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The Effects of Instant Visual Feedback of Congruence in Group Counseling

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THE EFFECTS OF INSTANT VISUAL FEEDBACK OF CONGRUENCE IN GROUP COUNSELING

by

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Problem

The purpose of this study was to determine the effects of immediate feedback of congruence by subjects in group counseling. Measures of outcome included the Tennessee Self-Concept Scale (TSCS), Fundamental Interpersonal Relations Orientations-Behavior (FIRO-B), the Tentative Scale for the Measurement of Genuineness and a time measure of the relative amount of time that the focus of attention within the groups was perceived to be congruent, incongruent or neutral.

Procedure

There were two studies with twenty-three subjects in the first study and twenty-five subjects in the second study. The subjects were volunteer university students who were randomly assigned to one of four groups in their respective studies. The membership of the groups also included two facilitators who contributed on-light time and genuineness scale data.

The use of a specially constructed instant feedback device constituted the independent variable in the experiment. Group A focused on congruence and received feedback from the device. Group B focused on congruence but did not receive feedback from the device. Group C did not use the feedback device in any way. Group D served as the control group and did not mean for group sessions. The subjects in groups A

and B pressed green, white and red buttons in the instant feedback device which signified congruence, neutrality or incongruence. There were eight one and one-half hour sessions for groups A, B and C.

Results

The following significant findings resulted from the investigation:

1. There was a significant difference on one of the twenty-two TSCS variables when the subjects from both studies were combined into four groups on the basis of treatment after pre-test differences were covaried out. The true/false ratio variable was significantly different at the .05 level. Dunn's "c" demonstrated that group A was significantly higher than groups C and D on this variable.

2. There was a significant difference on one of the six FIRO-B variables in the first study. Expressed affection was significantly different at the .01 level after pre-test differences were covaried out. Dunn's "c" demonstrated that group C was significantly higher than groups A and B at the .05 level.

3. There was a significant difference on one of the six FIRO-B variables in the second study. Wanted inclusion was significantly different at the .05 level after pre-test differences were covaried out. Utilizing Dunn's "c", group A was significantly higher than group C at the .05 level.

4. There was a significant difference at the .001 level when the groups from both studies were analyzed separately on the Tentative Scale for the Measurement of Genuineness. Dunn's "c" demonstrated that

group A from the first study was significantly higher than group B of the first study, group A from the first study was significantly higher than group C of the second study, group B from the first study was significantly higher than group C of the first study, group C from the first study was significantly higher than group C of the second study and group B from the second study was significantly higher than group C of the second study.

5. There was a significant difference for the Tentative Scale for the Measurement of Genuineness data from the second study. Group C was significantly higher than groups A and B in this study.

6. There was a significant difference for the amount of green light time when the four groups from both studies were analyzed separately. Group A from the first study was significantly higher than group A of the second study.

7. There was a significant difference on the white light times when the four groups from both studies were analyzed separately. Group A from the first study was significantly higher than group A of the second study and group B from the first study was significantly higher than group A of the second study.

CHAPTER I

INTRODUCTION

Background of the Problem

The growth of the group movement has now reached great proportions. Words such as encounter, sensitivity training, T-group and group counseling and psychotherapy give some idea of the breadth of this movement. Churches, businesses, schools and mental health facilities are some of the settings for this phenomenon. Length of sessions range from an hour a week for a few weeks to marathon sessions lasting continuously for several weeks. Thus, one fact about the group movement today is its variety. It is from this variety that researchers are attempting to glean some data about this largely unexplored phenomenon.

Rogers (Burton, 1970) has said that the encounter movement is the most significant social movement of our times. While this may be an overstatement of the actual importance of this phenomenon, there is a growing feeling among many people familiar with traditional psychotherapy that this is something new and profound.

In regard to group therapy, Mowrer (1964, p. iii) has written: "Now there is a growing realization, both in lay and professional circles, that the crucial element in 'mental health' is the degree of 'openness' and 'communion' which a person has with his fellow men."

Rogers (1970, p. 7), in discussing some of the common threads running through the research on group phenomena, stated: "There is a

development of feedback from one person to another, such that each individual learns how he appears to others and what impact he has in his interpersonal relationships." It was Rogers' contention that feedback is one of the positive ingredients in group interaction.

The research on feedback covers a broad area. Feedback in programmed instruction (Anderson, Kulhavy and Ardre, 1971), feedback in small group communication (Schediel and Crowell, 1966), video and audio tape feedback (Markey, Frederickson, Johnson and Julius, 1970) and feedback for self-directed change (Kolb, Winter and Berlew, 1968) are some of the topics that are found in this area. It can be seen that feedback is a concept that has been researched using many different methodologies. It is more difficult to find relevant research in the specific area of instant feedback in group counseling. Hill and Hill (1970) reported one study dealing with the use of an instant feedback device similar to the device used in this experiment. Unfortunately, no objective measures of outcome were available from their study.

Rogers' encounter concepts, Mowrer's discussion of "openness," Egan's criticism of the lack of organized research in the area of group phenomena and the research on feedback, all lead into the problem that was researched in this dissertation.

Statement of the Problem

The purpose of this study was to determine the effects of instant feedback of congruence by subjects in group counseling. Measures of change included the Tennessee Self-Concept Scale (TSCS), Fundamental Interpersonal Relations Orientations-Behavior (FIRO-B), the Tentative Scale for the Measurement of Genuineness and the amount of on light time on the instant feedback mechanism.

Four groups were used in this research. Group A used the instant feedback device with the lights visible, group B used the instant feedback device with the lights hidden, group C met for group sessions but did not use the instant feedback device and group D did not meet for group sessions and served as the control group. The experiment was replicated and the two experiments were labeled the first study and the second study.

Null Hypotheses

1. There is no significant difference among the four groups on the TSCS variables.

2. There is no significant difference among the four groups on the FIRO-B variables.

3. There is no significant difference among the three treatment groups on the Tentative Scale for the Measurement of Genuineness.

4. There is no significant difference between the two treatment groups that used the instant feedback mechanism on the amount of on-light time.

Delimitations of the Problem

This study involved subjects who volunteered to take part in a group counseling experiment. All subjects were students at the University of North Dakota. All subjects in groups A, B and C were involved in a counseling group that met eight sessions for approximately one and one-half hours each session.

Limitations

The assumption was made that the TSCS, the FIRO-B and the Tentative Scale for the Measurement of Genuineness were reliable and valid measures of change in a group counseling setting.

Definition of Terms

Group Counseling.--This term is defined as a special kind of group experience in which personal and interpersonal issues are the main topics for the group. Emphasis is placed on discussion of here and now feelings and thoughts by group members.

Feedback.--This term is defined as the process by which a person acquaints another person with their own characteristic ways of feeling and reacting.

Instant feedback.--This term is operationally defined as the perceived effect, on the individual and the group, of the meaning of the different lights on the feedback mechanism.

Facilitator.--This term is defined as that leader-member or leader-members whose function is to facilitate group interaction and personal and interpersonal growth. It is assumed that he have knowledge and experience in group settings.

Group Member.--The group member is defined as a person who has agreed to the basic goals of the group and agrees to attend the meetings.

Contract.--This term is defined as that agreement on basic overall issues that each member must agree to before starting in the encounter group.

On-light time.--This term is defined as the amount of time that the green, white or red lights were on in the instant feedback device. The on-light time served as a measure of congruence.

Congruence.--This term is defined as that condition wherein a person is freely and openly his attitudes and feelings. It is assumed to be synonymous with genuineness.

Organization of the Study

The remainder of the study is organized in the following manner: Chapter II contains the review of the literature relevant to the topics and instruments used in this study; Chapter III contains the design of the study; the analysis of the data is included in Chapter IV and Chapter V contains the discussion, conclusions and recommendations of the study.

CHAPTER II

REVIEW OF THE LITERATURE

Numerous research studies have been reported in the areas explored in this dissertation. It is the purpose of this chapter to review the literature pertinent to the experiment that was performed.

Group Studies

The field of group counseling, sensitivity training, laboratory training and encounter groups is extremely broad and sometimes confusing. An attempt has been made in this review to critically select those articles which have the greatest relevance to the topic investigated. The critical selection process began by attempting to include only those studies that seemed sound in their design or conclusions. Departures from this are noted in the review. The review begins with a broad overview of the subject and progressively narrows the topics discussed to the specific variables studied.

Mahler (1971), in a review of the most important concerns of group counseling, makes the observation that research and evaluation efforts have seriously lagged behind the practice of group work in almost all areas.

Rogers (1969, p. 27), in a statement on the status of the group movement today, writes: "In the rich wild tapestry that is the intensive group experience, one looks in vain for reliable or familiar designs. If such exist, we remain a good stout distance from discerning them."

He goes on to state that it would be surprising if we could discern those things that are really important or valuable about the group experience. In less than twenty-five years (Rogers, 1969, p. 27), "It has grown until it has permeated every part of the country and almost every social institution."

The difficulty in discerning patterns in this wild tapestry is evident even in the proliferation of terms that have come to describe the group process. While it is probably more important to experience the group process than it is to define it, there is a need here to define some of the terms that sometimes obfuscate the issues of primary importance in this area.

Egan (1970) has made some excellent distinctions among some of these terms. He sees laboratory training as a genus, of which sensitivity training and other interpersonal growth groups are species. Egan, while admitting the difficulty in defining laboratory training, does list several characteristics of this phenomenon. Learning through actual experience in a small group where there is a climate of experimentation is one of the first criteria for a laboratory training group. The group size must be small enough so that communication of feelings can take place among all participants. The leader, usually called a trainer or facilitator, does not act like an authoritarian figure. His role is more of a guide to focusing on the process that is taking place. The group members try to reflect on what is happening in the group and to give feedback to each other. The concept of feedback is one that has especial importance for this study and is one that will receive greater emphasis in this review.

The laboratory training group is also characterized by relatively high levels of ambiguity and supportiveness for the group members. Schein and Bennis (1965) give several goals of laboratory training. These include self-insight, understanding the group process, understanding interpersonal operations and developing the ability to diagnose individual and group behavior. With the exception of the goal of understanding the group process, their goals appear to have broad support among group counseling theorists.

Egan's (1970, p. 10) previously mentioned framework for the group phenomena places sensitivity training as a species of laboratory training. He defines sensitivity training as "a particular kind of laboratory learning in which personal and interpersonal issues are the direct focus of the group." While some may find this definition unduly restrictive, it is the framework within which the groups of this experiment operated.

There are many other types of groups that have been studied. The range appears to cover areas from group guidance to group psychotherapy. Groups in Guidance (Glanz and Hayes, 1967) contains an excellent survey of this broad field. Some of the topics covered in their book include human behavior in groups, task oriented groups, human relations training, educational and vocational planning in groups and group counseling and psychotherapy. However, since the purpose of this review is to survey the types of groups that were investigated in this study, the broad field will not be covered. Instead, an effort was made to select those articles that had most relevance to this study and that appeared to have at least a minimum level of good experimental design.

Supportive of Rogers' previously stated assertion about the difficulty in discerning patterns in group movement, is an article published

by the American Group Psychotherapy Association (1967). It suggested that group psychotherapy research until 1967 tended to be unsystematic, diffuse and unpredictable in it's conceptual and methodological vacillations. The article called attention to: (1) difficulties in accurately identifying meaningful pre and post design, (2) the contribution of the systematic pre-planned use of operant reinforcement as a therapeutic tactic, (3) the complex methodological issues in observation and analysis of the interaction process in small groups and (4) the role of therapy-analog situations such as computer simulations, etc. These comments and suggestions outline some of the pressing issues involved in the design of research on groups. The stated diffusion and lack of systematization in group research also adds considerably to the difficulty involved in reviewing the pertinent literature.

The goals of groups can be looked at from several different points of view. One specialized view is that held by the therapists belonging to the American Group Psychotherapy Association. Hartley and Rosebaum (1963) surveyed eighty-one group therapists who attended a 1960 institute of this association. No interprofessional differences were found in the ranking of the importance of criteria for successful group psychotherapy. The top three criteria were: (1) improved inter-personal functioning in and out of the group, (2) self-acceptance, self-confidence, self-reliance and (3) flexibility or the ability to cope with and adapt to a variety of experiences. The sample surveyed in this study may or may not have been representative of the population of group therapists as it only included those who were in attendance at this conference and also chose to answer the questionnaire.

From the patients point of view, Wedel (1957) surveyed data from eighteen sensitivity training laboratories. She found that participants tended to change their opinions about groups and to show an insignificant change in the amount of insight. Reaction questionnaires from 333 of 477 participants indicated that a significant number of participants see themselves as changed in many specific ways as a result of this training. Luchins (1960) reinforced the use of this technique by recommending the use of appraisals of subjects behavior outside of the group. These appraisals are to be done both by the subject himself and with those he comes in contact.

Selection of testing instruments for the evaluation of the goals of a group appears to be one of the most arduous tasks in the design of a good experiment of this type. Many different testing instruments have been utilized in the assessment of change as a result of group interaction. In addition to the tests utilized in this dissertation, which will be reviewed later in depth, there are several other tests or methods that have been used. Several of these are mentioned here.

Gazda and Ohleson (1961, p. 63), after discussing their study on short term group counseling in which the strict statistical interpretation of the results yielded little, wrote:

> Finally there is the sobering thought that the instruments used in this study or in similar research for that matter, may not be capable of detecting the change in adjustment that essentially normal persons make during counseling.

Gazda and Ohleson's opinion on the matter of testing instruments does appear to have some basis in fact. Several studies that were supportive of their hypothesis will follow.

Ohleson and Johnson (1962) used projective tests to evaluate the outcomes of group counseling. Clinicians were asked to decide which protocols were written pre, post and follow-up to group counseling. The experiment yielded negative results. A difficulty in interpreting these results is present because of the types of population surveyed. The subjects were drawn from a population of gifted underachievers and from a population of masters degree students. Analysis of both these groups together may have contributed to the reported outcome. An adaptation of the Jourard Self-Disclosure Questionnaire was used for assessment purposes in a small therapy group (Weigel and Warmath, 1968). The authors concluded that the instrument appeared to lack the sensitivity to show changes in self-disclosure or in differences in small groups. A higher attrition rate in one of the groups was reported and may have contributed to the reported results. In another study, Massarik and Carlson (1960) used the California Personality Inventory before and after forty-eight hours of sensitivity training. Only slight changes were found on the various scales. However, the changes were in the expected direction of increased spontaneity and slightly lowered overall control.

In contrast, a method that did appear to have some merit was a sociometric test constructed by Pepinsky, Seigel and Van Atta (1952). The items on the test were scaled at equal intervals along the operationally defined dimension of effectiveness in group participation. The Group Participation Scale used as a sociometric test in four fraternity groups yielded: (1) almost the entire range of scores as defined operationally by the scale, (2) a more normalized distribution of scores than seems to be provided by most sociometric tests and (3) a relatively high agreement, among fraternities sampled, of group members in choosing

individuals. They concluded that this instrument would appear to have use in group counseling situations. The study accomplished it's goal which was to select operationally defined dimensions that could be described in terms of degree.

The remainder of the literature on group studies will be divided into five categories. First some general studies will be reported, and then some studies dealing with the use of groups with youth. Thirdly, studies will be reviewed dealing with groups in graduate training. The fourth category will include several articles on the use of groups in the business world. The final area deals with group techniques for special problems such as phobic disorders or use with blind subjects. These studies should give a broad overview of what Rogers meant when he talked about the analogy between the state of the art in groups and a wild tapestry. An attempt was made in this review to critically select those studies which included at least a minimal level of good experimental design.

General Studies

The studies in the general category do not have much commonality except that they are useful in broadly surveying the field of group research. Feelings as opposed to ideational content was the subject dealt with in the first study. Cleland and Carnes (1965) used the Custodial Mental Illness Scale and the Self-Disclosure Questionnaire to assess pre-post changes in groups of student nurses. Two psychologist leaders alternated roles emphasizing either feelings or ideas. All groups decreased significantly in custodialness, but the hypothesized differencial effects for feelings and ideas did not prove significant

until the dimensions of confiding and involvement were introduced. This study has important implications for groups that wish to encourage involvement and trust. It would appear that concentration on feelings would raise the probability of attaining these goals.

Another study with implications for the attainment of goals is one performed by Goldman, Bolen and Martin (1966). Their study explored some of the conditions under which groups operate. They found that groups where the highest group performance and most participant enjoyment occurred had two factors in common: (1) all the subjects could expect equal rewards, and; (2) there was not a leader who could expect an additional reward. This study dealt with the type of group known as a task oriented group. The experimental design contained good controls over extraneous variables.

The relative effectiveness of group counseling as compared to individual counseling has been a question of some interest to researchers. Aronson (1964), in a non-experimental article, discussed some of the indications for the use of individual as compared to group psychotherapy. He suggested that individual psychotherapy be used in the initial phases of treatment as a preparation for group therapy. In addition, he felt that group therapy gave the therapist the best opportunities to observe the phenomena of transference. While this article certainly has an intuitive validity about its suggestions, there is definitely a need for empirical studies on this question.

