline of structure and to refrain from any deviation from the investigator's strict guidelines.

c. The investigation was limited to a randomized sample from a single school population. The school in which the investigation was made was a member of an urban public school system that had implemented a court order to racially desegregate through the mass transportation of students.

One element in the choice of the particular research site was the investigator's judgment that a preponderance of students who represented a particular race or socioeconomic level was nonexistent. At the time of the study, the students who comprised the population

of the investigation were transported from a variety of neighborhoods which were believed by the investigator to represent an acceptable cross section of the city population. Nevertheless, caution by acceptable research standards were recommended concerning the generalization of the results of this study to other populations.

Efforts have been made to recognize the limitations of the investigation and to minimize and control their effects whenever possible. Conclusions have been extrapolated with awareness regarding the limitations of the study.

#### Plan of Presentation

The presentation of the investigation has been organized into five sequential parts which have been designated as chapters. Chapter 1 presented the problem and theoretical background of the effects of counselor reputation and past performance, through labeling, upon the attitudinal and behavioral manifestations of counselees. Chapter 1 also examined the problem in terms of the purpose of this study, the definitions of terms, and the limitations of the study.

Chapter 2 presents a review of relevant research. Inclusion has generally been limited to research that has been conducted in the past three decades. Chapter 3 details the method of investigation and defines the parameters of the research. Chapter 4 examines the data collected and presents the results obtained for the present study. Chapter 5 contains a summary of the study and propounds the investigator's conclusions and recommendations.

## Chapter 2

### Relevant Research

Chapter 2 contains a review of relevant research pertaining to hypotheses of acquired distinctiveness and equivalence of cues (Miller & Dollard, 1941; Dollard & Miller, 1950). For clarity and convenience, the review of research is organized into the following categories: (a) Labeling and attitudes, (b) Labeling and grouping by trait and ability, (c) Expectations and results of counseling, (d) Visual stimuli and discrimination learning, (e) Sex and persuasibility, and (f) Summary. This review has been limited to research that has been reported in the last 3 decades.

#### Labeling and Attitudes

Golightly and Byrne (1964) studied the effects of attitude statements as positive and negative reinforcements. A discrimination learning task was employed in which traditional reinforcements were replaced by statements of attitudes. The hypothesis stated that the probability of the occurrence of a response increases if that response is followed by the presentation of a statement consonant with an attitude held by the responder and decreases if the response is followed by a statement that is dissonant with an attitude held by the responder.

A 45-item attitude scale was administered to more than 100 students who were enrolled in introductory psychology at the University of Texas. From the initial group, 60 subjects were selected on the basis of their relatively extreme views concerning such topics

as birth control, political parties, and belief in God. The discrimination learning task required the subjects to discriminate from a total of 96 cards which represented combinations of shape, size, color, and position.

The 60 subjects, who were individually told that the experiment dealt with learning, were randomly assigned to one of three experimental conditions. The discrimination to be learned was small-large. In each group small was correct and large was incorrect for half of the subjects and the reverse for the other half. In the reward-punishment group a card saying "right" followed the choice of the correct stimulus and a card saying "wrong" followed the choice of the incorrect stimulus. The similarity-dissimilarity group received cards with statements of agreement or disagreement concerning their own responses to one of 20 topics from the attitude scale. Statements of agreement or disagreement were dependent upon the correctness or incorrectness of responses to the cards.

Significant  $F$  ratios were obtained from an analysis of variance of response scores ( $p < .001$ ). The hypothesis that statements could be employed as reinforcers in a learning situation was confirmed.

Corrozi and Rosnow (1968) tested the efficacy of Golightly and Byrne's reinforcers. A related purpose was to examine the generality of the primacy-recency findings through the attachment of consonant and dissonant statements as the reinforcers which precede or follow a two-sided communication. It was hypothesized that opinions

would change in the direction of whichever arguments were closer in time to a consonant statement or farther from a dissonant statement.

Eight classes of 152 high school juniors and seniors served as subjects. An opinion questionnaire about the artist Pablo Picasso was administered to each group of subjects. Two weeks later, four groups received a two-sided communication containing first positive and then negative arguments concerning Picasso. Four other groups were given the negative arguments first, followed by the positive arguments. The experimenter then read to two counterbalanced groups a consonant communication concerning an objectively irrelevant issue. Two groups were read the consonant communication immediately preceding the Picasso arguments. Of the remaining four groups in the before-after design, two received a dissonant communication after the Picasso arguments and two received the dissonant communication before the Picasso arguments. The dissonant communication advocated a longer school week. The consonant communication indicated that the school week was long enough.

The pretest questionnaire was represented to the subjects as a national high school opinion survey. Five of the items required the subjects to evaluate Picasso. Other, unrelated issues were represented by the remaining six items. Computation of order effects according to a subtraction-difference technique provided measures for a t-test of the null hypothesis. The proactive and the retroactive effects of the consonant communication were in the predicted direction. The effects of positive reinforcement were

significant at the .05 level. The negative reinforcement, represented by dissonant communication concerning the proactive effect, was in the predicted direction and significant at the .05 level. The retroactive effect of the dissonant communication was the only measure which did not reach the specified level of significance. The results were consistent with the results of the study by Corrozi and Rosnow (1968).

Rosenberg (1956) reported the findings concerning the relationship between attitudes and beliefs about the objects of attitudes. The subjects, 120 undergraduates at the University of Michigan and Ypsilanti State Teachers College, were administered card sorts and a questionnaire concerning social issues. The cards were formulated by White's value-analysis technique and Murray's analysis of major needs. Subjects were asked to rank each card according to the satisfaction derived from the value described.

Data were computed and analyzed by a 3 x 4 table of chi square. Categories consisted of four degrees of attitudes ranging from extremely favorable to extremely unfavorable with regard to the practice of "allowing members of the Communist Party to address the public."

The results provided significant support for the prediction that beliefs associated with an attitudinal affect would be congruent with it. Also supported was the prediction that extreme attitudinal affects would be significantly associated with perceptions of close positive or negative connection between the attitude object

and related values. Moderate attitudinal affects were found only to be associated with ambiguous perceptions.

Di Vesta and Bossart (1958) investigated the effects of labeling on the modification of attitudes. From the thesis of acquired distinctiveness of cues by Dollard and Miller, it was hypothesized that attitudes would be manipulated by the application of different labels to identical situations.

Subjects were 1,087 freshmen at Syracuse University. The subjects were asked to respond to one of three variations of a housing situation. The treatments differed only with regard to labels and two or more introductory sentences which prefaced the written communication. Identical situations were labeled "a social situation," "an ethical situation," or "an economic situation." Subjects were asked to rank the communication according to their agreement with opinions under the labels that had been randomly assigned. Ranking alternatives ranged from "completely opposed" to "completely in favor."

A 3 x 2 factorial design included the three labels as treatment and sex as the assigned variable. Analysis of variance provided support for the hypothesis at the .05 level of confidence. The prediction that labels would influence attitude responses was supported. The second hypothesis, that female subjects would respond more negatively than male subjects with regard to marginal ethical practices, was supported at the .01 level.

Spitzer (1971) examined the effects of labeling upon deviant behavior. It was hypothesized that the labeling of deviant status,



followed by modification of self-structure, would increase the probability of future deviance. "Legitimate," "attraction-based," and "coercive" types of social power were the dimensions along which the labeling experiences were expected to vary.

Subjects were undergraduate sociology students who were exposed to three types of definitional settings. The experimental groups were administered a drug-proneness scale and then randomly labeled as drug-prone (deviant role) or drug-resistant (conforming role). Legitimate labeling was provided by an experimenter who was identified as a social psychologist. Attraction-based labeling was performed by an undergraduate student with whom the subjects could identify. Labeling by an authoritarian police figure represented the coercive manipulation.

Labeling effects were examined by pretest-posttest measures of self-esteem, attitudes toward the deviant role, and the salience of the deviant identity. Data were compared with identical tests which were given to a nonlabeled control group. Semantic differential ratings of self-concepts and "drug-users" were obtained. Salience was determined by the extent of convergence between evaluations of self-concept and concept of the deviant role.

Predicted changes in all three dependent variables were produced most effectively by legitimate labeling. Attraction-based labeling was related only to changes concerning the deviant role. Coercive labeling was least in accord with the research predictions.

The preceding research provided tentative evidence that

attitude may be affected by labeling. Golightly and Byrne (1964) and Corrozi and Rosnow (1968) successfully used discrimination-learning tasks to find that attitude statements could be used as positive and negative reinforcers. Research evidence indicated that verbal labeling could significantly influence attitudes (Di Vesta & Bossart, 1958; Rosenberg, 1956; Spitzer, 1971).

#### Labeling and Grouping by Trait and Ability

Schrank (1968) studied the effects of assigning ability-level labels upon actual academic achievement. Subjects were 100 enlisted airmen at the United States Air Force Preparatory School who were randomly assigned to five simulated ability levels. The null hypothesis stated that randomly-grouped classes would show no differences in academic achievement when fictitiously labeled with ability level designations.

Five completely random groups of subjects were enrolled in a college freshman-level mathematics course. Ability-level labels were assigned, in numerical form, to the various random groups. The effects of simulated ability grouping upon academic grades of the students, the dependent variable, were analyzed. Neither the students nor the instructors were aware of whether the groups were randomly grouped or grouped by ability.

Eight sets of grades were obtained for each subject. The arithmetic mean of the grades for each group was computed. The difference between means of groups having various ability-level labels were computed and given a two-tailed test for statistical significance.

For each of the eight sets of data, the difference between means of the highest-label section and the lowest-label section was significant at the .01 level. In all but three cases, the higher ability-level labeled section received a higher mean than the next lower labeled section. It was concluded that labeling had a significant effect upon simulated ability grouping.

Rosenthal and Jacobson (1968) studied the effects of teacher expectation of student intellectual potential upon student performance on a standardized group intelligence test. Evidence was provided for support of the hypothesis that teacher expectations would significantly affect student performance on an intelligence test.

Subjects included pupils in grades one to six. Approximately 20% of the subjects were randomly selected and labeled for teachers as "special" children who possessed high academic potential. Teachers were told that the "special" children could be expected to demonstrate intellectual blooming during the remainder of the school year. A one-tailed test, significant at the .02 level, indicated that the experimental subjects had gained more intelligence quotient (IQ) points than had the control subjects.

Claiborn (1969) attempted to replicate the findings of Rosenthal and Jacobson (1968). Efforts were made to identify the changes in teacher behavior which would follow a fictitious statement concerning the intellectual potential of pupils.

A 2 x 2 factorial design was used in which the first category consisted of the presence or absence of raters in the classroom. The

second category was the absence or presence of induced expectancies for intellectual blooming.

The subjects, who were first-grade pupils in an upstate New York school, were randomly assigned to four groups. Pretest and posttest measures of IQ were obtained with an interim of two months. The IQs were derived by group administration of the Flanagan "Test of General Ability" (TOGA). Teachers were provided with fictitious information immediately following the first test.

Systematic ratings of classroom interaction behavior were obtained by the use of an unidentified rating scale. Although the teachers were able to recall with accuracy the names of "potential bloomers," a three factor analysis of variance failed to yield a significant difference in IQ changes of experimental subjects as compared to the control subjects. Multivariate analysis of variance failed to yield a significant difference between groups with regard to ratings of teacher-pupil interaction. The previous findings of Rosenthal and Jacobson (1968) could not be supported.

Necco (1970) investigated the effect of behavioral labeling upon teacher perceptions. Subjects included 318 teachers from Indiana and Virginia who were employed as teachers of classes in special education or regular education. A 9-minute video tape of a 9-year-old boy was observed by both groups of teachers who had been randomly assigned to one of six observation groups. The subjects were asked to observe and rate the boy on emitted behaviors labeled "withdrawal," "immaturity," and "aggression." The child was observed

in small group play and in conversation with an adult.

The groups were exposed either to single viewing or to double viewing and either labeled or nonlabeled status. Data were analyzed by regression analysis and F-ratios were computed. In the "no label group," total years of teaching experience and frequency counts were significantly correlated at the .05 level. Frequency counts and special education status were significantly correlated at the .01 level. The "negative label group" special education status and frequency correlations were significant at the .02 level of confidence. For the "positive label group," correlations were obtained between special education status and frequency count that were significant at the .01 level. Sex of the subjects and frequency counts were significantly correlated at the .01 level.

A review of research concerning labeling and grouping by trait and ability has provided evidence that labeling can affect academic performance as well as teacher perceptions. Schrank (1968) and Rosenthal and Jacobson (1968), in investigations independent of one another, concluded that the labeling effect undeniably exists in ability-grouping situations. Claiborn (1969), in reaching conclusions that were inconsistent with the preceding studies, found the labeling effect to be insignificant. Necco (1970) successfully employed the labeling effect to influence teacher perceptions of the traits of a 6-year-old boy. The disparity of findings could have resulted from the different times in the academic year at which the research investigations were conducted. The Rosenthal and Jacobson

experiment was begun at the beginning of a school year when the students were unfamiliar to the teachers. Claiborn's investigation was begun 1 month into the second semester, presumably after teachers had had an opportunity to form their own impressions of students.

There is significant evidence that ability grouping is influenced by the manner of labeling. What remains unclear is whether labeling is effective as a result of the individual student's perception of his role in a given situation or whether the teacher's perception is influenced and thus reflected in the grading standards and teaching methods.

#### Expectations and Results of Counseling

Kumar and Pepinsky (1965) found significant support for the hypothesis that accurate counselor perceptions of a client as friendly rather than hostile would induce favorable impressions in the counselor concerning both himself and the client. Confirmation of the counselor's prior expectancy accentuated the impression. Conversely, disconfirmation of prior counselor expectancy resulted in attenuation of a prior expectancy.

Grosz (1968) examined the differential effects of positive and negative client expectations for counseling upon the initial counseling interview. The subjects, 30 male undergraduates at the University of North Dakota, were randomly assigned to three groups of equal size. None of the subjects had ever participated in counseling activities at the university counseling center.

Prior to counseling, Group I heard a prerecorded tape which

was indicative of the positive aspects of counseling as well as an example of an effective interview. Group II heard a prerecorded tape representing the presumed negative aspects of counseling and an example of presumed counseling ineffectiveness. Group III, the controls, heard no tapes concerning counseling. The three groups were then administered a 30-item Semantic Differential of the concept of "counseling." It was ascertained that Groups I and III held positive views of counseling and Group II held a negative view.

The experimental treatment consisted of 30-minute counseling sessions. The effect of client attitudes and expectations upon the initial counseling relationship was assessed by a counselor form and a client form of the "Relationship Inventory." Data were subjected to analysis of variance.

The findings indicated that counselors did not differ significantly among treatment groups. Despite some differences between client attitudes and expectations prior to counseling, there were no significant differences between groups for counseling interviews. Client expectations, it was concluded, did not significantly affect the initial counseling relationship as perceived by counselors or by clients. Prior client expectations did not interfere with perceptions of the counseling relationship; however, the results could not be accurately generalized to a different type of population such as counselees in a junior high school.

Gladstein (1969) investigated the expectations of 181 secondary school students who participated in counseling sessions at

the University of Rochester. Subjects were administered the "Counseling Laboratory Registration Form" (CLRE) prior to counseling and Gladstein's "Counseling Reaction Form" (CRF) after having participated in counseling interviews. Subjects were asked to indicate their individual expectations of the counseling experience. The CRF was used to obtain postcounseling perceptions of the physical conditions, counselor's style, use of materials, client's reason for beginning counseling, degree of and reason for satisfaction received, and suggestions for improvement. Items from the CRF were used to form a "Client Satisfaction Scale" (CSS) which was purported to provide a measure of client satisfaction with counseling.

From a two-tailed statistical test with a significance level of .05, it was concluded that expectations concerning a counseling experience were multiple and diverse. Most client expectations were realized. Subjects whose counseling expectations were only partially realized exhibited no less satisfaction than did any other subjects.

Bednar (1970) reviewed the literature relevant to persuasibility and the power of belief. Data were interpreted as supportive of the idea that client expectations for improvement and placebo reactivity are influential in affecting client perceptions of the counseling process. That counselor expectations for client improvement are influential in affecting the counseling process was also suggested. The notion that perceptive counselors can identify those clients who can profit from counseling was believed to be



instrumental in actual client improvement.

From the preceding review of research, there is inconclusive evidence that perceptions of counseling results are affected by prior expectancies. Grosz (1968) concluded that prior client expectations did not interfere with the counseling relationship as perceived by the client. Other investigators have obtained results that have partially or tentatively supported the existence of a relationship between prior expectations and the perceived results of counseling (Bednar, 1970; Gladstein, 1969; Kumar & Pepinsky, 1965). Causes of the divergence in results could possibly be attributed to the nebulous elements of the counseling process and the inherent difficulties involved in delineating and controlling important variables.

