ABSTRACT

TEACHING INTRODUCTORY PSYCHOLOGY: SUBJECTIVE, INTERPERSONAL AND OBJECTIVE KNOWING VERSUS THE TRADITIONAL METHOD

By

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Traditionally introductory psychology classes have been designed to orient the student to the scientific method and to the objective assessment of behavior. But according to Carl Rogers (1964), there are three methods by which people gain psychological knowledge: the objective, the subjective, and the interpersonal. The purpose of this thesis was to evaluate a new teaching method which attempted to increase knowledge in all three areas of psychological knowing.

The new method divided class time equally between the three areas. One-third of the time was spent lecturing on experimental data and psychological concepts central to the understanding of psychology as a science. One-third of the time was spent on introspective exercises consisting mainly of Gestalt therapy techniques for expanding perceptual, emotional and memory awareness, and for analyzing one's own historical development. These exercises, designed to enhance the individual's Subjective understanding, were assigned parallel to their concomitant subject matter in the objective part of the course. One-third of the time was spent in modified T-groups or carrying out exercises designed

to highlight interpersonal understanding and behavior.

Data from the Experimental Class described above was compared with data from two Lecture Classes. Lecture Class I was composed of a representative sample of 60 students who volunteered from a large lecture population of 600 students; 80% of Lecture Class I were first term freshmen. Lecture Class II volunteered from similar large lecture sections, and consisted of 27 students, 74% of whom were second term freshmen. The Experimental Class consisted of 55 students from two small classes, 81% of whom were second term freshmen. All but two students from the Experimental Class participated in the research. Each subject chose one or two Others, depending on the class they were in, who completed the measures relating to Interpersonal understanding and behavior change. Two confounding variables arose from the use of these subjects: the effects of using an entire population versus a volunteer sample, and the effects of differences between first- and second-term freshmen. While a pre-experiment rationale was established to deal with the latter problem, it was unclear whether this rationale was valid.

Diverse instruments were used to assess each component of the Experimental method. Identical multiple choice test items were used to assess Objective psychology. An Interpersonal Behavior Change Questionnaire, an Interpersonal Behavior Understanding Scale, and an Interpersonal Behavior Change Scale were used to assess Interpersonal psychological

growth. Subjective psychological growth was assessed by the Subjective Understanding Questionnaire and the Subjective Understanding Scale. A General Effectiveness Scale was used to assess the effectiveness of the class as a whole. In general, the behavior change measures correlated significantly with each other in the Experimental Class and Lecture Class II as predicted. The lack of significance in Lecture Class I was attributed to the variability of first-term freshmen. The Subjective understanding scores correlated only at the .10 level. This limitation was attributed to the SUS's lesser ability to differentiate between people.

Results from all three areas of psychological knowing were favorable to the Experimental Class. Although only one-third of the class time in the Experimental Class was devoted to Objective knowledge, compared with 100% of the Lecture Classes' time devoted to this end, these classes did not differ significantly in performance over identical multiple choice test items.

Significant results favorable to the Experimental Class were found between the classes on the SUS ($p < .01$). When the probabilities of the t values between the Experimental Class and the two Lecture Classes were combined, differences significant at the .06 level were found on the change score of the SUQ, and differences significant at the .01 level were found on the positive-change score of the SUQ.

Concerning Interpersonal knowledge, significant differences favorable to the Experimental Class were found on

the IBUS ($p < .01$) when viewed separately, and on the positive-change scores of the IBCQ and the IBUS when the probabilities of the t values between the Experimental Class and the two Lecture Classes were combined (both $p < .001$). Higher correlations and more significant differences were found on "understanding" scores, Subjective and Interpersonal, than on "behavior change" scores. This was attributed to the relatively more complex nature of changing behavior, especially in an Interpersonal situation, than of changing understanding. Self and Other reports were found to differ significantly when the value dimension of the IBCQ was used in scoring, but not when the value dimension was omitted.

Lastly, results from the General Effectiveness Scale showed very significant differences (p beyond .001) favorable to the Experimental Class.

Important variables for further research, such as transferability of method and effects of novel teaching methods, were discussed.

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INTRODUCTION

Traditionally introductory psychology classes have been designed to give the student a broad understanding of the experimentation and basic conceptual formulations employed in the field of psychology. The purpose has been to orient the student to the scientific method and to the objective assessment of behavior. To accomplish this, introductory classes typically involve a large number of students who are taught by the lecture method. The purpose of this thesis is to evaluate an alternative approach to teaching an introductory psychology course. This new method includes the objective or experimental approach to psychological understanding, but also directly deals with two other forms of psychological understanding: subjective and interpersonal knowing.

The thesis embraces the conceptualization of Carl Rogers (1964) that all psychological knowledge is derived from three processes of data gathering: the objective, the subjective, and the interpersonal. These methods of psychological knowing differ in the procedures they use to confirm or disconfirm hypotheses. Objective knowing, most commonly called the "scientific method," utilizes an external frame of reference and checks its hypotheses by external observable

events in ways that have been agreed upon by the individual's external reference group, e.g. other scientists. Reliance upon operational definitions and statistical tests of significance are characteristic of this approach. Examples of this method include defining emotion by heart rate and GSR, aggression by striking behavior, and avoidance by physical movement away.

Subjective knowledge is obtained by using oneself as referent, by checking one's own preconceptual experience as data. It focuses on the implicit data the individual uses to make sense out of his world, and may be more complex in some individuals than in others. When an individual tries to determine what mood he is in, or asks himself whether or not he likes a certain person, he is using the subjective method of knowing. While subjective methods may employ external cues or stimuli, the internal flow of information is the basis against which the hypotheses are checked.

Interpersonal knowing comprises the individual's knowledge about the phenomenal world of other individuals, and includes knowledge gained through empathy and making personal inquiries. The criterion for acceptance of an hypothesis is to confirm the hypothesis with the person himself or with other persons who have had similar experiences or who know the person. An example of interpersonal hypothesis testing is the individual who checks with another individual what he thinks and feels when he is criticized.

Consensual validation, then, is the method used to verify the hypothesis.

This thesis maintains that all three methods of psychological knowing are important to introduce to beginning students in psychology and that the ability to use all three methods can be increased in the introductory psychology course. Moreover, it is contended that focusing on all three methods can be accomplished without substantially reducing the retention of traditional subject matter. In order to test this hypothesis, a traditional lecture class at Michigan State University (MSU) was compared with an experimental class consisting of one-third lectures, one-third group interaction, and one-third introspection exercises. The lectures consisted of the traditional presentations of scientific method and experimental and theoretical psychological data. These lectures were designed to increase the students' "objective" knowledge of psychology. The introspective exercises consisted mainly of Gestalt therapy techniques for expanding perceptual, emotional and memory awareness, and for analyzing one's own historical development. These exercises, designed to broaden the "subjective" understanding of the individual, were assigned parallel to their concomitant subject matter in the objective part of the course. The group interactions consisted of modified T-groups in which the students discussed their here-and-now interactions with each other or carried out exercises designed to discover and communicate their reactions to

other people's behavior. These interactions were designed to broaden the "interpersonal" understanding of the student.

BACKGROUND RESEARCH

Although learning theorists from diversified backgrounds recognize more than one type of learning: Tolman (1949) differentiating between six types, Melton (1964) six types, and Gagne (1965) eight types; and although teaching theorists differentiate between types of teaching methods and orientations: Gage (1967) elucidating three methods, Siegel and Siegel (1967) two, and Sunderland (1967) two, little if any research has been implemented to show how these varying methods can be integrated into a workable course structure.[1] For this reason previous research in each of three conceptual areas will be considered separately. The 1965-1969 Psychological Abstracts have been the index for the scope of this background research.

Objective Psychology

Objective psychology, since it has been the traditional subject matter of psychology, has usually been used as the standard content against which all other contending methods of teaching have been measured. Large lectures, small discussion groups, programmed learning, and television methods all use the same presentational format: "(a) structuring, (b) presentation of ideas, (c) solicitation of a response, (d) response by the learner, and (e) reaction to

the response. (Gage and Unruh, 1967, p. 360) And usually the same criteria have been used to evaluate their success: scores on quizzes or final examinations have been compared. The consequence of most of this research has been that no differences between the experimental and control groups on the recognition and use of psychological concepts are found--to the point where many investigators suggest, according to Siegel and Siegel (1967), that any differences are due to the Hawthorne Effect.

The present research employs the lecture method in both Experimental and Lecture Classes. The only difference between the types of presentations is the ratio of lectures given and the size of the classes. One-third of the class time of the Experimental Class was spent lecturing on objective psychology, while the Lecture Classes experienced a full lecture schedule (30 lectures, 10 recitations). The remaining two-thirds of the Experimental Class time was spent in interpersonal groups and answering introspective assignments. The class size of the Experimental Class was 30 students per class, while the Lecture Classes had 600 students per class.

Large lecture classes were chosen as controls instead of small lecture classes because (1) large lecture classes are more representative of the method used to teach traditional classes than are small lecture classes, and (2) no small lectures were taught during Fall term, 1969, and of the few taught during Winter term, 1970, only graduate

students doing their initial full-class teaching were available as controls. Their participation was seen as tending to confound more than illuminate the potential comparisons.

Research on small versus large lecture classes, as reported in a review of the literature by McKeachie (1968), has been equivocal. Longstaff in 1932 and Wolfe in 1942 report little differences in achievement between large and small classes, but equal final examination scores between the two groups. Attitudes toward psychology seem to be better in small classes (Macomber and Siegel, 1957). Since the present research uses three major examinations as criteria for comparison, the results mentioned above suggest that no differences will occur between the Experimental and Lecture Classes on the basis of class size.

The effect of presenting one-third as many lectures to the Experimental Class as to the Lecture Classes would seem at first glance to be a clear detriment to the Experimental Class, but on three bases no differences between the classes on the major tests are hypothesized. The justifications for this hypothesis are: (1) both classes are expected to read the entire textbook, (2) the textbook has a voluminous amount of material to be learned and traditional classes characteristically expect students to learn more than they can integrate in one term, and (3) the subjective and interpersonal teaching methods add an integrative context into which experimental data can be assimilated more easily. Although no research has been reported to

confirm or disconfirm the second reason, Siegel and Siegel (1967) suggest that external pressures, like parents and graduation requirements, compel the student to cull important information from the textbook and perform well on examinations whatever the teaching method. With regard to the third reason, both Maslow (1966) and Rogers (1961) point to the essential integration of abstract and experimental knowledge if deeper understanding of conceptual information is to be obtained.

A final area of concern with the objective method is whether the students began each class with equal academic potential. Many studies have shown the high correlation between academic potential and academic performance (Iglinsky, 1968; Brown, 1966; Pickle, 1967; Mangaroo, 1968; Redford, 1968; Brown, 1969). The present research compared classes on two dimensions of the College Qualifying Test, an MSU entrance examination, to determine whether significant differences existed between the classes.

Subjective Psychology

Perhaps due to the stigma of introspectionsim, the writer found only one article in the last five years (McGrory, 1967) in the psychological abstracts concerning the teaching of psychology introspectively. This one teaching method embraced Albert Ellis' concern with analyzing the irrational ideas and illogical thinking of the individual. Centering on the question, "What are you telling

yourself?" students wrote essays or discussed with others their feelings and attitudes. All students praised the course and found the content helpful. There was no control group, however, with which to compare these results. From this meager information, there seems to be some indication that the subjective method used in the present research, although primarily emphasizing Gestalt awareness principles, will be seen as beneficial.

Interpersonal Psychology

Interpersonal knowing, derived as it is through consensual validation, lends itself best to learning through group experiences. Sensitivity training and the T-group are the methods used in the present research to facilitate interpersonal knowing.[2] Campbell and Dunnette (1968) list six goals for T-groups. These can be used to evaluate the effectiveness of T-groups as well as the interpersonal method as a whole. They are

1. Increased self-insight or self-awareness concerning one's own behavior and its meaning in a social context . . .

2. Increased sensitivity to the behavior of others . . . [which] refers first, to the development of an increased awareness of the full range of communicative stimuli emitted by other persons (voice inflections, facial expressions, bodily positions, and other contextual factors, in addition to the actual choice of words) and second, to the development of the ability to infer accurately the emotional or non-cognitive bases for interpersonal communications . . .

3. Increased awareness and understanding of the types of processes that facilitate or inhibit group functioning and the interactions between groups . . .

4. Heightened diagnostic skill in social, interpersonal, and intergroup situations; . . . diagnosing conflict situations, reasons for poor communication, and the like.

5. Increased action skill . . . [which] refers to a person's ability to intervene successfully in inter- or intra- group situations so as to increase member satisfactions, or output . . .