Three experimental evaluations of individual versus group activities yielded mixed results. Cahoon (1965) compared the effectiveness of verbal reinforcement in individual and group interviews. While this is not an actual counseling situation, it does have implications for

group counseling in general and the experiment performed for this dissertation in particular. Subjects were interviewed either in a group or individually where they were reinforced during a sentence completion task for making responses construed to be "work oriented." Reinforcement was found to be more effective than the absence of reinforcement and the individual interview was more effective than the group. However, no generalization of performance was found in a later work situation.

In a second study, Krumboltz and Thoreson (1964) randomly assigned 192 seventh graders to individual or group counseling situations using behavioral techniques. Among other findings, the study found that the group and individual settings were about equally effective. However, the criterion of how much educational and vocational information was sought by the students, limits the generalizability of these results to other types of group counseling not in the vocational area. Wright (1963) also compared the two types of counseling. Four criteria were used to measure the relative effectiveness of individual and multiple (group) counseling in the interpretation of tests to students. The measures were evaluated pre and post and were: (1) accuracy of self-rating, (2) acquisition of information about tests, (3) feasibility of vocational choice and (4) counselee satisfaction. Significant post-counseling gains were demonstrated by both the individual and multiple counseling participants but not by a non-counseled control group. Few post-counseling differences of any significance existed between individual and group procedures. Again the generalizability of these results seems difficult because of the rather specific nature of the study.

Groups With Youth

The second category of groups reviewed concerned itself with the problems of youth. A common assumption of some professionals who work with youth is that the behavior of parents has a great deal to do with the way their children act. Shaw and Tuel (1965), in an attempt to define objectives for guidance services, investigated the possibilities of using the group approach with parents. Preliminary findings of this three year study showed that the approach was feasible both from the point of view of the pupil personnel specialist and the degree of parent participation.

A study dealing with attempts to work with parents was reported by Povin, Stanowski and Wildowski (1969). Parents of underachieving students had been meeting in weekly group counseling sessions of one and one-half hours for one year. It was then decided to hold a marathon session and to videotape the proceedings which lasted fifteen hours. As is typical of some research in this area, there were no reports of the results of more traditional change measuring instruments. However, the participants all reported experiencing an emotionally intense experience and some reported behavioral change.

Perkins and Wicas (1971) used bright underachieving ninth grade boys as the subjects in a study of the effects of group counseling on academic achievement. About half of the boys mothers also participated in groups. They found significant increases in posttreatment grades and in self-acceptance. This was true even when counselors worked only with mothers. However, the authors did report that the gains that had

been demonstrated by the students were not sustained in a follow-up five months after counseling had stopped.

Several other studies have also been reported which deal with attempts to work directly with academic underachievers themselves. Ninth graders were the subject of one study (Broedel, Ohleson, Proff and Southard, 1960) of this sort. Four groups of ninth graders were treated in small groups and were evaluated in terms of grades earned, scores on an achievement test battery, responses to a picture story test and observations made by the clients, their parents and the members of the observer teams. Results showed that there were no significant changes in the clients reported perceptions of their own behavior, but descriptions by others indicated that significant behavioral change had occurred. The other non-significant results may have been due to the shortness of time and the depth of the underlying problems usually expected in underachievers. Findings in two related studies showed a significant decrease in test taking anxiety (Kondas, 1962) and a significant increase in grade point average (Ofman, 1964) following group counseling. Speilberger, Weitz and Denny (1962) also reported significantly higher grades for group counseled college students who were high in anxiety. Only about half of the students who were classified as anxious volunteered for the study, so the results may more likely be generalizable to anxious subjects who are willing to volunteer. A final study on academic achievement (Dickenson and Truax, 1966) showed that the experimental group receiving group counseling showed greater improvement in grade point average than matched non-counseled controls. A further finding was that those who had received the highest therapeutic conditions, warmth, empathy and genuineness, tended to show the greatest improvement.

Another problem area that frequently arises in school situations is conduct problems of students. Two studies on the use of group counseling with adolescents labeled conduct problems or delinquents yielded contrasting results. When several personality and academic measures were observed before and after an eight week group counseling program for behavior problem adolescents (Laxer, Quarter, Ismor and Kennedy, 1967), there were no significant differences between the counseled groups and the non-counseled controls. In contrast, Webb and Elkenberry (1964) compared delinquents with non-delinquents and found that non-delinquents were significantly more in agreement before and after group discussion, and that delinquents increased more in agreement as a consequence of discussion. The differential results may be attributable to the different populations sampled.

The sometimes painful transition from high school to college was the problem selected by Clements (1966) for research. The experimental group received six small group counseling sessions just prior to the end of their senior year in high school and again immediately after the beginning of their freshman year in college. The control group did not receive any treatment. Anxiety level was measured after each of the series of group counseling sessions and both times the counseled groups showed a significantly lower anxiety level. The author concluded that group counseling appeared to be an effective way to lower the anxiety level for transitional adolescents. Various long term follow-up measures would have increased the value of this study.

Groups in Graduate Training

The third category reported deals with the use of group counseling in graduate education or with people already in a profession. In a

paper read at the 1968 meeting of the American Personnel and Guidance Association, Mills (1968) expressed concern over the relative lack of emphasis in counselor training programs on non-cognitive, non-quantifiable aspects of human interaction. He stated that since clients are sometimes non-objective, counselors should learn to be comfortable with that part of humanity which is non-objective. The paper suggests a three point plan for implementing corrective measures: (1) supervision for divergent responses, (2) modeling techniques and (3) sensitivity training. Hurst and Fennes (1969) attempted to use activity in sensitivity training as a predictor of success as a counselor. At the end of a sixteen hour marathon session for pre-practicum counselors, the co-leaders ranked all the group members in regard to perceived counseling effectiveness. They were again ranked following a counseling practicum experience. The rankings were significant at the .05 level leading the authors to suggest that sensitivity training groups have potential value in predicting success in counseling if used with the usual intellective indices.

In a study attempting to determine if self-reports changed when prospective counselors took part in group counseling, Apostal and Muro (1970) used the Edwards Personal Preference Schedule and the Motivation Analysis Test to assess change. There were no significant differences on the Edwards Personal Preference Schedule scales and only two of the twenty-five Motivation Analysis Test scales were significant. The trainees also were not more able to recognize psychological reports of themselves than the control group. The authors concluded that group counseling for counselor trainees could not be justified on the basis of expected personality changes in the trainees, but that there might be other justifications. A possible improvement in this study might have been to

control the group leadership variable by having the same leader for all three groups.

Because of training and perhaps personality differences researchers have come to expect differences of opinion to exist between teachers and counselors on a variety of issues. Shaw (1967) compared the degree of congruence which exists between counselors and teachers perceptions of group counseling. Correlational techniques revealed that counselors perceptions of rapport paralleled members reactions to the helpfulness of the sessions. Counselors perceived positive outcomes only when there was little difference of opinion among members about recommending group participation to their peers. Teachers felt that group discussions had been helpful when the counselor had not lectured. There was also a positive relationship between counselor perceptions of the impact of group counseling and teacher feelings that the group had been helpful. There was, therefore, a high degree of congruence between teachers and counselors in regard to groups.

Groups in the Business World

The fourth category of research had to do with the use of groups in the business community. In a laboratory training program evaluation at General Electric, Valiquet (1964) explored the use of groups in a management training program. A random sample of sixty subjects in a laboratory training program were matched with a group of controls who did not receive the training. Results indicated that significantly more subjects with laboratory training changed in the direction of the training goals. Using five describers (peers, supervisors and subordinates) the laboratory trained subjects evidenced significantly more

verified change (two or more describers concurring). Participants changed most in the areas of democratic leadership, risk taking, adaptability and insight into self and role. This study appeared to be quite well designed.

A study conducted by the Small Aircraft Engine Department of General Electric and Boston University Human Relations Center (Harrison and Oshry, 1965) explored the personal characteristics of forty-seven T-group participants. The authors concluded that members became significantly more emotionally expressive and open.

In another study on an inservice training program, Underwood (1965) compared fifteen experimental subjects in a training program with fifteen controls who did not receive training. They were compared using change reports submitted by observer associates. Changes were classified as interpersonal, personal and nonpersonal and were plotted over time. The experimental group made more interpersonal and personal changes than the controls. In regard to time, the greatest number of changes occurred at the end of and just after the laboratory training experience. Follow-up data would have been highly desirable.

Groups for Special Problems

The final category of studies surveyed is in regard to special problem areas. These are groups in which a specific problem plays a significant role in the conduct of the group. A variety of problems are surveyed.

Gunn (1968) found that geriatric patients receiving group treatment were reported as receiving significantly more anti-depressant drugs, were reported as less disturbed and were granted more home leave. The

unclear point about this report seems to be whether the increase in drugs was a result of the group interaction or a cause for the other changes in patient behavior.

In-patient alcoholics were studied (Hoy, 1969) in order to determine the effects of eight weeks of group psychotherapy. The 16PF was used and the only significant change reported was a decrease in tension.

In another study, performed in a different vein, Lazarus (1961) described the adaptation of Wolpe's "systematic desensitization" techniques to the group treatment of phobic disorders. The therapeutic effects of group desensitization were compared with the more conventional forms of interpretive group psychotherapy on matched pairs of phobic subjects. Of the 18 subjects who were treated by direct group desensitization, 13 recovered in a mean of 20.4 sessions. After 9.05 months, 3 subjects had relapsed. With traditional therapy in a mean of 22 sessions with 17 subjects, only 2 subjects were sympton free. The 15 subjects who had not recovered were then treated by group desensitization and after a mean of 10.0 sessions, 10 of them had recovered. The effects of group desensitization seem quite amply demonstrated by the results of this study.

Blind children were the subject of an extremely interesting study (Manaster and Kuchuris, 1968) of the use of nonverbal techniques, such as the blind walk, with the handicapped. Unfortunately, objective indices of change were not available for this report. The two therapists used the techniques to produce a greater depth of involvement in a shorter amount of time. They concluded that this appeared to be a more effective method of conducting groups than the traditional purely verbal methods.

The reduction of racial prejudice through group techniques was the subject of the final study (Rubin, 1967). The hypothesis was tested that an individual's level of anomy and changes in self-acceptance during laboratory training would have an interactive effect on acceptance of others. There was substantial support for the hypothesis, and the author concluded that sensitivity training has the theoretically predictable but indirect effect of reducing racial prejudice.

This survey of the group literature gives some evidence of the breadth and diversity of research on groups. The group phenomenon appears to be not only widespread, but it also appears that research may be beginning to explore some of the basic issues involved. Burton, writing in Encounter (1970, p. 8), states: "Encounter groups are now becoming so prevalent that they will soon constitute a secularized psychotherapy for everyman." And again (1970, p. 6): "Encountering seems to be the counterrevolution to the denigration of the person in our times, and the need to bring the person back into center focus."

Egan (1970, p. 371), summarizing part of his extensive research in the area of small groups, states:

> The evidence we have indicates that the laboratory is a powerful force for behavioral change, but it also indicates that we have an imperfect understanding of the sources of its power and of ways to channel it into constructive change. An enlightened and integrated process-outcome research program is essential if laboratory programs are to become growthful vehicles of personal and cultural change.

The next four sections of this literature research will cover the concepts measured and the particular instruments utilized to measure the concepts.

Self-Concept Literature

It is the purpose of this part of the review to survey those studies that are relevant both to self-concept research and the group phenomenon. This section begins with a generalized review of self-concept in groups and concludes with a review of the literature in regard to the particular instrument used in this study.

> Behavioral scientists, what ever their particular field of interest, find it necessary to formulate some description of the individuality of the behaving organism. The term most often used for this description is that of the self (Viney, 1969, p. 349).

Thus begins an article which traces the history of the concept of self from Plato until 1935. The concept of self has been defined differently by many disparate theoretical orientations, but the common thread throughout much psychological research and philosophical exploration has been the need to define this aspect of human individuality. An attempt will be made here to survey relevant portions of the literature in regard to self-concept and its measurement. An emphasis is placed upon self-concept research as it relates to the group process.

Rogers and Dymond (1954), in a study that appeared to be without an adequate control group, suggested that the primary changes occurring in client centered counseling were changes in self-concept rather than behavior. Butler (1960), in his analysis of Q-sort data measuring adequacy of clients self-concepts, found evidence of non-random positive and negative changes in self-concept resulting from counseling.

Neurotics were the subjects in a study of the effects of counseling on self-concept (Shlien, Masak and Dreikurs, 1960). There were significant positive changes in self-concept for neurotics receiving counseling, but no changes in a control group of untreated neurotics. Truax

and Wargo (1966a) gave pre and post treatment personality and behavioral measures to 160 hospitalized patients receiving relatively high levels of warmth, empathy and genuineness and obtained significant differences on Q-sort measures of self-concept, the Welsch Anxiety Index, the MMPI scales of Mf and Sc and in time spent out of the hospital during a one year follow-up. In another study (Schuldt and Truax, 1968), a population of hospitalized mental patients, institutionalized juvenile delinquents and psychoneurotic outpatients were administered self and ideal-self-concept sorts on an indirect evaluation of the client-centered hypothesis that all clients, even severly disturbed ones, have the ability to be self-directive. The findings showed that the subjects ideal-self-concepts were more highly correlated with measures of adjustment than their self-concepts. There was some difficulty in obtaining valid ideal-self Q-sorts from the mental patient sample and this must be considered a limitation of the study. Another study (Mann, 1968), on the effect of group counseling on educable mentally retarded boys self-concepts in school, found some changes in the subjects. The experimental group met once a week for twelve weeks in group counseling while the control group met for the same period in a library study session. The experimental group scored significantly higher on the Children's Self-Concept Scale, had a greater reduction in anxiety as measured by the Children's Manifest Anxiety Scale and received higher teachers ratings for reading, arithmetic and deportment. There were no significant differences between groups on The Way I Feel About Myself Scale or on attendance.

Studies have been performed on the self-concept of students from elementary schools through bachelors degree. McBride (1967) conducted

an experimental investigation to determine if exposure to counseling, motivation techniques, enrichment activities or a combination of these caused changes in the self-concepts of disadvantaged children. The Combs School Apperception Test was administered after twelve sessions of the particular treatment. The group experiencing a combination of group counseling, motivation and enrichment activities showed the most significant changes.

Talley (1968) used a Q-sort to infer pre and post self and ideal-self-concepts of Negro eighth grade students in group counseling. Social class did appear to be a variable in predicting movement toward congruence in Negro children. The higher social classes tended to move toward congruence and the lower classes toward incongruence. Questions could be raised on this study in regard to Rogers' theory that higher levels of warmth, empathy and congruence on the part of the therapist leads to positive change in the client. The results of this study may be attributable to a differential attitude of the counselor based on social class of the client.

A fifty-one item Q-sort was used in a comparison of the self-concepts and ideal-self-concepts of grade ten matriculation and non-matriculation students in Canada (Herman, 1969). Subjects sorted the items on an eleven point scale having a normal distribution. The results were that there were no significant differences between self and ideal-self-concepts of matirculation and non-matriculation students.

Bunt (1968) investigated the relationship between the level of ego identity an adolescent is judged to have achieved and the discrepancy between how the adolescent views himself and how he perceives others as seeing him. The subjects were divided into an ego diffuse group and a

strong ego identity group with ratings from teachers. The advisability of using teachers for this rating should be investigated further. When the Self-Concept Minus Others Concept Rating Inventory was then administered to the students, a positive relationship was found between ego identity as judged by teachers and self-concept as measured by the testing instrument. A test battery in another study on adolescent females (Cole, Oetting and Miskimins, 1969) provided measures of the concepts, "Me as I am Today" and "My Ideal-Self." A control group was compared to a group led by professionals and a group led by community volunteers. Pre and post measures of self-concept, ideal concept and anxiety were compared. The subjects in the professionally led groups appeared to undergo the most marked change. It is unclear from the report how the subjects were placed in the two treatment groups or why there were only five subjects in the group led by professionals and nine subjects in the group led by volunteers.

Education, business and professional training have also been areas for the study of self-concept. Burke and Bennis (1961) studied changes in perception of self and others during human relations training. Actual-self, ideal-self and self as rated by others were measured before and after human relations training. The perceived actual-self and the perceived ideal-self were much closer to each other at the end of the training. This congruence is attributed more to changes in the perceived actual-self than to changes in the perceived ideal-self. Members self-perceptions and the perceptions of others became more similar largely as a result of changes in how others were perceived rather than changes in the actual-self. No control group was used in this study. Carson and Loken (1963) attempted to replicate and improve the Burke and

Bennis study. One of the groups they studied tended to support the previous findings. However, the group that had control measures taken on it showed very few differences following training.

The conclusions from three evaluations studies (Gassner, Gold and Snadowsky, 1964) of three day human relations training programs were that participants perceptions of the phenomenal field are more likely to change than perceptions of the phenomenal self. The authors suggested that previously reported studies showing changes in the phenomenal self may be caused by reactions to the instrument rather than the effects of training as shown by the accompanying control group increases. However, the method of choosing the control group leaves open the possibility that the groups may have differed initially. Analysis of covariance would have been desirable to lessen this possibility.