#### Visual Stimuli and Discrimination Learning

Eisman (1955) used colors to test the hypothesis that a positive attitude toward an object with which an individual has had only neutral experience can be developed through mediated generalization. Subjects of the study were 41 boys and 40 girls, from 5- to 8-years of age, who were enrolled in a school operated by the University of California at Los Angeles (UCLA), Department of Education. Four groups were formed by random assignment. One-third of the subjects in each group were randomly selected to be trained positively for each of three colors; yellow, green, and black. Marbles were used for a "reward" and were placed under a geometric figure that represented the preferred colors.

Geometric stimuli were controlled. Group I was asked to choose the block containing the marble. Group II was asked to choose the figure covering the marble; however, the blocks had been substituted by jar tops. Group III was presented with three white, "nonsense" blocks which were verbally labeled "green," "black," and "yellow." The subjects were asked to select the "nonsense" block that they wished to take home. Group IV was asked to select groups of children who had been designated by the preferred colors.

The responses of one-third of the subjects in each group who had been trained in a color preference were compared to the members of the control group who had made color selections by chance. Chi square measures, significant at the .01 level or lower, indicated support for the hypothesis that color preference responses could be developed through mediated generalization.

Jeffrey (1953) used color stimuli to demonstrate that response mediation can occur through motor responses as well as verbal responses. Subjects were 48 pupils from the State University of Iowa Preschool Laboratory who ranged in chronological age from 3 years and 3 months to 5 years and 6 months. The subjects were trained to move a lever in one direction to a white stimulus and in the opposite direction to a black stimulus. Some subjects were taught to call a gray stimulus "white" and other subjects were trained to refer to it as "black." The subjects were then retrained for the lever moving task according to the black and white stimuli. Next, to determine how the subjects would respond to the gray stimulus, the gray stimulus,

interspersed with black and white stimuli, were presented.

Subjects who had learned to call the gray stimulus "white" responded to gray as they did to "white." Subjects who had been taught to call the gray stimulus "black" responded to gray as though it had been black. Other subjects who had been taught motor responses through the movement of a lever responded in a similar manner. Analyses of research data were significant at the .05 level.

Rossman and Goss (1951) tested the hypothesis that the acquisition of different verbal responses to similar external stimuli will facilitate the subsequent acquisition of discriminative motor responses to identical external stimuli. Subjects were 45 undergraduate students in psychology at the University of Massachusetts. Subjects were assigned to three equal groups according to a matching procedure. Another 30 students were assigned to one of two control groups of 15 students each.

Stimulus materials consisted of a 12-unit figure-syllable, paired-associate list and a list of the same 12 figures alone. Both word lists were presented at 2-second intervals on a memory drum. Additional apparatus included motor response and shocking devices. Group E-I, which had mastered the verbal discrimination, learned the motor task more rapidly than the other experimental groups which had received relatively little verbal training. The results obtained supported the hypothesis.

Katz (1963) tested the hypothesis that the nature of verbal labels associated with visual stimuli influences the subsequent

perception of those stimuli. Subjects were 24 male and 24 female students in a public school in New Haven, Connecticut. Half of the subjects were chosen from grades one and two and half from the fourth grade. Subjects were randomly assigned to experimental conditions and both sexes were equally represented in each group.

The first step was to provide differential verbal training so that the subjects would learn to associate nonsense syllables with four highly similar geometric forms. Of three groups, one learned common labels; another, distinctive labels; and the control group, no labels. Following verbal training, perceptual and discrimination learning tasks were administered to all groups. Subjects who had associated common, as opposed to distinctive, labels to two stimuli perceived the stimuli as identical significantly more often and exhibited greater difficulty in discriminating between the stimuli. The hypothesis was confirmed. Conclusions were that differences in verbal training resulted in differences in performance of perceptual judgment and discrimination tasks. The results were significant at the .05 level of confidence.

Katz and Zigler (1969) investigated the effects of common as opposed to distinctive labels on the perceptual judgments of children. The subjects were 96 students, equally divided between boys and girls, who were randomly selected from the second and fourth grades of a public elementary school in New York City. Most of the subjects were from white, lower-middle class socioeconomic backgrounds.

The stimuli employed were random nonsense forms. One series

of stimuli was considered to be similar and another series was considered dissimilar with regard to shape, size, and color. At each grade level, equal numbers of boys and girls were randomly assigned to three conditions: a common-label group, a distinctive-label group, and a control group with no labels. Half of the subjects at each grade level were exposed to the similar stimuli and half to the dissimilar stimuli. Following the stimulus differentiation training, all subjects were given a perceptual judgment task which involved the identification, through differentiation, of the previously-employed forms.

It was found that highly similar stimulus pairs elicited more "same" judgments from subjects than did more dissimilar stimuli. The effectiveness of the various types of verbal predifferentiation training on perception was related to the type of stimuli employed. Identical labels influenced perceptual judgments made to dissimilar stimuli more than to similar stimuli. Another finding was that labeling training was effective with younger subjects, but ineffective with older subjects.

Scholnick (1971) used labels and cues to study concept identification in children. Subjects were 96 white, middle-class children in kindergarten or the second grade in a public school in a Maryland suburb. Subjects were divided into four equal groups according to age and sex.

The purpose of the experiment was to determine whether different kinds of verbalization could enhance performance in concept

identification. The first condition involved stimulus comparison and was predicted to be most effective. Conjunctive labeling, the second condition, required the subjects to compare both attributes of the stimulus, color and form, but no comparison of stimuli was required. The third condition required subjects to describe, in verbal terms, the location of positive and negative instances rather than attributes of the stimulus.

All subjects were asked to complete an experimental procedure which consisted of pretesting, sample-inference, verbalization tasks, and the experimental inference tasks. The inference tasks required each subject to locate the single relevant cue among four choices: red, blue, circle, and square. The subjects were given sufficient information to isolate the relevant cue. Pretesting was conducted to assess discriminative and vocabulary skills. In verbalization training, all groups were shown identical stimuli, with the exception of color and shape, but were trained to provide dissimilar verbal labels to the stimuli.

An analysis of variance of errors as a function of age, sex, verbalization condition, and logical tasks was performed. Measures obtained were tested for significant differences between means. The findings confirmed the prediction that stimulus comparison would be effective; however, there were experimental exceptions. The data were inconclusive and suggested that the effectiveness of verbalization in concept identification depends upon the particular aspects of the verbalized task.

Robinson (1955) used visual slides of 10 fingerprints as the basis for a perceptual criterion task to test the effects of verbal labels upon later discrimination. Subjects were 56 students and administrative personnel at Cornell University. Subjects were divided into three groups. Those in the "Distinctiveness Group" learned, by the paired-associates method, distinctive verbal responses in the form of gangsters' nicknames for the 10 fingerprints. Members of the "Equivalence Group" learned to call five of the fingerprints "cops," and the other five "robbers." The "Sameness-Difference Group" compared each fingerprint with the preceding one and described it as "same" or "different." After the presentation of the three conditions, subjects were given the criterion task in which they were asked to view another 10 fingerprints and to judge them as to their likeness. Five of the fingerprints were actually a single print that had been reproduced five times. The other five prints had been selected from the remaining nine original prints.

It was concluded that the three preliminary tasks all had approximately the same facilitating effect on the criterion task performance. There was no significant difference among groups concerning the enhancement of discrimination or equivalence in the criterion task. The findings provided no support for the hypotheses of acquired distinctiveness and equivalence of cues.

de Rivera (1959) used fingerprint stimuli to examine some conditions affecting cue-producing responses as an explanatory device. Hypothesis 1 stated that distinctive overt responses attached to

stimuli will not be used to furnish additional cues for later learning unless the responses, through overlearning, are strongly attached to the stimuli. Hypothesis 2 stated that when overt responses are not strongly attached to the stimuli, the perceptual responses made in the attempt to learn the overt responses will furnish cues for later learning to the stimuli. Perceptual responses were hypothesized to be more important than overt responses in determining subsequent transfer.

Subjects were groups of 19- to 36-men who were enrolled as aviation cadets at Pensacola, Florida. The experimental conditions required Group A to learn distinctive overt responses to a set of fingerprint stimuli. Group B overlearned the same distinctive overt responses to the stimuli. Group C learned equivalent overt and distinctive perceptual responses to the stimuli. Group D learned overt and perceptual responses that were equivalent. Group E, the controls, learned no responses to the stimuli. For the criterion performance, all subjects were required to learn a second set of responses to the original set of fingerprints.

Both hypotheses were supported. All groups that received preliminary training performed better than the control group. The group that overlearned the initial responses performed with most accuracy on the criterion task. There was no significant difference between the group that learned distinctive overt responses and the group that learned equivalent overt responses; however, both groups outperformed the group that had learned equivalent overt and



perceptual responses.

Etaugh and Averill (1971) tested the hypothesis that the facilitating and retarding effects of distinctive and common labeling, respectively, would be greatest for subjects who provided their own labels. Subjects were 5- and 10-year-old children who were randomly assigned to one of five groups. The groups were "Distinctive labels-own," "Common labels-own," "Distinctive labels-imposed," "Common labels-imposed," and a "Control" group of subjects who received no labels. Treatments involved the subjects' learning a distinctive label for each of four forms produced on color slides, or two common labels for two pairs of forms. For each condition, labels were either imposed by the experimenter or self-produced by the subjects. The hypothesis was not supported.

Reese (1972) investigated the speed of development of acquired distinctiveness and equivalence of cues during the transfer task. Subjects included 66 kindergarten children, 54 first graders, and 66 second graders who were randomly selected from a single school in a predominantly middle-class district. Each subject, on the basis of three groups, was given either acquired distinctiveness, or acquired equivalence, or control pretraining. The pretraining tasks required the subjects to associate tasks and labels. The control group was trained to associate the stimuli with "same" or "different." The transfer task involved a successive-discrimination problem. Two of the pretraining stimuli were presented, one at a time, and were to be paired with responses that were selected by

pushing buttons.

Performance was facilitated on the transfer task by the acquired distinctiveness pretraining. The acquired equivalence pretraining significantly interfered with performance. Over repeated trials, the acquired distinctiveness effect persisted and did not change in magnitude. The acquired equivalence effect was significant at first, but diminished as the trials continued. Significance levels were established at the .05 level.

Kelman (1950) investigated the effects of success and failure on suggestibility in an autokinetic situation. Subjects were 40 male and 30 female students at a junior college in New Haven, Connecticut. A series of 20 trials were given the subjects during which they wrote down their judgments of the amount of movement of a 2-watt light. Through the series of trials, the subjects were able to establish a standard of judgment of their own which was then ignored, reinforced by the experimenter, or influenced by a confederate. Following the judgment process, the subjects were given one of four conditions: no reinforcement, success, failure, or ambiguous reinforcement. A function of the conditions was measured by the extent to which the subjects changed their judgments in the presence of a confederate who judged differently from the subjects. The results were in support of the prediction that success and failure affect suggestibility in a manner predictable by the principles of reinforcement and learning. The suggestibility of the subjects was reflected in their previous experiences. Emphasized in the study was

the importance of motivational and experiential factors in influencing an individual's response to suggestion.

The preceding research has been focused upon the use of visual stimuli to produce discrimination learning. With the use of various research designs and visual stimuli, researchers have attempted to demonstrate whether training subjects to respond differently to two or more similar stimuli will facilitate their subsequent learning of other discriminative responses to the same stimuli.

The results of the previous investigations, although inconclusive, have provided partial or tentative support for the hypothesis of acquired distinctiveness of cues (de Rivera, 1959; Katz, 1963; Rossman & Goss, 1951; Scholnick, 1971). Other investigators have focused on acquired equivalence of cues or mediated generalization and have collected evidence in support of the hypothesis (Eisman, 1966; Jeffrey, 1953). There are still other investigators whose conclusions were not supportive of acquired equivalence or distinctiveness of cues (Etaugh & Averill, 1971; Robinson, 1955).

#### Sex and Persuasibility

Scheidel (1963) investigated the relationship between sex and persuasibility. An attitude survey was administered to 104 male and 138 female undergraduates. Opinions concerning the expansion of federal powers were assessed. An 11-minute persuasive communication was heard by the subjects. Opposition to further expansion of

federal power was the content of the communication. Following the persuasive communication, subjects were administered an alternate form of the attitude survey. Before and after attitude measurements were statistically analyzed and found to provide evidence, significant at the .05 level, that women were more persuasible than were men.

Whittaker (1965) hypothesized that female subjects, in an autokinetic situation, would be more susceptible to the influence of a confederate's judgments than would male subjects. Also hypothesized was that greater persuasive influence over both male and female subjects would be exerted by a male than by a female confederate.

Subjects were 10 male and 10 female undergraduate psychology students. Each subject, alone in an autokinetic situation, made a series of 20 judgments at 1-minute intervals. Subjects in subsequent sessions established and maintained a standard of judgment. Twenty-four hours later, subjects again reported to the experimental setting but were told that another subject, (the confederate) who could not be present at the previous appointment, would participate in the experiment.

Male subjects were assigned to two groups, one with a male confederate, the other with a female confederate. Female subjects were assigned to two groups in the same manner. Confederate judgments were based on the subjects' judgments in the first session. Medians of judgment in the first and second sessions were computed for each subject. The second-session median was subtracted from the

first-session median. A Wilcoxon's test of unpaired replicates indicated a difference, significant at the .05 level, between male and female subjects. The hypothesis was confirmed. Female subjects were significantly more persuasible than were males. Subjects were also compared with regard to the sex of both subjects and confederates. At the .01 level, male confederates were significantly more persuasive than were females regardless of the gender of the subjects.

Hovland and Janis (1959a) tested the hypothesis that females are more persuasible than males. The "Initial Questionnaire" was administered to 185 high school juniors for the purpose of assessing susceptibility to persuasion. Mean scores were significantly lower for male than for female subjects. It was concluded that females were significantly more greatly influenced by persuasion than were males (Janis & Field, 1959).

The relationship between sex and persuasibility, in the preceding review, has been clearly evident, for significant differences between male and female subjects have appeared at nearly all age levels. There appears to be conclusive evidence that females are more greatly influenced by persuasion than are males (Hovland & Janis, 1959a; Scheidel, 1963; Whittaker, 1965). Because of the different degrees of male and female persuasibility, it is necessary to consider male and female subsamples separately when investigating the correlations between sex and persuasibility (Janis & Field, 1959).

### Summary of Relevant Research

The review of relevant research was presented under the following headings: (a) Labeling and attitudes, (b) Labeling and grouping by trait and ability, (c) Expectations and results of counseling, (d) Visual stimuli and discrimination learning, (e) Sex and persuasibility, and (f) Summary. The review of previous research was limited to studies that had been conducted within the last 3 decades.

The preceding research provided tentative evidence that attitude may be affected by labeling and cue-response. It was found that, through discrimination-learning tasks, attitude statements could be used as positive and negative reinforcers (Corrozi & Rosnow, 1968; Golightly & Byrne, 1964). Evidence was indicative that verbal labeling can significantly be employed to modify attitude (Di Vesta & Bossart, 1958; Rosenberg, 1956; Spitzer, 1971).

Labeling and grouping by trait or ability was found to affect academic performance as well as the perceptions of teachers (Necco, 1970; Rosenthal & Jacobson, 1968; Schrank, 1968). The findings of Claiborn (1969) were inconsistent with other results in that the labeling effect was found to be insignificant. Despite certain evidence that labeling influences ability grouping, it is unclear whether labeling is effective because of the student's perception of his role in a given situation or whether the teacher's perception is influenced and thus reflected in grading standards and teaching methods.

Studies concerning the effects of prior expectations upon perceived results of counseling were inconclusive. Kumar and Pepinsky (1965), Gladstein (1969), and Bednar (1970) obtained significant relationships between counseling results and prior expectations of counselors or counselees. The results of Grosz (1968) were inconsistent with other findings. Disagreement among investigators could be attributed to the nebulous characteristics of the counseling process and the inherent difficulties involved in defining and controlling counselor, counselee, and process variables.

The effects of visual stimuli in discrimination learning were reviewed. Various research designs involving visual stimuli were used to test the Dollard and Miller (1950) hypotheses of acquired distinctiveness and acquired equivalence of cues. Support for acquired distinctiveness of cues was obtained by Rossman and Goss (1951); Katz (1963); Scholnick (1971), and de Rivera (1959). Other investigators have focused on equivalence of cues and have found evidence to support the hypothesis (Eisman, 1955; Jeffrey, 1953). Katz and Zigler (1969) found that younger children were more greatly influenced by cue-response than were relatively older children. Reese (1972) found that acquired distinctiveness of cues persisted over time; however, the effects of acquired equivalence of cues diminished with time. Kelman (1950) concluded that success and failure reinforcers can influence an individual's response to suggestion. The results of studies by Robinson (1955) and Etaugh and Averill (1971) did not support the Dollard and Miller hypotheses.