6. Learning how to learn . . . [which] does not refer to an individual's cognitive approach to the world, but rather to his ability to analyze continually his own interpersonal behavior. (p. 75)

Some previous research on T-groups and T-group methods have analyzed all of these aspects. Most has concerned itself with assessing the achievement of one or two goals.

Culbert and Culbert (1967) describe a class in "Leadership Principles and Practices" taught at UCLA in which students are said to gain sensitivity into their perception of others and others' perceptions of them, as well as sensitivity into interpersonal processes and how to facilitate them. Examples of growth into these areas is supplied through critical incident excerpts from the class, but no statistical data are supplied. Another report of the use of interpersonal groups in a university setting (Stern, 1968) also reports increased awareness of self and others, but again, only anecdotal data are supplied.

In a doctoral dissertation by Kraft (1967), secondary school instructors participating in a human relations laboratory with regard to a non-participating control group were perceived to be more willing to share information and provide truthful feedback, to make more effort to listen and

understand others, to be more willing to take a stand on issues and try new ideas, to have increased intellectual understanding of human behavior, to be more analytical and have a clearer perception of those with whom they interact, to be more conscious of group process of subcurrents and hidden agenda of the group members, and to be more conscious of and sensitive to the feelings, needs and reactions of others. Self reports and reports of co-teachers and respective principals indicated a highly significant perceived behavioral change in on-the-job situations six months after the laboratory.

Using pre-tests and post-tests, Burke and Bennis (1961) found that perceived actual self and perceived ideal self were more congruent at the end of a human relations training laboratory than at the beginning. The change resulted mainly from changes in the perceived actual self. Self-perceptions and others' perceptions of him were also more congruent at the end of the laboratory than in the beginning. Lundgren (1969) likewise found that self and other perceptions became more similar at the end of a laboratory than they were at the beginning.

Bunker (1965) studying long range effects of participating in a human relations laboratory found that participants changed more than controls in communicating more clearly and effectively with co-workers, sharing and encouraging responsibility and participation among peers, understanding human behavior and group process, being more sensitive to

the needs and feelings of others, and being more self-aware. Among the long range effects of laboratory training on participants were increased insight and the belief that personal changes had occurred in them as a result of the laboratory.

Campbell and Dunnette (1968) reviewing research literature on the effect of human relations training on industrial settings noted that significant post-laboratory changes have been found in increased interpersonal sensitivity, heightened equalitarian attitudes, greater communication and leadership skills, increased consideration for others and relaxed attitudes on the job.

Castle (1965) found an improved sense of worth, and an increased interest in participation and practice in human relationships and leadership roles. He also found a decrease in controversy, irritableness, and tension as training progressed. Dyer (1967) found that college students participating in human relations training when compared with a non-participating control group reported more changes in interpersonal behavior and were ranked by their peers as having become more effective in interpersonal behavior than did the non-participating control group.

Gold (1967), however, found no significant differences between experimental and control groups on overall self-disclosure. Cabianca (1967) found no differences on self-esteem between students with a T-group laboratory experience and controls without such an experience. Experimental group subjects showed a lower post-laboratory need

for autonomy and aggression and a higher need for deference, while the control group showed higher need scores for change and nurturance.

Berenson, et. al. (1966) used a quasi-therapeutic teaching technique which, while not a strict human relations technique, did increase interpersonal contact and discussion. Their results indicated best results from programs systematically implementing both didactic and experiential approaches with least interpersonal gains with groups not employing experiential training.

A final sobering observation comes from Christopher (1969) and Maslow (1969). They report the near total lack of preparation college students have for investigating intrinsic learnings. They point out that students who are allowed to focus on experiential knowledge tend to want to ignore the extrinsic content of the course. This was so salient a finding to Maslow that he questioned whether both goals, intrinsic and extrinsic knowledge, should be pursued at once. His admonition was to keep them separate. While both authors felt that experiential learning was important, they felt that students overcompensate for their lack of intrinsic learning.

INSTRUMENTS

MULTIPLE CHOICE TEST

Three multiple choice tests were constructed to assess the amount of conceptual and experimental data each student had assimilated from the objective part of the course. Since both classes read the same textbook: Kimble and Garmezy, Principles of General Psychology, 1968, Third Edition, the questions were taken from the Instructor's Test Manual, a compilation of multiple choice questions provided by the editors.

Originally the tests for the Experimental Class and Lecture Class I were to be identical. However, because of a miscommunication between the instructors of the two classes, different chapters were assigned for the first test: chapters one through six for Lecture Class I and chapters one through seven for the Experimental Class. Because of the inequities in the amount of reading and studying time that this produced, the questions from chapter seven were dropped from the final analysis. The method for analyzing this data, therefore, was to perform an item analysis on the items that both classes took concurrently. A t-test was performed on the percentage of students in each class answering each question correctly.

THE COLLEGE QUALIFYING TEST

The College Qualifying Test is part of a battery of general aptitude tests given to freshmen at Michigan State University during their orientation program. In addition to other tests it is used as the basis upon which students are enrolled for regular classes, honors classes, or remedial classes. The College Qualifying Tests consists of three subtests: (a) a "verbal" test measuring vocabulary and verbal abilities; (b) an "information" test measuring general information in the social and natural sciences; and (c) a "numerical" test measuring abilities involved in quantitative thinking. A "total" score is also derived from the sum of the CQT subtests. More recent editions also include "science" and "social science" scores; these are derived from the respective components of the "information" subtest. All scores on the CQT are given as percentile scores and are based on the scores of all entering freshmen.

In this research the College Qualifying Test was used to check the hypothesis that student performance (multiple choice test scores) is positively correlated with achievement potential (College Qualifying Test), but that no differences between the classes existed in achievement potential. To test this hypothesis the CQT "total" (CQT_{tot}) test score and the CQT "social science" (CQT_{ss}) subtest score were both correlated with the total multiple choice test score, and t-tests were performed on CQT_{tot} and CQT_{ss}

scores between the two groups. Because the "social science" subtest is a recent addition to the College Qualifying Test, having been in existence for one year, only subjects who were freshmen could be correlated on this variable.

INTERPERSONAL BEHAVIOR CHANGE QUESTIONNAIRE

The Interpersonal Behavior Change Questionnaire (IBCQ) is a Likert-type questionnaire in which the individual rates himself on one of seven categories between "very characteristic" and "very uncharacteristic" for sixty common interpersonal behaviors. The IBCQ is a substantially modified form of an empathy questionnaire authored anonymously. Forty of the sixty items were taken from the empathy questionnaire, twenty were added by the author. The forty items were divided into two groups: those dealing with two or three person interactions (21 items) and those dealing with group interactions (19 items). Examples of the first are: "friendly to others," "sarcastic," "asks for help." Examples of the second include: "draws attention to himself in some way," "dominates and imposes his will on the group," "does not initiate, nor follow." The author supplemented the items in each group until both divisions had thirty items. Examples of the author's two or three person items are: "becomes hurt easily," "uses humor as defense." Examples of the author's group items are: "frequently digresses from the topic," "speaks only when spoken to." Each group of thirty items was given to the subject. Separate

instruction to answer the last thirty items with reference to behavior in a group was provided.

The method of scoring the IBCQ was devised by the author. It specifically measures behavior change by instructing each individual to mark a "B" in the column which represents where he was at the beginning of the term, and "N" in the column which represents where he would "like to be." The subject can mark more than one letter in the same column if he feels no change has occurred since the beginning of the term.

		VERY CHARACTERISTIC	CHARACTERISTIC	SLIGHTLY CHARACTERISTIC	UNDECIDED OR DON'T KNOW	SLIGHTLY UNCHARACTERISTIC	UNCHARACTERISTIC	VERY UNCHARACTERISTIC
1.	FRIENDLY TO OTHERS		B			NL	N	
2.	SARCASTIC	B	L				N	

Figure 1. Sample IBCQ items filled in with "B," "N" and "L" dimensions.

The difference in the number of columns between the "B" and the "N" represents perceived behavior change the subject has made over the term. This has been designated

"$IBCQ_{ch}$." The difference between the "B" and the "L," ($IBCQ_b$) represents the distance the individual was from his behavioral goal at the beginning of the term. The difference between the "N" and the "L," ($IBCQ_n$) represents the distance the individual is away from his behavioral goal at the end of the term. When the "B" is farther away from the "L" than the "N," a positive behavior change ($IBCQ_{+ch}$) has taken place. When the "B" is closer to the "L" than the "N," a negative behavior change has taken place. In Figure 1, the subject has made a positive behavior change on "friendliness to others": he has made 3 units of change and now is where he would like to be ($IBCQ_{+ch}$ = 3; $IBCQ_{ch}$ = 3). In example 2 of Figure 1, the subject has made five units of change on the "sarcastic" dimension, but the change was negative and he is now four units from where he would like to be ($IBCQ_{+ch}$ = -4; $IBCQ_{ch}$ = 5).

Two forms of the IBCQ were used. One form, the Blue Form, is described above, and can be found along with all measures in Appendix A. This form was filled out by the subject himself. Another form, the Yellow Form, consisted of rating the same sixty behaviors, but only the "B" and "N" dimensions were used. This form was given to a friend (Other) by the subject. The Other rated the subject on the same behaviors as the subject rated himself. The "L" dimension was not included on the Yellow Form for two reasons: (1) where the subject would "like to be" with respect to any behavior is a personal decision which only the subject

could make; (2) if the "L" were defined as where the subject's Other would "like to be," the Other would be making an external analysis (how much the subject had changed since the beginning of the term) and an internal analysis (where the Other himself would like to be) for each item. Because of these error inducing complexities, the "L" dimension was omitted from the Yellow Form.

SUBJECTIVE UNDERSTANDING QUESTIONNAIRE

The Subjective Understanding Questionnaire (SUQ) is a Likert-type questionnaire, written by the author, similar in structure to the IBCQ. The individual rates himself on seven categories between "very characteristic" and "very uncharacteristic" on fifty common subjective psychological areas. Examples of these are: "what mood I'm in," "how to be at ease with others," "what makes me angry." The items are either assessments of the feelings an individual has or are assessments of the methods he knows to control himself in his environment.

As with the IBCQ, the subject places a "B" in the column which represents where he was at the "beginning" of the term, and "N" in the column which represents where he is "now" (end of the term), and an "L" in the column which represents where he would "like to be." SUQ_b, SUQ_n, SUQ_{ch}, and SUQ_{+ch} scores are parallel to their IBCQ counterparts. No alternative forms were designed for an Other because, according to Roger's definition, only the individual himself

can know and evaluate his subjective understanding.

GENERAL RATING SCALES

Five general rating scales were devised by the author to measure in a more global form the amount of behavior change and understanding the subjects had incurred. Each scale is a nine-point graphic scale with five brief descriptions at odd numbered points. The rating scales were designed (1) to assess the validity of the IBCQ and SUQ; and (2) to shed more information on the general nature of changes taking place in all the classes. The general rating scales can also be found in Appendix A.

The general rating scales include an Interpersonal Behavior Understanding Scale (IBUS) and an Interpersonal Behavior Change Scale (IBCS). These scales were devised: (1) to determine if there was a difference in reported understanding and reported behavior change in the groups; (2) to determine if the IBCQ is more closely correlated with behavior change than with behavior understanding; and (3) to determine whether cumulative changes on specific items are correlated with general reports of change. The IBUS and the IBCS were presented at the end of the IBCQ booklet.

Another scale exactly like the IBCS was given to the subject's Others. The only difference between this scale and the IBCS was that the Other did not rate himself, but the subject on the dimension of interpersonal behavior change. This scale was designed to compare self-report with

other-report. A scale similar to the IBUS was not given to the Other because it was felt that while the Other could measure the subject's overt behavior, the Other could not accurately measure the subject's subjective understanding.

A general scale similar to the Interpersonal Behavior Understanding Scale was designed to measure general subjective understanding and to assess the validity of the SUQ. The Subjective Understanding Scale (SUS) was presented at the end of the SUQ booklet.

The last general rating scale concerns itself with the introductory course itself. It asks, "How much of your increased interpersonal understanding was due to Psychology 151?" It was designed to assess the amount of behavior change the subject thinks is related to his taking the introductory course. This scale was given along with the IBUS and IBCS at the end of the IBCQ booklet.

HYPOTHESES

EXPERIMENTAL SUB-GROUPS

I. No significant differences will obtain on any of the measures between the two classes composing the Experimental Class.

MEASURES

II. Significantly positive correlations will obtain between the CQT_{tot} and multiple choice test scores, and between the CQT_{ss} and multiple choice test scores for the Experimental Class and Lecture Class I.