Sherwood (1965) investigated the relationship between self-identity and social environment in a natural experiment at the 1961 N.T.L. summer training labs. The major proposition was that an individual's self-identity (and his self-evaluation) is dependent upon his subjectively held version of his peer groups actual rating of him. Changes in self-identity were found following a pattern which depended upon the differential importance of various peers for the individual, the extent to which peer perceptions were communicated and the individuals degree of involvement with the group. There were several problems of experimental design in this study which were due to the research being performed in a natural setting. French, Sherwood and Bradford (1966) had participants in a management training conference fill out a semantic differential assessing themselves at the beginning of the conference, the end and ten months later. Findings were that the greater the amount of

feedback, the greater the change in self-identity and that the lower a person's self-evaluation on a dimension, the greater the change in self-identity along that dimension. Self-identity continued to change after the conference. The follow-up method that was used in this study added information that usually is not seen in research on groups.

Counselors in training were the subject of the next study (Bertoch, 1969). The purpose was to determine if there was a significant difference between the values and self-concept patterns of counselors in training when related to the counseling theory they espoused. The Counseling Concept Instrument was found to be a reliable measure for distinguishing counselors according to their theoretical orientations. Self-concept was significantly different for clinical psychologists, vocational counselors and educational counselors. Values and theoretical patterns were also different.

A theoretical construct was the impetus for the performance of the next study reviewed (Backman, Second and Pierce, 1963). Interpersonal congruency theory suggested that the greater the number of significant other persons who were perceived to define an aspect of self congruently, the greater the resistance to change. This hypothesis was tested by each subject choosing a self-ascribed trait that he believed five significant others generally attributed to him and a self-ascribed trait he believed that did not. Strong pressure was exerted toward changing these traits by means of a false personality assessment. Serious ethical questions are raised by the methodology of this study. Greater change was found in low consensus traits than in high consensus traits.

Tennessee Self-Concept Scale Literature

The instrument used in this dissertation for the measurement of self-concept was the Tennessee Self-Concept Scale (TSCS) by Fitts (1965). The manual and additional reference lists give over 200 references for the Scale. The manual also gives information in regard to the validity and reliability of the instrument and the scales involved. The clinical and research form of the TSCS contains the following scales: the self-criticism score (SC), positive scores (P), variability scores (V), distribution score (D), time score, true-false ratio (T/F), net conflict scores, total conflict scores, some empirical scales and the number of deviant signs score. A sample of relevant studies from the reference lists was examined. Kuntz (1967) used the Minnesota Counseling Inventory and the TSCS in an evaluation of the effects of short term group counseling with non-conforming adolescents. Twenty-five significant changes were found between pre-test and post-test scores on the two scales. Seventeen of the changes were within the experimental groups, two within the Hawthorne group and six within the control group. Ten of the eleven changes on the TSCS indicated a less idealistic self-concept. The experimental group was significantly lower than the other two groups on the identity scale of the TSCS and lower than the control group on the total self-concept scale of the TSCS.

Davis (1969) found the small group counseling produced significant changes on the TSCS suggesting improvement in the counselees social adjustment and behavior in the classroom. The TSCS was used in another study (Collins and Burger, 1969) to compare the self-concepts of twenty-seven inner city and thirty suburban students matched for age, race and

I. Q. Suburban students were found to be significantly higher on seven of the nine scales.

Lamb (1969) attempted to determine the consequence of directive and client-centered counseling techniques with individuals demonstrating internal and external reward expectancies. The TSCS, the Personal Orientation Inventory and the Dogmatism Scale were the measuring instruments used. A directive counselor and a client-centered counselor each had two groups, one of which was internally oriented and the other externally oriented. The findings were that the externally oriented individuals experienced significantly more positive self-concept change in client-centered counseling than externally oriented individuals in directive group counseling. The conclusion was that client-centered group counseling was more effective than directive counseling in facilitating positive self-concept change.

Crites (1965), in a test review of the TSCS, suggested that the Scale to a considerable extent fulfills the need for a measurement of self-concept which has the characteristics of simplicity for the subject, wide applicability, good standardization and multi-dimensionality in its description of the self-concept. The validity data were noted to be promising. Vacchiano and Strauss (1968) also found results which lend support to the construct validity of the test.

The manual (Fitts, 1965) is the source for the psychometric data of the instrument, with information on the norms, reliability and various types of validity. The reliability data is based on a test-retest with sixty college students over a two week period. Test-retest reliability coefficient for the major scores ranged from .60 to .92.

Several types of validity are discussed in the manual (Fitts, 1965). Content validity was determined by having seven clinical psychologists select valid items. An item was not selected unless there was unanimous agreement by the judges as to its correct classification.

The second type of validity dealt with the instruments ability to discriminate between groups. Research would suggest that groups which differ in psychological aspects should also differ on tests. Discrimination on the basis of psychological status was demonstrated in a study comparing 369 psychiatric patients with the 626 non-patients in the norm group. The manual concludes (Fitts, 1965, p. 17): "These demonstrate highly significant (mostly at the .001 level) differences for almost every score that is utilized on the Scale." It was also found to discriminate within patient groups.

Correlation with other personality measures was also used as another way to assess the construct validity of the Scale. In regard to the MMPI, the conclusion is (Fitts, 1965, p. 24): "It is apparent that most of the scores on the Scale correlate with MMPI scores in ways one would expect from the nature of the scores." Data are also available for comparison with the Edwards Personal Preference Schedule.

Another validity criteria should be the ability to detect changes under particular conditions. The manual gives detailed evidence for this criterion under conditions such as stress and psycho-therapy.

It would appear from the evidence cited that the TSCS is a reliable and valid instrument for the measurement of self-concept. There is evidence to suggest that the instrument has the ability to detect change in counseling and psychotherapy clients.

FIRO-B-Literature

Schutz, author of Joy: Expanding Human Awareness (1967), has attempted to develop a theory to explain and measure interpersonal behavior. FIRO: A Three Dimensional Theory of Interpersonal Behavior (Schutz, 1958) is the primary source for the positing of this theory. It includes an explanation of the basic theoretical constructs, a measuring instrument based on the constructs and a formal presentation of Schutz's theory of interpersonal behavior. In addition, a manual (Ryan, 1970) for the clinical interpretation of FIRO-B also is available.

In a summary of his theory, Schutz writes (FIRO, 1958, p. 200):

> There are three interpersonal need areas, inclusion, control, and affection, sufficient for the prediction of interpersonal behavior. Orientations which an individual acquires toward behavior in these areas are relatively invariant over time. Compatibility of two or more persons depends on (a) their ability to satisfy reciprocally each others interpersonal needs, (b) their complementarity with respect to originating and receiving behavior in each need area, (c) their similarity with respect to the amount of interchange they desire with other people in each area.

And again (Schutz, FIRO, 1958, p. 200):

> Every interpersonal relation follows the same general developmental sequence. It starts with inclusion behavior, is followed by control behavior and, finally affection behavior. This cycle may recur. When the relation approaches termination it reverses direction, and investment from the relation is withdrawn in the order affection, control, and inclusion. From these postulates it is theoretically possible to predict the course of a relation, if we know the interpersonal orientations of the individual members of the relation and the interpersonal description of the circumstances under which they will interact.

Douglas (1961, p. 543), in a book review of FIRO, states:

> Schutz has tried to show that the three primates--inclusion, control and affection--which are measured by the questionnaire, assume dominance in a sequential phase-shift of group, as well as individual and cultural development and dissolution.

The article suggests that Schutz fails to adequately face the question of the entire range of interpersonal behavior while making assertions of such. Another review has essentially the same view of the book. Barko's (1960) major criticism is that Schutz tries to fit the entire field of psychology to his theory. The reviewer continues that FIRO-B is the key measuring instrument for this theory, saying that the fact that this instrument leads to prediction of interaction among people makes it unique.

Some of the studies using FIRO-B will be reviewed next. Special emphasis will be placed upon those studies dealing with groups. Borg (1960) explored the degree to which a person's role in a small group problem solving seminar can be predicted from a battery of group administered tests. FIRO-B and other tests, which were factor analyzed, yielded four factors, assertiveness, power orientation, rigidity and aggressive nonconformity. It was concluded that prediction of certain roles and behavior patterns in small group activities can be achieved. It is difficult to evaluate the effectiveness of FIRO-B from the results of this study.

Vraa (1971) reports a study designed to determine if the inclusion scores on the FIRO-B were related to subjects participation in groups, ability to communicate in groups, attitudes, feelings and respect for other group members. Among other findings, he reports that the wanted inclusion scale of FIRO-B was significantly related to group membership. The author concluded that findings of this study were not consistent with Schutz's theory that interpersonal relations begin with need for inclusion.

In an article on birth order and need for affiliation (Connors, 1963), results were found to be consistent with the hypothesis of a linear continuum of affectional deprivation which goes from only child (least deprivation) to second born child (most deprivation). FIRO-B and the Thematic Apperception Test were the instruments used. The article states that FIRO-B scores appear to be measuring, at a verbal level, the manner in which a person views affection in interpersonal relationships.

Fiske (1960) had peers in a group rate the variability of each others behavior in the group setting. The results correlated with several tests including FIRO-B. Low variability was significantly correlated with the two inclusion scales of the FIRO-B.

In an extremely complex experiment, Smith (1966) tested Kelman's theory of learning. Among other things, the results showed that FIRO-B demonstrated the greatest favorable change and highest interpersonal awareness in the "internalizing learning pattern," with a data-oriented climate and people oriented trainer style.

A study on college training groups (Baumgartel and Goldstein, 1967) found only two significant correlations when the AVL Study of Values and FIRO-B were compared. The Study of Values was used to measure individual values and FIRO-B measured interpersonal need orientation. The two significant correlations were that highly valued members had higher control scores on the FIRO-B and lower religious scores on the AVL Study of Values. Members also increased in their wanted control scores and decreased in their wanted affection scores on the FIRO-B. A control group was not used in this study.

Schutz and Allen (1966) studied the changes made by seventy-one participants during and after the 1959 Western Training Laboratory in Human Relations. FIRO-B was used to measure a person's expressed and desired inclusion, control and affection in interpersonal relations. It was administered at the beginning, the end and six months after the laboratory. Data suggested that participants changed during the lab and continued to initiate and effect change after the lab. Also, the lab tended to change people selectively. That is, dominant people became more submissive and submissive people more dominant. The control group in the study may not have been directly comparable to the experimental groups, but this would not offset the ability of FIRO-B to detect changes within the experimental groups.

Psychometric information on the FIRO-B is found in Chapter Four of Schutz's book (FIRO, 1958). FIRO-B is described as the key measuring instrument in the development of Schutz's theory. There were two main reasons for the development of the instrument (Schutz, 1958, p. 58):

> (1) to construct a measure of how an individual acts in interpersonal situations, and (2) to construct a measure that will lead to the prediction of interaction between people, based on data from the measuring instrument alone.

The test attempts to measure how a person behaves rather than feels. The six FIRO-B scales are wanted and expressed inclusion, control and affection. Concurrent validity is measured by demonstrating how well test scores correspond to concurrent criterion performance. Studies are presented in regard to an investigation of FIRO-B and political attitudes, FIRO-B and occupational choice and FIRO-B and conformity behavior. The study comparing FIRO-B with political attitudes concluded (Schutz, 1958, p. 72): "The result of this study is very encouraging

for the hypothesis that interpersonal relations orientations are significantly related to specific political attitudes." Three of the four predicted relationships were significant at the .05 level or better.

The occupational choice study compared the entire freshmen classes at Harvard and Radcliffe and one course at the Harvard Business School with sixty-one graduate students in training for industrial leadership. The study concluded (Schutz, 1958, p. 74): "Thus the Business School students, as expected, are very much higher on controlling and influencing others, and somewhat higher on inclusion."

The study on conforming behavior, while not as clear cut as the previous two studies, concluded (Schutz, 1958, pp. 76-77):

> The evidence so far seems to indicate most strongly that those who profess little need to be liked, who don't like to be governed by rules, and who express themselves freely tend not to change their opinions when under social pressure.

Several studies are also cited in regard to predictive and construct validity.

In regard to the reliability of the instrument, Schutz states (1958, p. 77):

> Reproducibility according to Guttman, is a more stringent criteria than internal consistency, since it requires not only unidimensionality--that all items measure the same dimension--but also that the items occur in a certain order.

He continues (1958, p. 78): "The reproducibility for all scores is very high and consistent over all samples."

It can thus be seen that the FIRO-B is a valid and reliable instrument. It should be particularly well suited to the measurement of change in counseling or psychotherapy, at least as far as that change is related to the three factors measured by FIRO-B.

Genuineness Literature

In this review genuineness and congruence are considered to be synonymous and interchangeable terms.

> In every person's experience are relationships with people who are not what they seem, who hide behind a conventional facade, who say things because they sound appropriate rather than because they mean them--who, in a word, are artificial. They contrast sharply with those about us who do say what we mean, who are spontaneously themselves, who are 'real'" (Truax and Carkhuff, 1967, p. 32).

Fromm-Reichman (1952, p. 70), speaking of the role of the psychotherapist, reinforces the above quote from Truax and Carkhuff. She says: "He may feel called upon to hide his insecurity by displaying professional pomp-ousness. Such an endeavor is highly undesirable; in fact, it may doom the psychotherapeutic procedure to failure." Truax and Carkhuff continue (1967, p. 34): "The importance of the genuineness of the human encounter itself has been greatly stressed by the existential approach to psycho-therapy and has thus influenced therapists of various other orientations." Moustakas (1959, p. 201) describes his attempt to be genuine in child psychotherapy:

> I saw that I must stop playing the role of the professional therapist and allow my potentials, talents, and skills, my total experience as a human being, to blend naturally into the relation-ship with the child and whenever humanly possible to meet him as a whole person.

The importance of genuineness, as one of the factors leading to positive therapeutic outcome, has been discussed by many writers. Some of the studies performed on this factor, which is sometimes also called congruence or authenticity, will be reviewed here. Bindrim (1968) reported a study on the effect of physical nudity upon interaction in a marathon group. Seventeen of the twenty participants felt that nudity increased their ability to open up to each other emotionally and to

achieve a greater degree of authenticity, and, not surprisingly, a greater degree of transparency.

Much of the research done on genuineness also includes the factors of warmth and empathy. Genuineness appears to be only one of the factors considered important by researchers. Hollenbeck (1965) attempted to measure the level of warmth, empathy and genuineness perceived by college students from their parents. The findings were consistent in indicating that the more a college student perceives his parent as giving high levels of these factors, the better the correlation between his self-concept and ideal-concept.

Truax (1961) designed a study to clarify the relationship between the characteristics of a therapists responses and the patients intrapersonal exploration. The findings demonstrated that judges ratings of therapists empathic understanding, accurate empathy, unconditional positive regard and self-congruence (genuineness) were closely correlated with intrapersonal exploration by the patients. In another study (Truax, 1962), the same author matched fourteen schizophrenics in psychotherapy with fourteen matched control patients not in psychotherapy. Both the control group and the part of the experimental group which had high levels of warmth, empathy and genuineness, showed a slight positive change in the Q-sort measure of self-concept. The part of the experimental group which received low levels of the therapeutic triad obtained poorer adjustment and lower self-concepts on the measure used. Several similar studies were reported by Truax and Wargo (1966b), and Truax, Wargo and Silverman (1966).

A rather complex study which investigated several different facets of group counseling was performed by Truax, Wargo and Volksdorf

(1970). The study investigated four areas: (1) the effects of high levels of warmth, empathy and congruence on outcome, (2) the effects of having the counselor absent from the group sessions on alternate sessions, (3) the effects of vicarious pretraining of clients on outcome and (4) the effects of high levels of self-exploration on outcome. The subjects were institutionalized juvenile delinquents. The criterion variables were eighteen individual test scores, time spent out of the institution and a final outcome criterion developed out of several objective indices. The results demonstrated that the variables of empathy, warmth and genuineness were positively related to favorable outcome. Vicarious pretraining or depth of self-exploration were related to outcome. Alternative sessions seemed to have a negative effect. While this study appeared quite sound in every other respect, it is difficult to understand why the authors could not predict prior to experimenting that alternate sessions with juvenile delinquents would lead to negative results.

A weekend encounter group was the setting of a study by Meador (1971) on Rogers' process theory. This is the theory that clients who receive adequate levels of warmth, empathy and genuineness will naturally move to greater levels of self-experiencing. The researcher attempted to examine the process movement of each individual in the group throughout the weekend encounter. The sessions were filmed for this purpose. The results showed that individuals did make significant increases on the Rogers' process continuum. While it is possible to see that movement has occurred along Rogers' theoretical continuum, it is difficult to see how the researcher was able to conclude that this movement was related to proper levels of the therapeutic triad as this was not

measured. In addition, the lack of a control group clouds the issue for a study that has much intuitive appeal.

In addition to the feedback mechanism used in this dissertation, one other measure of genuineness was used. It was a Tentative Scale for the Measurement of Therapist Genuineness or Self-Congruence (Truax and Carkhuff, 1967). Since it was originally designed for use as a measure of therapist genuineness, it was slightly modified for group use. The scale is an attempt to define five levels of genuineness in the process of interaction. Psychometric data are not available on this instrument. A copy is appended.

Feedback Literature

Feedback is a concept that has many different meanings in the modern world. Descriptions can range from the way a thermostat works, to the way a group works. Argyris (1964, p. 63) defined interpersonal feedback as "the process by which members acquaint one another with their own characteristic ways of feeling and reacting in a dilemna-invention situation."

Brown (1967, p. 252) in a very interesting opinion article on feedback in and out of groups, pointed out some of the dangers of the indiscriminate use of feedback. He concluded: "The feedback idea, properly used, offers much to the individual, the organization, and society by way of interpersonal learning and experience. It must, however, be used with prudence and restraint."