It is possible that inconsistencies of results are partly attributable to imprecise specifications of labeling parameters.

Previous research has provided evidence that females are more greatly influenced by persuasion than are males (Hovland & Janis, 1959a; Scheidel, 1963; Whittaker, 1965). Concerning persuasibility, significant differences between male and female subjects have appeared at nearly all age levels. When investigating correlations between sex and persuasibility, it is necessary to consider male and female subsamples separately (Janis & Field, 1959).



## Chapter 3

### Methodology

The specific purpose of the investigation was to examine the effects, if any, of counselor reputation and previous performance upon counselee interaction behavior and attitude concerning a group-counseling experience. Theoretically based upon the hypothesis of acquired distinctiveness of cues by Dollard and Miller (1950), dissimilar verbal labels were introduced prior to similar group-counseling sessions. The purpose was to determine the extent to which labels could be experimentally manipulated to elicit counselee responses.

Chapter 3 contains the procedures and methods of research. Presented are descriptions and details of (a) Experimental designs, (b) Independent variables, (c) Dependent variables, (d) Criterion measures, (e) Population, (f) Sample selection, (g) Procedures, and (h) Statistical methods.

#### Experimental Designs

Research designs were formulated in order to examine between-group variance, within-group variance, and interaction between factors. There were three research hypotheses which necessitated the construction of three factorial designs, each of which was specific to a particular hypothesis.

Multidesigns enabled the investigator to comply with the necessary conditions of appropriate statistical methods. Criterion measures for counselee subjects involved an N of six for each

factorial cell; however, identical criterion measures for counselors involved an  $N$  of three for each cell. Through separate designs, three research hypotheses were tested and an inappropriate statistical comparison with uneven numbers in cells was avoided.

### Hypothesis 1

Hypothesis 1 states that there are no significant differences between counselors for groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling with respect to measured behavioral interaction analysis. In relation to research Hypothesis 1, the following statistical hypotheses were tested, for the criterion of counselor IPA scores.

- 1a.  $H_0$ : Group means of counselors for treatment effects are equal or  $A_1 = A_2 = A_3$ .
- $H_1$ : At least two group means of counselors for treatment effects are not equal or  $A_i \neq A_j$  and  $i \neq j$ .
- 1b.  $H_0$ : Group means of counselors for counselor effects are equal or  $C_1 = C_2 = C_3$ .
- $H_1$ : At least two group means of counselors for counselor effects are not equal or  $C_i \neq C_j$  and  $i \neq j$ .
- 1c.  $H_0$ : The interaction between treatment effects and counselor effects equals zero or  $A \times C = 0$ .
- $H_1$ : The interaction between treatment effects and

counselor effects does not equal zero or  $A \times C \neq 0$ .

Statistical tests of research Hypothesis 1 and the related null hypotheses were conducted according to a completely randomized 3 x 3 factorial design (see Table 1). Factor A, treatment, consisted of three levels:  $A_1$ , positive-labeled reputation counseling;  $A_2$ , negative-labeled reputation counseling; and  $A_3$ , the absence of labels. Factor C, counselors, consisted of three levels:  $C_1$ , counselor one;  $C_2$ , counselor two; and  $C_3$ , counselor three. Although there were only two factors, they were labeled factor A and factor C to conform with identical factors of research designs for Hypothesis 2 and Hypothesis 3.

#### Hypothesis 2

Hypothesis 2 states that there are no significant differences between groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling on a measure of client attitude toward the effectiveness of the counseling experience. In relation to research Hypothesis 2, the following statistical hypotheses were tested for the criterion of male counselee and female counselee responses to an attitude questionnaire:

2a.  $H_0$ : Group means of counselee attitude scores for treatment effects are equal or  $A_1 = A_2 = A_3$ .

$H_1$ : At least two group means of counselee attitude scores for treatment effects are not equal or

Table 1  
 Completely Randomized 3 x 3 Factorial  
 for Hypothesis 1: Treatment Effects  
 and Counselor Effects for Counselor  
 IPA Scores by Three Judges

Counselor	Treatment		
	A <sub>1</sub> Positive- labeled	A <sub>2</sub> Negative- labeled	A <sub>3</sub> No-labels
C <sub>1</sub> (Counselor 1)	3	3	3
C <sub>2</sub> (Counselor 2)	3	3	3
C <sub>3</sub> (Counselor 3)	3	3	3

N = 27.

$$A_i \neq A_j \text{ and } i \neq j.$$

2b.  $H_0$ : Group means of male counselee attitude scores and female counselee attitude scores are equal or  $B_1 = B_2$ .

$H_1$ : Group means of male counselee attitude scores and female counselee attitude scores are not equal or  $B_1 \neq B_2$ .

2c.  $H_0$ : Group means of counselee attitude scores for counselor effects are equal or  $C_1 = C_2 = C_3$ .

$H_1$ : At least two group means of counselee attitude scores for counselor effects are not equal or  $C_i \neq C_j$  and  $i \neq j$ .

2d.  $H_0$ : The interaction between treatment effects and sex effects equals zero or  $A \times B = 0$ .

$H_1$ : The interaction between treatment effects and sex effects does not equal zero or  $A \times B \neq 0$ .

2e.  $H_0$ : The interaction between treatment effects and counselor effects equals zero or  $A \times C = 0$ .

$H_1$ : The interaction between treatment effects and counselor effects does not equal zero or  $A \times C \neq 0$ .

2f.  $H_0$ : The interaction between sex effects and counselor effects equals zero or  $B \times C = 0$ .

$H_1$ : The interaction between sex effects and counselor effects does not equal zero or  $B \times C \neq 0$ .

2g.  $H_0$ : The interaction between treatment effects, sex effects, and counselor effects equals zero or  $A \times B \times C = 0$ .

$H_1$ : The interaction between treatment effects, sex effects, and counselor effects does not equal zero or  $A \times B \times C \neq 0$ .

Statistical tests of research Hypothesis 2 and the related statistical hypotheses were conducted according to a completely randomized 3 x 2 x 3 factorial design (see Table 2). Factor A, treatment, consisted of three levels:  $A_1$ , positive-labeled reputation counseling;  $A_2$ , negative-labeled reputation counseling; and  $A_3$ , the absence of labels. Factor B, sex, consisted of level  $B_1$ , male counselees; and  $B_2$ , female counselees. Factor C, counselors, consisted of  $C_1$ , counselor one;  $C_2$ , counselor two; and  $C_3$ , counselor three.

### Hypothesis 3

Hypothesis 3 states that there are no significant differences between males and females on any elicited responses to counseling experiences that have a "positive-labeled reputation" or a "negative-labeled reputation." In relation to research Hypothesis 3, the following statistical hypotheses were tested for the criterion of

Table 2  
 Completely Randomized 3 x 2 x 3 Factorial  
 for Hypothesis 2: Treatment Effects,  
 Sex Effects, and Counselor Effects  
 for Counselee Attitude  
 Questionnaire Scores

Counselor	Treatment					
	A <sub>1</sub> Positive- labeled		A <sub>2</sub> Negative- labeled		A <sub>3</sub> No-labels	
	Sex		Sex		Sex	
	B <sub>1</sub>	B <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>
	Male	Female	Male	Female	Male	Female
C <sub>1</sub> (Counselor 1)	6	6	6	6	6	6
C <sub>2</sub> (Counselor 2)	6	6	6	6	6	6
C <sub>3</sub> (Counselor 3)	6	6	6	6	6	6

N = 108.

IPA scores of counselees:

- 3a.  $H_0$ : Group means of counselees for treatment effects are equal or  $A_1 = A_2 = A_3$ .
- $H_1$ : At least two group means of counselees for treatment effects are not equal or  $A_i \neq A_j$  and  $i \neq j$ .
- 3b.  $H_0$ : Group means of counselees for sex effects are equal or  $B_1 = B_2$ .
- $H_1$ : Group means of counselees for sex effects are not equal or  $B_1 \neq B_2$ .
- 3c.  $H_0$ : Group means of counselees for counselor effects are equal or  $C_1 = C_2 = C_3$ .
- $H_1$ : At least two group means of counselees for counselor effects are not equal or  $C_i \neq C_j$  and  $i \neq j$ .
- 3d.  $H_0$ : The interaction between treatment effects and sex effects equals zero or  $A \times B = 0$ .
- $H_1$ : The interaction between treatment effects and sex effects does not equal zero or  $A \times B \neq 0$ .
- 3e.  $H_0$ : The interaction between treatment effects and counselor effects equals zero or  $A \times C = 0$ .
- $H_1$ : The interaction between treatment effects and counselor effects does not equal zero or  $A \times C \neq 0$ .
- 3f.  $H_0$ : The interaction between sex effects and counselor



effects equals zero or  $B \times C = 0$ .

$H_1$ : The interaction between sex effects and counselor effects does not equal zero or  $B \times C \neq 0$ .

3g.  $H_0$ : The interaction between treatment effects, sex effects, and counselor effects equals zero or  $A \times B \times C = 0$ .

$H_1$ : The interaction between treatment effects, sex effects, and counselor effects does not equal zero or  $A \times B \times C \neq 0$ .

Statistical tests of research Hypothesis 3 and the related statistical hypotheses were conducted according to a completely randomized 3 x 2 x 3 factorial design (see Table 3). Factor A, treatment, consisted of three levels:  $A_1$ , positive-labeled reputation counseling;  $A_2$ , negative-labeled reputation counseling; and  $A_3$ , the absence of labels. Factor B, sex, consisted of two levels:  $B_1$ , male counselees and  $B_2$ , female counselees. Factor C, counselors, consisted of three levels:  $C_1$ , counselor one;  $C_2$ , counselor two; and  $C_3$ , counselor three.

### Independent Variables

#### Treatment

Treatment, the active variable, consisted of three levels. Positive-labeled reputation counseling ( $A_1$ ) was applied to three experimental groups: negative-labeled reputation counseling ( $A_2$ )

Table 3  
 Completely Randomized 3 x 2 x 3 Factorial  
 for Hypothesis 3: Treatment Effects,  
 Sex Effects, and Counselor Effects  
 for Couselee IPA Scores by  
 Three Judges

Counselor	Treatment					
	A <sub>1</sub> Positive- labeled		A <sub>2</sub> Negative- labeled		A <sub>3</sub> No-labels	
	Sex		Sex		Sex	
	B <sub>1</sub> Male	B <sub>2</sub> Female	B <sub>1</sub> Male	B <sub>2</sub> Female	B <sub>1</sub> Male	B <sub>2</sub> Female
	C <sub>1</sub> (Counselor 1)	3	3	3	3	3
C <sub>2</sub> (Counselor 2)	3	3	3	3	3	3
C <sub>3</sub> (Counselor 3)	3	3	3	3	3	3

N = 54.

was applied to another three experimental groups; and still another three, the control groups, received no labels (A<sub>3</sub>).

The positive-labeled reputation consisted of the following statement:

You are really in for a treat. I visited a friend out of town last year and sat in on a group with (counselor's name) as the counselor. It was really great. Besides being fun, it helped me to cope with a lot of things that had been bothering me.

Negative-labeled reputations were provided by the statement that:

You are really in for a waste of time. I visited a friend out of town last year and sat in on a group with (counselor's name) as the counselor. It was really awful. Besides being boring, it didn't help me a bit with any of the things that bothered me.

For control, a single confederate was selected by the experimenter to provide negative or positive labels for each of the six experimental counseling groups. A ninth-grade male student was selected because previous research has indicated that students are more greatly influenced by a male than by a female confederate (Whittaker, 1965).

On the day of the experiment, a training session was conducted for the confederate. Verbal instructions were given to the confederate along with 3- x 5-inch cue cards on which were printed, verbatim, the

appropriate labels. Labels were memorized by the confederate. Cue cards were taken from the confederate and later returned, one at a time, several minutes before each specific use. A book, carried by the confederate, concealed the cue card so that it could be used as a prompting device. The confederate was instructed to provide the appropriate labels exactly as printed on the cue cards and to attempt to appear to the subjects as another member of the group.

### Sex

Sex, factor B, was an assigned variable with levels  $B_1$ , males, and  $B_2$ , females. Sex was built into the factorial design because of previous research which had indicated significant differences in male and female subjects with regard to persuasibility (Bettinghaus, 1968; Hovland & Janis, 1959a; Janis & Field, 1959; Karlin & Abelson, 1970; Necco, 1970; Rosnow & Robinson, 1967; Scheidel, 1963; Whittaker, 1965).

### Counselors

Experienced counselors who were not associated with the Norfolk School System and who were unknown to the subjects conducted group counseling sessions. Each counselor conducted three different groups, each with six male students and six female students, for each of the three treatments. The research variables were unknown to the counselors.

Counselor, factor C, included three levels:  $C_1$ , a female counselor, who was also a counselor educator and a doctoral student;  $C_2$ , a female counselor, who was a full-time doctoral student; and  $C_3$ ,

a male counselor, who, although not a doctoral student, was a full-time counselor and part-time counselor educator who held a Master of Science degree in counseling. All three counselors had successfully completed a course in group counseling and were judged by the experimenter to be qualified to conduct group counseling sessions.

A training session for the counselors was conducted by the experimenter. Guidelines and structure for group counseling were presented verbally and in writing. The counselors were asked to practice by the format and to strive for uniformity of structure (see Appendix A).

#### Dependent Variables

There were three dependent variables. Each of the three research hypotheses were tested in terms of a specific dependent variable.

#### Hypothesis 1

The dependent variable for Hypothesis 1 consisted of IPA scores of counselors for the 12 IPA categories and 1 composite category. IPA scores were the product of three independent judges who analyzed the verbal behavior of counselors from audio-tape protocols of group counseling sessions.

Data for the dependent variable were the frequencies of verbal acts by each of the three counselors, for each treatment, during group counseling sessions. A verbal act was defined as the smallest recognizable unit of verbal behavior.

### Hypothesis 2

For research Hypothesis 2, the dependent variable consisted of scores for counselee responses to a five-item attitude questionnaire that had been devised by the experimenter. The attitude questionnaire was devised to measure counselee attitude regarding the group counseling session and was administered immediately after each group session.

Responses to the questionnaire were in the form of "yes" or "no." Dichotomous scores were derived from a "one" assigned to each positive response and a "zero" for each negative response.

### Hypothesis 3

For research Hypothesis 3, the dependent variable was comprised of IPA scores for counselees for each of the 12 IPA categories and one composite category. For IPA scores, three independent judges analyzed the verbal behavior of counselees from audio-tape protocols of group counseling sessions.

Data for the dependent variable were the frequencies of verbal acts, according to sex, for counselees in each counseling group. A verbal act was the smallest recognizable unit of verbal behavior.

### Criterion Measures

Criterion measures were based upon two vehicles and instruments for measurement. IPA of audio-tape protocols was the basic criterion. A five-item attitude questionnaire provided the second measure.

### Interaction Process Analysis

Audio-tape protocols of each of the nine, 30-minute counseling sessions were independently analyzed by three judges according to the revised IPA. Specifications for the revised IPA were set forth according to the following 12 categories.

#### Categories for Interaction Process Analysis:

- |                                  |                         |
|----------------------------------|-------------------------|
| A. Positive (and Mixed) Actions: | 1. Seems Friendly       |
|                                  | 2. Dramatizes           |
|                                  | 3. Agrees               |
| B. Attempted Answers:            | 4. Gives Suggestion     |
|                                  | 5. Gives Opinion        |
|                                  | 6. Gives Information    |
| C. Questions:                    | 7. Asks for Information |
|                                  | 8. Asks for Opinion     |
|                                  | 9. Asks for Suggestion  |
| D. Negative (and Mixed) Actions: | 10. Disagrees           |
|                                  | 11. Shows tension       |
|                                  | 12. Seems Unfriendly    |

[ Bales, 1970, p. 92 ].

Judges, who were unaware of the nature of the experiment, were selected by the experimenter on the basis of professional qualifications of knowledge and experience concerning the IPA method. Judge one, who served as coordinator of judging activities, was a doctoral candidate and an assistant professor of sociology in a university. Judge two held a doctoral degree and was an assistant professor of

sociology in a college. Judge three also held a doctoral degree and was an associate professor in a university.

Although verbal interaction was independently analyzed, the judges participated in discussion sessions, as recommended, for the purpose of maximizing interjudge reliability.<sup>1</sup> Specific, written instructions were distributed to each judge (see Appendix B) and uniform tally sheets were used for scoring procedures (see Appendix C). Finally, for maximum control of judging inconsistencies, a table of random numbers was used to determine for each judge the order in which the nine audio tapes were analyzed.