III. Significant differences will not obtain between the Experimental Class and Lecture Class I on the CQT_{tot} and CQT_{ss}.

IV. Significantly positive correlations will obtain between the SUQ_{ch} and the SUS, and between the SUQ_{+ch} and the SUS across all classes.

V. Significantly positive correlations will obtain between the $IBCQ_{ch}$ and the IBCS, and between the $IBCQ_{+ch}$ and the IBCS across all classes.

VI. Significantly positive correlations will obtain between the $IBCQ_{ch}$ and the IBUS, and between the

$IBCQ_{+ch}$ and the IBUS across all classes.

VII. Higher correlations will obtain between the $IBCQ_{ch}$ and the IBCS, and between the $IBCQ_{+ch}$ and the IBCS than will obtain between the $IBCQ_{ch}$ and the IBUS, and between the $IBCQ_{+ch}$ and the IBUS across all classes.

VIII. No significant differences will obtain between the correlations of the GES and any of the primary measures within each class.

IX. Significantly higher correlations will obtain between the GES and the primary measures in the Experimental Class than in either Lecture Class.

OBJECTIVE METHOD

X. No significant difference will obtain between the Experimental Class and Lecture Class I, on answers to multiple choice test items.

SUBJECTIVE METHOD

XI. The Experimental Class will show significantly greater gains on the SUQ_{ch} and SUQ_{+ch} than will either of the two Lecture Classes.

XII. The Experimental Class will show significantly greater gains on the SUS than will either of the two Lecture Classes.

INTERPERSONAL METHOD

XIII. Significantly higher correlations will obtain between the Self reports and Other reports within the Experimental Class than will occur between the same measures within the Lecture Classes.

XIV. No significant differences will obtain between Self reports and Other reports across the Experimental or Lecture Classes.

XV. The Experimental Class will show significantly greater gains on the $IBCQ_{ch}$ and $IBCQ_{+ch}$ than will either of the two Lecture Classes.

XVI. The Experimental Class will show significantly greater gains on the IBCS than will either of the two Lecture Classes.

XVII. The Experimental Class will show significantly greater gains on the IBUS than will either of the two Lecture Classes.

GENERAL EFFECTIVENESS

XVIII. The Experimental Class will show significantly higher scores on the GES than will either of the two Lecture Classes.

METHOD

SUBJECTS

One hundred forty-two introductory psychology students participated as subjects. The students came from three populations taught by different instructors: (a) "Lecture Class I": 60 students from a large introductory psychology class, enrollment approximately 600, taught during Fall term, 1968; (b) "Lecture Class II": 27 students from two similar large lecture classes taught Winter term, 1969; and (c) the "Experimental Class": 54 students from two small introductory psychology classes, enrollment approximately 30 per class, taught Winter term, 1969.[3] Students in all classes met for the same number of class hours. Information obtained from the large introductory sections was gathered on a volunteer basis: experimental credit which could be used toward their class grade was given. The information obtained from the small classes was gathered by means of an assignment. Students who did not complete all forms were eliminated. This included 3 from the Experimental Class, 9 from Lecture Class I, and 8 from Lecture Class II.

To check the representativeness of the sample volunteers from the Lecture Classes were compared with their respective populations on the variables of sex and class standing. Lecture Class I had 39 per cent males and 61 per cent

females; the volunteer sample selected from it had 43% males and 57% females. Lecture Class II had 53% males and 47% females, while the sample had 52% males and 48% females.

Lecture Class I was composed of 80% freshmen, 10% sophomores, 7% juniors, and 3% seniors. Volunteers from Lecture Class I were composed of 73% freshmen, 15% sophomores, 9% juniors, and 3% seniors. Lecture Class II was composed of 74% freshmen, 17% sophomores, 7% juniors, and 2% seniors, while the sample selected from it was composed of 75% freshmen, 17% sophomores, 4% juniors and 4% seniors.

Subjects also chose one or two friends (Others) who filled out the Yellow Form of the Interpersonal Behavior Change Questionnaire about the subjects. The subjects were instructed to choose a friend who had known them well over the term and who would be willing and competent to answer questions about changes they had made in interpersonal behavior. One Other was chosen by each subject in Lecture Classes I and II, while two Others were chosen by each subject in the Experimental Class.

The rationale behind choosing one Other in the Lecture Classes and two in the Experimental Class was based on the pragmatical difficulties in obtaining subjects. Since subjects were gathered in Lecture Classes by means of volunteering, and since subjects are often difficult to obtain, it was felt that asking each subject to secure two friends to answer the Yellow Form of the IBCQ would reduce the number and representativeness of students volunteering

to be subjects. Therefore in the Lecture Classes, one Other was requested. In the Experimental Class, however, the subjects were given the questionnaires to fill out as an assignment. Since it was thought that subjects would more readily comply if the task was "assigned," and since it was thought that two Others were optimal conditions for the assessment of the difference between Self report and Other report, two Others were requested from the Experimental Class.

The purpose of obtaining two Others rather than one, which was an obvious incongruity, was to assess whether the difference between Self and Other reports was really a difference related to self-perception, or was just a difference between the perception of any two people. Thus, if the two Others' responses correlated highly with each other but did not correlate with the Self reports, a difference between the perception of Self and Others could be considered to be substantiated. However, if the two Others' reports correlated about as highly with each other as they did with the Self reports, or if one Other report correlated more highly with the Self report than with the Other report, no differences between Self reports and Other reports could be substantiated.

Conceptually the subjects in Lecture Class I can be differentiated from the subjects in Lecture Class II and the Experimental Class by their recency in coming to the university. Eighty per cent of the students in

Lecture Class I were first-term freshmen, while 74% of Lecture Class II and 81% of the Experimental Class were second-term freshmen. It was thought that there might be a great deal of difference between first-term and second-term freshmen on the amount of behavior change displayed, since a total change of environment and social expectations had occurred for the first-term freshmen. The second-term freshmen had had a term to adapt. Since it was impossible for Lecture Class I and the Experimental Class to be taught concurrently, and since Lecture Class II and the Experimental Class did not use the same textbooks or the same tests and therefore could not be compared on the Objective Psychology dimension, it was decided to use subjects from Lecture Class II to assess how much reported behavior change was related to Lecture Class I being a control group in terms of structure and content and how much was related to Lecture Class I being primarily a class of first-term freshmen.

The following pre-experiment rationale was formulated to distinguish between differences resulting from the experimental method and differences resulting from term differences between the classes. (1) If the results from Lecture Class I and Lecture Class II were not significantly different from each other, but were significantly different from the Experimental Class, differences resulting from experimental procedures could be strongly inferred. (2) If Lecture Class I and the Experimental Class were not significantly different from each other, but the Experimental

Class was significantly different from Lecture Class II, confounding differences due to term differences were inferred, and differences related to experimental procedures were accepted. (3) If Lecture Class II and the Experimental Class were not significantly different from each other, but were significantly different from Lecture Class I, the difference was said to have resulted from term differences, not from the experimental procedures. Lecture Class II, then, was used to stabilize the results of Lecture Class I.

STRUCTURE OF CLASSES

Lecture Classes I and II were traditional introductory psychology classes at Michigan State University and were structured similarly. They consisted of three large lectures and one recitation per week. The large lectures discussed general conceptual and experimental data in the field of psychology. The recitation sections answered questions about or elaborated upon the material covered in the lectures. The recitation sections had an enrollment of approximately 25 students.

The Experimental Class was structured in a markedly different manner. One-third of each week was spent lecturing on general conceptual and experimental data in the field of psychology (Objective method). One-third of the week was spent performing an assigned introspective task and writing an analysis of what had happened (Subjective method). And one-third of each week was spent in small groups of

approximately ten students. These groups were designed to discuss the interpersonal behavior and reactions of the group members (Interpersonal method).

The Objective method used in the Experimental Class, while covering much of the same material as that covered in the Lecture Classes, could not cover as wide a variety of topics, nor go as deeply into them, as could the Lecture Classes. The topics covered included: the general methodology of psychology, central statistical concepts, the functioning of the sensory organs and the brain, attention and perceptual organization, operant and classical conditioning, motivation, childhood development, conflict and defense, major personality theories, abnormal behavior, psychotherapy, and attitudes and dissonance theory. The lectures were concise, lasting 50 minutes, and little discussion was allowed.

The Subjective method consisted of introspective exercises conducted outside of class on days specifically designated for subjective assignments. The subjective assignments can be found in full in Appendix B. The topics of the subjective assignments include: analyses of the psychological influences of the subject's family on the subject, analyses of the differential values of the subject's family and friends, Gestalt experiments in perception of the body and environment, Gestalt experiments in memory and emotion, descriptions of the learning process in actual learning situations, exercises in social awareness

by encountering and attending to unfamiliar social milieus, describing interpersonal and subjective change on the IBCQ and SUQ, and evaluations of what the subject had learned during the term and in what areas he needed improvement.

The Interpersonal method consisted primarily of two types of interactions: interpersonal exercises designed to elicit specific forms of interpersonal behavior or content which could be explored by the group, and open-ended T-group encounters designed to offer opportunities for the student to discover some of the underlying assumptions, values and strategies he uses in interpersonal situations, to test these for their universality, and to try out new forms of behavior when desired in a permissive atmosphere. The interpersonal exercises included: introductions to the individual's symbolic self; perceptions of the abstract qualities of others; group problem solving; interpersonal distance; alienation and reconciliation; Other-perception; openness, data seeking and data giving; and gift-giving. When the exercises were completed, discussions of them took place. A complete description of these exercises can be found in Appendix B.

The T-group encouraged direct interpersonal inquiries, statements and feedback about the here-and-now functioning of the group. The subject matter, although spontaneous, and therefore varied, usually included descriptions of how the members came across to each other; statements of like or dislike for certain behaviors; suggestions for

specific behavioral changes and discussions of the suggestions; questions of trust, alienation and affinity; sharing of fears and hurts; feelings of growth or lack of it; and explorations of group process.

PROCEDURE

The evaluation of the Experimental Class was conducted by measuring each of the three theoretical-structural components separately. The Objective method was evaluated by comparing the performance of Lecture Class I with the Experimental Class on three multiple choice tests. The questions for the tests were taken from the Instructor's Manual for the textbook: Kimble and Garmezy, Principles of General Psychology. These tests were given at the end of each third of the term. The CQT_{tot} and CQT_{ss} test scores which were correlated with the multiple choice tests were collected from the Psychology Department Office after the end of the term so they could not be influential in the instructor's teaching methods or style. Neither instructor knew the contents of the multiple choice tests before the last lecture preceding the test.

The Interpersonal method was measured by the Interpersonal Behavior Change Questionnaire, the Interpersonal Behavior Understanding Scale, and the Interpersonal Behavior Change Scale. These were given to the students to take home and fill out during the ninth week of the term. They were completed in the Lecture Classes as an extra credit

experiment and in the Experimental Class as a subjective assignment. Each student gave the Yellow Form (Other Form) to one or two Others who returned the data by the student or through the mail.

The Subjective method was measured by the Subjective Understanding Questionnaire and the Subjective Understanding Scale during the tenth week of the term. As in the case with the Interpersonal method, the students in the Lecture Classes completed the data as an extra credit experiment and the students in the Experimental Class completed it as a subjective assignment.

The General Effectiveness Scale, which measured the overall effectiveness of the introductory course, was completed during the ninth week as part of the Interpersonal Change package.

RESULTS AND DISCUSSION

A complete inventory of all summary data appears in Appendix C. The findings will first be discussed with relation to the consistency of the sub-groups composing the Experimental Class. Then the intercorrelation and validity of the measures will be reported. The findings from the three conceptual areas: objective psychology, subjective psychology and interpersonal psychology will be presented next. Finally a general evaluation and summary will be given.

Throughout the findings two-tailed tests of significance have been used. Results significant at or beyond the .10 level have been noted. All correlations are product-moment correlations. However, due to varying N's, correlations of the same magnitude may not be equivalent in statistical significance.

SUB-GROUP DIFFERENCES

Although the method used in both classes was identical, two separate classes composed the category of "Experimental Class." In order for the results of the Experimental Class to be considered unitary, no significant differences should exist on the measures between the two groups. These Table 1 data differ significantly beyond the .10 level in

Table 1. Means, standard deviations, and mean differences between two classes constituting the Experimental Class.