Feedback, of the type measured in this dissertation, is nearly nonexistent in the literature. Some literature in regard to other types of feedback in groups was found. Five studies (Searle, 1969; Rogers,

1968; Hogan and Alger, 1969; Czaijkoski, 1968; and Berger, Sherman, Spalding and Westtake, 1968) on the use of videotape feedback found positive results, while only one (Danet, 1969) felt that the negative aspects of videotape predominated.

Anderson, Kulhavy, and Ardre (1971) reported two experiments on feedback in programmed instruction. They concluded that in those subjects where knowledge of a correct response immediately followed a response, learning increased significantly over the groups with other treatments such as knowledge of response before responding or no knowledge of correctness of response. These experiments appeared to have excellent control of the pertinent experimental variables.

Several other slightly more relevant studies were found. Scheidel and Crowell (1966, p. 27) explored some of the uses of feedback in small group communication. They concluded: "In summary, we can report here that the feedback process, as defined here, occupies a major portion of the total effort in group interaction."

In a study designed to evaluate different methods of playback on student counselor performance, Markey, Frederickson, Johnson and Julius (1970) found no significant differences. The subjects were divided into four groups dependent upon the type of playback they received on an initial counseling interview that each student counselor had conducted. Then a second interview was conducted and evaluated. The four treatments were audio-video playback, audio playback, video playback and no playback. The lack of significant differences on the Counselor Evaluation Inventory, Nonverbal Behavior Scale and the Audio-Visual Scale, may be attributed to the short amount of time that elapsed

between the playback of the first interview and the onset of the second interview. An interesting procedure would have been to extend the four treatments over a longer period of time and then evaluate the results.

Frye (1962) designed a study to measure the effects of different feedback combinations of success and effectiveness on the attempted leadership, attraction to the group, group esteem and self-esteem of self-oriented, interaction oriented and task oriented members. Fake feedback was given to individual members by way of ammeters on individual control panels. Successful-effective feedback had a depressing effect on attempted leadership. Self-oriented members were minimally influenced by the feedback. The crucial feedback for the interaction oriented person was successful or unsuccessful influence. The task oriented person did not exert much additional effort if the group was effective. Attraction to the group was increased if the group was successful regardless of the individuals contributions. Results from another study (Zajonc, 1962) indicated that the performance of individuals improves when they work on a group task and that the most improvement occurs for a difficult group task when information about the performance of all team members as well as of the team as a whole is made available. When information about team performance alone is given, only slight improvement occurs. Another study concludes (Norfleet, 1948, p. 69):

> Though we have no evidence to show which parts of the total pattern of training were responsible for this achievement, (that is, members playing a productive role) it seems probable that the feedback and evaluation sessions were of major importance.

In an unpublished doctoral dissertation (Lippitt, 1959), experimental members were given feedback about how the other members of the group wanted them to change. The feedback was given half-way through

the life of the group. Results indicated that there was close agreement between observers and members evaluations of individual behavior, and that specific feedback procedures did facilitate significant change in individuals.

Another article (Kolb, Winter and Berlew, 1968) found that self-directed change, where a person sets a specific change goal and works to meet that goal, was facilitated by two factors. The first was the degree of commitment to the personal change goal by the individual, and the second was the amount of feedback given to the individual relevant to the personal change project. The use of different group leaders in the separate treatments is an undesirable factor in the study. An attempt was made to alleviate the effects of this problem by randomizing the group leaders.

It has been difficult to relate most of the research reported thus far in this feedback section to the study performed in this dissertation. The explanation for this is that there has been no research done in this specific area which deals with a relatively unexplored type of feedback in groups. However, there is one study which has great importance for the design of this study. It was the stimulus for the performance of this experiment.

The final study (Hill and Hill, 1970) cited in this review has particular relevance to the dissertation topic. The primary purpose of their study was to provide a training experience for group facilitators which would give them practice in being congruent and on focusing on incongruence in others. The Hill Instant Feedback System was used to record responses without interrupting dialogue. No control group

was used and results are therefore difficult to assess. However, the authors claim that it is useful in training facilitators. Their device would seem to have potential in facilitating genuine growth in a group.

CHAPTER III

DESIGN OF THE STUDY

Apparatus

An instant feedback device was constructed by the experimenter expressly for use in this study. The instant feedback device was a wooden box approximately one foot high and about four feet square. The front panel of the box had ten columns of three rows of lights. The top row of lights was green, the middle row of lights was white and the bottom row of lights was red. The device had ten individual transmitting devices attached to the box on the end of a six foot cord. Each transmitting device had three buttons which were also green, white and red. Each button on a transmitting device activated one light and one clock. There were thirty clocks on the inside of the box. There was one clock attached to each light. The subjects in groups A and B were instructed to keep one button depressed at all times during the counseling sessions. The green button was to be depressed when the subject perceived the focus of attention to be congruent or genuine. The focus of attention was defined to be either the speaker, a silence or whatever else constituted the focus of attention of the group. The red button was to be depressed when the focus of attention was perceived as being incongruent or not genuine. The white light was to be depressed when it was impossible for the person to perceive whether

the focus of attention was genuine or not. Times were recorded from the clocks after each session by the facilitator. Appendix A is a copy of the time recording sheet. Appendix B is a photograph of the instant feedback device.

Instruments

All four groups were given the Tennessee Self-Concept Scale (TSCS) and Fundamental Interpersonal Relations Orientations-Behavior (FIRO-B) prior to the onset of the experiment and after the experiment was completed. The three experimental groups were given the Tentative Scale for the Measurement of Genuineness after each counseling session. Appendix C is a copy of this device. The scale was modified for use in groups. Each individual subject was told to rate each of the other members of his group in regard to his behavior at that session. The experimental groups were also given copies of a contract for an interpersonal growth group to facilitate the group process. A copy of this contract is located in Appendix D. Experimental groups A and B also used the instant feedback device. Group A received feedback by viewing the lights and group B pushed the buttons but did not view the lights. The Tentative Scale for the Measurement of Genuineness was used to explain to the subjects the meaning of the concept of genuineness to which they were to respond on the device.

Subjects

The subjects were volunteer students at the University of North Dakota during the 1970-71 academic year. In the study that was conducted during the first semester, the subjects were drawn from a

sophomore nursing class and from introduction to psychology recitation sections. The subjects from the psychology classes were given points toward a recitation grade for participation. The subjects for the second semester study were drawn similarly, except the students from the psychology classes did not receive points toward their grades. There was one subject in the second study who had served as a member of the control group in the first study.

Subjects in each of the two studies were randomly assigned to four groups. Three of the groups were treatment groups and one was a control group. The control group was given the appropriate tests but did not meet for group counseling. All the experimental groups met for an equal number of group counseling sessions of approximately one and one-half hours, a minimum of eight sessions. Experimental group A used the instant feedback mechanism with the lights visible during the group counseling sessions. Experimental group B used the instant feedback mechanism without the lights being visible during the group counseling sessions. Experimental group C did not use the instant feedback mechanism during the group sessions.

Each of the three groups had two facilitators who had the role of a leader-member. The co-facilitators were the same for both studies. The co-facilitators in the study responded to the Tentative Scale for the Measurement of Genuineness and used the instant feedback device. Their responses were combined with those of the subjects. One of the facilitators was a doctoral level staff member of the University of North Dakota Counseling Center and the other facilitator was a doctoral level student in counseling and guidance.

The number of subjects was different in the two studies. In the first group, group A had six females and no males, group B had four females and one male, group C had five females and no males, and group D had six females and one male. The total number of subjects in the first study was twenty-three. In the second study there were three females and three males in group A, group B had four females and two males, group C had four females and three males and group D had four females and two males. The total number of subjects for the second study was twenty-five. The combined total of subjects for both studies was forty-eight.

Statistics

Analysis of covariance was the statistical technique employed in this study for the TSCS and FIRO-B data. A multiple comparison's test, Dunn's "c", was used when significance was found.

Analysis of variance was used for the Tentative Scale for the Measurement of Genuineness and the on-light time data. The .05 level of probability was employed throughout the study.

CHAPTER IV

ANALYSIS OF THE DATA

The order in which the hypotheses were stated in Chapter I will be followed in the analysis of the data. Data relating to the Tennessee Self-Concept Scale (TSCS), the Fundamental Interpersonal Relations Orientations-Behavior (FIRO-B), the Tentative Scale for the Measurement of Genuineness and the feedback mechanism light times will be analyzed in that order.

Hypothesis 1. There is no significant difference among the four groups on the TSCS variables.

Table 1 presents the pre and post-test group means for the TSCS variables in the first study. Table 2 presents the pre and post-test group means for the TSCS variables in the second study.

Four analyses of covariance were computed for each of the variables in the TSCS and the FIRO-B. The first analysis compared the eight groups from the two studies separately. The purpose of this was to determine, using the appropriate multiple comparisons method, if the treatments from the first study were significantly different from the like treatments in the second study. If the like treatments in the two studies were different, then the fourth analysis which compared the data from both studies on the basis of treatment, was not appropriate. Analysis of covariance was used to control for initial differences in the pre-test means and the post-test means were used as

TABLE 1

PRE AND POST-TEST GROUP MEANS FOR TSCS VARIABLES: FIRST STUDY

Variable	Group A Pre	A Post	B Pre	B Post	C Pre	C Post	D Pre	D Post
Self-Criticism	54.33	54.83	40.40	42.20	52.20	49.60	50.86	51.00
True/False Ratio	56.33	65.50	50.00	51.40	43.60	43.00	48.00	47.14
Net Conflict	57.67	60.00	51.60	51.20	43.00	43.80	50.57	49.00
Total Conflict	49.83	51.33	44.00	42.80	48.80	49.80	50.00	47.86
Total P Score	41.17	42.33	46.60	47.80	43.40	45.80	39.29	41.29
Identity	45.33	43.83	45.80	48.80	41.00	47.40	39.43	40.29
Self-Satisfaction	44.17	46.50	51.20	51.80	47.60	48.00	42.14	44.57
Behavior	36.00	37.17	43.20	42.80	42.40	42.40	38.57	40.57
Physical Self	43.00	44.50	45.40	46.60	42.20	44.80	37.29	37.00
Moral Ethical Self	40.33	40.33	49.00	50.40	44.20	46.00	42.71	46.42
Personal Self	41.17	42.67	47.00	50.00	49.00	49.80	42.29	43.29
Family Self	43.33	44.00	49.20	48.40	41.20	42.80	38.43	39.29
Social Self	45.50	46.00	45.00	46.20	48.00	48.60	43.14	47.43
Total V Score	55.17	50.50	39.80	44.40	45.80	45.00	48.71	44.57
Distribution	45.67	42.67	40.20	42.00	37.60	39.00	37.14	37.57
Defensive Positive	42.33	45.50	51.20	52.00	46.60	48.00	42.86	44.43
General Maladjustment	59.17	60.33	56.40	56.20	58.80	56.40	63.71	60.14
Psychosis Scale	47.00	50.17	60.40	56.40	56.80	55.00	53.57	58.86
Personality Disorder	59.83	58.83	49.00	49.00	55.00	54.60	55.86	54.86
Neurosis	59.00	57.67	52.20	53.80	56.40	51.60	60.00	60.00
Personality Integration	48.17	51.17	54.40	50.60	50.60	47.40	47.00	49.71
Deviant Signs Score	64.17	60.83	54.60	57.60	54.80	52.80	60.86	57.86

TABLE 2

PRE AND POST-TEST GROUP MEANS FOR TSCS VARIABLES: SECOND STUDY

	Group							
	A		B		C		D	
Variable	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Self-Criticism	47.17	47.83	49.33	50.00	56.86	59.29	54.00	53.33
True/False Ratio	49.17	56.50	44.83	46.17	49.33	47.57	43.33	43.67
Net Conflict	51.33	53.17	50.00	49.50	49.29	45.71	44.83	46.83
Total Conflict	49.83	49.50	48.33	49.50	52.29	52.71	43.00	45.83
Total P Score	40.67	41.83	42.17	42.33	38.71	41.29	49.17	45.67
Identity	36.17	36.17	38.83	39.50	37.86	41.57	47.17	44.83
Self-Satisfaction	48.50	47.83	47.50	48.67	43.29	44.43	54.00	51.00
Behavior	38.83	41.50	41.17	40.83	36.86	40.43	44.83	39.67
Physical Self	39.00	43.17	47.33	46.33	37.57	41.43	45.83	44.17
Moral Ethical Self	43.00	44.17	43.50	45.00	42.43	46.43	49.17	45.50
Personal Self	42.83	42.67	42.00	41.33	43.29	48.71	51.67	46.17
Family Self	42.17	40.67	42.83	43.00	37.71	36.57	47.17	45.67
Social Self	40.83	43.33	44.17	41.50	42.14	43.00	52.00	49.67
Total V Score	39.50	39.67	46.43	48.33	48.43	50.71	47.83	50.50
Distribution	34.67	36.17	38.50	39.33	42.29	42.71	46.50	42.83
Defensive Positive	47.50	47.50	45.67	45.00	41.00	42.29	46.67	47.17
General Maladjustment	63.33	63.33	61.67	61.00	59.71	57.29	54.83	57.83
Psychosis Scale	59.83	55.00	52.50	53.83	51.29	51.57	45.33	47.17
Personality Disorder	56.83	56.00	53.17	53.50	60.29	58.14	52.50	55.83
Neurosis	59.83	59.50	57.33	58.17	61.43	58.29	53.00	54.67
Personality Integration	50.67	49.33	49.33	48.00	43.71	45.71	46.00	44.83
Deviant Signs Score	59.00	58.33	58.99	59.67	61.14	59.14	58.67	63.17

the criterion. Table 3 presents the analysis of covariance for the eight groups from both studies when they were treated separately. When all eight groups were compared, there were no significant differences between the post-test means when pre-test means were covaried out. Table 4 presents the analysis of covariance for the TSCS variables in the first study. In the first study, there were no significant differences between the post-test means after the pre-test means were covaried out. Table 5 presents the analysis of covariance for the TSCS variables from the second study. In the second study, there were no significant differences in post-test means after pre-test means were covaried out. Table 6 presents the analysis of covariance for the TSCS variables from both studies after having been combined into four groups on the basis of the treatments that were administered. There was one significant difference in this analysis after pre-test differences had been covaried out. The true/false ratio was significantly different at the .05 level. Dunn's "c" was computed for all possible combinations of groups on this variable. For this analysis, 2.50 was needed for significance at the .05 level. Group A was significantly different at the .05 level from group C with a value of 2.72 and group A was also significantly different from group D at the .05 level with a value of 2.72. The Dunn's "c" values are in Table 30 of Appendix E.

Since there was only one significant difference in the 88 analyses that were computed, the results retain the first null hypothesis that there is no significant differences among the four groups on the TSCS variables.

TABLE 3

ANALYSIS OF COVARIANCE FOR TSCS VARIABLES: FIRST AND SECOND STUDIES - EIGHT GROUPS

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Self-Criticism	17.46	38.36	.45
True/False Ratio	186.02	134.17	1.39
Net Conflict	50.34	57.80	.87
Total Conflict	42.99	66.09	.65
Total P Score	8.18	16.43	.50
Identity	37.90	41.47	.91
Self-Satisfaction	6.31	25.99	.24
Behavior	18.57	28.74	.65
Physical Self	16.59	34.20	.49
Moral Ethical Self	14.85	32.48	.46
Personal Self	43.55	37.06	1.18
Family Self	12.17	43.57	.28
Social Self	26.46	37.99	.70
Total V Score	38.18	67.17	.57
Distribution	18.85	40.23	.47
Defensive Positive	7.02	23.25	.30
General Maladjustment	17.91	29.86	.60
Psychosis Scale	57.35	63.47	.90
Personality Disorder	6.11	23.11	.26
Neurosis	22.49	16.60	1.36
Personality Integration	16.46	81.83	.20
Deviant Signs Score	18.50	63.26	.29

TABLE 4

ANALYSIS OF COVARIANCE FOR TSCS VARIABLES: FIRST STUDY

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Self-Criticism	36.25	22.95	1.58
True/False Ratio	295.28	137.78	2.14
Net Conflict	97.17	72.55	1.34
Total Conflict	46.97	86.41	.54
Total P Score	1.99	12.01	.17
Identity	56.61	46.30	1.22
Self-Satisfaction	1.37	24.98	.05
Behavior	4.21	24.00	.18
Physical Self	14.78	36.31	.41
Moral Ethical Self	17.45	39.95	.44
Personal Self	11.04	41.34	.27
Family Self	1.71	50.09	.03
Social Self	15.66	52.05	.30
Total V Score	40.29	83.75	.48
Distribution	8.29	42.58	.19
Defensive Positive	3.14	23.77	.13
General Maladjustment	15.55	34.39	.45
Psychosis Scale	68.41	57.63	1.19
Personality Disorder	.56	25.02	.02
Neurosis	36.00	17.88	2.01
Personality Integration	24.37	92.71	.26
Deviant Signs Score	22.07	78.53	.28

TABLE 5

ANALYSIS OF COVARIANCE FOR TSCS VARIABLES: SECOND STUDY

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Self-Criticism	2.64	41.63	.06
True/False Ratio	129.51	136.39	.95
Net Conflict	39.61	37.24	1.06
Total Conflict	45.12	49.25	.92
Total P Score	17.45	20.96	.83
Identity	27.82	39.16	.71
Self-Satisfaction	11.92	28.11	.42
Behavior	26.07	32.95	.79
Physical Self	15.27	34.01	.45
Moral Ethical Self	14.33	27.34	.52
Personal Self	87.27	35.04	2.49
Family Self	22.41	39.88	.56
Social Self	41.64	26.84	1.55
Total V Score	34.46	55.56	.62
Distribution	20.92	38.68	.54
Defensive Positive	3.68	21.50	.17
General Maladjustment	21.35	26.57	.80
Psychosis Scale	33.24	49.31	.67
Personality Disorder	11.47	22.42	.51
Neurosis	16.41	16.05	1.02
Personality Integration	3.44	70.80	.05
Deviant Signs Score	20.78	50.64	.41

TABLE 6

ANALYSIS OF COVARIANCE FOR TSCS VARIABLES: FIRST AND SECOND STUDIES - FOUR GROUPS

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Self-Criticism	1.53	37.53	.04
True/False Ratio	393.24	124.53	3.16*
Net Conflict	101.01	53.57	1.89
Total Conflict	59.96	62.76	.96
Total P Score	9.43	15.57	.61
Identity	55.04	39.94	1.38
Self-Satisfaction	7.45	24.08	.31
Behavior	20.78	27.64	.75
Physical Self	21.15	32.24	.66
Moral Ethical Self	27.95	29.92	.93
Personal Self	35.83	38.20	.94
Family Self	6.73	41.03	.16
Social Self	44.52	35.65	1.25
Total V Score	69.87	62.26	1.12
Distribution	14.17	38.58	.37
Defensive Positive	2.82	22.04	.13
General Maladjustment	40.51	27.17	1.49
Psychosis Scale	4.91	66.56	.07
Personality Disorder	6.53	21.50	.30
Neurosis	36.88	16.14	2.28
Personality Integration	13.37	75.69	.23
Deviant Signs Score	36.54	57.84	.63

*$p < .05$, df = 3/43

Hypothesis 2. There is no significant differences among the four groups on the FIRO-B variables.