#### Counselee Attitude Questionnaire

The second criterion was a questionnaire which was formulated by the experimenter for the purpose of quantifying counselee attitude toward a group counseling experience. The questionnaire was subjected to a pilot study involving group counseling for counselees who were similar to the subjects of the experiment. Counselees were asked to present comments concerning the clarity and meaningfulness of questionnaire items. As a result, a single item was discarded and one sentence in the instructions was reworded.

The revised questionnaire was presented to the subjects as follows:

Please indicate your honest opinion concerning the group session you have just experienced. Circle the answers that most closely express your true feelings. Do not put your name on this sheet, as your response will be completely anonymous.



- |                                                                                          |     |    |
|------------------------------------------------------------------------------------------|-----|----|
| 1. The group session was very helpful.                                                   | Yes | No |
| 2. The counselor did a good job.                                                         | Yes | No |
| 3. I would like to participate in other counseling groups.                               | Yes | No |
| 4. I would like to work with this same counselor again in a group setting.               | Yes | No |
| 5. I would like to work with this same counselor as an individual on a one-to-one basis. | Yes | No |

Circle appropriate one: Male      Female

#### Population

The population from which the sample was drawn included the entire student body at Blair Junior High School in Norfolk, Virginia.<sup>2</sup> Norfolk City Public Schools was an urban school system which served 58,610 students.<sup>3</sup> According to the 1970 census report, the city of Norfolk had a total population of 307,951 and a total land area of 48.16 square miles.<sup>4</sup>

In the Norfolk School System there were 5 high schools, grades ten to twelve; 10 junior high schools, grades seven to nine; 55 elementary schools with grades one to six; and 1 vocational-technical educational center. All of the senior and junior high schools were certified by the Virginia State Department of Education. Accreditation by the Southern Association of Colleges and Secondary Schools was in effect for the five high schools (see Footnote 3).

As of October 27, 1972, Blair Junior High School had a total enrollment of 1,017 (see Table 4). The experimenter considered the

Table 4  
Blair Junior High School Population  
by Sex and Grade Levels

Grade	Students	
	Male	Female
Grade seven	233	249
Grade eight	203	215
Grade nine	73	44

school to be typical of the other junior high schools in Norfolk. There appeared to be no preponderance of any particular race or socioeconomic level among students. On September 29, 1972, the student enrollment at Blair was 58% Caucasian and 42% Negro as compared to 51% Caucasian and 49% Negro for the entire school system.<sup>5</sup>

#### Sample Selection

The selection of subjects and the assignments of treatments and counselors was implemented by complete randomization. Because randomization was a basic assumption for the statistical methods that were used, the processes for random selection of subjects and the random assignment of conditions are described in detail. The results of randomization have been presented in Tables 5, 6, and 7.

A random sample of 54 male and 54 female subjects was obtained from the total population of 1,017 seventh-, eighth- and ninth-grade students. The method of randomization was the lottery system (Galfo & Miller, 1970). The names of every student in the population were listed alphabetically, according to sex, but without regard for grade levels.

The names of male students were numbered. Corresponding numbers were individually marked on paper squares of uniform size. All of the paper squares were placed in a glass container and the numbers for 54 male subjects were randomly drawn. After each individual number was drawn, the remaining numbers were systematically remixed. The lottery process was repeated exactly for the selection of 54 female subjects. Since there were 509 males and 508 females,

Table 5  
 Composition of Completely Randomized  
 Counseling Groups by Treatment,  
 Counselor, and Sex for  
 Period 2

Conditions	Group number					
	1		4		7	
Room number	318		307		311	
Treatment (A)	Positive-labeled		Positive-labeled		No-labels	
Counselor (C)	C <sub>1</sub>		C <sub>2</sub>		C <sub>3</sub>	
Sex (B)	Male Female		Male Female		Male Female	
Grade seven	2	3	3	3	3	3
Grade eight	2	3	2	2	1	2
Grade nine	2		1	1	2	1

Note.--Class period 2 was from 8:45 to 9:35.

Table 6  
 Composition of Completely Randomized  
 Counseling Groups by Treatment,  
 Counselor, and Sex for  
 Period 3

Conditions	Group number					
	2		5		8	
Room number	318		307		305	
Treatment (A)	Negative-labeled		No-labels		Positive-labeled	
Counselor (C)	C <sub>1</sub>		C <sub>2</sub>		C <sub>3</sub>	
Sex (B)	Male	Female	Male	Female	Male	Female
Grade seven		2	1	2	1	2
Grade eight	5	3	1	4	3	4
Grade nine	1	1	4		2	

Note.--Class period 3 was from 9:40 to 10:30.

Table 7  
 Composition of Completely Randomized  
 Counseling Groups by Treatment,  
 Counselor, and Sex for  
 Period 4

Conditions	Group number					
	3		6		9	
Room number	318		307		310	
Treatment (A)	No-labels		Negative-labeled		Negative-labeled	
Counselor (C)	C <sub>1</sub>		C <sub>2</sub>		C <sub>3</sub>	
Sex (B)	Male	Female	Male	Female	Male	Female
Grade seven	2	3		1	2	1
Grade eight	1	2	4	5	4	4
Grade nine	3	1	2			1

Note.--Class period 4 was from 10:35 to 11:25.

every member of the population, regardless of sex, had an equal chance of being selected.

The 108 subjects were randomly assigned, by sex, to one of nine groups. Each group was composed of six male and six female subjects. Random assignment of subjects to groups was achieved by the lottery method. According to the same procedure, one of three kinds of treatments was randomly assigned to each group. Finally, each of the three counselors was randomly assigned to three different treatments and groups.

According to the same randomization procedures, a second sample of 54 males and 54 females was selected and assigned to the original groups. The second selection was listed by group in order of individual selection for the purpose of being incorporated into the preassigned group in the event that subjects were absent or did not wish to participate in the counseling session. Of the original sample of 108 students, 17 were absent and were replaced by back-up subjects.

#### Procedures

The experiment was conducted on October 31, 1972. All nine group sessions were conducted in a single day on the assumption that opportunities for comparisons of experiences by subjects would be minimized. Each subject participated only in a single group which met once for a 30-minute counseling session. All of the counseling groups were equated in every way possible with the exception of the experimental variable.

Two days prior to the experiment, it was announced to faculty and students that counseling sessions would be conducted by some counselors from another city. On the basis of a city-wide program, plans for developmental group guidance for every student were being implemented.<sup>6</sup> The experimental group sessions were introduced as a supplement to the regular group guidance program.

Teachers from whose classes the subjects were to be excused were given lists of all subjects and back-up subjects. Individual corridor passes were distributed to the subjects on the day of the experiment.

When the subjects reported to the assigned places, they were asked to participate in a group counseling session. None of the subjects refused to participate; however, 17 students were absent from school and were replaced by appropriate back-up subjects. All of the additional back-up subjects were sent back to their classes.

As soon as all subjects were seated in a semicircle, and before the counselor arrived, the experimenter presented the following introduction to each group:

Thank you for reporting here today. You have been selected to participate in this group session to be conducted by (name of counselor) who has agreed to come from another city to work with you today.

The confederate, who posed as one of the members of the group, stated the appropriate label. There were three control groups which had no labels introduced. During the labeling, the experimenter was



in the back of the room making adjustments to the recording equipment.

After the label was stated, the experimenter asked for a volunteer from the group to run an errand. It had been prearranged for the confederate to volunteer. The confederate was chosen and was sent out of the room on fictitious business.

As soon as the confederate had left the room, the counselor was called into the room and was introduced by the experimenter. The tape recorder was then started and the experimenter left the room.

The counseling session was structured according to a format that had been presented to the counselors a week before the counseling sessions (see Appendix A). There were six items which have been generalized as follows:

a. Permission to record and confidentiality of the counseling session were obtained and discussed.

b. A purpose for the group and the basic structure were provided.

c. The counselor attempted to facilitate the discussion of feelings concerning the topic, "Concerns about the future that face junior high school students."

d. After the group structure was provided, the counselor was asked to facilitate discussion for 25 minutes.

e. After 25 minutes, the counselor was allowed 5 minutes to complete the closing structure and to distribute the attitude questionnaire.

f. The experimenter returned to the room, allowed the

counselor to leave, and then collected the questionnaire forms and thanked the group.

#### Statistical Methods

The statistical computations were performed by an International Business Machines (IBM) System/360 digital computer. The statistical methods used were Pearson's product-moment coefficient of correlation ( $r$ ), analysis of variance, and Fisher's least significant difference (LSD) test.

#### Interjudge Reliability

The first statistical procedure was a Pearson product-moment coefficient of correlation, which was used to test the interjudge reliability of the three judges for the IPA. Problem nine of the "Galfo Statistics Package" (GSP) was used to compute  $r$  (Galfo & Miller, 1970). The statistical output was  $r$  with NP-2 degrees of freedom where NP was the number of X-Y pairs.

A total of nine  $r$ s were computed. Separate tests for counselor scores, male counselee scores, and female counselee scores for the IPA were computed for Judge one and Judge two, Judge one and Judge three, and Judge two and Judge three. The values of  $r$  at the .05 and .01 levels of significance were determined by Table A.5 of Interpreting educational research by Galfo and Miller (1970, p. 359).

#### Analysis of Variance

The second statistical procedure was an analysis of variance for each hypothesis of the factorial experiment. The GSP-10 was used to compute the analysis of variance (ANOVA). The statistical output

consisted of a table of (a) variations and total sums of squares, (b) individual and total degrees of freedom, and (c) variances in the form of mean squares for each factor (Galfo & Miller, 1970).

The GSP-18, analysis of covariance (ANOCO) method, was also used to compute ANOVA. The statistical output consisted of a table of (a) fundamental cell summations, (b) total sum for each variable, (c) sum of products matrix, (d) variation of each variable for each factor combination, (e) within variation, and (f) residual variation, degrees of freedom, residual variance, and  $F$ -ratios.

The  $F$ -ratios for GSP-10 and GSP-18 were the same. For clarity and convenience, the tables from the GSP-18 printouts were used. The .05 points of the  $F$ -Distribution were determined by Table 7a of Statistical inference I by Li (1964, p. 603). The .01 points were determined by Li's Table 7c (p. 607).

For Hypothesis 1 a two-way ANOVA was computed. The ANOVA was computed 13 times, once for each of the 12 IPA categories and once for a composite category. Each ANOVA resulted in a statistical output for factor A, the C factor, and the AC interaction.

For Hypothesis 2 a three-way ANOVA was computed. The ANOVA was computed five times, once for each of the five items in the attitude questionnaire. Each ANOVA resulted in a statistical output for factor A, factor B, factor C, and interactions for AB, AC, BC, and ABC.

The attitude questionnaire for Hypothesis 2 provided data that were dichotomous in nature. An investigation by Lunney (1970)

indicated the appropriateness of ANOVA techniques for the analysis of dichotomous data.

For Hypothesis 3 a three-way ANOVA was computed. There were 13 separate ANOVA computations for each of the 12 IPA categories and 1 composite category. Each ANOVA provided a statistical output for factors A, B, and C; and for the AB, AC, BC, and ABC interactions.

#### Multiple Comparison Test

The third and last statistical procedure was an a posteriori test for significant  $F$ -ratios for factor A. The purpose was to investigate the significant data in order to locate the source of the treatment effects. The counselor factor, which was built into the research design for control purposes, was not analyzed because there was no counselor population to which the comparison could be generalized. For a similar reason, the lack of generalizability, statistical comparisons were avoided for any interactions that involved the C factor.

The statistical method for exploring the source of effects was Fisher's LSD test (Li, 1964). Computations for LSD tests were performed with a Model 1775 Monroe Programmer Calculator. In cases where the overall  $F$ -ratio was not significant, no further tests were made.

Notes to Chapter 3

<sup>1</sup>R. F. Bales, personal communication, February 2, 1972.

<sup>2</sup>N. D. Holthouse, Director of Research, authorization for research site, personal communication, June 15, 1972.

<sup>3</sup>E. L. Lamberth, Superintendent, printed bulletin, 1972.

<sup>4</sup>H. Moore, Secretary to R. B. Martin, Mayor, personal communication, November 20, 1972.

<sup>5</sup>A. G. Donn, Attorney, personal communication, November 9, 1972.

<sup>6</sup>R. J. Holthouse, Director of Guidance, memorandum #4A, August 24, 1972.

## Chapter 4

### Results

Chapter 4 contains the results of the study concerning counselor reputation and previous performance and their effects upon behavior and attitude in a group-counseling situation. The statistical results for each of three research hypotheses are reported separately for each category or item of the criterion measures. The results are presented under the following headings: (a) Interjudge Reliability, (b) Hypothesis 1, (c) Hypothesis 2, (d) Hypothesis 3, and (e) Summary.

#### Interjudge Reliability

Basic to the statistical findings was the interjudge reliability of IPA scores, which comprised the behavioral criterion measure. The Pearson product-moment coefficient of correlation was the procedure that was used to determine the reliability of composite IPA scores for counselors and for counselees, by sex, that were independently obtained by three judges. The IPA scoring was performed by the use of audio recordings of group counseling sessions.

Table 8 contains a summary of the nine  $r$ s which were computed for measures of IPA interjudge reliability. Separate  $r$ s were computed for each comparison between three judges according to total IPA scores obtained for counselors, male counselees, and female counselees.

For counselor IPA scores, Judges one and two obtained an  $r$  of .97. A positive correlation of .97 was also obtained for Judges one

Table 8  
 Pearson Product-Moment Coefficients of  
 Correlation ( $r$ ) for Interjudge  
 Reliability for IPA Scores

Dependent variable	Judges		
	J <sub>1</sub> --J <sub>2</sub>	J <sub>1</sub> --J <sub>3</sub>	J <sub>2</sub> --J <sub>3</sub>
Counselor IPA Scores	.969**	.968**	.936**
Male Counselee IPA Scores	.849**	.900**	.700*
Female Counselee IPA Scores	.532	.605	.722*

$\underline{r}$  (.05, 7 df) = .666.

$\underline{r}$  (.01, 7 df) = .798.

\* $p < .05$ .

\*\* $p < .01$ .

and three, and for Judges two and three, a correlation of .94 was computed. The correlations of all three judges for IPA scores for counselors were significant at the .01 level.

For male counselees, the correlations of total IPA scores by Judges one and two was .85 which was significant at the .01 level. A .90, also significant at the .01 level, was obtained for Judges one and three. A correlation of .70, significant at the .05 level, was obtained for Judges two and three.

For female counselee IPA scores, the coefficient of correlation for Judges one and two was .53, and for Judges one and three, a .61 was obtained. The correlations for Judges one and two and for Judges one and three did not meet the .05 level of significance. IPA scores for female counselees obtained a correlation of .72 between Judges two and three with a .05 significance level.

#### Hypothesis 1

Hypothesis 1 states that there are no significant differences between counselors for groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling with respect to measured behavioral interaction analysis. The hypothesis was reduced to three sets of null and alternate hypotheses as denoted in Chapter 3, page 62.

Specific tests of Hypothesis 1 were based on a 3 x 3 factorial design (see Table 1, p. 64). The three treatment levels were  $A_1$ , positive-labels;  $A_2$ , negative-labels; and  $A_3$ , no-labels.



The three levels of factor C were  $C_1$ , counselor one;  $C_2$ , counselor two; and  $C_3$ , counselor three.

Computations of ANOVA were performed for a composite of all IPA categories and for each of the 12 IPA categories on the basis of verbal behavior of counselors. Obtained through ANOVA were the sums of squares, degrees of freedom, mean squares, and  $F$ -ratios for factor A, factor C, and the AC interaction.

#### Composite of IPA Categories

Table 9 contains a summary of the analysis of data for Hypothesis 1: Composite IPA scores for counselors. The following  $F$ s were obtained: for factor A, .97; for factor C, 25.33; and for the AC interaction, 1.05. The  $F$  of 25.33 for factor C, counselors, was significant at the .01 level. Factor A and the AC interaction were not significant at the .05 level.

For Hypothesis 1b, the null was rejected for the alternate hypothesis that at least two means of counselors for counselor effects were not equal. For Hypotheses 1a and 1c, the null was accepted. The group means of counselors for treatment effects and for treatment and counselor interaction did not differ significantly.

#### IPA Category 1

A summary of counselor scores for IPA Category 1, "Seems Friendly," is provided in Table 10. The  $F$ -ratios were 0.31 for factor A, 3.94 for factor C, and 1.12 for the AC interaction. Factor C was significant at the .05 level. Factor A and the AC interaction

Table 9  
 Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Composite IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	7,483.19	2	3,741.59	0.97
Counselor (C)	196,317.85	2	98,158.93	25.33**
A x C	16,218.37	4	4,054.59	1.05
Within (Error)	69,750.67	18	3,875.04	

$\underline{F} (.01, 2, 18) = 6.01.$

\*\* $p < .01.$

Table 10

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 1 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	134.30	2	67.15	0.31
Counselor (C)	1,704.52	2	852.26	3.94*
A x C	971.26	4	242.81	1.12
Within (Error)	3,890.00	18	216.11	

Note.--IPA Category 1: "Seems Friendly."