	Means		St. Dev.		M. diff.
	Cl. 1 (N=26)	Cl. 2 (N=28)	Cl. 1	Cl. 2	(1-2)
CQT_{tot}	43.15	44.68	25.23	26.62	-1.53
CQT_{ss}	44.55	36.59	27.55	26.34	7.96
$IBCQ_{b}$	82.77	80.29	26.40	32.35	2.48
$IBCQ_{n}$	64.35	58.21	25.47	23.47	6.14
$IBCQ_{ch}$	32.27	36.68	21.79	23.81	-4.41
$IBCQ_{+ch}$	18.42	23.50	19.22	19.44	-5.08
IBCS	5.49	5.02	1.82	2.13	0.47
IBUS	6.40	5.83	.98	1.36	0.57*
SUQ_{b}	118.42	114.00	42.75	36.11	4.42
SUQ_{n}	78.96	79.64	33.96	30.25	-0.68
SUQ_{ch}	44.77	41.07	21.44	25.64	3.70
SUQ_{+ch}	39.46	34.36	21.24	25.91	5.10
SUS	6.08	5.78	.81	1.21	0.30
GES	5.34	5.28	1.32	1.38	0.06

* $p < .10$

only one of 14 instances. Therefore it can be assumed that for the purpose of the experiment the two groups can be combined without distorting the results.

TESTING THE MEASURES

Objective Method

It was noted previously that class test scores (performance) usually correlate positively with entrance test scores (achievement potential). If this finding is confirmed by the data, the classes can be considered initially equal with regard to achievement potential and any difference between test scores of the Experimental and Lecture classes can be said to represent differences related to teaching method. The results are presented in Table 2 for two relevant divisions of the Michigan State University entrance tests: the CQT-total score and the CQT-social science score.

Table 2. Correlations between selected entrance test scores and class test scores.

	Exp. (N = 54)	Lec. I (N = 60)
CQT_{tot}	.554***	.505***
CQT_{ss}	.374**	.514***

** $p < .01$
*** $p < .001$

The data in Table 2 show significant correlations at the .01 level or better to exist between both the CQT_{tot} scores and the test scores, and the CQT_{ss} scores and the test scores, firmly supporting the assumption that performance does correlate with achievement potential.

Further, t-tests between the CQT_{tot} scores and test scores, and between CQT_{ss} scores and test scores were not significant (t = .845 and .408 respectively). Therefore, the possible confounding variable of initially unequal potential can be considered to be inoperative. Significant differences between test scores should actually reflect performance differences related to teaching method.

Subjective Method

In order to test whether The Subjective Understanding Questionnaire actually reflects cumulative subjective change, the Subjective Understanding Scale was presented at the end of the SUQ booklet. It was hypothesized that the general SUS change score would correlate positively with the SUQ score if the SUQ items reflect subjective psychological change in a broad sense.

Table 3. Correlations between Subjective Understanding Questionnaire and Subjective Understanding Scale.

	Exp.	Lec. I	Lec. II
SUQ_{ch}	.069	.176	.363†
SUQ_{+ch}	.174	.230†	.330†

† $p < .10$

The data in Table 3 show that trends in three of the six correlations support the hypothesis, although no strong evidence is indicated. It seems likely that while the two measures are measuring much of the same content, other variables may be confounding the results.

Some additional data clarify this finding. (See Appendix D for questionnaire and specific results.) Since weakness concerning the reliability and validity of either the SUQ or SUS could confound the correlational results, a sample of students from the Experimental Class and Lecture Class II were given a short questionnaire related to their opinions of the adequacy of the scales versus the questionnaires. The results indicate that 73% of the subjects thought the questionnaires "more adequately described their behavior" than did the scales. Eighty-eight per cent thought the questionnaires differentiated between people, while 52% thought the scales differentiated between people. These findings indicate that the low correlations between the SUQ and the SUS may be related more to the SUS than the SUQ. Therefore, while the SUS was designed to check the validity of the SUQ, it may not have had either sufficient validity or reliability to merit its use.

Interpersonal Method

As with the case of the SUQ and SUS scores, if the items on the IBCQ reflect a wide range of interpersonal behavior change, the IBCQ should correlate positively with the

global behavior change scale, IBCS, presented at the end of the IBCQ booklet. If the IBCQ scores represent general behavior understanding as well as, or in place of, general behavior change, the IBCQ should also correlate positively with the IBUS. It was hypothesized that the IBCQ would correlate positively with both the IBCS and the IBUS, but that the correlations would be higher in the case of the IBCQ-IBCS correlation because they both expressly measured behavior change.

As can be seen in Table 4, the IBCQ change scores and IBCS scores correlate significantly at the .01 level or

Table 4. Correlations between the interpersonal questionnaires and scales as reported by Self and Others.

	Exp. (N=54)			Lec. I (N=60)		Lec. II (N=27)	
	S	01	02	S	0	S	0
$IBCQ_{ch}$ - IBCS	.423*	.527**	.563**	-.093	-.014	.147	.580*
$IBCQ_{+ch}$ - IBCS	.529**	.355*	.341*	-.200	.025	.349†	.303
$IBCQ_{ch}$ - IBUS	.108			-.158		.067	
$IBCQ_{+ch}$ - IBUS	.137			-.094		.290	
IBCS-IBUS	.438**			.491**		.561*	

† $p < .10$

* $p < .05$

** $p < .001$

better in both the Self and Other reports of the Experimental Class and in the Other report of Lecture Class II, but

correlate negatively in Self and Other reports of Lecture Class I. Looking at the correlation between positive-change scores on the IBCQ and the IBCS, the Self and Other reports of the Experimental Class again correlate significantly at the .05 level or better, trends in the Lecture Class II indicate positive correlations, while the Self and Other reports of Lecture Class I show negative correlations. These results indicate that for two groups the IBCQ and the IBCS do measure much the same content but that a confounding variable exists in Lecture Class I. As hypothesized earlier, when the results of Lecture Class I greatly vary from the results of the Experimental Class and Lecture Class II, the difference may be said to represent the term difference of Lecture Class I. If we remember that the interpersonal adjustment to new norms and living partners is great as well as confusing for the first-term freshmen, it is more evident why a general feeling of growth, or lack of it, may not be directly related to amount of change reported on individual interpersonal items. One individual may come to the university and make many changes which seem insignificant in terms of those he still must make, while others may make a few changes they have been waiting to make for a long while and feel that they have grown substantially. By the time the second term begins most of these initial adjustment changes will have already taken place, and their overwhelming nature will have been reduced.

Correlations between the $IBCQ_{ch}$ and $IBCQ_{+ch}$ and the

IBUS show no significant relationship, however they follow the pattern previously noted between the IBCQ and the IBCS, the Experimental Class and Lecture Class II showing positive correlations, and Lecture Class I showing negative correlations. In addition, correlations between the IBCS and the IBUS are significant at the .01 level or better. These two factors indicate that interpersonal understanding is related to interpersonal behavior change as predicted. In general, the correlations between the IBCQ and IBUS scores are also lower than the correlations between the IBCQ and IBCS scores, indicating that the IBCQ, as predicted, is more closely related to behavior change than to behavior understanding.

General Evaluation

The General Effectiveness Scale was devised to obtain a simple, but general evaluation of the classes as a whole. In order for the GES to be meaningful, it should not be correlated highly with any one primary measure to the exclusion of the others. However the correlations between the interpersonal and subjective measures should be higher for the Experimental Class than for the Lecture Classes since the Experimental Class actually experienced methods of learning related to interpersonal and subjective knowledge.

Table 5. Correlations between General Effectiveness Scale and other primary measures.

	Exp. (N=54)	Lec. I (N=60)	Lec. II (N=27)
test scores	.002	.009	x
$IBCQ_{ch}$	.017	.227†	.019
$IBCQ_{+ch}$	.061	-.187	.323
SUQ_{ch}	.307*	-.097	.208
SUQ_{+ch}	.381**	-.155	.295

x = insufficient data

† $p < .10$

* $p < .05$

** $p < .01$

The results in Table 5 show similar correlational trends in the Experimental Class and Lecture Class II, although the correlations only become significant between the GES and the SUQ of the Experimental Class. Negative correlations, however, appear between the GES and the SUQ, and between the GES and the IBCQ scores in Lecture Class I. Although the term-difference hypothesis explains the discrepant results between the classes, the negative results in Lecture Class I are perplexing. They seem to indicate either that (1) Lecture Class I believes positive change in subjective and interpersonal areas should not be related to the effectiveness of the psychology class; or (2) the value systems of Lecture Class I are not consonant with the value

systems of the college community they are entering, and therefore positive-changes according to their old value systems are not as rewarding as they were in their pre-college milieu.

The objective test scores were not highly correlated with the GES in either class. Since the Objective method was experienced by all classes, a significant correlation between the objective test scores and the GES would be expected. The lack of correlation seems to indicate that, to the students, variables other than objective tests are important determinants of class value.

The interpersonal change and positive-change scores approached a significant correlation only in Lecture Class I. These results are contrary to the hypotheses that the $IBCQ_{ch}$ and $IBCQ_{+ch}$ scores would correlate with the GES (1) as highly as the SUQ with the GES, and (2) more highly in the Experimental Class than in the Lecture Classes because the Experimental Class had experienced the Interpersonal method of teaching. An explanation for the first finding is that actual interpersonal behavior change, as measured by the IBCQ, is more difficult to complete in a ten-week psychology course than is subjective understanding, as measured by the SUQ, because it involves the behavior of two people (Self and Others) rather than one as in the case of subjective understanding. Therefore, correlations between actual interpersonal behavior change and the GES will be lower than with the SUQ. Moreover, interpersonal

behavior change across all the groups, because of the short ten-week span, will not be significantly correlated. This latter explanation is upheld even by the results of Lecture Class I if both the change and positive-change scores are considered: the change scores correlate +.227 with the GES while the positive-change scores correlate -.187 with the GES, indicating much fluctuation.

The GES, then, is not highly correlated with any of the three conceptual divisions in the Lecture Classes, but does tend to correlate highly with subjective understanding scores in the Experimental Class, indicating a loading factor.

EFFECTIVENESS OF OBJECTIVE METHOD

Although only one-third of the class time of the Experimental Class was spent presenting the Objective information to the students, while 100% of Lecture Class I's class time was spent presenting Objective information, the results show no significant difference between the two groups on the items tested ($t = -1.198$). Moreover, the results of an item analysis show a highly significant correlation ($r = .818$, $p < .001$ level) between the scores of each class on the individual items of the test. This indicates that either or both of two factors were functioning: (1) the same subject matter was stressed by both instructional methods; (2) the same items proved easy or difficult for both classes. Thus, both t-tests and correlations

support the hypothesis that no differences exist between the two groups on the objective criterion.

EFFECTIVENESS OF SUBJECTIVE METHOD

The hypotheses related to the evaluation of the Subjective method are: (1) the Experimental Class will show significantly greater gains on the SUQ_{ch} and SUQ_{+ch} scores than will either of the two Lecture Classes, and (2) the Experimental Class will show significantly greater gains on the SUS than will either of the two Lecture Classes.

Although change and positive-change scores have been devised for the SUQ measure, it is important to take into account two other measures on the SUQ before accepting the SUQ_{ch} and SUQ_{+ch} results as accurately descriptive. The first measure is the "before," or "beginning," measure (SUQ_b). It should be noted that if the SUQ_b scores differ significantly from each other between classes, the change scores may be distorted by the increased distance possible for some groups to move, i.e., more change is possible for some groups than for others. If the groups do not differ significantly on SUQ_b scores, the differences in the amount of possible change can be considered negligible, and potential problems with initial differences can be disregarded.

Table 7 shows no significant differences between the three groups on the SUQ_b. Therefore, the differences in the groups on subjective understanding at the beginning of the term can be considered negligible.

Table 6. Subjective understanding score means.

	Exp. (N = 54)	Lec. I (N = 60)	Lec. II (N = 27)
SUQ_b	116.13	115.68	111.96
SUQ_n	79.31	84.23	85.22
SUQ_{ch}	42.85	39.22	34.96
SUQ_{+ch}	36.81	31.98	26.70
SUS	5.93	5.13	4.81

The SUQ_n scores also lend perspective to the SUQ_{ch} and SUQ_{+ch} scores. If the Experimental Class's scores are not significantly lower (closer to where the subjects would like to be) than either of the Lecture Classes' scores, change scores may not represent change in a consistently positive direction. The SUQ_{ch} and SUQ_{+ch} scores are two other ways for checking for this direction of change.

As can be seen from Tables 6 and 7, SUQ_n scores are not significantly different between groups at the .10 level, but are in the desired direction, i.e. the mean of the Experimental Class is lower than are the means of either of the Lecture Classes. This indicates some support, but not conclusive support for the hypothesis.