The FIRO-B data were analyzed in the same manner as the TSCS variables using four computations of the analysis of covariance for each variable. Table 7 contains the pre and post-test group means for the FIRO-B variables in the first study. Table 8 contains the pre and post-test group means for the FIRO-B variables in the second study.

TABLE 7

PRE AND POST-TEST GROUP MEANS FOR THE FIRO-B VARIABLES: FIRST STUDY

	Group							
	A		B		C		D	
Variable	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Expressed Inclusion	5.33	6.17	5.80	5.40	6.20	7.60	6.14	6.57
Expressed Control	2.83	4.67	2.80	3.80	3.80	3.20	3.14	3.14
Expressed Affection	4.83	4.67	3.60	3.79	5.40	8.20	6.86	7.14
Wanted Inclusion	5.50	4.17	6.60	6.40	8.00	6.80	4.57	3.57
Wanted Control	5.33	4.17	6.60	6.80	4.60	5.60	5.29	6.57
Wanted Affection	7.33	6.00	7.00	6.80	7.60	8.60	8.43	7.14

Tables 9, 10, 11 and 12 contain the four analyses of covariance for the FIRO-B data. Table 9 contains the analysis of covariance for the FIRO-B variables when the eight groups for both studies were analyzed separately. There were no significant differences on this analysis after the pre-test differences were covaried out. Table 10 contains the analysis of covariance data from the first study of the FIRO-B data. Expressed affection was significantly different at the .01 level in this

TABLE 8

PRE AND POST-TEST GROUP MEANS FOR THE FIRO-B VARIABLES: SECOND STUDY

Variable	Group A Pre	A Post	B Pre	B Post	C Pre	C Post	D Pre	D Post
Expressed Inclusion	4.00	4.17	7.33	6.67	7.29	6.71	5.83	5.50
Expressed Control	2.33	2.50	4.83	5.50	2.29	2.43	3.00	2.83
Expressed Affection	6.17	5.33	6.83	6.50	5.86	5.14	4.67	5.17
Wanted Inclusion	3.67	1.50	5.83	4.50	6.29	7.14	6.17	5.83
Wanted Control	5.00	4.00	5.67	5.00	6.86	5.29	5.50	4.00
Wanted Affection	7.00	6.00	7.67	7.50	7.43	7.00	6.00	6.17

TABLE 9

ANALYSIS OF COVARIANCE FOR FIRO-B VARIABLES: FIRST AND SECOND STUDIES - EIGHT GROUPS

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Expressed Inclusion	2.64	1.55	1.70
Expressed Control	3.68	2.63	1.40
Expressed Affection	6.70	3.22	2.08
Wanted Inclusion	8.94	5.12	1.75
Wanted Control	6.66	3.63	1.83
Wanted Affection	3.16	3.72	.85

TABLE 10

ANALYSIS OF COVARIANCE FOR FIRO-B VARIABLES: FIRST STUDY

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Expressed Inclusion	3.42	1.39	2.47
Expressed Control	5.12	4.16	1.23
Expressed Affection	10.30	1.75	5.88*
Wanted Inclusion	2.19	4.99	.44
Wanted Control	7.07	4.36	1.62
Wanted Affection	5.91	5.01	1.18

*p <.01, df = 3/19.

TABLE 11

ANALYSIS OF COVARIANCE FOR FIRO-B VARIABLES: SECOND STUDY

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Expressed Inclusion	.05	1.44	.03
Expressed Control	2.83	1.34	2.11
Expressed Affection	1.22	4.63	.26
Wanted Inclusion	20.19	5.09	3.97*
Wanted Control	.83	3.10	.27
Wanted Affection	1.31	2.69	.49

*p <.05, df = 3/20.

TABLE 12

ANALYSIS OF COVARIANCE FOR FIRO-B VARIABLES: FIRST AND SECOND STUDIES - FOUR GROUPS

Variable	Mean Square Among Groups	Mean Square Within Groups	F-Ratios
Expressed Inclusion	1.49	1.74	.86
Expressed Control	4.97	2.64	1.89
Expressed Affection	4.10	3.73	1.10
Wanted Inclusion	13.02	5.19	2.51
Wanted Control	4.00	4.10	.98
Wanted Affection	4.92	3.55	1.39

study after pre-test differences had been covaried out. Dunn's "c" test was computed for all possible combinations of groups. For this analysis, 2.97 was needed for significance at the .05 level. Group A was significantly different from group C with a "c" value of -3.85 and group B was significantly different from group C with a value of -3.53. These Dunn's "c" values are in Table 31 of Appendix E. Table 11 presents the analysis of covariance data from the second study of the FIRO-B data. Wanted inclusion was significantly different at the .05 level in this study after the pre-test differences were covaried out. Dunn's "c" was computed for all possible combinations of groups. For this analysis, 2.97 was needed for significance at the .05 level. Group A was significantly different from group C with a value of -3.50. These Dunn's "c" values are in Table 32 of Appendix E. Table 12 presents the analysis of covariance for the FIRO-B variables from both

studies after having been combined into four groups on the basis of the treatments that were administered. There were no significant differences in this analysis after pre-test differences were covaried out.

The results of these analyses retain the second null hypothesis that there is no significant differences among the four groups on the FIRO-B variables.

Hypothesis 3. There is no significant difference among the three treatment groups on the Tentative Scale for the Measurement of Genuineness.

The means for the genuineness scale from the sessions in the first study are presented in Table 13. The means for the genuineness scale from the sessions in the second study are presented in Table 14. The range of possible scores on the Tentative Scale for the Measurement of Genuineness is from one to five, with one representing the lowest rating of genuineness and five representing the highest rating of genuineness. Four analyses of variance were computed on the genuineness scale data. The first analyses of variance was computed treating each of the six groups from both studies separately. The purpose of this analysis was to determine, using the appropriate multiple comparisons test, if the treatments from the first study were significantly different from the like treatments in the second study. Table 15 presents this analysis of variance for the Tentative Scale for the Measurement of Genuineness.

There was a significant difference in this analysis. Using Dunn's "c" test, a critical difference of .62 was needed for significance at the .05 level. Group A from the first study was significantly different from group B of the first study with a value of .67. Group A from the first study was significantly different from group C of the

TABLE 13

TENTATIVE SCALE FOR THE MEASUREMENT OF GENUINENESS MEANS: FIRST STUDY

Group	Session 1	2	3	4	5	6	7	8
A	3.45	3.86	3.97	3.19	4.22	4.25	4.13	4.90
B	3.30	3.55	3.61	4.43	3.33	2.77	2.83	2.80
C	3.78	3.50	3.72	4.29	4.11	3.97	3.90	4.40

TABLE 14

TENTATIVE SCALE FOR THE MEASUREMENT OF GENUINENESS MEANS: SECOND STUDY

Group	Session 1	2	3	4	5	6	7	8
A	3.76	3.72	2.90	3.93	3.45	4.21	3.63	3.93
B	3.56	3.46	2.70	3.90	3.70	4.17	4.30	4.55
C	3.23	3.10	3.20	2.86	2.86	3.22	3.00	3.13

TABLE 15

ANALYSIS OF VARIANCE FOR THE TENTATIVE SCALE FOR THE MEASUREMENT OF GENUINENESS: FIRST AND SECOND STUDIES - SIX GROUPS

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	5.37	1.07	5.35*
Within	42	8.34	.20	
Total	47	13.70		

*Significant at the .001 level.

second study with a value of .92. Group B of the first study was significantly different from group C of the first study with a value of -.63. Group C of the first study was significantly different from group C of the second study with a value of .88. Group B of the second study was significantly different from group C of the second study with a value of .71. These Dunn's "c" values are in Table 33 of Appendix E. Because group C from the first study was significantly different from group C of the second study, the fourth analysis of variance which would have compared the groups from both studies on the basis of treatment was not computed.

Table 16 presents the analysis of variance for the Tentative Scale for the Measurement of Genuineness data from the first study. There was no significant difference among the three treatment groups in this analysis.

TABLE 16

ANALYSIS OF VARIANCE FOR THE TENTATIVE SCALE FOR THE MEASUREMENT OF GENUINENESS: FIRST STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	2	2.26	1.13	1.05
Within	21	22.73	1.08	
Total	23	24.49		

Table 17 presents the analysis of variance for the Tentative Scale for the Measurement of Genuineness data from the second study. There was a significant difference in this analysis.

TABLE 17

ANALYSIS OF VARIANCE FOR THE TENTATIVE SCALE FOR THE MEASUREMENT OF GENUINENESS: SECOND STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	2	2.41	1.21	7.09*
Within	21	3.61	.17	
Total	23	6.01		

*Significant at the .01 level.

A critical difference of .54 was needed for significance at the .05 level using Dunn's "c." This Dunn's "c" value is in Table 34 of Appendix E. Group C from the second study was significantly different from groups A (.61) and B (.71) from the same study.

Because group C from the first study was significantly different from group C of the second study, the fourth analysis of variance comparing the data from both studies on the basis of treatment was not presented. This was because there were differences between like treatments in the different studies and it would be inappropriate to make a comparison on the basis of treatment in such a situation. The third null hypothesis that there is no significant difference among the three treatment groups on the Tentative Scale for the Measurement of Genuineness is retained.

Hypothesis 4. There is no significant difference between the two treatment groups that used the instant feedback mechanism on the amount of on-light time.

The percentage of on light time for the first study is presented in Table 18. The percentage of on-light time for the second study is presented in Table 19.

TABLE 18

PERCENTAGE OF ON-LIGHT TIME: FIRST STUDY

Group	Lights	Session							
		1	2	3	4	5	6	7	8
A	Green	.38	.43	.65	.50	.73	.73	.92	.85
	Red	.03	.23	.05	.03	.02	.02	.02	.00
	White	.59	.34	.30	.47	.25	.25	.06	.15
B	Green	.34	.58	.40	.84	.50	.50	.83	.94
	Red	.15	.06	.18	.03	.22	.19	.04	.02
	White	.51	.36	.42	.13	.28	.31	.13	.04

TABLE 19

PERCENTAGE OF ON-LIGHT TIME: SECOND STUDY

Group	Lights	Session							
		1	2	3	4	5	6	7	8
A	Green	.36	.55	.28	.39	.20	.40	.15	.59
	Red	.11	.10	.27	.10	.07	.14	.18	.06
	White	.53	.34	.45	.51	.73	.46	.67	.36
B	Green	.53	.42	.29	.81	.25	.24	.64	.31
	Red	.23	.08	.23	.05	.26	.11	.13	.11
	White	.23	.50	.49	.14	.49	.65	.22	.57

The analysis of variance for the green light time from both studies when each group was treated separately is presented in Table 20. There was a significant difference at the .05 level.

TABLE 20

ANALYSIS OF VARIANCE FOR GREEN LIGHT TIMES: BOTH STUDIES - FOUR GROUPS

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	3	.45	.15	3.75*
Within	28	1.09	.04	
Total	31	1.54		

*Significant at the .05 level.

A critical difference of .29 was needed for significance at the .05 level using Dunn's "c." This Dunn's "c" value is in Table 35 of Appendix E. Group A from the first study was significantly different from group A of the second study with a value of .34. Because of this difference between groups with similar treatments from different studies, the fourth analysis of variance comparing the data from both studies on the basis of treatment was not computed.

Table 21 presents the analysis of variance for green light times from the first study. There was no significant difference in this analysis.

Table 22 presents the analysis of variance for green light times from the second study. There was no significant difference in this analysis.

TABLE 21

ANALYSIS OF VARIANCE FOR GREEN LIGHT TIMES: FIRST STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	1	.01	.01	.25
Within	14	.62	.04	
Total	15	.63		

TABLE 22

ANALYSIS OF VARIANCE FOR GREEN LIGHT TIMES: SECOND STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	1	.02	.02	.67
Within	14	.46	.03	
Total	15			

The fourth null hypothesis as it relates to green light times is retained.

Table 23 presents the analysis of variance for red light times when the groups from both studies were analyzed separately. There was no significant difference for red light times.

Table 24 presents the analysis of variance for red light times from the first study. There was no significant difference in this analysis.

Table 25 presents the analysis of variance for red light times for the second study. There was no significant difference in this analysis.

TABLE 23

ANALYSIS OF VARIANCE FOR RED LIGHT TIMES: BOTH STUDIES - FOUR GROUPS

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	3	.04	.01	1.00
Within	28	.17	.01	
Total	31	.21		

TABLE 24

ANALYSIS OF VARIANCE FOR RED LIGHT TIMES: FIRST STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	1	.02	.02	2.00
Within	14	.09	.01	
Total	15			

TABLE 25

ANALYSIS OF VARIANCE FOR RED LIGHT TIMES: SECOND STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	1	.01	.01	1.00
Within	14	.07	.01	
Total	15	.08		

Table 26 presents the analysis of variance for the red light times from both studies after being combined into two groups on the basis of treatment. There was no significant difference in this analysis.

TABLE 26

ANALYSIS OF VARIANCE FOR RED LIGHT TIMES: FIRST AND SECOND STUDIES - TWO GROUPS

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	1	.01	.01	1.00
Within	30	.20	.01	
Total	31	.21		

The fourth null hypothesis as it relates to red light times is retained.

Table 27 presents the analysis of variance for white light times for both studies. There was a significant difference at the .05 level on white light times when the groups from both studies were analyzed separately.

TABLE 27

ANALYSIS OF VARIANCE FOR WHITE LIGHT TIMES: BOTH STUDIES - FOUR GROUPS

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	3	.27	.09	4.50*
Within	28	.53	.02	
Total	31	.80		

*Significant at the .05 level.

A critical difference of .20 is needed for significance at the .05 level using Dunn's "c" test. Group A from the first study was significantly different from group A of the second study with a value of .21. Group A from the second study was significantly different from group B of the first study with a value of .24. These Dunn's "c" values are in Table 36 of Appendix E. Because group A from the first study was significantly different from group A of the second study, the fourth analysis of variance for white light times, which compares the data on the basis of treatment, is not reported.

Table 28 presents the analysis of variance for white light times from the first study. There was no significant difference in this analysis.

TABLE 28

ANALYSIS OF VARIANCE FOR WHITE LIGHT TIMES: FIRST STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F
Between	1	.01	.01	.33
Within	14	.38	.03	
Total	15	.39		

Table 29 presents the analysis of variance for white light times from the second study. There was no significant difference in this analysis.

The fourth null hypothesis as it relates to white light times is retained.

TABLE 29

ANALYSIS OF VARIANCE FOR WHITE LIGHT TIMES: SECOND STUDY

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F
Between	1	.03	.03	3.00
Within	14	.15	.01	
Total	15	.17		

Because of the results of the individual analysis of the green, red and white lights, the fourth null hypothesis, as it relates to all three light colors, is retained.

This chapter has presented an analysis of the data. Chapter V will summarize the findings, discuss relevant implications and suggest guidelines for future research.

CHAPTER V

SUMMARY, DISCUSSION AND CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine the effects of instant feedback of congruence by subjects in group counseling as measured by the Tennessee Self-Concept Scale (TSCS), Fundamental Interpersonal Relations Orientations-Behavior (FIRO-B), the Tentative Scale for the Measurement of Genuineness and the amount of on-light time.