F (.05, 18) = 3.55.

\*p<.05.

were not significant at  $p < .05$ .

At least two group means of counselors for counselor effects were not equal (1b). The null was accepted for Hypotheses 1a and 1c. There were no differences between group means of counselors for treatment effects or for the interaction between treatment and counselor effects.

#### IPA Category 2

The statistical analysis of counselor scores for IPA Category 2, "Dramatizes," is found in Table 11. The  $F$ -values obtained were 2.65 for factor A, 6.79 for factor C, and 2.06 for the AC interaction. Factor C was significant at the .01 level. Factor A and interaction AC did not reach the .05 significance level.

For Hypothesis 1b, counselor effects, the group means for at least two counselors were significantly different. For Hypotheses 1a and 1c, the null was accepted. There were no differences between group means for treatment effect or interaction between treatment and counselor effects.

#### IPA Category 3

Table 12 contains a statistical analysis of counselor scores for IPA Category 3, "Agrees." The following  $F$ -ratios were obtained: 0.61 for factor A, 4.61 for factor C, and 0.34 for the AC interaction. The  $F$  for factor C was significant at the .05 level. The A factor and the AC interaction were not significant.

The group means for at least two counselors were significantly different for the counselor effects in Hypothesis 1b. For Hypotheses

Table 11

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 2 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	325.63	2	162.81	2.65
Counselor (C)	835.85	2	417.93	6.79**
A x C	508.15	4	127.04	2.06
Within (Error)	1,108.00	18	61.56	

Note.--IPA Category 2: "Dramatizes."

$\underline{F}$  (.01, 2, 18) = 6.01.

\*\* $p < .01$ .

Table 12

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 3 of IPA Scores for Counselors

Source of variation	Sum of squares	df	Mean square	F
Treatment (A)	56.07	2	28.04	0.61
Counselor (C)	420.52	2	210.26	4.61*
A x C	61.48	4	15.37	0.34
Within (Error)	820.67	18	45.59	

Note.--IPA Category 3: "Agrees."

$F$  (.05, 2, 18) = 3.55.

\* $p < .05$ .

1a, treatment effect, and 1c, interaction, the null of no differences between group means was accepted.

#### IPA Category 4

The statistical results for IPA Category 4, "Gives Suggestion," are presented in Table 13. The  $F$ -ratios were 0.93 for factor A, 3.79 for factor C, and 0.52 for AC interaction. The  $F$  for factor C was significant at the .05 level. Factor A and the AC interaction did not obtain significant  $F$ -values.

Group means for two or more counselors differed significantly with regard to counselor effect resulting in the rejection of null Hypothesis 1b. Hypotheses 1a and 1c were accepted because of no significant differences, at the .05 level, between group means for treatment or interaction effects.

#### IPA Category 5

In Table 14, the statistical analysis of counselor scores for IPA Category 5, "Gives Opinion," is given.  $F$ -ratios were 0.16 for factor A, 14.20 for factor C, and 0.07 for interaction AC. For factor C, the  $F$  of 14.20 was significant at the .01 level. At the .05 level, neither factor A nor interaction AC were significant.

A rejection of Hypothesis 1b indicated that the group means of at least two counselors differed for counselor effect at the .01 significance level. There were no differences between group means for Hypothesis 1a, treatment effect, and 1c, interaction of factors.

#### IPA Category 6

The analysis of counselor scores for IPA Category 6, "Gives

Table 13

Analysis of Variance of a Completely Randomized  
3 x 3 Factorial Experiment for Hypothesis 1:  
Category 4 of IPA Scores for Counselors

Source of variation	Sum of squares	df	Mean square	F
Treatment (A)	1,145.41	2	572.70	0.93
Counselor (C)	4,656.52	2	2,328.26	3.79*
A x C	1,272.15	4	318.04	0.52
Within (Error)	11,043.33	18	613.52	

Note.--IPA Category 4: "Gives Suggestion."

$F (.05, 2, 18) = 3.55.$

\* $p < .05.$



Table 14

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 5 of IPA Scores for Counselors

Source of variation	Sum of squares	df	Mean square	F
Treatment (A)	37.85	2	18.93	0.16
Counselor (C)	3,444.52	2	1,722.26	14.20**
A x C	35.48	4	8.87	0.07
Within (Error)	2,183.33	18	121.30	

Note.--IPA Category 5: "Gives Opinion."

$F (.01, 2, 18) = 6.01.$

\*\* $p < .01.$

Information," is found in Table 15.  $F$ -ratios were 1.13 for factor A, 25.42 for factor C, and 0.72 for the AC interaction. For factor C, the  $F$  measure was significant at the .01 level. Both factor A and interaction AC failed to reach the .05 level of significance.

Hypothesis 1b was rejected. For counselor effect, the group means of two or more counselors were significantly different at the .01 level. For Hypotheses 1a and 1c, there were no significant differences between group means.

#### IPA Category 7

Table 16 contains the statistical data for counselor scores pertaining to IPA Category 7, "Asks for Information."  $F$ -ratios were as follows: factor A, 0.70; factor C, 13.86; and interaction AC, 1.13. Factor A and the AC interaction did not meet the .05 significance level. The  $F$  obtained for factor C was significant at the .01 level.

The null hypothesis for 1b was rejected. At the .01 level, the group means of at least two counselors were significantly different for counselor effect. There were no differences between group means for factor A and interaction AC. Hypotheses 1a and 1c were accepted.

#### IPA Category 8

Counselor scores for IPA Category 8, "Asks for Opinion," are statistically described in Table 17. For factor A,  $F$  was 0.16; for factor C, the  $F$  was 3.83; and for the AC interaction, 1.13 represented the  $F$ -value. Only factor C obtained an  $F$  at the .05 level of

Table 15  
 Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 6 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	363.19	2	181.59	1.13
Counselor (C)	8,142.74	2	4,071.37	25.42**
A x C	461.48	4	115.37	0.72
Within (Error)	2,882.67	18	160.15	

Note.--IPA Category 6: "Gives Information."

F (.01, 2, 18) = 6.01.

\*\*p < .01.

Table 16

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 7 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	52.07	2	26.04	0.70
Counselor (C)	1,024.30	2	512.15	13.86**
A x C	167.48	4	41.87	1.13
Within (Error)	665.33	18	36.96	

Note.--IPA Category 7: "Asks for Information."

F (.01, 2, 18) = 6.01.

\*\*p<.01.

Table 17

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 8 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	949.56	2	474.78	0.16
Counselor (C)	22,756.22	2	11,378.11	3.83*
A x C	13,440.89	4	3,360.22	1.13
Within (Error)	53,453.33	18	2,969.63	

Note.--IPA Category 8: "Asks for Opinion."

F (.05, 2, 18) = 3.55.

\* $p < .05$ .

significance.

Hypothesis 1b was rejected on the basis of the significant F which indicated different group means for at least two counselors for counselor effect. Hypotheses 1a and 1c were accepted as no differences between the group means for treatment and interaction effects.

#### IPA Category 9

Table 18 contains a summary for counselor scores for IPA Category 9, "Asks for Suggestion." F-ratios were 0.63 for factor A, 2.10 for factor C, and 1.12 for the AC interaction. No Fs were significant at the .05 level. The null for Hypotheses 1a, 1b, and 1c were accepted for Category 9. It was concluded that there were no significant differences between group means of counselors for treatment, counselor, or interaction effects.

#### IPA Category 10

For IPA Category 10, "Disagrees," a statistical analysis of counselor scores is found in Table 19. The following F-ratios were obtained: 0.64 for factor A, 2.60 for factor C, and 0.35 for AC interaction. At the .05 level, there were no significant F-ratios. For Hypotheses 1a, 1b, and 1c, the null was accepted. There were no significant differences among counselor means for the effects of treatment, counselor, or treatment and counselor interaction.

#### IPA Category 11

Presented in Table 20 are statistical data for counselor scores for IPA Category 11, "Shows Tension." F-ratios were 1.60 for

Table 18

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 9 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	2.30	2	1.15	0.63
Counselor (C)	7.63	2	3.81	2.10
A x C	8.15	4	2.04	1.12
Within (Error)	32.67	18	1.81	

Note.--IPA Category 9: "Asks for Suggestion."

Table 19

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 10 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	3.85	2	1.93	0.64
Counselor (C)	15.63	2	7.81	2.60
A x C	4.15	4	1.04	0.35
Within (Error)	54.00	18	3.00	

Note.--IPA Category 10: "Disagrees."



Table 20

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 11 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	81.56	2	40.78	1.60
Counselor (C)	320.67	2	160.33	6.28**
A x C	121.11	4	30.28	1.19
Within (Error)	459.33	18	25.52	

Note.--IPA Category 11: "Shows Tension."

F (.01, 2, 18) = 6.01.

\*\*p<.01.

factor A, 6.28 for factor C, and 1.19 for AC interaction. F-ratios for factor A and for interaction AC did not reach the required .05 level of significance. The F for factor C was significant at the .01 level.

Hypothesis 1b was rejected. At the .01 level, the group means of at least two counselors were significantly different for counselor effect. For Hypotheses 1a and 1c, the null of no differences between means was accepted for treatment effect and interaction.

#### IPA Category 12

Table 21 contains the statistical analysis of counselor scores for IPA Category 12, "Seems Unfriendly." F-ratios included 3.51 for factor A, 4.37 for factor C, and 2.84 for AC interaction. At the .05 level, only the F for factor C was significant.

Hypothesis 1b was rejected. For counselor effect, the means of at least two counselors were significantly different. Hypotheses 1a and 1c were accepted, as there were no significant differences between counselor means for treatment effect and interaction effect.

#### Hypothesis 2

Hypothesis 2 states that there are no significant differences between groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling on a measure of client attitude toward the effectiveness of the counseling experience. Hypothesis 2 was reduced to seven sets of null and alternate hypotheses as described in Chapter 3, page 63.

Tests of Hypothesis 2 were conducted according to a

Table 21

Analysis of Variance of a Completely Randomized  
 3 x 3 Factorial Experiment for Hypothesis 1:  
 Category 12 of IPA Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	100.07	2	50.04	3.51
Counselor (C)	124.74	2	62.37	4.37*
A x C	161.70	4	40.43	2.84
Within (Error)	256.67	18	14.26	

Note.--IPA Category 12: "Seems Unfriendly."

F (.05, 2, 18) = 3.55.

\*p<.05.

3 x 2 x 3 factorial design (see Table 2, p. 67). Factor A, treatment, consisted of A<sub>1</sub>, positive-labels; A<sub>2</sub>, negative-labels; and A<sub>3</sub>, no-labels. Factor B included B<sub>1</sub>, male counselees; and B<sub>2</sub>, female counselees. The three levels of factor C were C<sub>1</sub>, counselor one; C<sub>2</sub>, counselor two; and C<sub>3</sub>, counselor three.

A three-way ANOVA was computed for counselee responses to each of the five items of the attitude questionnaire, the second criterion measure. Sums of squares, degrees of freedom, mean squares, and F-ratios were obtained for factors A, B, and C; and for the AB, AC, BC, and ABC interactions.

Attitude Questionnaire: Item 1

Table 22 contains the statistical data for Attitude Questionnaire, Item 1: "The group session was very helpful." The following F-ratios were obtained: 2.82 for factor A, 0.06 for factor B, 1.78 for factor C, 1.78 for interaction AB, 1.61 for interaction AC, 0.06 for interaction BC, and 0.75 for interaction ABC. At the .05 level, there were no significant F-ratios.

For Hypothesis 2, the null was accepted. For counselee response to Item 1 of the Attitude Questionnaire, there were no differences between means for treatment, sex, or counselor effects or for any interactions of factors.

Attitude Questionnaire: Item 2

A statistical analysis of counselee response to Item 2 of the Attitude Questionnaire is summarized in Table 23. Item 2 stated that,

Table 22

Analysis of Variance of a Completely Randomized 3 x 2 x 3  
 Factorial Experiment for Hypothesis 2: Counselor  
 Attitude Questionnaire Responses: Item 1

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	0.91	2	0.45	2.82
Sex (B)	0.01	1	0.01	0.06
Counselor (C)	0.57	2	0.29	1.78
A x B	0.57	2	0.29	1.78
A x C	1.04	4	0.26	1.61
B x C	0.02	2	0.01	0.06
A x B x C	0.48	4	0.12	0.75
Within (Error)	14.50	90	0.16	

Note.--Questionnaire Item 1: "The group session was very helpful."

Table 23

Analysis of Variance of a Completely Randomized 3 x 2 x 3  
 Factorial Experiment for Hypothesis 2: Counselor  
 Attitude Questionnaire Responses: Item 2

Source of variation	Sum of squares	df	Mean square	F
Treatment (A)	0.06	2	0.03	1.00
Sex (B)	0.01	1	0.01	0.33
Counselor (C)	0.06	2	0.03	1.00
A x B	0.02	2	0.01	0.33
A x C	0.22	4	0.06	2.00
B x C	0.02	2	0.01	0.33
A x B x C	0.04	4	0.01	0.33
Within (Error)	2.50	90	0.03	

Note.--Questionnaire Item 2: "The counselor did a good job."

"The counselor did a good job." The obtained  $F$ -ratios were 1.00 for factor A, 0.33 for factor B, 1.00 for factor C, 0.33 for AB interaction, 2.00 for AC interaction, 0.33 for BC interaction, and 0.33 for ABC interaction.

None of the  $F$ -ratios were significant at the .05 level. For all factors and interactions, the null hypothesis was accepted for Item 2. There were no significant differences between means for treatment, sex, or counselor effects or for any factor interactions.

Attitude Questionnaire: Item 3

Table 24 contains the statistical summary of counselee responses to Item 3. Item 3 of the Attitude Questionnaire stated that, "I would like to participate in other counseling groups." The following  $F$ -ratios were obtained: 1.95 for factor A, 4.26 for factor B, 1.32 for factor C, 0.16 for interaction AB, 0.68 for interaction AC, 2.05 for interaction BC, and 0.32 for interaction ABC.

At the .05 level, only the  $F$  for factor B was significant. Hypothesis 2b was rejected. The totals for male counselee attitude scores and female counselee attitude scores were significantly different. Further examination of statistical data for factor B indicated that the composite score for male counselees was 37 and the composite score for female counselees was 46. For Item 3, the positive response for females was significantly greater than for males.

Hypotheses 2a, 2c, 2d, 2e, 2f, and 2g were all accepted. There were no significant differences between group means of counselee attitude scores for treatment or counselor effects or for any

Table 24

Analysis of Variance of a Completely Randomized 3 x 2 x 3  
 Factorial Experiment for Hypothesis 2: Counselor  
 Attitude Questionnaire Responses: Item 3

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	0.69	2	0.34	1.95
Sex (B)	0.75	1	0.75	4.26*
Counselor (C)	0.46	2	0.23	1.32
A x B	0.06	2	0.03	0.16
A x C	0.48	4	0.12	0.68
B x C	0.72	2	0.36	2.05
A x B x C	0.22	4	0.06	0.32
Within (Error)	15.83	90	0.18	

Note.--Questionnaire Item 3: "I would like to participate in other counseling groups."

$\underline{F} (.05, 1, 60) = 4.00.$

\* $p < .05.$



interactions between factors.

Attitude Questionnaire: Item 4

Data pertaining to counselee response to Item 4 of the Attitude Questionnaire are found in Table 25. The statement for Item 4 was, "I would like to work with this same counselor again in a group setting." Obtained  $F$ -ratios were 0.00 for factor A, 0.06 for factor B, 1.21 for factor C, 0.23 for interaction AB, 0.17 for interaction AC, 0.75 for interaction BC, and 2.47 for interaction ABC. For Item 4, there were no significant  $F$ s at the .05 level.

The null hypotheses were accepted for Item 4. On counselee responses to Item 4, there were no significant differences between means for treatment, sex, or counselor effects or for any factor interactions.

Attitude Questionnaire: Item 5

Table 26 contains a summary of the statistical analysis for Item 5 of the Attitude Questionnaire. Item 5 stated that, "I would like to work with this same counselor as an individual on a one-to-one basis."  $F$ -ratios obtained were 2.50 for factor A, 0.00 for factor B, 0.15 for factor C, 0.78 for interaction AB, 0.15 for interaction AC, 0.45 for interaction BC, and 0.22 for interaction ABC. At the .05 level, there were no significant  $F$ s for any factor or interaction.

For Item 5, all null hypotheses were accepted. For treatment, sex, counselor, and interaction effects, there were no significant differences between group means of counselee attitude scores.