Now directly considering the change scores, in Tables 6 and 7 it can be seen that no significant differences exist between the groups at the .10 level. In each case, however, the means show differences in the desired direction, i.e. the Experimental Class has a higher mean (more

subjective change) than either of the two Lecture Classes. Moreover, if the probabilities of the t values between the Experimental Class and Lecture Class I and between the Experimental Class and Lecture Class II are combined, the probability of both results occurring together is significant at the .06 level. This indicates stronger support for the hypothesis.

Table 7. t tests of Table 6 mean differences on subjective understanding scores between all groups.

	Exp. vs. Lec. I	Exp. vs. Lec. II	Lec.I vs. Lec.II
SUQ_b	.065	.456	.433
SUQ_n	-.859	-.762	-.134
SUQ_{ch}	.711	1.542	.660
SUQ_{+ch}	.952	2.015*	.853
SUS	2.998**	3.366**	.782

* $p < .05$

** $p < .01$

While change scores indicate movement, positive-change scores indicate the direction of movement and are therefore a more precise measure than change scores themselves. Tables 6 and 7 show that a significant difference at the .05 level exists between the Experimental Class and Lecture Class II on positive-change in subjective

understanding, although no significant differences exist between the Experimental Class and Lecture Class I or between the two Lecture Classes. Again, if the probabilities of the *t* values between the Experimental Class and Lecture Class I and between the Experimental Class and Lecture Class II are combined, the probability of both results occurring together is significant at the .01 level.

The scores on the SUS, a more global rating of subjective understanding, can also be found in Tables 6 and 7. Strong support is shown for the hypothesis that the Experimental Class would show greater gains on the SUS than would the Lecture Classes. The differences between the Experimental Class and both Lecture Classes are significant at the .01 level. No significant differences exist between the two Lecture Classes.

As an overall evaluation, then, it can be said that the results show a very significant gain in subjective understanding for the Experimental Class on one measure (SUS) and a significant, but less consistent, gain in subjective understanding on the other (SUQ).

EFFECTIVENESS OF INTERPERSONAL METHOD

Self Versus Other Reports

The interpersonal method proposes to increase interpersonal understanding and to promote interpersonal behavior change. The criteria for the success of the

interpersonal method, then, must include self-reports as well as Other-reports in order to verify that behavior change on the interpersonal level has actually taken place. Therefore, data concerning the congruence of self-reports and Other-reports will be presented first.

Table 8. Correlations between self and Other reports on interpersonal measures.

	Exp. Class (N=54)			Lec.I (N=60)	Lec.II (N=27)
	S-01	S-02	01-02	S-O	S-O
$IBCQ_b$	.294*	.229†	.308*	.179	.666**
$IBCQ_n$	.151	.356*	.327*	.370*	.609**
$IBCQ_{ch}$	.044	.091	.389*	.390*	.446*
$IBCQ_{+ch}$	.134	.054	.356*	.102	.412*
IBCS	.123	.056	.272*	.215†	.401*

† $p < .10$

* $p < .05$

** $p < .001$

Table 8 indicates that estimates of where the subject was at the beginning of the term with regard to the expression of certain interpersonal behaviors, $IBCQ_b$, were highly correlated between Self and Others in Lecture Class II ($p < .001$ level), but were not correlated significantly in Lecture Class I. The Experimental Class had near significant results: while both Other groups correlated with

each other ($p < .05$), one Other group correlated significantly with the Self report ($p < .05$) and the remaining Other group had a tendency toward correlating positively ($p < .10$).

Since Lecture Class I was composed mainly of first-term freshmen, it is understandable why the beginning scores in that group did not correlate. Initial perceptions may have been distorted by initial defensive behavior of the subjects in reaction to their new environment or by unfamiliarity of the Others with the subjects' usual behavior patterns.

The lower correlations of the Experimental Class with respect to Lecture Class II, however, are contrary to the hypothesis that the Experimental Class's scores would correlate more closely with Other reports than would the Lecture Class's scores. Although conjectural, an explanation which fits these data rests on the observation that the classes which displayed the least positive change on the IBCQ had the highest correlations between Self and Other reports. Since change is more complicated and more difficult to describe, remember, and understand, correlations between Self and Other reports in the Experimental Class should be lower in the classes containing students with more stable behavior patterns. This explanation is obscured, however, because of the confounding term differences between the two Lecture Classes which makes change scores difficult to interpret.

Table 9. Means for Self and Other reports on interpersonal measures.

	Exp. Class (N=54)			Lec.I (N=60)		Lec.II (N=27)	
	Self	Oth.1	Oth.2	Self	Other	Self	Other
$IBCQ_b$	81.48	96.00	96.13	79.70	100.18	79.85	92.41
$IBCQ_n$	61.17	88.28	86.07	65.42	95.78	64.44	89.41
$IBCQ_{ch}$	34.56	33.15	37.63	31.70	35.95	28.48	31.41
$IBCQ_{+ch}$	21.06	7.80	9.80	14.65	4.23	14.37	2.96
IBCS	5.24	4.70	5.03	5.45	4.42	4.94	4.32
IBUS	6.10			5.68		4.79	
GES	5.30			3.10		2.77	

Table 10 indicates further that, except for Lecture Class II, a significant difference exists between Self reports and Other reports concerning where the individual was at the beginning of the term. The two Other reports in the Experimental Class are not significantly different. Table 9 shows that the Other reports are consistently higher than the Self reports. The Others see the subjects as being farther behind where they would have liked to be at the beginning of the term than the subjects see themselves.

At this point it is important to mention the "L" dimension. The only difference between Self and Other forms of the IBCQ was the "L" dimension. The subjects rated where they would like to be ("L") on each behavior listed, but the Others did not. Therefore, the $IBCQ_b$ score,

representing the distance between where the subject was perceived to be at the beginning of the term and where he would like to be, was clear to the subject but was unclear to his Others, i.e. the subject marked a "B", and "N"," and an "L" for each behavior, the Others only marked a "B" and an "N" for each item. Thus, the differences in values between the two groups was unknown. To the extent that value differences existed, then, or that placing and knowing values on the behaviors affected the subjects in a manner different than the Others, correspondence between Self $IBCQ_b$ scores and Other $IBCQ_b$ scores would not be uniform. Campbell and Dunnette (1968) in a research of the literature cite instances where value changes during human relations training have been reported. Hence, the results that Others rated the subjects farther behind where they rated themselves may be due in part to actual perceptions by the Others that the subjects were farther behind, and in part to the discrepancies related to the differential use of the "L" dimension.

Similar results were obtained for the $IBCQ_n$ dimension. Correlations reported in Table 8 show a highly significant correlation between the Self and Other reports of Lecture Class II ($p < .001$), and unlike the $IBCQ_b$ scores a significant correlation between the Self and Other reports of Lecture Class I. The results of the Experimental Class are mixed: while the two Other groups correlate at the .05 level, one Other report correlates with the Self report at the .01 level, but the other group does not correlate

significantly.

Table 10. *t*-tests between Self and Other reports on interpersonal measures.

	Exp. Class (N=54)			Lec.I (N=60)	Lec.II (N=27)
	S-01	S-02	01-02	S-0	S-0
$IBCQ_b$	-2.957*	-3.027*	-.032	-3.477**	-1.608
$IBCQ_n$	-5.641**	-5.461**	.465	-5.373**	-3.200*
$IBCQ_{ch}$	.326	-.721	-1.042	-.830	-.569
$IBCQ_{+ch}$	3.489**	3.351**	.688	2.973*	4.103**
IBCS	1.445	.548	.839	2.812*	1.124

* $p < .01$

** $p < .001$

The positive correlation of Lecture Class I on the $IBCQ_n$ but not on the $IBCQ_b$ further substantiates the conclusion that either the lack of familiarity with the subject's typical behavior patterns by the subject's Others or the initial defensive behavior of the first-term freshmen resulted in the lack of significant correlation on the $IBCQ_b$. Again the hypothesis that the Self and Other reports of the Experimental Class would correlate more highly than the Self and Other reports of the Lecture Classes was contradicted. The explanation that the highest correlations between Self and Other reports occur between the groups with the lowest report of change both by Self and Others, and that the

difficulty to rate change as compared with stability resulted in lower correlations is also held for the $IBCQ_n$ scores.

Tables 9 and 10 show that the Self and Other reports of all three classes on the $IBCQ_n$ are significantly different (p .01 or beyond) with the Other reports being higher (farther from where they would like to be) than the Self reports. In the Experimental Class where two Other groups existed, the Other reports were not significantly different from each other. All the subjects, then, Experimental and Lecture, reported that they were closer to their interpersonal behavior goals at the end of the term than the reports of their Others disclosed. This fact may be related to two factors: (1) The "L" dimension discrepancy mentioned above, and (2) the subject, being more aware of the entire repertoire of his behavior and of his attempts to change his behavior with many different kinds of Others, might have seen himself as closer to where he would like to be than the Others did, who did not see him as often or focus as deeply on his behavior.

Concerning Self and Other reports of actual interpersonal behavior change as shown in Table 8, Self and Other reports of both Lecture Classes correlated significantly ($p < .05$ or beyond). In the Experimental Class neither Other group correlated with the Self report--although the Other reports in the Experimental Class did correlate significantly with each other ($p < .01$). As before, this indicates that

the hypothesis that the Experimental Class would show higher correlations between Self and Other reports than would the Lecture Classes is contrary to expectations, and the explanation that rating change is more difficult than rating no-change and therefore less consensus exists in the high-change group is maintained.

Contrary to the trend to this time, Tables 9 and 10 indicate that there are no significant differences between the Self and Other reports of any of the classes on the amount of interpersonal behavior change each subject made. Although in all classes but one, Others report more behavior change than the Self reports. While the Others estimate that the subjects were further behind where they thought they were in the beginning of the term and were still behind where they thought they were at the end of the term, the Others agree with the amount of change the subjects have made. This finding supports the proposition that part of the difference between Self and Other reports in rating behavior change, where the "L" rating is not involved, but where the "B" and "N" ratings are involved, there is reason to suspect that the "L" dimension was related to much of the lack of correlation between Self and Others on the $IBCQ_b$ and $IBCQ_n$.

On the positive-change indicator, as shown in Table 8, only the Self and Other reports of Lecture Class II are significantly correlated ($p < .05$). The Experimental Class and Lecture Class I show no significant correlations between

Self and Other reports, although the two Other groups in the Experimental Class do correlate significantly at the .01 level. Again the hypothesis that the Experimental Class would show higher correlations between Self and Other reports than the Lecture Classes is contradicted, and the explanation relating amount of change inversely to amount of correlation is maintained. This is clearly evident in the Experimental Class and Lecture Class II as shown by Table 10. The term-difference is evident in Lecture Class I when the amount of positive and negative change is taken into account: Lecture Class I has more negative change ("change" minus "positive-change") in both Self and Other reports than either the Experimental Class or Lecture Class II. Although the subjects in Lecture Class I were perceived as making about as many changes as the Experimental Class, many more changes were perceived as negative than in the Experimental Class.

Tables 9 and 10 show that in all comparisons between Self and Others on positive interpersonal behavior change, the Others report significantly less positive-change than the Self reports ($p < .01$ or beyond). The two Other reports of the Experimental Class are not significantly different. The subjects see themselves making significantly more positive gains than their Others do. This again may be related to the "L" factor (unlike change scores, positive-change scores do utilize the "L" factor), and the subjective experience of the Self and the direction and momentum the

Self perceives himself to have.

Finally in the case of the general behavior change scale, IBCS, the only class with significant Self-Other report correlations as shown in Table 8 is Lecture Class II ($p < .05$), but a positive trend toward a significant correlation is evident in Lecture Class I ($p < .10$). Neither Self-Other report in the Experimental Class is significant, but the two Other reports do correlate significantly ($p < .05$). The hypothesis that the Experimental Class would show higher correlations between Self and Other reports than would the Lecture Classes is again rejected, and the explanation relating amount of change inversely to amount of correlation is maintained.

Only Lecture Class I shows significant differences between Self and Other reports on the IBCS in Tables 9 and 10, although all Other groups had the tendency to rate the subjects lower than the subjects rated themselves. Thus the IBCS data is in agreement with the positive-change data on the IBCQ with respect to Self and Other reports: Others report less positive change than the Self reports. Since no "L" dimension exists on the IBCS, the proposed influences which the "L" dimension had on the IBCQ do not influence the results of the IBCS. And as expected, the IBCS scores do not show a significant difference in the case of the Experimental Class and Lecture Class II as the IBCQ did. Lecture Class I again can be said to be confounded by the term-difference variable.