An instant feedback apparatus was used in this experiment as a means of measuring the amount of time the focus of attention in the group was perceived to be congruent, incongruent or neutral. The subjects were all student volunteers from the University of North Dakota and were randomly assigned to the four groups.

Group A used the instant feedback apparatus with the lights visible. Group B used the apparatus with the lights not visible. Group C did not use the apparatus during it's sessions. Group D served as the control group and did not meet for group sessions. The experiment was replicated once and the two experiments were labeled the first study and the second study.

Four null hypotheses were tested in this experiment. These null hypotheses were as follows:

1. There is no significant difference among the four groups on the TSCS variables.

2. There is no significant difference among the four groups on the FIRO-B variables.

3. There is no significant difference among the three treatment groups on the Tentative Scale for the Measurement of Genuineness.

4. There is no significant difference between the two treatment groups that used the instant feedback mechanism on the amount of on-light time.

The co-facilitators in the study responded to the Tentative Scale for the Measurement of Genuineness and used the instant feedback device. Their responses were combined with those of the subjects. One of the facilitators was a doctoral level staff member of the University of North Dakota Counseling Center and the other facilitator was a doctoral level student in counseling and guidance.

The number of subjects was different in the two studies. In the first group, group A had six females and no males, group B had four females and one male, group C had five females and no males, and group D had six females and one male. The total number of subjects in the first study was twenty-three. In the second study there were three females and three males in group A, group B had four females and two males, group C had four females and three males and group D had four females and two males. The total number of subjects for the second study was twenty-five. The combined total of subjects for both studies was forty-eight.

The data were derived from the TSCS, the FIRO-B, the Tentative Scale for the Measurement of Genuineness and the amount of on-light time recorded on the feedback apparatus. Four analyses of covariance were computed for each of the TSCS and the FIRO-B variables. Analysis of

covariance was used to control for initial differences in the pre-test means and the post-test means were used as the criterion. The first analysis of covariance was computed treating each of the eight groups from both studies separately. The purpose of this analysis was to determine, using the appropriate multiple comparisons technique, if the treatments from the first study were significantly different from the like treatments in the second study. One analysis of covariance was computed with the data from the first study. Another analysis of covariance was computed with the data from the second study. The fourth analysis of covariance was computed using all the subjects from both studies after having been combined into four groups on the basis of treatment. Four analyses of variance were computed for the data from the Tentative Scale for the Measurement of Genuineness. Four analyses of variance were also computed for the green, red and white light times from the instant feedback device. The four analyses of variance that were computed for the genuineness scale data and the light time data were done on the same rationale as the four analyses of the TSCS and FIRO-B variables. A multiple comparisons test, Dunn's "c," was computed when significance was found.

The findings from the study are listed below:

1. There were no significant differences on the TSCS variables after pre-test differences were covaried out when the eight groups from both studies were analyzed separately.

2. There were no significant differences on the TSCS variables in the first study after pre-test differences were covaried out.

3. There were no significant differences on the TSCS variables in the second study after pre-test differences were covaried out.

4. There was a significant difference on one of the twenty-two TSCS variables when the subjects from both studies were combined into four groups on the basis of treatment after pre-test differences were covaried out. The true/false ratio variable was significantly different at the .05 level. Dunn's "c" demonstrated that group A was significantly different from groups C and D on this variable.

5. There were no significant differences on the FIRO-B variables after the pre-test differences were covaried out when the eight groups from both studies were analyzed separately.

6. There was a significant difference on one of the six FIRO-B variables in the first study. Expressed affection was significantly different at the .01 level after pre-test differences were covaried out. Dunn's "c" demonstrated that group C was significantly different from groups A and B at the .05 level.

7. There was a significant difference on one of the six FIRO-B variables in the second study. Wanted inclusion was significantly different at the .05 level after pre-test differences were covaried out. Utilizing Dunn's "c", group A was significantly different from group C at the .05 level.

8. There were no significant differences on the FIRO-B variables when the subjects from both studies were combined into four groups on the basis of treatment after pre-test differences were covaried out.

9. There was a significant difference at the .001 level when the groups from both studies were analyzed separately on the Tentative Scale for the Measurement of Genuineness. Dunn's "c" demonstrated that group A from the first study was significantly different from group B

of the first study, group A from the first study was significantly different from group C of the second study, group B of the first study was significantly different from group C of the first study, group C of the first study was significantly different from group C of the second study and group B of the second study was significantly different from group C of the second study.

10. There was no significant difference for the Tentative Scale for the Measurement of Genuineness data from the first study.

11. There was a significant difference for the Tentative Scale for the Measurement of Genuineness data from the second study. Group C was significantly different from groups A and B in this study.

12. There was a significant difference for the amount of green light times when the groups from both studies were analyzed separately. Group A from the first study was significantly different from group A of the second study.

13. There were no significant differences for the amount of green light times in the first study.

14. There were no significant differences for the amount of green light times in the second study.

15. There was no significant difference for red light times when the groups from both studies were analyzed separately.

16. There were no significant differences for red light times in the first study.

17. There were no significant differences for the red light times in the second study.

18. There were no significant differences on the red light times when the groups were combined on the basis of treatment.

19. There was a significant difference on the white light times when the groups from both studies were analyzed separately. Group A from the first study was significantly different from group A of the second study and group B from the first study was significantly different from group A of the second study.

20. There were no significant differences on the white light times in the first study.

21. There were no significant differences on the white light times in the second study.

Discussion and Conclusions

There is some difficulty present in interpreting the statistical results from the TSCS and the FIRO-B data. The reason for this is that the differences that were found on one of the four analyses of covariance were not supported by changes on the other three analyses of covariance. For example, on the TSCS variables there were no significant differences on the analyses of the groups from both studies when they were analyzed separately. Also there were no significant differences on the TSCS variables when the two studies were analyzed separately. However, there was a significant difference on one of the variables, the true/false ratio, when the two studies were combined into four groups on the basis of treatment. In this analysis, treatment A was found to be significantly different from treatments C and D on this variable. Because the true/false ratio was not significantly different on the other three analyses, it was not possible to make any statement in regard to differential treatment effects as a possible causative agent. The possibility exists that this result may be due to chance factors that could have occurred in the large number of analyses of covariance that were computed.

There was the same difficulty in the interpretation of the FIRO-B results as there was in the TSCS variables. While most of the variables for the four analyses were non-significant, there were two variables that showed significant differences. In the first study, expressed affection was significantly different. Group C from the first study was significantly different from groups A and B of the first study on this variable. While this result may have been due to chance, the facilitators who conducted the groups suggested the possibility that this result may have been due to factors peculiar to group C in the first study. This group was looked upon by the facilitators as being a deep and fast moving group and they thought that this may have been due to the presence of a very facilitative group member. If this is a true assessment of the reason for this difference, it demonstrates one of the main difficulties involved in doing small group research. That is, because of the necessarily small numbers within each group, sampling error has a very high probability of occurring. This would be true even in studies where subjects are randomly assigned to groups as was the case in this study. The other significant difference on a FIRO-B variable occurred in the second study. Wanted inclusion was significantly different in this study. Group A from the second study was significantly different from group C of the second study. Again, because of the large number of analyses of covariance that were computed, this result may have been due to chance. Because the variables which differed significantly in the first analysis did not differ significantly in the succeeding analyses, it is impossible to relate these differences to any differential treatment effect.

The data from the Tentative Scale for the Measurement of Genuineness when the groups from both studies were analyzed separately was significantly different at the .001 level. Dunn's "c" showed that group A from the first study was significantly different from group B of the first study and group C of the second study. Group B in the first study was significantly different from group C in the first study. Interestingly, group C from the first study was significantly different from group C in the second study. Group B from the second study was significantly different from group C of the second study. Because group C from the first study was significantly different from group C of the second study, the fourth analysis of variance which would have combined the data from both studies on the basis of treatment was not reported. There were no significant differences on the genuineness scale data for the first study or for the second study. While there do not appear to be any logical conclusions that can be made which would attribute the findings to differential treatment effects, it is interesting to speculate on other factors. The results from this analysis seem to support the subjective opinions of the facilitators. They had seen group C of the first study as being a more fruitful group than either A or B from that study. The directionality of the differences with group C from the first study being higher on the scale than group B from the first study tends to support their contention.

The instant feedback device data is also quite difficult to interpret. There was a significant difference on the amount of green light times when the groups from both studies were analyzed separately. Since group A from the first study was significantly different from group A of the second study, the analysis of variance that was planned

to compare the data from both studies on the basis of treatment was not reported. In addition, there were no significant differences on the amount of green light times for either the first or second studies. There were no significant differences for red light times when the groups from both studies were analyzed separately. There also were no significant differences on the red light times for the first study, the second study or when the data from both studies were combined on the basis of treatment. There was a significant difference on the white light times when the data from both studies were analyzed separately. Group A from the first study was significantly different from group A of the second study and group B from the first study was significantly different from group A of the second study. Because the two group A's were significantly different, it was not appropriate to analyze the data from both studies on the basis of treatment. There were also no significant differences on the white light time for either the first or second studies. It is not possible to attribute the differences that do occur to a differential treatment effect because the results are not supported in the other analyses of the data.

The instant feedback machine and the genuineness scale results seem to suggest that there were some differences among the groups. It also appears that the differential treatments were not primarily a causative factor in these results. It appears that the Tentative Scale for the Measurement of Genuineness is able to detect differences among groups and that the instant feedback device can record differences between groups while apparently not directly causing the differences. It is difficult to understand why the groups differed on the results of the genuineness scale and the feedback device data because the examples

of when to respond to congruent or incongruent behavior on the feedback device were taken from the genuineness scale. One possible explanation for this difference might have to do with the feelings that the subjects may have been experiencing while in the group and pressing the buttons as compared to the emotional state they may have been in after the session when they filled out the genuineness scale.

There is one other factor which should not be overlooked in discussing the results of this study. The differences in the numbers of males and females in the corresponding groups of the two studies may have influenced the results.

In concluding this study, it is necessary to point out what by now may seem obvious. The use of instant feedback, at least in the form examined in this study, does not appear to be related to any differential outcomes on the measures employed. It is also apparent from the results of this study that the group phenomenon is a highly complex area in which to do research. There appear to be many variables which are only beginning to be perceived as being relevant to outcome in the group process.

Recommendations

The following recommendations are presented in an effort to provide direction for further studies of instant feedback in group counseling.

1. A study should be performed utilizing a similar instant feedback mechanism and different psychological tests to determine if the results of this experiment hold true for other instruments.

2. Construction of a more sophisticated feedback device would be highly desirable. An on-line computer link-up is one possibility which could increase the range of feedback to the participants. For example, each participant could be given additional and immediate feedback after each session of the amount of time his behavior was perceived as congruent within the group. More sessions with the more sophisticated device would give a more accurate picture of the value of this apparatus.

3. Another study could be performed using different variables as a focus of attention. For example, warmth or empathy could be substituted for congruence.

4. Another study could be performed using an instant feedback device and varying the length and amount of sessions. For example, it would be desirable to investigate the differences between a marathon group and a group meeting the same number of hours in weekly sessions if both used a feedback device.

5. It would be desirable to have a longitudinal follow-up of the participants of this experiment.

APPENDIX A

LIGHT TIME RECORDING

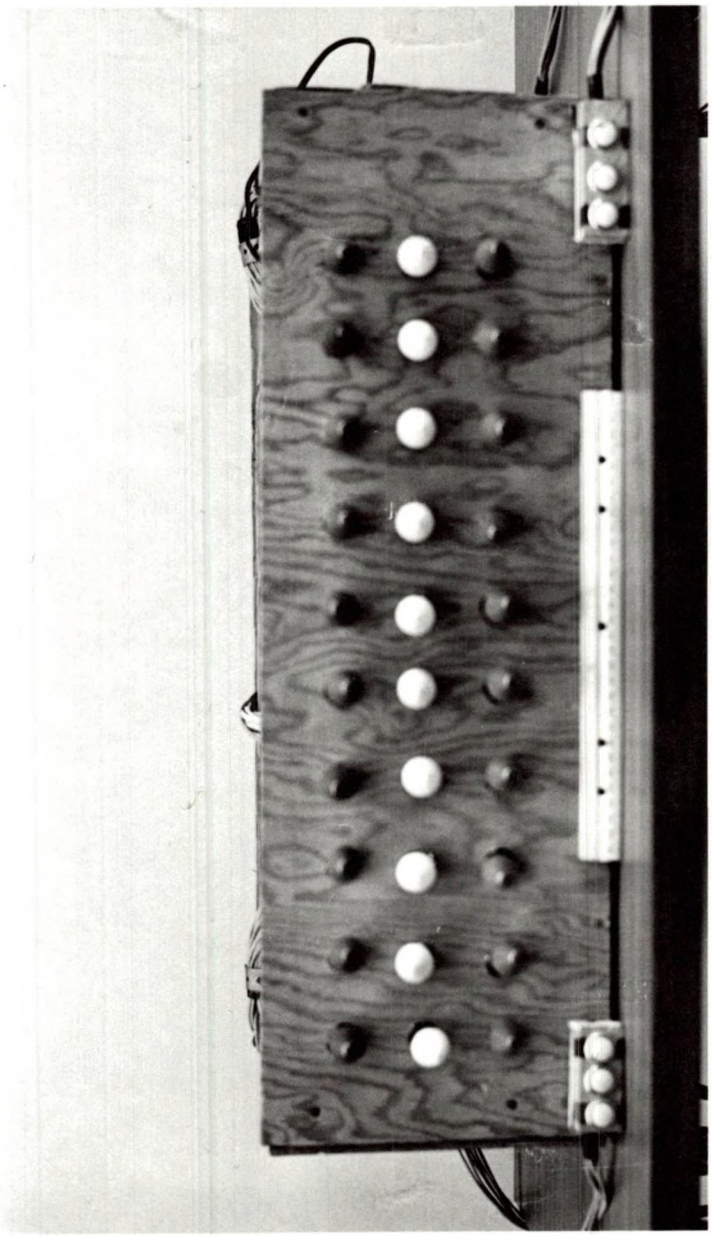
Group_____
Session_____
No. of Respondents_____
Date_____

Place Time in Minutes for Each Clock Used

Light Number	Green	Red	White
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

APPENDIX B

PLATE I



MODIFIED TENTATIVE RATING SCALE FOR GENUINENESS

Instructions: Write the name of every individual who attended the group session including the facilitator and put an x in the box that in your opinion best represents the amount of genuineness that each person displayed during this session.

Levels of Genuineness

Level I

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

Level II

The person responds appropriately but in a professional rather than a personal manner, giving the impression that his responses are said because they sound good from a distance but do not express what he really feels or means. There is a somewhat contrived or rehearsed quality or air of professionalism present.

Level III

The person is implicitly either defensive or professional, although there is no explicit evidence.

Level IV

There is a neither implicit nor explicit evidence of defensiveness or the presence of a facade. The person shows no self-incongruence.

Level V

The person is freely and deeply himself in the relationship. He is open to experiences and feelings of all types--both pleasant and hurtful--without traces of defensiveness or retreat into professionalism. Although there may be contradictory feelings, these are accepted or recognized. The person is clearly being himself in all of his responses, whether they are personally meaningful or trite. At stage 5, the person need not express personal feelings, but whether he is giving advice, reflecting, interpreting, or sharing experiences, it is clear that he is being very much himself, so that his verbalizations match his inner experiences.

MODIFIED TENTATIVE RATING SCALE FOR GENUINENESS

Name_____
Date_____
Session Number_____
Group Number_____

Name of Person	Level Number 1	2	3	4	5

APPENDIX D

A CONTRACT FOR A LABORATORY IN INTERPERSONAL GROWTH

(Egan, 1970, pp. 51-60).

This laboratory in interpersonal relations will be conducted according to a contract. The purpose of the contract is to provide a facilitating structure for the group experience and to let you know the nature of the experience you are about to enter. Please read the following contract carefully and then decide whether you would like to participate or not in the kind of experience described in the contract. If you want to participate in the group, you must subscribe to the contract.

The Goals of the Group. The overriding goal of the group is, of course, interpersonal growth. Interpersonal growth involves discovering new ways of being present to others. Personal growth, too, is a goal of the group, but it is assumed that all that is good in personal growth (e.g., reduction of anxiety, enhanced feelings of self-worth, a keen sense of self-identity) must be placed at the service of interpersonal relationships. Man is a relational being and the height of his growth lies in his relationships with others.

Leadership in the Group. The group will have a leader, but since he is not a leader in the traditional sense of that term, he is sometimes referred to by different titles, such as "trainer" or "facilitator." The name is not important, but his function is. He is skilled in group dynamics and has had a good deal of experience participating in and working with groups. However, he is in the group because he, too, is interested in growing interpersonally. Therefore, he subscribes to the same contract that you do; that is, he is a leader-member. As leader, his function is to put his knowledge of groups and his experience in groups at the service of your group. He is a resource person, not a super-member. He is someone like you, interested in increasing his interpersonal effectiveness by involving himself with you. If certain provisions of the contract are not clear, he will explain them to you, but he is not in the group as teacher, at least in the traditional sense. In fact, a good teacher is one who likes to get together with others in order to learn.