Table 25

Analysis of Variance of a Completely Randomized 3 x 2 x 3  
 Factorial Experiment for Hypothesis 2: Counselee  
 Attitude Questionnaire Responses: Item 4

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	0.00	2	0.00	0.00
Sex (B)	0.01	1	0.01	0.06
Counselor (C)	0.39	2	0.19	1.21
A x B	0.07	2	0.04	0.23
A x C	0.11	4	0.03	0.17
B x C	0.24	2	0.12	0.75
A x B x C	1.59	4	0.40	2.47
Within (Error)	14.50	90	0.16	

Note.--Questionnaire Item 4: "I would like to work with this same counselor again in a group setting."

Table 26

Analysis of Variance of a Completely Randomized 3 x 2 x 3  
 Factorial Experiment for Hypothesis 2: Counselor  
 Attitude Questionnaire Responses: Item 5

Source of variation	Sum of squares	df	Mean square	F
Treatment (A)	1.24	2	0.62	2.50
Sex (B)	0.00	1	0.00	0.00
Counselor (C)	0.07	2	0.04	0.15
A x B	0.39	2	0.19	0.78
A x C	0.15	4	0.04	0.15
B x C	0.22	2	0.11	0.45
A x B x C	0.22	4	0.06	0.22
Within (Error)	22.33	90	0.25	

Note.--Questionnaire Item 5: "I would like to work with this same counselor as an individual on a one-to-one basis."

### Hypothesis 3

Hypothesis 3 states that there are no significant differences between males and females on any elicited responses to counseling experiences that have a "positive-labeled reputation" or a "negative-labeled reputation." There were seven sets of null and alternate hypotheses which were developed to facilitate the testing of statistical data (see Chapter 3, p. 66).

A 3 x 2 x 3 factorial design provided the basis for data collection (see Table 3, p. 70). Factor A, treatment, consisted of A<sub>1</sub>, positive-labels; A<sub>2</sub>, negative-labels; and A<sub>3</sub>, no-labels. The two levels of factor B were B<sub>1</sub>, male counselees, and B<sub>2</sub>, female counselees. Factor C levels were C<sub>1</sub>, counselor one; C<sub>2</sub>, counselor two; and C<sub>3</sub>, counselor three.

ANOVA computations were performed for a composite of all IPA categories and for each of the 12 IPA categories on the basis of verbal behavior of counselees. The ANOVA yielded sums of squares, degrees of freedom, mean squares, and F-ratios for factors A, B, and C; and for the AB, AC, BC, and ABC interactions.

#### Composite of IPA Categories

Table 27 contains a summary of statistical data for composite IPA scores for counselees. The following F-ratios were obtained: for factor A, a 7.50 was significant at the .01 level; for factor B, a 6.87 was significant at the .05 level; for factor C, a 15.57 was significant at the .01 level; and for interaction AC, a 2.90 attained

Table 27  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Composite IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	88,340.26	2	44,170.13	7.50**
Sex (B)	40,453.41	1	40,453.41	6.87*
Counselor (C)	183,392.93	2	91,696.46	15.57**
A x B	19,142.48	2	9,571.24	1.63
A x C	68,347.52	4	17,086.88	2.90*
B x C	33,280.26	2	16,640.13	2.83
A x B x C	29,056.85	4	7,264.21	1.23
Within (Error)	212,004.00	36	5,889.00	

$\underline{F} (.05, 1, 30) = 4.17.$

$\underline{F} (.05, 4, 30) = 2.69.$

$\underline{F} (.01, 2, 30) = 5.39.$

\* $p < .05.$

\*\* $p < .01.$

the .05 significance level. The following  $F$ -ratios, none of which reached the .05 level of significance, were as follows: 1.63 for interaction AB, 2.83 for interaction BC, and 1.23 for interaction ABC.

On the basis of composite IPA categories, Hypotheses 3a, 3b, 3c, and 3e were rejected. At .05 there were significant differences between group means of counselees for treatment, sex, and counselor effects and for the interaction of AC. For Hypotheses 3d, 3f, and 3g, the null was accepted. For interactions between treatment and sex; between sex and counselor; and between treatment, sex, and counselor there were no significant differences between the means for counselee groups.

Multiple comparisons were made to compare the effects of treatment levels for factor A. The results of a test of LSD are summarized in Table 28. The treatment means were 150.50 for  $A_1$ , 244.83 for  $A_2$ , and 171.44 for  $A_3$ . At the .05 level, an LSD of 51.93 was obtained. Multiple comparisons were as follows: -94.33 for  $A_1$  and  $A_2$ , -20.94 for  $A_1$  and  $A_3$ , and 73.39 for  $A_2$  and  $A_3$ . Comparisons between  $A_1$  and  $A_2$  and between  $A_2$  and  $A_3$  attained the .05 level of significance. The comparison between  $A_1$  and  $A_3$  was not significant.

For the composite IPA, the group means of counselees receiving a negative-label were greater than the group means for counselees who received positive-labels or no-labels. There was no difference between the group means of counselees who received positive-labels and those who received no-labels.

Table 28  
 Multiple Comparisons of Treatment Means for  
 Hypothesis 3: Composite IPA Scores  
 for Counselors

	Treatment Means	Multiple Comparisons
A <sub>1</sub> (Positive-labeled)	150.50	
A <sub>2</sub> (Negative-labeled)	244.83	
A <sub>3</sub> (No-labels)	171.44	
A <sub>1</sub> --A <sub>2</sub>		94.33*
A <sub>1</sub> --A <sub>3</sub>		-20.94
A <sub>2</sub> --A <sub>3</sub>		73.39*

LSD (.05) = 51.93.

\* $p < .05$ .

A significant  $F$ , at the .05 level, for factor B necessitated a comparison of means for the sex factor. The mean for male counselees was 216 and for female counselees there was a mean of 162. For the composite IPA, the group means for male counselees was significantly higher than the group means for female counselees.

#### IPA Category 1

Statistical data for counselee scores for IPA Category 1, "Seems Friendly," are presented in Table 29. The following  $F$ -ratios were computed: 0.09 for factor A, 0.57 for factor B, 0.16 for factor C, 0.01 for interaction AB, 0.81 for interaction AC, 0.03 for interaction BC, and 0.07 for interaction ABC. At the .05 level, there were no significant  $F$ -ratios.

For IPA Category 1, the null hypothesis was accepted for all factors and interactions. With respect to treatment, sex, counselor and all interaction effects, there were no differences, at the .05 level of significance, between the group means of counselees.

#### IPA Category 2

Statistical data for counselee scores for IPA Category 2, "Dramatizes," are presented in Table 30. The  $F$ -ratios were as follows: 1.80 for factor A, 1.77 for factor B, 7.91 for factor C, 0.69 for interaction AB, 1.36 for interaction AC, 1.04 for interaction BC, and 0.75 for the ABC interaction. The  $F$  obtained for factor C was significant at the .01 level. The  $F$ s for all other factors and interactions failed to reach the .05 significance level.

For Hypothesis 3c, the null was rejected. For counselor



Table 29  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 1 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	3.70	2	1.85	0.09
Sex (B)	11.57	1	11.57	0.57
Counselor (C)	6.70	2	3.35	0.16
A x B	0.59	2	0.30	0.01
A x C	65.74	4	16.44	0.81
B x C	1.15	2	0.57	0.03
A x B x C	5.52	4	1.38	0.07
Within (Error)	734.67	36	20.41	

Note.--IPA Category 1: "Seems Friendly."

Table 30  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 2 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	df	Mean square	<u>F</u>
Treatment (A)	21,008.59	2	10,504.30	1.80
Sex (B)	10,305.85	1	10,305.85	1.77
Counselor (C)	92,183.81	2	46,091.91	7.91**
A x B	8,070.37	2	4,035.19	0.69
A x C	31,721.41	4	7,930.35	1.36
B x C	12,168.48	2	6,084.24	1.04
A x B x C	17,505.63	4	4,376.41	0.75
Within (Error)	209,780.00	36	5,827.22	

Note.--IPA Category 2: "Dramatizes."

F (.01, 2, 30) = 5.39.

\*\*p<.01.

effect, at least two group means of counselees were significantly different. For Hypotheses 3a, 3b, 3d, 3e, 3f, and 3g, the null of no difference between group means was accepted for the effects of treatment, sex, and all interactions.

#### IPA Category 3

Table 31 contains a summary of statistical data for counselee scores for IPA Category 3, "Agrees." F-ratios were 0.49 for factor A, 1.88 for factor B, 3.78 for factor C, 0.60 for the AB interaction, 0.26 for the AC interaction, 1.18 for the BC interaction, and 0.35 for the ABC interaction. Only the F for factor C attained the .05 level of significance. No other factors or interactions yielded a significant F-ratio.

Hypothesis 3c was rejected. At the .05 level, for counselor effect, two or more group means of counselees were significantly different. There were no significant differences between group means for the effects of treatment, sex, and for all interactions. Hypotheses 1a, 1b, 1d, 1e, 1f, and 1g were accepted.

#### IPA Category 4

A statistical analysis of counselee IPA scores for Category 4, "Gives Suggestion," is found in Table 32. F-ratios were 1.57 for factor A, 0.19 for factor B, 15.81 for factor C, 0.59 for AB interaction, 0.06 for AC interaction, 0.19 for BC interaction, and 0.56 for the ABC interaction. Factor C was significant at the .01 level. For all other factors and interactions, the F-ratios failed to meet the .05 significance level.

Table 31  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 3 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	151.37	2	75.69	0.49
Sex (B)	289.35	1	289.35	1.88
Counselor (C)	1,160.70	2	580.35	3.78*
A x B	184.93	2	92.46	0.60
A x C	162.74	4	40.69	0.26
B x C	361.15	2	180.57	1.18
A x B x C	216.74	4	54.19	0.35
Within (Error)	5,528.00	36	153.56	

Note.--IPA Category 3: "Agrees."

F (.05, 2, 30) = 3.32.

\*p<.05.

Table 32  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 4 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	7.81	2	3.91	1.57
Sex (B)	0.46	1	0.46	0.19
Counselor (C)	78.48	2	39.24	15.81**
A x B	2.93	2	1.46	0.59
A x C	0.63	4	0.16	0.06
B x C	0.93	2	0.46	0.19
A x B x C	5.52	4	1.38	0.56
Within (Error)	89.33	36	2.48	

Note.--IPA Category 4: "Gives Suggestion."

$\underline{F}$  (.01, 2, 30) = 5.39.

\*\* $p < .01$ .

Hypothesis 3c was rejected. Two or more group means of counselees were significantly different with respect to counselor effect. Hypotheses 3a, 3b, 3d, 3e, 3f, and 3g were accepted. There were no significant differences between group means for treatment, sex, or for any factor interactions.

#### IPA Category 5

Table 33 contains the statistical data of counselee scores for IPA Category 5, "Gives Opinion." The following  $F$ s were obtained: 0.12 for factor A, 4.07 for factor B, 8.88 for factor C, 1.96 for AB interaction, 0.37 for AC interaction, 1.84 for BC interaction, and 1.20 for ABC interaction. The effects of factor C were significant at the .01 level. All other factor effects and interactions failed to reach the .05 significance level.

The null for Hypothesis 3c was rejected. At least two group means of counselees differed significantly for counselor effect. Accepted were Hypotheses 3a, 3b, 3d, 3e, 3f, and 3g. For treatment, sex, and all interactions, there were no significant differences between group means.

#### IPA Category 6

Statistical data of counselee scores for IPA Category 6, "Gives Information," are summarized in Table 34. The  $F$ -ratios were 3.56 for factor A, 2.64 for factor B, 1.80 for factor C, 0.58 for interaction AB, 0.80 for interaction AC, 0.35 for interaction BC, and 0.09 for interaction ABC. The  $F$  for factor A was significant at the .05 level. No other  $F$ -ratios were significant at  $p < .05$ .

Table 33

Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 5 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	80.15	2	40.07	0.12
Sex (B)	1,380.17	1	1,380.17	4.07
Counselor (C)	6,013.37	2	3,006.69	8.88**
A x B	1,328.44	2	664.22	1.96
A x C	501.07	4	125.27	0.37
B x C	1,246.78	2	623.39	1.84
A x B x C	1,620.78	4	405.19	1.20
Within (Error)	12,194.00	36	338.72	

Note.--IPA Category 5: "Gives Opinion."

$\underline{F}$  (.01, 2, 30) = 5.39.

\*\* $p < .01$ .

Table 34  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 6 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	2,117.15	2	1,058.57	3.56*
Sex (B)	785.85	1	785.85	2.64
Counselor (C)	1,067.70	2	533.85	1.80
A x B	345.59	2	172.80	0.58
A x C	950.52	4	237.63	0.80
B x C	206.81	2	103.41	0.35
A x B x C	102.07	4	25.52	0.09
Within (Error)	10,704.00	36	297.33	

Note.--IPA Category 6: "Gives Information."

$\underline{F} (.05, 2, 30) = 3.32.$

\* $p < .05.$



Hypothesis 3a was rejected. For treatment effect, at least two group means of counselees were significantly different at the .05 level. Hypotheses 3b, 3c, 3d, 3e, 3f, and 3g were accepted for no significant differences between counselee group means for sex and counselor factors and for all interaction.

Multiple comparisons were computed to compare the effects of treatments for factor A. For counselee scores for IPA Category 6, the results of the LSD test are presented in Table 35. Treatment means were 22.56 for  $A_1$ , 18.72 for  $A_2$ , and 33.50 for  $A_3$ . An LSD of 11.67 at the .05 level was obtained. Multiple comparisons were 3.83 for  $A_1$  and  $A_2$ , -10.94 for  $A_1$  and  $A_3$ , and -14.78 for  $A_2$  and  $A_3$ . For the comparison between treatment  $A_2$  and  $A_3$ , counselee group means differed at the .05 significance level. The comparisons between treatments  $A_1$  and  $A_2$  and between  $A_1$  and  $A_3$  were not statistically significant. Counselee responses to IPA Category 6 were greater for groups receiving no-labels than for groups receiving negative-labels.

#### IPA Category 7

The data for counselee scores for IPA Category 7, "Asks for Information," are summarized in Table 36. The obtained  $F$ -ratios were 8.32 for factor A, 13.46 for factor B, 17.75 for factor C, 7.32 for interaction AB, 8.52 for interaction AC, 5.06 for interaction BC, and 5.00 for interaction ABC. Except for the BC interaction, all factors and interactions of factors were significant at the .01 level. Interaction BC was significant at the .05 level.

Table 35  
 Multiple Comparisons of Treatment Means for  
 Hypothesis 3: Category 6 of IPA Scores  
 for Counselors

	Treatment Means	Multiple Comparisons
A <sub>1</sub> (Positive-labeled)	22.56	
A <sub>2</sub> (Negative-labeled)	18.72	
A <sub>3</sub> (No-labels)	33.50	
A <sub>1</sub> --A <sub>2</sub>		3.83
A <sub>1</sub> --A <sub>3</sub>		-10.94
A <sub>2</sub> --A <sub>3</sub>		-14.78*

Note.--IPA Category 6: "Gives Information."

LSD (.05) = 11.67.

\*p < .05.

Table 36  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 7 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	96.70	2	48.35	8.32**
Sex (B)	78.24	1	78.24	13.46**
Counselor (C)	206.37	2	103.19	17.75**
A x B	85.15	2	42.57	7.32**
A x C	198.07	4	49.52	8.52**
B x C	58.81	2	29.41	5.06*
A x B x C	116.30	4	29.07	5.00**
Within (Error)	209.33	36	5.81	

Note.--IPA Category 7: "Asks for Information."

$\underline{F}$  (.05, 2, 30) = 3.32.

$\underline{F}$  (.01, 2, 30) = 5.39.

$\underline{F}$  (.01, 1, 30) = 7.56.

$\underline{F}$  (.01, 4, 30) = 4.02.

\* $p < .05$ .

\*\* $p < .01$ .

For IPA Category 7, all seven null hypotheses were rejected. The group means of counselees were significantly different for treatment, sex, and counselor effects, and for all factor interactions.

Table 37 contains a summary of multiple comparisons of treatment means for counselee scores for IPA Category 7. Treatment means were 1.11 for  $A_1$ , 4.17 for  $A_2$ , and 3.67 for  $A_3$ . At the .05 level, an LSD of 1.63 was computed. Multiple comparisons were -3.06 for  $A_1$  and  $A_2$ , -2.56 for  $A_1$  and  $A_3$ , and 0.50 for  $A_2$  and  $A_3$ . Comparisons between treatments  $A_1$  and  $A_2$  and between treatments  $A_1$  and  $A_3$  were significant at the .05 level. There was no significant difference between treatments  $A_2$  and  $A_3$ .

For IPA Category 7, the group means of counselees who received negative-labels were greater than for groups who received positive-labels. Groups who received no-labels obtained greater means than did groups who received positive-labels. There was no significant difference between the means of groups who received negative-labels as compared to groups who received no-labels.