Finally, with regard to the Self-Other data, is the issue of choosing two Others versus one Other. The subjects in the Experimental Class asked two Others to rate their behavior change; the subjects in the Lecture Classes asked only one Other to participate. Since all subjects were freshmen, it is possible that not many Others knew the subjects well, and choosing two Others increased the probability of choosing at least one unqualified judge. Because the Other data was returned anonymously and with order, the Other data in the Experimental Class was assigned randomly. The only way to tell whether significant differences might be due to poor Other choice, then, is to compare the two Other groups. If the two Other groups respond similarly, it can be assumed that choosing two Others did not affect the results significantly. If the two Other groups make discrepant reports, however, the differences may be due to the differential knowledge of the judges or to the differential opinions of any two people, well known to the subject or not, as there is no available means of determining this. Only if the results are similar, then, can an adequate conclusion be drawn.

Tables 8 and 9 show that both Other groups in the Experimental Class correlate with each other at the .05 level or beyond on each of the interpersonal measures, and no significant differences are found between the two Other groups on each of the interpersonal measures. Thus, the conclusion that choosing two Others rather than one did not significantly affect the results obtained from the Other groups is

supported.

As an overview to the Self and Other perspectives to interpersonal change, it can be said that the data showed: (1) significant discrepancies between the reports of the subjects and Others concerning where the subjects were at the beginning of the term, where they were at the end of the term, and how much positive-change they had made over the term. Since these are the scores using the "L" dimension, and since scores in which the "L" dimension was not involved did not show significant differences in the main, the differences between Self and Others are said to be related more to value differences than to the objective observation of the participants. (2) The reports of Self and Others did not significantly disagree in the amount of change per se the subjects had made over the term, except in the case of Lecture Class I which showed no differences on the IBCQ change scores but did show significant differences on the IBCS change score. This supports the previous conclusion. (3) In each case where two Other reports existed, they correlated significantly with each other. This supports the first conclusion and points to no differences between choosing one or two Others. (4) The hypothesis that Self and Other reports in the Experimental Class would correlate more highly than in the Lecture Classes was contradicted. This was explained by noting that the class in which the least change was reported had the highest correlations between Self and Other and the class reporting the most change had the lowest

correlations between Self and Others. The confounding variable of term-difference was used to explain the erratic results of Lecture Class I.

Therefore, with relation to the two hypotheses concerning Self and Other reports on interpersonal variables that (1) significantly higher correlations would obtain between Self and Other reports within the Experimental Class than would occur between the same measures within the Lecture Classes; and (2) no significant differences would obtain between Self and Other reports across the Experimental or Lecture Classes, the first is contradicted and the relationship between little change and high correlation noted, and the second is supported when the "L" dimension is not used in scoring and contradicted when the "L" dimension is used.

Between Class Differences

Three basic hypotheses test the effectiveness of the interpersonal method between classes. They are: (1) the Experimental Class will show significantly greater gains on the IBCQ change and positive-change scores than will either of the Lecture Classes; (2) the Experimental Class will show significantly greater gains on the IBCS than will either of the Lecture Classes; (3) the Experimental Class will show significantly greater gains on the IBUS than will either of the Lecture Classes.

As was the case with the SUQ, the $IBCQ_b$ and $IBCQ_n$ scores are important indicators to consider before the

$IBCQ_{ch}$ and $IBCQ_{+ch}$ scores can be seen as accurately descriptive. The $IBCQ_b$ indicates whether all groups had the same potential for movement or whether some groups had more possibility for change than others. If the $IBCQ_b$ scores are not significantly different, the amount of change possible can be considered negligible.

Table 11 shows no significant differences between the three classes on the $IBCQ_b$. Therefore, the differences between the classes with regard to potential change at the beginning of the term can be considered negligible.

The $IBCQ_n$ functions the same as the SUQ_n. The $IBCQ_n$ of the lecture classes (less distance between where the subjects are and where they would like to be) if the Experimental subjects are actually performing closer to their behavioral goals than are the Lecture subjects by the end of the course. Both the $IBCQ_n$ and the $IBCQ_{+ch}$ scores should show significant differences if the first hypothesis is to be accepted.

Tables 9 and 11 show no significant differences between any of the three classes on the $IBCQ_n$ at the .10 level, although the means of the Experimental Class as reported by Self and Others are consistently lower than those of the Lecture Classes. However, if the probabilities of the $\underline{t}$ values between the Self and Other reports of the Experimental Class and Lecture Class I and the Self and Other reports of Lecture Class II are combined, the joint probability of these results occurring together is

Table 11. t- test values between classes as reported by Self and Others on interpersonal measures.

	Exp. vs. Lec. I			Exp. vs. Lec. II			Lec. I vs. Lec. II	
	Self	Oth. 1	Oth. 2	Self	Oth. 1	Oth. 2	Self	Other
$IBCQ_b$	.299	-.839	-.823	.225	.711	.721	-.019	1.180
$IBCQ_n$	-.796	-1.424	-1.191	-.665	-.199	-.641	-.003	1.010
$IBCQ_{ch}$	.651	-.629	.382	1.260	.335	1.224	.615	.833
$IBCQ_{+ch}$	1.707†	1.254	1.952†	1.662†	1.492	2.101*	.061	.410
IBCS	-.596	.710	1.498	.683	.798	1.419	1.237	.201
IBUS	1.729†			4.027**			2.576*	
GES	7.344**			7.583**			.807	

† $p < .10$

* $p < .05$

** $p < .001$

significant at the .05 level. While the $IBCQ_n$ does not take into account initial differences concerning distance from behavioral goals, the results do indicate that by the end of the course the Experimental subjects were significantly closer to their goals than were the Lecture subjects.

The $IBCQ_{ch}$ and $IBCQ_{+ch}$ scores do take into account initial differences between the classes, and should clarify the results of the $IBCQ_n$ scores. Looking at the $IBCQ_{ch}$ scores, Tables 9 and 11 indicate that when the amount of change per se is measured, a significant difference cannot be found between the classes; although in all but one of eight instances, the change is in a direction favorable to the Experimental Class.

However, when viewing the most precise measure of interpersonal change, the $IBCQ_{+ch}$, differences significant at the .10 level can be found between the Self reports of the Experimental Class and both Lecture Classes, and between one Other group in the Experimental Class and the Other group of each Lecture Class. Moreover, if the probabilities of the t values between the Self and Other reports of the Experimental Class and Lecture Class I and the Self and Other reports of Lecture Class II are combined, the joint probability of these results occurring together is significant at the .001 level. The Self and Other reports of the Lecture Classes did not differ from one another.

These findings indicate that while differences do not reach significance at the .05 level when viewed

separately, differences are significant on the $IBCQ_n$ and $IBCQ_{+ch}$ when the Self and Other probabilities are combined in class comparisons. This may be due to the amount of time needed for the students to analyze, integrate, change, and consistently display behaviors which they desire to change.

If the results from the SUQ are added to these findings, it can be seen that differences between the Experimental Class and Lecture Class II on the SUQ_{+ch} are significant at the .05 level and differences between the Experimental Class and the Lecture Classes on the SUS are significant at the .01 level. If subjective change is viewed as less complicated because it involves less people and therefore, less expectations bound to old interaction patterns, the results from the $IBCQ_n$ and the $IBCQ_{+ch}$ scores can be seen as a continuation of the positive changes occurring on the subjective level. This is also substantiated by the IBUS scores to be discussed later.

Interpersonal behavior change was also rated by the IBCS. Tables 9 and 11 show, however, that no significant differences were found between the groups on this general behavior rating. The Self report of Lecture Class I even rated itself higher on the IBCS than the Experimental Class did, although this did not hold true for the Other report of Lecture Class I. The remaining means were in the desired direction. If the conclusion that consistent changes are difficult to produce in one term's time is accepted, it is

not surprising that the more global IBCS did not pick up significant differences between the classes, although the results were generally in the right direction.

Finally, interpersonal understanding as measured by the IBUS did show substantial differences in the desired direction between the Experimental Class and the Lecture Classes. The crucial difference between the Experimental Class and Lecture Class II was significant at the .001 level. In addition, if the probabilities of the $\underline{t}$ values between the Experimental Class and Lecture Class I and between the Experimental Class and Lecture Class II are combined, the joint probability of both results occurring together is significant at the .001 level. This further supports the conclusion that while differences occur, they may be less consistently worked through on the behavioral level than on the level of interpersonal understanding.

As an overall evaluation, then, it can be said that the results showed significant gains between the Experimental and Lecture Classes on two measures of positive interpersonal behavior change, the $IBCQ_n$ and the $IBCQ_{+ch}$. Moreover, highly substantial significant gains were shown in interpersonal understanding between the Experimental Class and the Lecture Classes. The complexity of consistent behavior change and the brevity of the ten week term were suggested as factors influencing the results. The trend toward significance set by the understanding scores, SUQ, SUS and IBUS, was noted.

GENERAL EFFECTIVENESS SCALE

The GES concerned the general effectiveness of the course as a whole. It was hypothesized that the Experimental Class would show higher scores on the GES, signifying more satisfaction with the course and more changes related to the course, than would either Lecture Class. The results in Tables 9 and 11 show that this was overwhelmingly the case. While the two Lecture Classes did not significantly differ from one another on the GES, they did differ from the Experimental Class beyond the .001 level (t = 7.344 and 7.583 respectively). This finding that the students felt they benefited highly from the new method follow the trends of more behavior change and more satisfaction from subjective and interpersonal methods reported in the literature (Macomber and Siegel, 1957; Castle, 1965; Bunker, 1967; Culbert and Culbert, 1967; Dyer, 1967; Kraft, 1967; McGrory, 1967; and McKeachie, 1967).

Results from written evaluations of the Experimental Class can be found in Appendix E. These written statements strongly support the generally positive effect of the Experimental Class on the students. No written evaluations were collected from the Lecture Classes to use as comparison.

GENERAL CRITICISMS AND IMPLICATIONS FOR FURTHER RESEARCH

A number of unanswered questions arise from this research, either resulting from flaws in methodology or from

the inability to include the whole range of meaningful variables in one research project. Primary among the former questions is: "To what extent did the divergent methods used in selecting subjects influence the results of the experiment?" Since filling out the questionnaires was a course requirement for some subjects and a source of extra credit for others, two different populations as well as two different response sets may have been operative. While virtually the entire population of the Experimental Class were included as subjects, only those who desired extra credit participated from the Lecture Classes. This may have selectively included the more diligent, more enthusiastic, more slavish, or more frightened extremes in the Lecture Classes. It excluded, at the least, the more apathetic students. On the one hand students participated by choice for extra credit--although some may have felt that extra credit is really a requirement--while participation was required in the Experimental Class. To the extent that the participation was novel, enlightening, or interesting, it may not have seemed too imposing a requirement; to the extent to which it was not, the research may have generated more hostility, stubbornness and subversion for the "required" group. Moreover, "extra credit" has a different intensity than "requirement." Those who did the experiment for extra credit may have been more light-hearted and less diligent than those who participated out of a sense of duty. The experimental design employed did not permit assessment of these sample

differences.

A second flaw in the methodology, although resulting from external circumstances, was the term difference of Lecture Class I with regard to Lecture Class II and the Experimental Class. Although a pre-experiment rationale was devised to explain the divergent results that might obtain, it remained uncertain whether so simple a rationale could explain the differences. Research on the effects of term-differences has been scant, if existant. Further study of this variable is clearly indicated.

A third methodological limitation results from the methods used to ascertain the validity of the IBCQ and the SUQ. Only one signle-item scale was used to verify the soundness of a fifty- and sixty-item questionniare. If the scale is not reliable, the validity of the questionnaire cannot be ascertained. The results from a limited survey indicate that among the present subjects sampled, 68% thought that the questionnaires more accurately described behavior change than did the scales. Of these, 88% thought the questionnaires differentiated between individuals, while only 52% thought the scales differentiated between people. Since the scales were used to validate the questionnaires, a question arises about the backwardness of the assumption involved. It seems more likely that the questionnaires should be used to validate the scales. While the extra-experiment survey indicates the questionable use of the scales as a measure of validity, it did support the face

validity of the questionnaires. In any case, further verification of the questionnaires and the scales is desirable.

Two issues arise around problems relating to values. Some previous research (Campbell and Dunnette, 1968) suggests that values may change as a result of using human relations techniques. Some measure of value differences and value change, then, are important variables to assess. If values do change, what are the effects of the changes: are they long-range or short-lived, are they seen as major or minor, how are they coped with in terms of others? In addition to being meaningful per se, however, values may have an important effect on the "L" dimension. Since only the subjects indicate the "L" dimension, if the Others' values are different from the subject's, the Others may be expressing a different meaning in their estimations of the behavior change of the subject. Analyses should be performed to determine whether those items in which discrepant values exist between Self and Others are consistently related to other variables, e.g. do objective reports of change ("B" and "N" dimension) differ when values between Self and Others differ?