The ideal is that the leadership qualities he demonstrates become diffused among the members of the group so that, in a sense, the group might act as its own leader. He will work for that diffusion. What are some of the specific things he will do? He will tell you about some of the difficulties that face most beginning laboratory groups. For instance, some groups spend a good deal of time dealing with the leader; that is, they make him a father figure and try to work out authority problems with him. However, in this group, the leader is not meant to be an authority figure. It is not that the participants may not work through authority problems, but there are other ways of doing this besides focusing on the group leader. If too much time is spent dealing

with the leader, this can prove detrimental to the overriding goal of the group. In this group, interpersonal growth means that the members are to spend a good deal of time involving themselves with one another (including the leader-member).

From the beginning, the leader-member will model the kinds of behavior called for by the contract. Again, he does so not because he is completely self-actualized in the area of interpersonal relating, but because the sooner the group begins to engage in contractual behavior, the better.

The Laboratory Nature of the Group Experience. The experience you are about to enter is called a laboratory for a number of reasons. Part of the contract is to accept the experience as a laboratory. This is what a laboratory entails:

(1) Learning by doing. You will learn how to relate to others more effectively by actually relating. You will see yourself in action and you will talk about the ways in which you relate to the other members of the group.

(2) A climate of experimentation. The term "laboratory" implies experimentation. You will experiment with your own behavior, attempting to relate to others in new ways. This does not mean that the group will invent new ways of acting. Rather, you will try to deal with others in ways that you do not ordinarily use in your day-to-day contacts. For instance, if you are usually quiet and reserved, you may experiment with speaking up in the group. For you, this is a new way of being present to others.

(3) No prejudging the experiment. The person who comes to the laboratory convinced that the experiment will not work usually leaves it feeling quite self-satisfied. His phophecy has been self-fulfilling. You are asked not to prejudge the experience but, rather, to reserve your judgment. The only way you will ever know whether the experiment works or not is to give yourself to it as completely as possible.

(4) Feedback. Your own behavior is the major input in the laboratory. But trying new ways of behaving is somewhat useless unless it is possible to determine how this behavior strikes others. Therefore, you are asked not only to react to others but to tell others how their behavior strikes you. You, too, will receive feedback from the other participants. By means of such feedback you should come to a better understanding of your own interpersonal abilities and limitations.

Try to get a feeling for your ability to involve yourself with others. All of us have strong points and all of us have areas of deficit in our interpersonal living. Use the group to get a feeling for both.

Rules of Immediacy. If the laboratory experience is to be intensive, it must be as immediate as possible. Certain rules facilitate a climate of immediacy in the group.

(1) The here and now. Deal with the here and now rather than the there and then. Your interactions with one another are the most important part of the laboratory. When you do talk about things that have happened or are happening outside the group, do so in such a way as to make them relevant to what is happening in the group. If you keep talking about things outside the group, people and istuations unfamiliar to the other

participants, you will lose their interest. Make the outside and the past somehow present to your fellow group members. Talking about people and things outside the group is sometimes a way of fleeing from more intensive group interaction.

(2) Cooperation. Your goals can be reached only if you cooperate with one another. This does not mean at all that there will not be disagreements, but interpersonal growth is much more likely to take place in an atmosphere of cooperation than in one of competition or conspiracy. This does not mean that you have to be "nice" for the sake of being nice; a cooperative group structure does not exclude strong feeling and confrontation. But there is little immediacy unless you move toward the other person in an effort to involve yourself with him. The contract provides a structure for cooperation. If you are fulfilling the provisions of the contract, you can be sure that you are cooperating with the other participants.

(3) Avoid generalities. When you speak, try to be concrete and specific. For instance, when speaking about yourself, use "I." Do not use "you" when you mean "I." In fact, try to avoid using general words to refer to people, such as "you," "one," "people," "men," "they," "we," and the like. Do not say: "There are some people in the group with whom I get along better," but rather: "I seem to get along better with John and Mary than with any of the other members of the group." Finally, do not make speeches to the whole group; even if you want to address the whole group, try to address the group through another member. For instance, say: "John you were not really listening to me this morning; in fact, this seems to be a group problem: we don't really listen to one another." If you address yourself always to the whole group, the other members will often sit there and listen respectfully to you, but no one will respond to you. Speeches addressed to everybody tend to be addressed to nobody. In summary, use "I" when you mean "I"; be concrete, avoiding vagueness and generalities; try to address individuals in the group, even when you are addressing the entire group (in a way, you are always addressing the entire group whenever you speak).

(4) Do not "siphon off" issues of concern to the group. Sometimes group members get together in twos and threes and work through issues that have arisen within the group. There is nothing wrong with this provided you summarize to the group what has taken place. If the issues come up within the group, then, in some sense, they belong to it. If these issues, then, are settled outside, some of the life of the group is "siphoned off," and the group becomes somewhat anemic because of it; that is, it loses a degree of immediacy.

The Elements of Dialogue: Emotion, Language, and the Fusion of the Two. You will contact one another principally by talking to one another. Language, then, and the expression of feeling are crucial factors for this experiment.

(1) Emotion. Try to let reality have an emotional impact on you, especially the reality of the other members of the group. Let yourself feel various emotions; feel what it is like to experience these emotions. Secondly, let yourself react as constructively as possible to what you

experience. Do not try to hide the emotional dimensions of yourself. Do not be overly intellectual; ideas are certainly important, but in laboratories in interpersonal relations, emotions are equally important. Tell others, then, not just how you think about things, but how you feel about them. Sometimes our ideas and our emotions do not coincide. It is good to be able to recognize this division within yourself.

(2) Human language. Get a new feeling for the power of human language. How do you translate yourself into language? Find out whether your language gives expression to the deep you or only to the superficial you. If you tend to use lifeless language in your day-to-day contacts, experiment with a more forceful use of language in the group. Try to avoid cliches; use words that have more power than the words you ordinarily use. Language can be a form of contact or it can be a barrier between you and the others; try to make your language as contact-producing as possible. If you speak in cliches and generalities, this might well reflect an unwillingness of your part to make deeper contacts with others.

(3) Poetry: welding feeling to language and language to feeling. Try to let your feelings find expression in language and let your language be colored by feeling. Some of us experience things deeply, but we cannot translate our experiences into language. The laboratory is an opportunity to make attempts to do just that. When you succeed, your language will be, in one of the deepest senses, poetry, for it will be an integrated expression of the person you are.

The Core Interactions. The heart of this contract and, therefore, of the group experience itself is the interaction in which you will engage. You are asked to experiment with the kinds of interaction listed below. They are ways of contacting others, of involving yourself with others and, therefore, offer possibilities of growing with others. You are asked, then, to engage in the following kinds of activity in the group:

(1) Self-disclosure. You are asked to be open about yourself. This means that you are to talk about yourself in such a way as to get the real you (rather than a facade) across to others. In one sense, the facts about yourself are not important in themselves; the fact that through them you translate yourself to others in the group is important. You are not asked to reveal your past life or your darkest secrets. You are important, not your secrets. What you say about yourself should encourage others to "come in"; that is, self-disclosure should constitute a kind of invitation to others to involve themselves with you.

It is up to you to determine how you will talk about yourself and what you will say. This sounds very abstract right now, and it will be easier to determine in the give and take of the group interaction. There are various levels of self-disclosure: The more personal something is, the deeper it is. The general level of self-revelation is determined by the group itself and depends on a number of factors--for instance, the willingness of individuals to take risks and the level of trust in the group. The point is that the group members and not the contract, determine the level at which they will work. You will, undoubtedly, reveal yourself at a level at which you feel comfortable, or perhaps a little beyond (that is, you will risk talking about

yourself). A moderate degree of anxiety in the group is generally a sign that you are working at least a little beyond the level of comfort, and such anxiety, if controlled, can be a help rather than a hindrance. Self-disclosure, if it is authentic, if it is really a translation of yourself, tends to create intimacy. If you have difficulty talking about yourself, if you become too anxious, it might well be that you fear rejection, but it is also possible that you are afraid of the intimacy to which self-revelation leads.

Self-disclosure must be in keeping with the here and now rule. If you talk about your past, you should do so because it tells something about the kind of person you are here and now in this group. If you talk about how you are outside the group, this, too, should be made relevant to the you that is in the group. That is, self-disclosure should stimulate interaction with others. Never just talk on about yourself to a passive audience. In keeping with the here and now rule, one area of self-disclosure is most important: You should talk about what is happening to you in the group. For instance, if you are anxious let others know that you are anxious: others want to deal with you as you are, but this is impossible if you hide your feelings. If you are bored, let others know immediately. It is deadly to wait an hour and then tell others that you have been bored. In a sense, you are responsible for your own boredom if you do not speak up.

Finally, although it was said above that you do not have to talk about your deepest secrets, you may speak as deeply about yourself as you wish. The point is that you will not be forced to do so. Sometimes, if someone else speaks rather personally about himself, you will find it easier to talk about yourself (but you should remember that this works the other way around also).

(2) The manner of expressing feeling. Above, you were encouraged to let emotion be part of the group experience. Too often, we swallow our feelings (for instance, our anger) only to let them filter out in rather unproductive ways (we become cold or uncooperative, we make snide remarks or remain silent, etc.). There is another possibility, however; speak frankly about your emotion-laden contacts with one another. For instance, if you are angry, instead of just blowing up or swallowing your anger, let the other know that you are angry and would like to work it through: "John, I'm really angry with what you said, but I'd like to work it through: tell you why and get some response from you. If possible, I want to work this out with you here." Perhaps such frankness, coupled with a desire to work things through, would constitute for you a new way of being present to another.

(3) Listening. It is amazing to discover how poorly we listen to others. The contract asks you to examine your ability to listen. Listening does not mean just hearing words and sentences and understanding their meaning; rather, it means reaching out for what another has to say; it means listening to persons rather than just ideas. Learning to pick up all the cues that others emit, both verbal and nonverbal, is part of listening. Facial expressions, gestures, a shrug of the shoulders, bodily positions--all of these are sources of communication. Often, too, when we communicate with one another, we embed surplus messages in our overt communications by the way we say things. You are asked to become sensitive to the surplus-message aspects of communication also.

(4) Support. It is difficult for people to "put themselves on the line," that is, to engage in meaningful self-disclosure and to express feelings responsibly. When you and the other members of the group do make sincere attempts to fulfill the contract, then you need support. It is assumed that you are basically supportive, that is, that you have some kind of basic acceptance of others simply because they are; otherwise you would not want to engage in an experience for interpersonal growth. Still, you can accept others sincerely without always approving of everything they do. It may be, for instance, that you reveal things about yourself which you yourself do not approve. Obviously, then, though you would expect them to approve of the things that you disapprove of in yourself.

Support has two phases. The antecedent phase consists in encouraging others to fulfill the contract. For instance, one of the best ways of encouraging others to fulfill the contract is to fulfill it yourself. The leader-member will try to do just this by modeling the behavior called for by the contract. The second phase refers to your support of those who do engage in contractual interaction. Others will reveal themselves; they will express their feelings. Support then means giving some kind of recognition that the other has fulfilled the contract, that he has done a good thing. Support means being responsive to the behavior of others. Again, engaging in contractual behavior is an excellent way of giving phase-2 support. For instance, if one of the members engages in responsible self-disclosure, you may give him a good deal of support by revealing something about yourself in the same area, something that responds to his concern.

Although support is absolutely necessary for effective group operation, it is also perhaps one of the most difficult of the contractual provisions. When someone "invites you in" by being open about himself, you may feel gauche and find it difficult to respond to him. When someone speaks feelingly about himself, it is too easy to ignore his feelings (for this may be an uncomfortable aspect of his communication) and to try to deal with him on an intellectual level--for instance, by asking him a lot of questions. Because of our discomfort we try to intellectualize the whole process. However, if you are made uncomfortable by what another says, if you are unable to respond in what you think would be a meaningful way, do not pretend that you can. Counterfeit support, expressed in such cliches as "I understand," and "I know how you feel," deadens group process. Perhaps your best response is to admit that you are uncomfortable, that you are at a loss for a response. This can be supportive in itself, because it is honest. Do not try to show conventional sympathy to others merely because you think that you should say something. Support is the gift of one's person and not the fulfillment of a convention. Learning to be present to others in meaningful support is one of the most important tasks of the group experience.

(5) Confronting others. Sometimes you will find it impossible to agree with what another person is saying or doing. If this is true, tell him so as honestly as you can, and tell him why. This is confrontation. Confrontation is, basically, an invitation to another to examine or reflect upon his behavior "in community," that is, in the context of the group. For instance, perhaps another person in the group is

simply not fulfilling the provisions of the contract at all (if he is silent all the time, he could not be). If you tell him this and ask him to examine his behavior, then you are confronting him. The way you confront, however, is very important: the cardinal rule is that you should confront another because you are concerned about him and want to involve yourself with him. Confrontation is not just irresponsible "telling a person off." Responsible confrontation is an invitation to self-examination, not an act of punishment. If you are merely punishing another, you might find some relief (for instance, from your anger), but you are doing little to set up interpersonal contact between yourself and the other. Undeniably, confrontation will almost always have some kind of punitive side effects (none of us likes to be cha-lenged because of allegedly negative forms of behavior), but punishment cannot constitute the rationale of confrontation. Sometimes it is difficult to confront without making punishment the primary purpose of the act. Confrontation, then, is something you must experiment with in the group.

(6) Responding to confrontation. If confrontation is responsible, that is, if it really is an invitation to self-examination, then obviously the best response is self-examination. However, when we are confronted even by someone who is concerned for us and wants to involve himself with us, out instinctive response is often twofold: to defend ourselves and to attack the confronter. That is, we respond to the punitive side effects of confrontation instead of to the confrontation itself. Therefore, try to listen to what the one confronting is saying and not just to the feelings he is evoking in you. If what he says is true and if, in addition, he wants to involve himself with you, then it is to your advantage to listen, to examine yourself, and to respond to him. This is difficult, but frequently rewarding.

Self-disclosure, expression of feeling, listening, support, confrontation, and response to confrontation--these, then, are the forms of inter-personal behavior with which you are asked to experiment. The ability to engage freely and responsibly in such behaviors is interpersonal growth.

A Stance against Flight. Engaging in the kinds of interactions described above is not easy, and therefore we find ways of running away from group process. We tend to run away because we are anxious, because we prefer not to know the truth about ourselves, because it is painful, perhaps, to be the object of another's concern. You are asked, then, to take a stance against all the different forms of flight from intimate group interaction: calling upon humor whenever things get too serious, keeping one's feelings to oneself, spending a good deal of time on intellectualized interpretations of the behavior of others. You must become sensitive to the ways you flee group process and to the different ways in which the group as a whole tends to flee (e.g., by tacitly deciding not to talk about certain subjects). Confronting models of flight in yourself and in the group is essential to the life of the group. One mode of flight is extremely destructive: cynicism about the experience even before one enters into it. The person who comes to the group believing that he will get nothing from it will leave having fulfilled his own prophecy. Try not to flee from your anxiety by

employing defenses. Rather handle your anxiety by dealing with it in the group. It is obvious, by now, that the contract demands that you be active in the group. Silence and withdrawal are types of flight. Perhaps, in other groups, the nonactive member profits, even though he adds little more than his presence. This cannot be the case in the contract group.

Freedom. This contract is not meant to constrain you; it is meant to help you channel your freedom. It says, for instance, that self-disclosure is a value in this group, but it does not say what you must talk about, nor does it dictate the level of disclosure. This is something you must work out yourself in the give and take of group interaction. You must choose the kinds of interaction most meaningful to you. Some of the experiments you engage in in the group will be successes and some failures, but this is a reflection of life itself. Try not to expect either too much or too little from the group. The only way you can really learn about the possibilities of the group experience is by giving yourself to it.

TABLE 30

DUNN'S "c" FOR A TSCS VARIABLE (TRUE/FALSE RATIO): FIRST AND SECOND STUDIES - FOUR GROUPS

Comparisons	Dunn's "c"
A (Both Studies) versus C (Both Studies)	2.72*
A (Both Studies) versus D (Both Studies)	2.72*

*Significant at .05 level.

TABLE 31

DUNN'S "c" FOR A FIRO-B VARIABLE (EXPRESSED AFFECTION): FIRST STUDY

Comparisons	Dunn's "c"
A (First Study) versus C (First Study)	-3.85*
B (First Study) versus C (First Study)	-3.53*

*Significant at .05 level.

TABLE 32

DUNN'S "c" FOR A FIRO-B VARIABLE (WANTED INCLUSION): SECOND STUDY

Comparisons	Dunn's "c"
A (Second Study) versus C (Second Study)	-3.50*

*Significant at .05 level.

TABLE 33

DUNN'S "c" FOR THE TENTATIVE SCALE FOR THE MEASUREMENT OF GENUINENESS: FIRST AND SECOND STUDIES - SIX GROUPS

Comparisons	Dunn's "c"
A (First Study) versus B (First Study)	.67*
A (First Study) versus C (Second Study)	.92*
B (First Study) versus C (First Study)	-.63*
C (First Study) versus C (Second Study)	.88*
B (Second Study) versus C (Second Study)	.71*

*Significant at the .05 level.

TABLE 34

DUNN'S "c" FOR THE TENTATIVE SCALE OF THE MEASUREMENT OF GENUINENESS: SECOND STUDY

Comparisons	Dunn's "c"
A (Second Study) versus C (Second Study)	.61*
B (Second Study) versus C (Second Study)	.71*

*Significant at .05 level.