For factor B, sex, the mean for  $B_1$  was 4.185 and for  $B_2$  a 1.778 was obtained. With a significant  $F$ -ratio for factor B ( $p < .01$ ), the group means indicated a higher mean score for males than for females with regard to IPA Category 7.

The analysis of AB interactions for IPA Category 7 is summarized in Table 38. The group means for treatment and sex

Table 37

Multiple Comparisons of Treatment Means for  
Hypothesis 3: Category 7 of IPA Scores  
for Counselors

	Treatment Means	Multiple Comparisons
A <sub>1</sub> (Positive-labeled)	1.11	
A <sub>2</sub> (Negative-labeled)	4.17	
A <sub>3</sub> (No-labels)	3.67	
A <sub>1</sub> --A <sub>2</sub>		-3.06*
A <sub>1</sub> --A <sub>3</sub>		-2.56*
A <sub>2</sub> --A <sub>3</sub>		0.50

Note.--IPA Category 7: "Asks for Information."

LSD (.05) = 1.63.

\*p<.05.

Table 38  
 Multiple Comparisons of A x B Interactions for  
 Hypothesis 3: Category 7 of IPA  
 Scores for Counselees

Treatment	A x B Means		Multiple Comparisons		
	B <sub>1</sub> Male	B <sub>2</sub> Female	B <sub>1</sub> Male	B <sub>2</sub> Female	A Treatments
A <sub>1</sub> (Positive-labeled)	.89	1.33			
A <sub>2</sub> (Negative-labeled)	7.00	1.33			
A <sub>3</sub> (No-labels)	4.67	2.67			
A x B Interactions					
A <sub>1</sub> B <sub>1</sub> --A <sub>2</sub> B <sub>1</sub>			-6.11*		
A <sub>1</sub> B <sub>1</sub> --A <sub>3</sub> B <sub>1</sub>			-3.78*		
A <sub>2</sub> B <sub>1</sub> --A <sub>3</sub> B <sub>1</sub>			2.33*		
A <sub>1</sub> B <sub>2</sub> --A <sub>2</sub> B <sub>2</sub>				0.00	
A <sub>1</sub> B <sub>2</sub> --A <sub>3</sub> B <sub>2</sub>				1.33	
A <sub>2</sub> B <sub>2</sub> --A <sub>3</sub> B <sub>2</sub>				-1.33	
A <sub>1</sub> B <sub>1</sub> --A <sub>1</sub> B <sub>2</sub>					-0.44
A <sub>2</sub> B <sub>1</sub> --A <sub>2</sub> B <sub>2</sub>					5.67*
A <sub>3</sub> B <sub>1</sub> --A <sub>3</sub> B <sub>2</sub>					2.00

Note.--IPA Category 7: "Asks for Information."

LSD (.05) = 2.31.

\*p<.05.

interaction were .89 for  $A_1--B_1$ , 7.00 for  $A_2--B_1$ , 4.67 for  $A_3--B_1$ , 1.33 for  $A_1--B_2$ , 1.33 for  $A_2--B_2$ , and 2.67 for  $A_3--B_2$ . An LSD of 2.31 at the .05 level was computed.

The multiple comparisons of all AB interactions were the following values: -6.11 for  $A_1B_1--A_2B_1$  ( $p<.05$ ), -3.78 for  $A_1B_1--A_3B_1$  ( $p<.05$ ), 2.33 for  $A_2B_1--A_3B_1$  ( $p<.05$ ), 0.00 for  $A_1B_2--A_2B_2$  (not significant), 1.33 for  $A_1B_2--A_3B_2$  (not significant), -1.33 for  $A_2B_2--A_3B_2$  (not significant), -0.44 for  $A_1B_1--A_1B_2$  (not significant), 5.67 for  $A_2B_1--A_2B_2$  ( $p<.05$ ), and 2.00 for  $A_3B_1--A_3B_2$  (not significant).

For male counselees, the means for groups who received negative-labels or no-labels were significantly greater than for groups who received positive-label treatment. The means for male counselee groups who received negative-label treatment was greater than for male groups who received no-labels.

For female counselees, there were no significant differences between group means for the three treatments. For positive-label treatment and no-label treatment, there were no significant differences between male and female counselees. For negative-label treatment, the group mean for male counselees was significantly greater than the mean for female counselees.

#### IPA Category 8

A statistical summary for counselee IPA scores for Category 8, "Asks for Opinion," is provided in Table 39. The  $F$ -ratios were 0.83

Table 39  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 8 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	9.15	2	4.57	0.83
Sex (B)	1.19	1	1.19	0.21
Counselor (C)	91.70	2	45.85	8.28**
A x B	9.15	2	4.57	0.83
A x C	50.96	4	12.74	2.30
B x C	1.04	2	0.52	0.09
A x B x C	18.96	4	4.74	0.86
Within (Error)	199.33	36	5.54	

Note.--IPA Category 8: "Asks for Opinion."

$\underline{F}$  (.01, 2, 30) = 5.39.

\*\* $p < .01$ .



for factor A, 0.21 for factor B, 8.28 for factor C, 0.83 for the AB interaction, 2.30 for the AC interaction, 0.09 for the BC interaction, and 0.86 for the ABC interaction. For factor C, the  $F$  obtained was significant at the .01 level. The  $F$ -ratios for all other factors and interactions did not attain the .05 level of significance.

For Hypothesis 3c, the null was rejected. At least two counselee group means differed significantly for the counselor effect. The null for Hypotheses 3a, 3b, 3d, 3e, 3f, and 3g was accepted. There were no significant differences between group means for the effects of treatment, sex, or any interactions.

#### IPA Category 9

Table 40 contains the statistical data for counselee IPA scores for Category 9, "Asks for Suggestion." The  $F$ -ratios obtained were the following: 0.79 for factor A, 0.01 for factor B, 1.45 for factor C, 0.47 for interaction AB, 1.27 for interaction AC, 0.47 for interaction BC, and 0.97 for interaction ABC. No  $F$ -ratios were significant at the .05 level.

For all seven statistical hypotheses, the null was accepted. At  $p < .05$ , there were no significant differences between counselee group means for any factors or interactions.

#### IPA Category 10

Statistical data concerning IPA Category 10, "Disagrees," is presented in Table 41. The following  $F$ -ratios were obtained: 0.86 for factor A, 0.86 for factor B, 2.43 for factor C, 0.06 for interaction AB, 1.21 for interaction AC, 0.01 for interaction BC, and

Table 40  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 9 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	2.70	2	1.35	0.79
Sex (B)	0.02	1	0.02	0.01
Counselor (C)	4.93	2	2.46	1.45
A x B	1.59	2	0.80	0.47
A x C	8.63	4	2.16	1.27
B x C	1.59	2	0.80	0.47
A x B x C	6.63	4	1.66	0.97
Within (Error)	61.33	36	1.70	

Note.--IPA Category 9: "Asks for Suggestion."

Table 41  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 10 of IPA  
 Scores for Counselors

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	35.70	2	17.85	0.86
Sex (B)	17.80	1	17.80	0.86
Counselor (C)	100.70	2	50.35	2.43
A x B	2.37	2	1.19	0.06
A x C	100.30	4	25.07	1.21
B x C	0.26	2	0.13	0.01
A x B x C	18.07	4	4.52	0.22
Within (Error)	747.33	36	20.76	

Note.--IPA Category 10: "Disagrees."

0.22 for interaction ABC. At the .05 level, there were no significant F-ratios.

All hypotheses were accepted for Category 10. There were no significant differences between counselee group means for any factor or interaction.

#### IPA Category 11

Table 42 contains the statistical summary for counselee scores for IPA Category 11, "Shows Tension." The following F-ratios were obtained: 36.21 for factor A, 0.10 for factor B, 22.03 for factor C, 0.01 for interaction AB, 19.97 for interaction AC, 0.05 for interaction BC, and 0.09 for interaction ABC. The Fs obtained for factors A and C and for the AC interaction were significant at the .01 level. No other factors or interactions were significant at the .05 level.

Hypotheses 1a, 1c, and 1e were rejected as having significant differences between group means for treatment, counselor, and AC interaction effects. Hypotheses 1b, 1d, 1f, and 1g were accepted as having no mean differences between groups for the effects of sex and interactions AB, BC, and ABC.

The LSD test was performed to provide for Category 11 the effects of factor A treatment levels. Data for the multiple comparison of treatment effects are found in Table 43. The treatment means were 13.33 for A<sub>1</sub>, 60.39 for A<sub>2</sub>, and 22.67 for A<sub>3</sub>. An LSD of 11.89 at the .05 level was obtained. Results of the multiple

Table 42

Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 11 of IPA  
 Scores for Counselees

Source of variation	Sum of squares	df	Mean square	F
Treatment (A)	22,345.81	2	11,172.91	36.21**
Sex (B)	31.13	1	31.13	0.10
Counselor (C)	13,593.04	2	6,796.52	22.03**
A x B	8.48	2	4.24	0.01
A x C	24,650.41	4	6,162.60	19.97**
B x C	31.26	2	15.63	0.05
A x B x C	113.96	4	28.49	0.09
Within (Error)	11,108.00	36	308.56	

Note.--IPA Category 11: "Shows Tension."

$F (.01, 2, 30) = 5.39.$

$F (.01, 4, 30) = 4.02.$

\*\* $p < .01.$

Table 43

Multiple Comparisons of Treatment Means for  
Hypothesis 3: Category 11 of IPA Scores  
for Counselors

	Treatment Means	Multiple Comparisons
A <sub>1</sub> (Positive-labeled)	13.33	
A <sub>2</sub> (Negative-labeled)	60.39	
A <sub>3</sub> (No-labels)	22.67	
A <sub>1</sub> --A <sub>2</sub>		-47.06*
A <sub>1</sub> --A <sub>3</sub>		-9.33
A <sub>2</sub> --A <sub>3</sub>		37.72*

Note.--IPA Category 11: "Shows Tension."

LSD (.05) = 11.89.

\*p<.05.

comparisons of treatments were as follows: -47.06 for  $A_1$  and  $A_2$ , -9.33 for  $A_1$  and  $A_3$ , and 37.72 for  $A_2$  and  $A_3$ . The .05 significance level was achieved for comparisons between  $A_1$  and  $A_2$  and between  $A_2$  and  $A_3$ . The comparison between  $A_1$  and  $A_3$  was not significant at  $p < .05$ .

For IPA Category 11, the group means of counselees who received a negative-label were significantly greater than groups who received positive-labels or no-labels. There was no significant difference between group means for counselees who received positive-labels and those who received no-labels.

#### IPA Category 12

The statistical summary of counselee scores for IPA Category 12 are presented in Table 44. The following  $F$ -ratios were obtained: 4.89 for factor A, 1.00 for factor B, 0.44 for factor C, 0.29 for the AB interaction, 0.71 for the AC interaction, 0.34 for the BC interaction, and 0.07 for the ABC interaction. The  $F$  value obtained for factor A was significant at the .05 level. No other factors or interactions were significant at  $p < .05$ .

Hypothesis 1a was rejected. The difference between group means for treatment effect was significant at .05. Hypotheses 1b, 1c, 1d, 1e, 1f, and 1g were accepted as having no significant differences between group means for sex, counselor or interaction effects.

Table 45 contains the multiple comparison of treatment means

Table 44  
 Analysis of Variance of a Completely Randomized  
 3 x 2 x 3 Factorial Experiment for  
 Hypothesis 3: Category 12 of IPA  
 Scores for Couselees

Source of variation	Sum of squares	<u>df</u>	Mean square	<u>F</u>
Treatment (A)	235.44	2	117.72	4.89*
Sex (B)	24.00	1	24.00	1.00
Counselor (C)	21.33	2	10.67	0.44
A x B	14.11	2	7.06	0.29
A x C	68.22	4	17.06	0.71
B x C	16.44	2	8.22	0.34
A x B x C	6.44	4	1.61	0.07
Within (Error)	866.00	36	24.06	

Note.--IPA Category 12: "Seems Unfriendly."

$\underline{F}$  (.05, 2, 30) = 3.32.

\* $p < .05$ .



Table 45  
 Multiple Comparisons of Treatment Means for  
 Hypothesis 3: Category 12 of IPA Scores  
 for Counselors

	Treatment Means	Multiple Comparisons
A <sub>1</sub> (Positive-labeled)	0.67	
A <sub>2</sub> (Negative-labeled)	5.28	
A <sub>3</sub> (No-labels)	1.06	
A <sub>1</sub> --A <sub>2</sub>		-4.61*
A <sub>1</sub> --A <sub>3</sub>		-0.39
A <sub>2</sub> --A <sub>3</sub>		4.22*

Note.--IPA Category 12: "Seems Unfriendly."

LSD (.05) = 3.32.

\* $p < .05$ .

for counselee scores for IPA Category 12. The treatment means were 0.67 for  $A_1$ , 5.28 for  $A_2$ , and 1.06 for  $A_3$ . The LSD at the .05 significance level was 3.32. The values obtained for treatment comparisons were: -4.61 between  $A_1$  and  $A_2$ , -0.39 between  $A_1$  and  $A_3$ , and 4.22 between  $A_2$  and  $A_3$ . Significant at the .05 level were the differences between  $A_1$  and  $A_2$ , and between  $A_2$  and  $A_3$ . There was no significant difference between  $A_1$  and  $A_3$ .

For Category 12, the group means for counsees receiving a negative-label were significantly greater than for counsees who received positive-labels or no-labels. The comparison of means between positive-label groups and no-label groups was not significant.

#### Summary

The results of the experimental investigation were reported. The study was concerned with the effects of counselor reputation and previous performance upon counselee attitude and behavior in a group situation.

An attitude questionnaire was used to determine counselee attitude. Counselee behavior was independently analyzed by three judges according to the revised IPA (Bales, 1970). Correlation coefficients were computed as a measure of IPA interjudge reliability.

For the IPA scoring of counselors and male counsees, all rs were positive and reached at least the .05 significance level. For female counsees, all rs were positive; however, only the

comparison between Judges two and three yielded a significant  $r$  at the .05 level.

Hypothesis 1 stated that there are no significant differences between counselors for groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling with respect to measured behavioral interaction analysis. The ANOVA was computed for each of the 12 IPA categories and a single composite category.

With the exception of IPA categories 9 and 10, there were differences, at the .05 level, between group means of counselors for the counselor effect. At  $p < .05$ , there were no significant differences with regard to treatment, sex, or interaction effects. Hypothesis 1 was rejected only with respect to counselor effect for 10 IPA measurements.

Hypothesis 2 stated that there are no significant differences between groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling on a measure of client attitude toward the effectiveness of the counseling experience. The ANOVA was computed for each of the five items of the attitude questionnaire.

For Hypothesis 2, the responses to item three were significantly different for the sex factor. It was found that female counselees, significantly more frequently than male counselees, indicated a desire to participate in other counseling groups. No other results were significant. With the exception of item three, the

hypothesis was accepted.

Hypothesis 3 stated that there are no significant differences between males and females on any elicited responses to counseling experiences that have a "positive-labeled reputation" or a "negative-labeled reputation." The ANOVA was computed for each IPA category and for a composite category.

Group means for Hypothesis 3 were significantly different for treatment effects with respect to IPA Categories 6, 7, 11, and 12, and a composite category. For sex effects, there was a significant difference for Category 7 and the composite category. Responses to Category 7 also indicated the following significant interactions: treatment and sex, treatment and counselor, sex and counselor, and treatment, sex, and counselor. On the basis of counselor effects, there were significant differences between group means for IPA Categories 2, 3, 4, 5, 7, 8, 11, 12, and the composite category.

## Chapter 5

### Examination of the Results

Chapter 5 contains an examination of the results of the study. Included are the following topics: (a) Summary, (b) Conclusions, and (c) Recommendations.

#### Summary

Chapter 1 dealt with the theoretical background, statement of the problem, hypotheses, and the purpose of the investigation. Also included were the definitions of terms and the limitations of the study.

The purpose of the study was to determine the effects of counselor reputation and previous performance upon counselee interaction and attitude concerning a group counseling experience. In an attempt to measure the consequences of positive and negative communications concerning counselor reputation, dissimilar verbal labels were introduced to counseling groups prior to similar counseling experiences.

The investigation was based upon the theoretical discussion of acquired distinctiveness of cues (Miller & Dollard, 1941; Dollard & Miller, 1950). Dollard and Miller have suggested that labels may affect cue-producing responses which, in turn, affect emotional reactions to labeled stimuli patterns. It was suggested that the application of dissimilar labels to similar conditions would increase the possibility of discriminatory responses.

Chapter 3 described the methodology of the study. Included

were the three experimental designs, independent variables, dependent variables, and the criterion measures. Also presented were descriptions of the population, sample selection, procedures, and the methods of statistical analysis.