A fifth concern arises around the assessment of the Objective method. Although most previous research has employed multiple choice tests to assess factual learning, Siegel and Siegel (1967) have suggested that this method is too circumscribed. A more comprehensive investigation of objective learning might include problem-solving tasks

and student analyses in the classroom to measure immediate comprehension, the relationship of the method to complicated problem solving, and styles used to translate the material presented into the sutdent's workable knowledge.

Other methods to assess the effect of the class on the students should also be compared. Besides the global GES rating scale and the changes in overt behavior, the written evaluations should be expanded to include all classes. Changes in attitudes toward psychology and the number of psychology classes subsequently taken could be measured.

Finally questions arise concerning some unstudied dimensions of the present method. The first is the effect of class size. Although the rationale was used that introductory classes are usually taught to large lectures and that, therefore, large lectures would serve as the most reasonable control, it may be that one important variable of this method was simply that it was a small class where more personal contact could be experienced. Research cited earlier indicated little effect of class size on examinations, but it may be that interpersonal understanding and modeling are more available to small lecture classes.

Closely related to this are two other factors: the ability of the instructor and the effect of novelty. It may be that the ability of the instructors in one or more relevant areas (rapport, competence, availability, concern, a source of modeling) differed between classes. In the present research, the instructors of the Lecture Classes had

longer experinece teaching and more training in psychology than did the instructor of the Experimental Class. Independent judgements of the ability of the instructors might be made. Beyond instructor differences, any new method may carry with it such novelty, interest and dedication that it will tend to be viewed as better than the traditional methods. Only extensive research could confirm this possibility, but if it is confirmed there is much to be said for expanding and supporting new models of teaching.

Transferability is another issue to be explored. If this method has value in itself, beyond its novelty or the small class size, it is important to know whether it can be transferred to other instructors with the same results or whether it is an instructor-bound method. Although the theoretical bases for it are broad, being related to a Rogerian format and being supported by a growing interest in experiential techniques, it may be too complicated or personally bound to be transferred to others. Again, extensive research would be required to clarify this issue.

Finally, only a more detailed look at the students can reveal the more specific factors related to the results obtained: whether the method is better for low-achievers or high-achievers, students who were already changing or who were dormant. The critical incidents that differentiated this method from the others should be examined. The written evaluations of Appendix E constitute the only current evidence on this issue.

CONCLUSIONS

General conclusions may be divided into two parts: an evaluation of the measures and an evaluation of between-class differences. With regard to the measures, it was determined that (1) the use of multiple choice test scores to assess the Objective method was valid in that no differences were found between academic potential scores (CQT_{tot} and CQT_{ss}) between the classes tested, although it was suggested that more diverse means of testing the Objective method be conducted.

(2) The Subjective Understanding Questionnaire, although showing trends toward correlating with the more global Subjective Understanding Scale, did not correlate significantly at the .05 level. This was thought to result more from the variability of the SUS than the SUQ, as indicated by student estimations of the SUQ as the "most adequate description" of their behavior.

(3) The Interpersonal Behavior Change Questionnaire, while correlating significantly with the Interpersonal Behavior Change Scale in the Experimental Class and partially significantly with the IBCS in Lecture Class II, did not correlate significantly with the IBCS in Lecture Class I. The pre-experiment term-difference rationale was used

to explain this. Since a complete change of milieu was being experienced by Lecture Class I, increased variability in efforts to cope with new expectations were said to account for the non-significance.

(4) The IBCQ correlated more highly with the IBCS than with the Interpersonal Behavior Understanding Scale, indicating, as predicted, that it does measure behavior change more than behavior understanding and in that sense has face validity. As predicted the IBCS and IBUS significantly correlated with each other.

(5) Similar correlational trends were found between the Experimental Class and Lecture Class II on the General Effectiveness Scale, although the correlations only became significant between the GES and the SUQ of the Experimental Class. Lecture Class I showed some trends toward correlation with the $IBCQ_{ch}$ score but not with the $IBCQ_{+ch}$ score. This was seen as Lecture Class I's perceived need to change behaviorally to fit the new milieu, but their inability to find a stable understanding of the changes needed. Although some classes only experienced the Objective method, no significant correlations were found between the GES and the Objective method. This points to the lack of valuing the Objective method as the important dimension in class worth. The higher correlation in the Experimental Class between subjective understanding and the GES than between interpersonal change and the GES was said to result from the relative ease of changing understanding as opposed to

changing behavior.

In general it may be said, then, that the primary measures showed substantial validity, but in order to ascertain their validity more definitely, additional research with a variety of criteria should be undertaken.

The data showing the effectiveness of the methods between groups was varied. In addition, difficulties in securing comparable subject samples and term differences between classes were noted as confounding variables. However, as predicted, (1) No significant difference was found between the Experimental Class and Lecture Class I on the multiple choice test items. Since the Experimental Class spent only one-third of the class periods presenting Objective information, while Lecture Class I used the entire class time pursuing objective knowledge, this was seen as a significant accomplishment for the Experimental Class.

(2) Results from the Subjective method show significant differences between the Experimental Class and both Lecture Classes on the SUS ($p < .01$), but not between the Lecture Classes themselves. While no differences were found between classes on the SUQ_{ch} when the classes were viewed separately, differences significant at the .06 level were found when the probabilities of the t values between the Experimental Class and Lecture Class I and between the Experimental Class and Lecture Class II were combined. Significant differences were found between the Experimental Class and Lecture Class II on positive-change scores

($p < .05$) when viewed separately, and at the .001 level when the probabilities of the t values between the Experimental Class and Lecture Class I and between the Experimental Class and Lecture Class II were combined. These results were seen as indicating that the Experimental method is better at increasing Subjective understanding than is the Lecture method.

(3) Data from the Interpersonal method are divided into two parts: Self versus Other reports and between-class differences. Contrary to predictions, the scores from the Experimental Class on the $IBCQ_{ch}$, and the $IBCQ_{+ch}$ and the IBCS did not correlate more highly between Self and Others than did scores from the Lecture Classes. In fact, Lecture Class II had consistent positive correlations between Self and Other on all three of these measures ($p < .05$), while the Experimental Class had no significant correlations. Lecture Class I had mixed results. Although conjectural, the explanation that seemed most reasonable for this was derived from noting that the groups which reported least positive-change had the highest Self-Other correlations. This was said to be due to difficulty in accurately noticing and describing change as opposed to no-change.

Another consistent occurrence was to find significant differences in the amount of change reported by Self and Others only in the measures which utilized the "L" dimension. Since the "L" dimension was rated only on the Self reports, these differences between Self and Others

were said to result either from differing values between the Self and Others or from the unavailability of the Others to know the base from which the subjects operated.

With regard to between-class differences, it was found that when Self and Other reports were viewed separately, trends were established which showed differences between the Experimental Class and the Lecture Classes only on the positive-change scores of the IBCQ. However, when the probabilities of the $\underline{t}$ values between the Self and Other reports of the Experimental Class and Lecture Class I and between the Self and Other reports of the Experimental Class and Lecture Class II were combined, the joint probability of these results occurring together were significant at the .05 level for the $IBCQ_n$, and at the .001 level for the $IBCQ_{+ch}$. Highly significant differences were found on the IBUS when viewed separately and when the probabilities between the Experimental Class and Lecture Class I and between the Experimental Class and Lecture Class II were combined ($\underline{p} < .001$).

It was noted that higher correlations and more significant differences were found on the "understanding" scores, subjective and interpersonal, than on the "behavior change" scores. A possible explanation concerning the complicated nature of coordinating interpersonal change in a short period of time was offered. Since understanding involves only the Self, and interpersonal change involves at least the Self and one Other, it should take longer for

interpersonal change to be accomplished than it would for understanding subjective or interpersonal issues. Since significant differences favoring the Experimental Class were found on both understanding and behavior change scores, these results were seen as indicating that the Experimental method is better at increasing interpersonal understanding and behavior change than is the Lecture method.

(4) Finally, data from the General Effectiveness Scale indicate much more behavior change and behavior understanding resulting from class experiences in the Experimental Class than in either Lecture Class ($p < .001$). When this general evaluation is supplemented by written class evaluations, more specific knowledge of critical incidents can add to its meaning.

Despite the possible impact of such issues as class size, instructor variables, transferability of the method, and novel teaching methods on the present findings, the data indicate that the experiential method of teaching equals or surpasses the traditional method of lecturing to large classes from the standpoints of objective, subjective and interpersonal understanding and behavior change, as well as from the standpoint of class satisfaction.

SUMMARY

Results favorable to the Experimental Class were found on all measures related to the three conceptual areas of psychological knowing: Objective, Subjective, and Interpersonal knowing. While the Experimental Class only spent one-third of its class time on Objective understanding, no significant differences were found between the Experimental Class and Lecture Class I on identical multiple choice test items. The Experimental Class significantly exceeded the Lecture Classes on Subjective understanding as measured by the change and positive-change scores on the Subjective Understanding Questionnaire and the Subjective Understanding Scale. Similar and significant differences obtained using the positive-change score of the Interpersonal Behavior Change Questionnaire and also the Interpersonal Behavior Understanding Scale. The global General Effectiveness Scale likewise showed significant differences favorable to the Experimental Class. These results seem to indicate that the Experimental method is a promising method for teaching introductory psychology.

FOOTNOTES

FOOTNOTES

[1]The types of learning, learning methods and orientations of those mentioned are: Tolman: cathexes, equivalence beliefs, field expectancies, field-cognition modes, drive discriminations, and motor patterns; Melton: conditioning, rote learning, probability learning, skill learning, concept learning, and problem solving; Gagne: signal-learning, stimulus-response learning, chaining, verbal association learning, multiple discrimination learning, principle learning, and problem solving; Gage: cognition, imitation and; Siegel and Siegel: cognitive and affective orientations; and Sunderland: skill cultures and interpersonal cultures.

[2]"Sensitivity training" and "human relations training" will be used interchangably in this paper to denote the many forms of training in interpersonal sensitivity devised for normal individuals. The "T-Group" is one sensitivity training method which consists primarily of a group of 8 to 12 individuals and a non-directive leader who discuss their interpersonal behavior and reactions to others in the present situation.

[3]Lecture Class I and the Experimental Class had originally been scheduled to be taught Fall term, 1968. However, an administrative decision postponed the teaching of the Experimental Class until Winter term, 1969, hence the unplanned need for Lecture Class II to serve as a term-difference control.

BIBLIOGRAPHY

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Berenson, B.G., Carkhuff, R.R., and Myrus, P. The interpersonal functioning and training of college students. J. Counseling Psych., 1966, 13, 441-48.

Bradford, L.R., Gibb, J.R., and Benne,K.D. T-Group Theory and Laboratory Method. New York: John Wiley and Sons, Inc., 1964.

Brown, M.M. A study of the relationships of selected tests and grade point averages for a land grant institution. Dissert. Abstr., 1966, 27 (3-A), 664.

Brown, W.T. Consideration of the relationship of five aptitude and achievement factors in successful male undergraduate students at the University of Montana. Dissert. Abstr., 1969, 29 (10-A), 3411.

Bunker, D.R. Individual applications of laboratory training. J. Appl. Behav. Sci., 1965, 1, 131-48.

Burke, R.L., and Bennis, W.G. Changes in perception of self and others during human relations training. Human Relat., 1961, 14, 165-82.

Cabianca, W.A. The effects of a T group laboratory on self esteem, needs and attitudes of student teachers. Dissert. Abstr., 1968, 28 (8-A), 3014.

Campbell, J.P., and Dunnette, M.D. Effectiveness of T-group experiences in managerial training and development. Psychol. Bull., 1968, 70 (2), 73-104.

Castle, D. The effects of participation training on the self-system. Dissert. Abstr., 1966, 27 (2-A), 368-69.

Christopher, P. Student reactions to humanistic teaching. New Directions in Teaching, 1969, 2(1), 3-5.

Corey, G.F. An investigation of the outcomes of the introductory psychology course in a junior college. Dissert. Abstr., 1967, 28 (4-A), 1262.

Culbert, S.A., and Culbert, J. Sensitivity training within the educational framework: a means of mobilizing potential. J. Creative Behav., 1967, 2 (1), 14-30.

Dowell, B.M. The effects of various teaching methods upon the self-concept, attitude toward psychology, anxiety level, dogmatism level, and level of achievement in general psychology of first semester Cedarville College freshmen. Dissert. Abstr., 1968, (10-A), 3993-4.