TABLE 35

DUNN'S "c" FOR GREEN LIGHT TIMES: BOTH STUDIES - FOUR GROUPS

Comparisons	Dunn's "c"
A (First Study) versus A (Second Study)	.34*

*Significant at .05 level.

TABLE 36

DUNN'S "c" FOR WHITE LIGHT TIMES: BOTH STUDIES - FOUR GROUPS

	Dunn's "c"
A (First Study) versus A (Second Study)	.21*
A (Second Study) versus B (First Study)	.24*

*Significant at the .05 level.

REFERENCES

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American Group Psychotherapy Association, Inc. Current concepts and methodological issues in group psychotherapy research: II. International Journal of Group Psychotherapy, 1967, 17, 192-242.

Anderson, R. C., Kulhavy, R. W., & Ardre, T. Feedback procedures in programmed instruction. Journal of Educational Psychology, 1971, 62, 148-156.

Apostal, R. A., & Muro, J. J. Effects of group counseling on self-reports and on self-recognition abilities of counselors in training. Counselor Education and Supervision, 1970, 10, 56-63.

Argyris, C. T group for organizational effectiveness. Harvard Business Review, 1964, 63.

Aronson, M. L. Technical problems in combined therapy. International Journal of Group Psychotherapy, 1964, 14, 425-432.

Backman, C. W., Second, P. P., & Pierce, J. R. Resistance to changes in self-concept as a function of consensus among significant others. Sociometry, 1963, 26, 102-111.

Barko, H. Book review of FIRO. Educational and Psychological Measurements, 1960, 20, 210-211.

Baumgartel, H., & Goldstein, J. W. Need and value shifts in college training groups. Journal of Applied Behavioral Science, 1967, 3, 87-101.

Berger, M. M., Sherman, B., Spalding, J., & Westtake, R. The use of videotape with psychotherapy groups in a community mental health service program. International Journal of Group Psychotherapy, 1968, 18, 504-515.

Bertoch, M. R. A study of the relationship of counseling theory concepts to the self-concepts and values of counselors in training. Dissertation Abstracts, 1969, 29, 4272.

Bindrim, P. A report on a nude marathon: The effect of physical nudity upon the practice of interaction in the marathon group. Psychotherapy: Theory, Research and Practice, 1968, 5, 180-188.

Borg, W. R. Prediction of small group role behavior from personality variables. Journal of Abnormal and Social Psychology, 1960, 60, 112-116.

Broedel, H., Ohleson, M., Proff, F., & Southard, C. The effects of group counseling on gifted underachieving adolescents. Journal of Counseling Psychology, 1960, 7, 163-170.

Brown, D. S. Some feedback on feedback. Adult Leadership, 1967, 15, 226.

Bunt, M. E. A study of certain aspects of ego identity as demonstrated by the discrepancy between how an adolescent views himself and how he perceives that others view him. Dissertation Abstracts, 1968, 28, 4471-4475.

Burke, R. L., & Bennis, W. G. Changes in perception of self and others during human relations training. Human Relations, 1961, 14, 165-182.

Burton, A. (Ed.) Encounter: The theory and practice of encounter groups. San Francisco: Jossey-Bass Inc., 1970.

Butler, J. M. Self-concept change in psychotherapy. Counseling Center Discussion Papers, 1960, 6, 1-27.

Cahoon, D. D. A comparison of verbal reinforcement applied in group and individual interviews. Journal of Counseling Psychology, 1965, 12, 121-126.

Carson, R. C., & Loken, M. Some effects of group sensitivity experience. Paper presented at the convention of the Southeastern Psychological Association, Miami Beach, April, 1963.

Cleland, R. S., & Carnes, G. D. Emotional versus ideational emphasis during group counseling with student nurses. Journal of Counseling Psychology, 1965, 12, 282-286.

Clements, B. E. Transitional adolescents, anxiety, and group counseling. Personnel and Guidance Journal, 1966, 45, 67-70.

Cole, C. W., Oetting, E. R., & Miskimins, R. W. Self-concept therapy for adolescent females. Journal of Abnormal Psychology, 1969, 74, 642-645.

Collins, H. A., & Burger, G. K. The self-concept of inner city and suburban youth. National Catholic Guidance Conference Journal, 1969, 13, 10-17.

Connors, C. K. Birth order and needs for affiliation. Journal of Personality, 1963, 31, 408-416.

Crites, J. O. Test reviewing: Tennessee Self-Concept Scale. Journal of Counseling Psychology, 1965, 12, 330-331.

Czaijkoski, E. H. The use of video tape recordings to facilitate the group therapy process. International Journal of Group Psychotherapy, 1968, 18, 516-524.

Danet, B. N. Impact of audio-visual feedback on group psychotherapy. Journal of Consulting and Clinical Psychology, 1969, 33, 632.

Davis, C. S. An assessment of the effectiveness of small group counseling on selected groups of seventh and ninth grade underachieving boys. Unpublished doctoral dissertation, University of Tennessee, 1969.

Dickenson, W. A., & Truax, C. B. Group counseling with college underachievers. Personnel and Guidance Journal, 1966, 45, 243-247.

Douglas, J. D. Book review of FIRO. American Journal of Sociology, 1961, 66, 543-544.

Egan, E. Encounter: Group processes for interpersonal growth. Belmont: Calif.: Brooks/Cole Publishing Co., 1970.

Fiske, D. W. Variability among peer ratings in different situations. Educational and Psychological Measurement, 1960, 20, 283-292.

Fitts, W. H. Tennessee (Department of Mental Health) Self-Concept Scale manual. Nashville, Tennessee: Counselor Recordsings and Tests, 1965.

French, J. R. P., Sherwood, J. J., & Bradford, D. L. Change in self-identity in a management training conference. Journal of Applied Behavioral Science, 1966, 2, 210-218.

Fromm-Reichman, F. Some aspects of psychoanalytic psychotherapy with schizophrenics. In E. Brody & F. C. Redlich (Eds.), Psychotherapy with schizophrenics. New York: International University Press, 1952.

Frye, R. L. The effect of feedback of success and effectiveness on self, task, and interaction oriented group members. Dissertation Abstracts, 1962, 22, 3272-3273.

Gassner, S. M., Gold, J., & Snadowsky, A. M. Changes in the phenomenal field as a result of human relations training. Journal of Psychology, 1964, 58, 33-41.

Gazda, G., & Ohleson, M. The effects of short term group counseling on prospective counselors. Personnel and Guidance Journal, 1961, 39, 634-638.

Glanz, E. C., & Hayes, R. W. Groups in guidance. Boston: Allyn and Bacon Co., 1967.

Goldman, M., Bolen, M. E., & Martin, R. B. Some conditions under which groups operate and how this affects their performance. Journal of Social Psychology, 1966, 54, 47-56.

Gunn, J. C. An objective evaluation of geriatric ward meetings. Journal of Neurology, Neurosurgery, and Psychiatry, 1968, 31, 403-407.

Harrison, R., & Oshry, B. Report to SAED of GESAED-BUHRC training study. Unpublished manuscript prepared for the Small Aircraft Human Relations Center, 1965.

Hartley, E., & Rosenbaum, M. Criteria used by group psychotherapists for judging improvement in patients. International Journal of Group Psychotherapy, 1963, 13, 80-83.

Herman, A. A comparison of the self-concepts and the ideal-self-concepts of grade ten matriculation and non-matriculation students in the county of Lacombe, Alberta. Dissertation Abstracts, 1969, 29, 3001.

Hill, A. B., & Hill, H. H. Practicing congruence and focusing on awareness of incongruence. Paper presented at the convention of the American Educational Research Association, Minneapolis, March, 1970.

Hogan, P., & Alger, I. The impact of video tape recording on insight in group psychotherapy. International Journal of Group Psychotherapy, 1969, 19, 158-164.

Hollenbeck, G. P. Conditions and outcome in the student-parent relationship. Journal of Consulting Psychology, 1965, 29, 237-241.

Hoy, R. M. The personality of inpatient alcoholics in relation to group psychotherapy as measured by the 16PF. Quarterly Journal of Studies on Alcohol, 1969, 30, 401-407.

Hurst, J. C., & Fennes, R. Extended-session group as a predictive technique for counselor training. Journal of Counseling Psychology, 1969, 16, 358-360.

Kolb, D. A., Winter, S. K., & Berlew, D. E. Self-directed change: Two studies. Journal of Applied Behavioral Science, 1968, 4, 453-471.

Kondas, O. Reduction of examination anxiety and "stage fright" by group sensitization and relaxation. Behavior Research and Therapy, 1962, 5, 275-281.

Krumboltz, J. D., & Thoreson, C. E. The effect of behavioral counseling in group and individual settings on information seeking behavior. Journal of Counseling Psychology, 1964, 11, 324-333.

Kuntz, A. An experimental evaluation of short-term group counseling with non-conforming adolescents. Dissertation Abstracts, 1967, 27, 3290.

Lamb, D. W. Demonstrated internal-external reward expectancies as a variable in group counseling. Dissertation Abstracts, 1969, 29, 2568-2569.

Laxer, R. M., Quarter, J. J., Ismor, C., & Kennedy, D. R. Counseling small groups of behavior problem students in junior high schools. Journal of Counseling Psychology, 1967, 14, 454-457.

Lazarus, A. A. Group therapy of phobic disorder by systematic desensitization. Journal of Abnormal and Social Psychology, 1961, 63, 504-510.

Lippitt, G. L. Effects of information about group desire for change on members of a group. Unpublished doctoral dissertation, American University, 1959.

Luchins, A. S. An approach to evaluating the achievements of group psychotherapy. Journal of Social Psychology, 1960, 52, 345-353.

Mahler, C. A. Group counseling. Personnel and Guidance Journal, 1971, 49, 601-608.

Manaster, A., & Kuchuris, S. Experiential methods in a group counseling program with blind children. Paper presented at a meeting of the American Society of Group Psychotherapy and Psychodrama, New York City, March, 1968.

Mann, P. H. The effect of group counseling on educable mentally retarded boys' concepts of themselves in school. Dissertation Abstracts, 1968, 28, 3467.

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

Massarik, F., & Carlson, G. The California Personality Inventory as an indicator of change in sensitivity training. Unpublished master's thesis, University of California at Los Angeles, 1960.

McBride, J. J. A study of relationships between the self-concepts of seventh grade disadvantaged children and certain counseling and motivation techniques. Dissertation Abstracts, 1967, 27, 4135-4136.

Meador, B. D. Individual process in a basic encounter group. Journal of Counseling Psychology, 1971, 18, 70-76.

Mills, D. H. The use of fantasy and imagery in the training of counselors: The cognitive trap in graduate education. Paper presented at the American Personnel and Guidance Association convention, Detroit, April, 1968.

Moustakas, C. E. Psychotherapy with children - the living relationship. New York: Harper and Bros., 1959.

Mowrer, O. H. The new group therapy Princeton, N. J.: D. Van Nostrand Co., Inc., 1964.

Norfleet, R. Interpersonal relations and group productivity. Journal of Social Issues, 1948, 4, 69.

Ofman, W. Evaluation of group counseling procedure. Journal of Counseling Psychology, 1964, 11, 152-159.

Ohleson, M. M., & Johnson, H. Group counseling evaluated by blind analysis of projective test responses. Journal of Counseling Psychology, 1962, 9, 359.

Pepinsky, N. B., Seigel, L., & Van Atta, E. L. The criterion in counseling: A group participation scale. Journal of Abnormal Psychology, 1952, 74, 415-419.

Perkins, J. A., & Wicas, E. A. Group counseling bright underachievers and their mothers. Journal of Counseling Psychology, 1971, 18, 273-278.

Povin, R., Stanowski, R., & Wildowski, C. A marathon counseling session for parents of underachieving students. ED034272, 1969.

Rogers, A. Videotape feedback in group psychotherapy. Psychotherapy, Theory, Research, and Practice, 1968, 5, 37-39.

Rogers, C. R., & Dymond, R. F. Psychotherapy and behavior changes. Chicago: University of Chicago Press, 1954.

Rogers, C. R. The group comes of age. Psychology Today, 1969, 3, 27-31.

Rogers, C. R. Carl Rogers on encounter groups. New York: Harper & Row, 1970.

Rubin, I. Increased self-acceptance: A means of reducing prejudice. Journal of Personnel and Social Psychology, 1967, 5, 233-238.

Ryan, L. R. Clinical interpretation of the FIRO-B. Palo Alto: Consulting Psychologists Press, Inc., 1970.

Scheidel, T. M., & Crowell, L. Feedback in small group communication. The Quarterly Journal of Speech, 1966, 52, 273-278.

Schein, E. H., & Bennis, W. G. Overview of laboratory training. In E. H. Schein and W. G. Bennis (Eds.), Personal and organizational change through group methods. New York: Wiley, 1965.

Schuldt, W. J., & Truax, C. B. Client awareness of adjustment in self and ideal-self-concepts. Journal of Counseling Psychology, 1968, 15, 158-159.

Schutz, W. C. FIRO: A three dimensional theory of interpersonal behavior. New York: Holt, Rinehart & Winston, 1958.

Schutz, W. C., & Allen, V. L. The effect of a t-group laboratory on interpersonal behavior. Journal of Applied Behavioral Science, 1966, 2, 265-286.

Schutz, W. C. Joy: Expanding human awareness. New York: Grove Press, Inc., 1967.

Searle, P. R. The effect of video tape feedback on the behavior of counseling groups. Dissertation Abstracts, 1969, 29, 2970.

Shaw, M. C., & Tuel, J. K. Guidance research in action group counseling with parents. Guidance Research Project, Monograph 2, 1965, 331.

Shaw, M. C. Interrelationships between counselor and teacher perceptions of their participation in group counseling. Speech presented at the convention of the American Personnel and Guidance Association Convention, Dallas, March, 1967.

Sherwood, J. J. Self-identity and referent others. Sociometry, 1965, 28, 66-81.

Shlien, J. M., Masak, H. H., & Dreikurs, R. Effect of time limits: A comparison of client centered and Adlerian psychotherapy. American Psychologist, 1960, 15, 415.

Smith, P. B. T-group climate, trainer style, and some tests of learning. Unpublished manuscript, School of Social Studies, University of Sussex, England, 1966.

Speilberger, C. D., Weitz, H., & Denny, J. P. Group counseling and the academic performance of anxious college freshman. Journal of Counseling Psychology, 1962, 9, 195-204.

Talley, P. The relation of group counseling to changes in the self-concept of Negro eighth grade students. Dissertation Abstracts, 1968, 28, 2524.

Truax, C. B. The process of group psychotherapy: Relationship between hypothesized therapeutic conditions and interpersonal exploration. Psychological Monographs, 1961, 75, 1-35.

Truax, C. B. Effective ingredients in psychotherapy: An approach to unraveling the patient therapist interaction. Journal of Counseling Psychology, 1962, 10, 256-267.

Truax, C. B., & Wargo, D. G. Antecedents to outcome in group psychotherapy with juvenile delinquents: Effects of therapeutic conditions, alternate sessions, vicarious therapy pre-training, and patient self-exploration. Unpublished manuscript, University of Arkansas, 1966a.

Truax, C. B., & Wargo, D. G. Antecedents to outcome in group psychotherapy with hospitalized mental patients: Effects of therapeutic conditions, alternate sessions, vicarious therapy pre-training, and patient self-exploration. Unpublished manuscript, University of Arkansas, 1966b.

Truax, C. B., Wargo, D. G., & Silverman, L. D. Effects of high accurate empathy and non-possessive warmth during group psychotherapy upon female institutionalized delinquents. Journal of Abnormal Psychology, 1966, 71, 267-274.

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

Truax, C. B., Wargo, D. G., & Volksdorf, N. R. Antecedents to outcome in group counseling with institutionalized juvenile delinquents. Journal of Abnormal Psychology, 1970, 76, 235-242.

Underwood, W. J. Evaluation of laboratory method training. Training Directors Journal, 1965, 19, 34-40.

Vacchiano, R. B., & Strauss, P. S. The construct validity of the Tennessee Self-Concept Scale. Journal of Clinical Psychology, 1968, 24, 323-326.

Valiquet, M. I. Contributions to the evaluation of a management training program. Unpublished master's thesis, Alfred P. Sloans School of Management, Massachusetts Institute of Technology, 1964.

Viney, L. Self: The history of a concept. Journal of the History of the Behavioral Sciences, 1969, 5, 349-359.

Vraa, C. W. Influence of need for inclusion on group participation. Psychological Reports, 1971, 28, 271-274.

Webb, A. P., & Elkenberry, J. A group counseling approach to the acting-out adolescent. Psychology in the Schools, 1964, 1, 395-400.

Wedel, C. C. A study of measurement in group dynamics laboratories. Unpublished doctoral dissertation, George Washington University, 1957.

Weigel, R. D., & Warmath, C. F. The effects of group therapy on reported self-disclosure. International Journal of Group Psychotherapy, 1968, 18, 31-41.

Wright, E. W. A comparison of individual and group counseling for test interpretation interviews. Journal of Counseling Psychology, 1963, 10, 126-135.

Zajonc, R. B. The effects of feedback and probability of group success on individual and group performance. Human Relations, 1962, 15, 149-161.