The subjects participated in a single, 30-minute group counseling session which was audio recorded. Group counseling sessions were structured and, except for treatment labels which were provided by a confederate, a peer of the subjects, were similar for all groups.

The subjects were 54 male and 54 female junior high school students who were randomly selected from a single school population of 1,017 and then randomly assigned to one of nine groups of equal numbers and sexes. One of three treatments was randomly assigned to each group. Treatments consisted of positive-labeled reputation counseling ( $A_1$ ), negative-labeled reputation counseling ( $A_2$ ), and the absence of labels ( $A_3$ ). Each of three counselors who had been selected by the experimenter were randomly assigned to three groups representing each kind of treatment.

Independent scoring of the nine, audio-taped counseling protocols was implemented by three judges according to the revised Interaction process analysis (Bales, 1970, p. 92). On the basis of composite scores for counselors, male counselees, and female counselees coefficients of correlation were computed. These measures were purported to provide an indication of interjudge reliability.

Hypothesis 1 stated that there are no significant differences

between counselors for groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling with respect to measured behavioral interaction analysis. The research design was a completely randomized 3 x 3 factorial design with factor A, treatment, and factor C, counselor. The dependent variable consisted of counselor scores for the 12 categories and a composite of all IPA categories. Statistical analyses of the data were accomplished by the analysis of variance procedure for each of the 13 categories.

Hypothesis 2 stated that there are no significant differences between groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling on a measure of client attitude toward the effectiveness of the counseling experience. The hypothesis was tested according to a 3 x 2 x 3 factorial design with factor A, treatment; factor B, sex; and factor C, counselor. The dependent variable consisted of counselee responses to a five-item attitude questionnaire. For each item, the dichotomous responses were subjected to the ANOVA procedure. Previous research has indicated the appropriateness of ANOVA for the analysis of dichotomous data (Lunney, 1970).

Hypothesis 3 stated that there are no significant differences between males and females on any elicited responses to counseling experiences that have a "positive-labeled reputation" or a "negative-labeled reputation." The hypothesis was tested according to a 3 x 2 x 3 factorial design that was similar to the design for

Hypothesis 2. The independent variables were identical to those for Hypothesis 2; however, the dependent variable consisted of counselee scores for the IPA. ANOVA was computed for each of the 12 IPA categories and the composite of IPA categories. The least significant difference test was used to provide multiple comparisons of treatment effects for all significant F-ratios. Because the counselor factor was built into the design for control purposes, no multiple comparisons were computed for factor C or for any interaction that involved factor C.

The .05 level of significance was the standard for all statistical measures. The .05 level was deemed sufficiently low to contribute to tenable conclusions.

Three limitations to the investigation were stipulated:

a. There were differences among subjects concerning verbal skills, past social learning, and the influences of previous exposures to counselors;

b. There were individual differences among the counselors;  
and

c. The random selection of subjects was limited to a single school population.

Although all limitations that were known were minimized whenever possible, consideration of the results should be made in light of the limitations.

#### Conclusions

The interjudge reliability of the IPA scoring was an essential



element in the reliability of the primary criterion measurement and, therefore, was basic to the integrity of the investigation. The coefficient of correlation was computed for nine different combinations of the three judges and their composite scores for counselors, male counselees, and female counselees. Significant  $r$  values indicated the reliability of all judges for the scoring of counselors and male counselees. Not as well established was the interjudge reliability for the scoring of female counselees. A significant  $r$  value was obtained for Judges two and three. Although all correlations were positive, Judges one and two and Judges one and three were slightly below the .05 significance level for the scoring of female counselees.

The results of the tests for interjudge reliability indicated that Judge one was relatively inconsistent with Judges two and three but only with respect to the scoring of female counselees. After a discussion of the discrepancy, which failed to reveal any misunderstanding of the IPA or its application, the experimenter deemed the IPA scores adequate for the study.

#### Hypothesis 1

Hypothesis 1 was accepted for treatment and sex effects. For treatment and sex factors, there were no significant differences between counselors for groups receiving "positive-labeled reputation" counseling and those receiving "negative-labeled reputation" counseling. For counselors, Hypothesis 1 was rejected for all IPA categories with the exception of Categories 9 and 10. For all other IPA categories, there were significant differences among counselors

for groups receiving "positive-labeled reputation" counseling and those receiving "negative-labeled reputation" counseling.

Although there were differences in the verbal interaction of counselors as measured by the IPA, the sources and nature of the differences were not statistically analyzed. The counselor factor was built into the research design primarily for experimental control. A secondary purpose was to learn of any existence of verbal differences among counselors rather than to discover the sources of possible differences. Since the three counselors were selected by the experimenter, there was no population to which the sources of counselor differences could be generalized.

The counselors were unaware of the nature of the experiment or of the existence of any treatment labels. The measured differences in counselor interaction were considered to be a possible reflection of the verbal interaction of the counselees as produced by the introduction of positive or negative statements concerning the reputation of the counselor. It is possible that labeling produced counselee behaviors that were transferred to the counselor and resulted in measurable differences among counselors concerning IPA scores.

Since there was no random selection of counselors, the differences in counselor behavior could also be attributed to individual differences such as gender, level and type of training, or any combination of characteristics. Counselors one and two were females who were colleagues in a doctoral program. Counselor three,

a male, had earned a Master of Science degree in counseling and held a position as counselor in a university counseling and testing center.

It is concluded that there were statistically significant differences between two or more counselors in measures of IPA counselor interaction. The sources or reasons for the differences are not considered relevant to the basic purposes of the study and, thus, remain a topic for conjecture.

#### Hypothesis 2

For Items 1, 2, 4, and 5 of the counselee attitude questionnaire, Hypothesis 2 was accepted. There were no significant differences between male counselees and female counselees for groups receiving "positive-labeled reputation" counseling and groups receiving "negative-labeled reputation" counseling with regard to the following statements: Item 1, "The group session was very helpful."; Item 2, "The counselor did a good job."; Item 4, "I would like to work with this same counselor again in a group setting."; and Item 5, "I would like to work with this same counselor as an individual on a one-to-one basis."

Hypothesis 2 was rejected only in regard to Item 3 of the counselee attitude questionnaire. There were significant differences between male counselees and female counselees for groups receiving positive and negative labels with regard to Item 3 which stated that, "I would like to participate in other counseling groups." The significantly higher mean score for female counselees indicated that female counselees more frequently than male counselees responded in

the affirmative to Item 3.

Except for inferences from Item 3, attitude differences between male and female counselees were not significant. The general conclusion was that the treatment labels elicited no differences between males and females that could be measured by the counselee attitude questionnaire. Client attitude toward the effectiveness of the counseling experience was unaffected by treatment or by counselor factors.

### Hypothesis 3

Hypothesis 3 was first tested on the basis of composite IPA scores. For the composite IPA category, Hypothesis 3 was rejected. There were significant differences between counselees for treatment, sex, and counselor effects as well as for treatment and counselor interaction. The composite IPA was statistically analyzed on the assumption that the results would be indicative of the degree of verbal interaction without regard for the nature of verbal material which would have been evidenced by the 12 IPA components.

Multiple comparisons of treatment means indicated significant differences between groups who received positive-labels and those who received negative-labels. Significant differences were also obtained between groups who received negative-labels and those who received no-labels. It was concluded that verbal interaction of counselees for the composite IPA was affected by the introduction of negative-labels. Those counseling groups who heard negative statements concerning the reputation and past performance of the counselor

responded with verbal participation to a significantly greater degree than did those counselees who heard positive-labels or no-labels prior to counseling.

An analysis of the sex factor indicated that male counselees engaged in significantly more verbal interaction than did female counselees. The differences between males and females distorted the findings concerning the single factor of treatment. Consideration of both the treatment factor and the sex factor led to the conclusion that male counselees were more greatly affected by negative-labels than were females.

Significant differences between counseling groups for treatment and counselor interaction were obtained with regard to composite IPA scores. Specific treatment labels interacted with specific counselor levels to produce significant  $F$ -ratios. This resulted in the conclusion that verbal interaction was closely related to treatment labels as well as to the gender of the counselees. The interaction between treatment and counselor, though significant, was not analyzed. Because the counselor factor was controlled by the experimental design, the unknown sources of A x C interaction did not produce distortion of the conclusions concerning treatment and sex factors.

Hypothesis 3 was also tested on the basis of each of the 12 IPA categories. For Categories 1, 9, and 10, Hypothesis 3 was accepted. There were no differences between groups for treatment, sex, or counselor factors. The conclusions were that labeling had

no measurable effects on counselees with respect to their friendliness, disagreement, or requests for suggestion.

Hypothesis 3 was rejected for counselor effects that were significant for IPA Categories 2, 3, 4, 5, and 8. On the basis of the five categories, there were significant differences between counseling groups for two or more counselors. It was concluded that dramatization, agreement, giving suggestion, and both giving and asking for opinion varied significantly for counselees according to which of the three counselors was a member of the group.

Significant group differences for treatment effects were found in regard to IPA Category 6, "Gives Information." Multiple comparisons indicated that for the measurements concerned with information giving, verbal interaction was significantly more pronounced for groups who received no-labels than for those who heard negative-labels prior to counseling. For comparisons between positive-labels and negative-labels, and between positive-labels and no-labels, there were no significant differences between counseling groups. It was concluded that groups who had heard no labels prior to counseling provided information more freely than did groups who heard negative statements about the counselor. Conversely, those groups who heard negative-labels tended to contribute relatively little information in the counseling session.

On a measure of IPA Category 7, "Asks for Information," there were significant differences between counseling groups for treatment, sex, and counselor factors and for interactions between treatment and

sex; treatment and counselor; sex and counselor; and treatment, sex, and counselor. Multiple comparisons of treatment means indicated that counseling groups who received negative-labels asked for information more frequently than did groups who received positive-labels. Groups who received no-labels asked for information with greater incidence than did those groups who received positive-labels. There was no significant difference between groups who received negative-labels and those who heard no-labels.

In the presence of negative-labels, counselees tended to ask for information. Although causes and effects cannot be precisely differentiated, the treatment effects differed according to the sex factor. Male counselees obtained significantly higher mean scores than did female counselees. Male counselees asked for information more frequently when under the influence of negative-labels than when influenced by positive-labels or no-labels. Males who received the no-label treatment asked for information more frequently than did those who heard positive-labels. The lowest incidence of information seeking by male counselees was for groups who received positive-labels; however, the males who sought information were those who heard negative-labels prior to counseling.

An analysis of IPA Category 7 for female counselees resulted in treatment labels that produced no significant differences between groups. It appears that the effects of labeling were dependent upon the sex of the subject. Groups who received positive-labels or no-labels did not differ for males and females; however, when

negative-labels were introduced, males asked for information with greater frequency than did females.

Counselee responses to IPA Category 11, "Shows Tension," resulted in significant differences between group means for treatment and counselor factors and for treatment and counselor interaction. Multiple comparisons of treatment levels indicated that counseling groups who received negative-labels displayed greater tension than did groups who received positive-labels or no-labels. There was no difference between positive-label and no-label groups.

The significant F-ratio for the counselor factor and for the interaction of treatment and counselor suggested that certain combinations of treatments and counselors were more significant than others. Multiple comparisons of the interaction and the counselor factor were not computed. Nevertheless, it is possible to draw the conclusion that, regardless of sex, counselees showed tension in group counseling sessions that had been preceded by negative statements concerning the reputation and past performance of the counselor.

Scores for IPA Category 12, "Seems Unfriendly," resulted in significant differences between groups for treatments. Multiple comparisons of treatment means indicated that the verbal interaction of counselees who received negative-labels prior to counseling was significantly more unfriendly than the interaction of those who received positive-labels or no-labels. There was no significant difference between groups who heard positive-labels and those who received counseling in the absence of labels.



In general, Hypothesis 3 was rejected. There were significant differences between males and females on their responses to counseling experiences that had a "positive-labeled reputation" or a "negative-labeled reputation." On a measure of composite IPA, the degree of interaction was greater for males than for females. In respect to remarks that were classified as asking for information, the amount of interaction was greater for males than for females.

#### Recommendations

The most consistent finding regarding the investigation was that counselor reputation and past performance tended to operate as an influence upon counselee interaction in a group-counseling situation. It is likely the results may be explained more adequately by evaluating counselor as well as treatment and sex effects. There are also questions to be answered concerning the specific conditions and consequences of verbal interaction. It is, therefore, recommended that future studies of the effects of labeling in counseling be conducted. In future studies of this nature, it is further recommended that counselors as well as clients be randomly selected from related populations.

Investigative results imply that overt client behavior is directly influenced by labeling and that clients, in turn, elicit measurable counselor behaviors. The question remains unanswered as to whether counselee behaviors exert influence or are influenced by the individual characteristics of counselors. Also unanswered is whether measurable differences among counselors result from individual

characteristics or from a reflection of overt client behavior. This determination of cause and effect has certain inherent problems; nevertheless, future research seems justified.

The factors inherent in any counseling interaction are varied and complex. Counselor reputation and past performance are two of these factors. The understanding of these variables is practical as well as intellectual, for labeling is intrinsic to human experience. While emphasis has historically been placed upon the relationships, interactions, and goals of counseling, an understanding of the effects of labeling could enhance the effectiveness of the counseling process.

## Appendices

## Appendix A

## Structure for Group Counseling

Please adhere to the following structure. It is of utmost importance that all groups be conducted with as much similarity as possible, therefore, do not deviate from these guidelines.

a. Thank you all for coming here today. I hope that this session will be enjoyable and helpful. The recorder on the table has been turned on. What I am saying is being recorded and I would like your permission to continue to record. The tape will be strictly confidential and will be used in another city to study and learn about group processes. Does anyone object if I leave the recorder running? [ Brief Pause ] If not, we shall go on with what we have planned.

b. The purpose of our meeting today is to discuss some of the concerns about the future that face junior high school students. Our purpose is to help each other solve some common concerns and problems. I am here as a member and leader of your group but I shall not tell you what to say. You are completely free to talk about any of the things that concern you about your future. Each of us must really listen to each other and try to understand how the other person feels. So that we will feel free to express our feelings, please do not discuss anything that is said here with others. Suppose we start here at my left and have each person say his name. Okay, now I suppose everyone has some concerns about what the future has in store. Suppose we have some discussion.

Someone might start off by telling what is your greatest fear or worry concerning what you will be doing a year or two from now?

c. From here on, the counselor merely guides the session as required. Try to keep the discussion going with one at a time talking. The counselor's job is not to talk excessively, but to facilitate discussion of feelings concerning the topic at hand.

d. When the 25-minute signal is given, you will have 5 minutes to terminate the session according to the following structure:

Well, I see that our time is just about over. Does anyone have anything else he wishes to say before we close? [ Allow for remarks or questions. ] I would like to thank you for participating in this group today. If you have any questions or comments concerning this group experience, or if you wish to continue to participate in groups of this kind, please feel free to see your regular counselor in the guidance department. I must leave, but Miss Harris would like to talk with you before you return to classes.

e. Before you go I have a sheet with a few questions I would like you to answer. Please answer the questions very truthfully. Your answers will be anonymous so do not put your name on the paper. Just circle the answer that you feel most closely expresses how you feel concerning what you have just experienced.

f. [ Take up attitude survey. ] Thank you again for coming here. I will be in contact with you in the near future.

## Appendix B

## Instructions to Judges

The data consist of tape recordings of nine group discussions. Each of these groups consists of a counselor and 12 junior high school students. In each group there are six students of each sex.

These discussions are to be coded according to the attached instructions by Bales. Please note that these are a revision of the original 12 category IPA. Attached also are the coding sheets. You will note that each of these indicates the order in which you are to code the tapes.

Although we are to code these tapes independently, we should agree on some ground rules.

a. Bales stresses that Categories 1, 2, 11, and 12 are to be given priority over other categories.

b. All acts which constitute discussions of people or events outside the immediate group are to be placed in Category 2. Much of the discussion on these tapes is of what students think they will be doing in the future. It is most proper to categorize such acts as outside the immediate group, especially if the student becomes emotional.

c. One major change incorporated in this revision of the IPA is that "all" acts of joking or laughter are placed in Category 11 as showing tension.

Appendix C  
Scoring Tally Sheet

Tape I.D.:

Scoring Order:

Judge:

Category	Counselor	Male	Female
1. Seems Friendly	_____	_____	_____
2. Dramatizes	_____	_____	_____
3. Agrees	_____	_____	_____
4. Gives Suggestion	_____	_____	_____
5. Gives Opinion	_____	_____	_____
6. Gives Information	_____	_____	_____
7. Asks for Information	_____	_____	_____
8. Asks for Opinion	_____	_____	_____
9. Asks for Suggestion	_____	_____	_____
10. Disagrees	_____	_____	_____
11. Shows Tension	_____	_____	_____
12. Seems Unfriendly	_____	_____	_____

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