Dyer, R.D. The effects of human relations training on the interpersonal behavior of college students. Dissert. Abstr., 1967, 28 (6-A), 2068-9.

Eysenck, H.J. The concept of statistical significance and the controversy about the one-tailed test. Psychol. Rev., 1960, 67, 269-71.

Gage, N.L. Psychological conceptions of teaching. Educat. Sci., 1967, 1 (3), 151-61.

_____, and Unruh, W.R. Theoretical formulations for research on teaching. Rev. Educat. Res., 1967, 37 (3), 358-70.

Gagne, R.M., ed. The Conditions of Learning. New York: Holt, Rinehart and Winston, 1965.

Gold, J.S. An evaluation of a laboratory human relations training program for college undergraduates. Dissert. Abstr., 1968, 28 (8-A), 3262-3.

Gulo, E.V., and Nigro, M.R. Classroom learning as a function of presenting instructional materials. Psychol. Rep., 1966, 19, 971-77.

Hurley, J. Alienation and Reconciliation Tasks for Sensitivity Training Groups, Unpublished manuscript.

_____. Attribute Preference Inventory. Unpublished manuscript.

Iglinsky, C.L. Intellectual and non-intellectual factors affecting intellectual success of college freshmen. Dissert. Abstr., 1968, 29 (5-A), 1423-4.

Jordan, D.L. A comparison of the effects of didactic and experiential training on accurate empathy, nonpossessive warmth, and genuineness. Dissert. Abstr., 1969, 29 (9-B), 3487-8.

Kimble, G.A. and Garmezy, N. Instructors Manual for Principles of General Psychology. New York: The Ronald Press Company, 1968.

_____. Principles of General Psychology. New York: The Ronald Press Company, 1968.

Kimmel, H.D. Three criteria for the use of the one-tailed test. Psychol. Bull., 1957, 54, 351-53.

Kraft, L.J. The influence of human relations laboratory training upon the perceived behavioral changes on secondary school seminar instructors. Dissert. Abstr., 1968, 28 (9-A), 3510.

Lundgren, D.C. Interaction process and identity change in T groups. Dissert. Abstr., 1969, 29 (3-A), 961-62.

Mangaroo, J. The relation of cognitive factors to the academic success of juniors at Ohio State University School of Applied Medical Professions. Dissert. Abstr., 1968, 29 (6-B), 2096-7.

Marin, P. and Lindenfeld, F. Reflections on experimental teaching. New Directions in Teaching, 1968, 1 (2), 24-30.

Maslow, A.H. Humanistic education vs. professional education. New Directions in Teaching, 1969, 2 (1), 6-8.

_____. The Psychology of Science: A Reconnaissaince. New York: Harper and Row, Publishers, 1966.

McGrory, J.E. Teaching introspection in the classroom. Rational Living, 1967, 2 (2), 23-24.

McKeachie, W.J. Psychology at age 75: The psychology teacher comes into his own. Amer. Psychologist, 1968, 23, 531-57.

McNemar, Q. Psychological Statistics. (2nd ed.). New York: John Wiley and Sons, Inc., 1949.

Melton, A.W., ed. Categories of Human Learning. New York: Academic Press, 1964.

Morris, S.B., Pflugrath, J.C., and Taylor, B. Encounter in higher education. In Burton, A., ed. Encounter, The Theory and Practice of Encounter Groups. San Francisco: Jossey-Bass Inc., Publishers, 1969, 189-201.

Nichols, M.J. A study of the influences of selected variables involved in student evaluation of teacher effectiveness. Dissert. Abstr., 1968, 28 (8-A), 2908.

Owen, P.H. Some dimensions of college teaching: An exploratory study using critical incidents and factor analyses of student ratings. Dissert. Abstr., 1967, 27 (12-B), 4590.

Perls, F., Hefferline, R.F., and Goodman, P. Gestalt Therapy. New York: Dell Publishing Co., 1951.

Pickle, J.H. Analysis of the relation of entrance examination scores and marks earned in eight semesters of graduates of the college of education. Dissert. Abstr., 1967, 28 (2-A), 405.

Redford, J. A comparison of selected factors in the prediction of academic success at Southwest Mississippi Junior College. Dissert. Abstr., 1968, 29 (4-A), 1109.

Rogers, C.R. Toward a science of the person. In Wann, W.T., ed. Behaviorism and Phenomenology. Chicago: The University of Chicago Press, 1964.

_____. On Becoming a Person. Boston: Houghton Mifflin Company, 1961.

Rubadeau, D.O. A comparison of learner-centered and teacher-centered learning. Dissert. Abstr., 1967, 28 (5-A), 1447-8.

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

Siegel, L. and Siegel, L.C. A multivariate paradigm for educational research. Psychol. Bull., 1967, 68 (5), 306-26.

Stern, P.R. Group work: An exploratory project with college students. Psychology, 1968, 5 (2), 53-55.

Sunderland, S.C. Changing universities: A cross-cultural approach. J. Appl. Behav. Sci., 1967, 3 (4), 461-68.

Tolman, E.C. There is more than one kind of learning. Psychol. Rev., 1949, 144-55.

APPENDICES

APPENDIX A

OBJECTIVE, SUBJECTIVE AND INTERPERSONAL MEASURES ADMINISTERED TO SUBJECTS

MULTIPLE CHOICE TEST ITEMS

1. How can psychology include private experience as a part of its subject matter? (1) It cannot. Private experience is unobservable and unobservables have no place in science. (2) By treating it as an intervening variable, inferred from the verbal and nonverbal behavior of organisms. (3) By accepting private experience as the most important independent variable in psychology. (4) By recognizing that it is a dependent variable and, therefore, an important part of psychology's subject matter. (5) By understanding that consciousness is really a materialistic function of the nervous system and relating it to brain processes. Ans. = 2

2. The process of examining and reporting upon the content of one's own consciousness is (1) explanation. (2) abstraction. (3) theorizing. (4) introspection. (5) psychology. Ans. = 4

3. Which term does not belong in the list below? (1) Hunger (2) Aggression (3) Motivation (4) Attitude (5) Response. Ans. = 5

4. Which of the following statements is unacceptable to a science of psychology because it is untestable in principle? (1) The chief cause of schizophrenia is to be found in parent-child relationships. (2) Dreams predict future events. (3) There are certain universal characteristics of conscious experience. (4) If a child were kept from all human contact until the age of six, it would be feebleminded. (5) A person who completely isolates himself from the world is psychotic. Ans. = 3

5. S-R and R-R laws <u>of necessity</u> differ in (1) degree of precision. (2) type of independent variable. (3) appropriateness to a science of psychology. (4) type of dependent variable. (5) validity. Ans. = 2

6. The main point of the "Man from Mars" metaphor advanced by Bechterev was that the scientific psychologist must (1) always assume that other people's experiences are different from his own. (2) rely heavily upon his personal knowledge of behavior lest he be led to erroneous conclusions. (3) base his interpretations upon what is objective: observable aspects of behavior and the circumstances under which behavior occurs. (4) avoid attempting to explain behavior in the terms that might be employed by someone from a different culture. (5) endeavor to develop explanations so powerful that they might apply to individuals from another planet whose makeup is unknown to us on earth. Ans. = 3

7. Your textbook describes a study in which a change in attitude toward war against the Japanese might have been misinterpreted had there been no control group in the study. One way of viewing the contribution of the control group would be as a way of dealing with (1) experimenter bias. (2) the base rate problem. (3) the problems of retrospective report. (4) errors arising from perceptual defense. (5) demand characteristics of the experiment. Ans. = 2

8. An ex post facto experiment differs from other experiments in that (1) the values of the independent variable are determined after the experiment is completed. (2) there is no independent variable. (3) the independent variable is manipulated directly by the experimenter. (5) more than one independent variable is manipulated and an interaction exists. Ans. = 1

9. In Rosenthal's study of experimenter bias, it was found that students experimenting with rats they thought were "bright" obtained faster learning than those who were training rats they thought were dull. The explanation of this effect is to be found in differential (1) perception of the animals' behavior. (2) honesty in treating data. (3) conceptions of the effect of intelligence on learning. (4) handling of the animals during the experiment. (5) learning ability of the subjects. Ans. = 4

10. In an experiment the independent variable is (1) what the experimenter manipulates. (2) the behavioral result of the experimental manipulations. (3) a variable carefully maintained at a constant value. (4) independent in the sense that the experimenter has no control over it. (5) typically determined after the completion of the experiment. Ans. = 1

11. Attributing human characteristics to lower animals is called (1) humanism. (2) animalism. (3) anthropomorphism. (4) naturalistic observation. (5) None of these is true. Ans. = 3

12. When the effect of manipulating one variable depends upon the value of another we speak of (1) the double blind phenomenon. (2) a nonmonotonic function. (3) the correlational method. (4) an interaction. (5) the phenomenon of counterbalancing. Ans. = 4

13. Correlational studies require (1) manipulation of the dependent variable. (2) manipulation of an independent variable. (3) control of the independent variable. (4) control of the dependent variable. (5) comparison of two response measures on the same individuals. Ans. = 5

14. A certain new college is rapidly developing a fine reputation and, year by year, more and more students are applying for admission. Faced with this situation, the college decides to select its Freshman class on the basis of a test that correlates +.60 with grades. Every year, as the number of applications goes up and up the cutting score used by the college is placed higher and higher and a smaller and smaller proportion of the applicants can be selected. As a result of this, the pattern of correlation with grades, measured at five-year intervals, changes as follows: (1) +.60, +.60, +.60, +.60 (2) +.60, +.50, +.40, +.30 (3) +.60, +.30, .00, -.30 (4) +.60, +.65, +.70, +.75 (5) +.60, +.75, +.90, +1.15 Ans. = 2

15. What level of confidence must be achieved before one can conclude that a difference could not possibly have occurred by chance? (1) .10 (2) .05 (3) .02 (4) .001 (5) None of these It is always possible that the difference was due to chance. Ans. = 5

16. Which of the following correlations allows you to predict one measure from another with the greatest precision? (1) -1.00 (2) -.50 (3) -.30 (4) +.30 (5) +.50 Ans. = 1

17. There is usually a high positive correlation between the scores obtained when people take the same intelligence test twice. Suppose that the mean IQ is 100; the SD, 15; and the correlation just referred to, .80. Suppose someone takes the test twice and obtains an IQ of 145 on the first test. What do you predict his score will be on the second testing? (1) 100 (2) 125 (3) 136 (4) 145 (5) 165. Ans. = 3

18. Which of the following statements could be expressed quantitatively with the aid of a correlation coefficient? (1) Women study harder than men. (2) On the average, women obtain better grades in college than men. (3) Students who study harder get better grades. (4) Women forget what they learn faster than men. (5) Women students who study hard forget what they learn faster than male students who study hard. Ans. = 3

19. Let us assume that, considering several hundred different territories, someone finds that there is a correlation of -.75 between the number of hawks in a territory and the number of mice. From this information one may predict (1) the number of hawks from a knowledge of the number of mice. (2) the number of mice from a knowledge of the number of hawks. (3) both 1 and 2, above, but neither 4 or 5 below. (4) hawks, therefore, must kill

mice. (5) hawks avoid conditions that attract mice. Ans. = 3

20. The dominant sense in the primate early became (1) olfaction. (2) vision. (3) audition. (4) the pressure and pain senses. (5) kinesthesis. Ans. = 2

21. What is a taxis? (1) A primitive manifestation of symbol formation. (2) Movement to or away from a source of stimulation. (3) A response that is specific solely to single-celled organisms. (4) A pattern of stimulation. (5) A rudimentary receptor system for adaptation. Ans. = 2

22. Comparisons of infant chimps and infant children suggest that (1) the chimp is superior motorically. (2) the child is superior at social play. (3) special training can facilitate atypical behavior patterns in a species. (4) species characteristics can be modified only within reduced limits. (5) All of the above tend to be true. Ans. = 5

23. In Reed and Reed's study of familial history and mental retardation, the role of genetic factors is (1) outweighed by environmental factors in third-degree blood relationships. (2) consistently greater than that accorded environmental factors irrespective of degree of blood relationship. (3) obscured by the fact that the contribution consists almost entirely of "probably genetic" composition in first-degree relatives. (4) only slightly greater than that accorded unknown factors. (5) equaled by the role played by environmental factors. Ans. = 2

24. Carmichael's classic studies of tadpoles under normal and drugged conditions suggest that for this species swimming is (1) largely dependent upon maturation. (2) uninfluenced in the immediate or long-range sense by drugs. (3) is independent of nervous system development. (4) is related to the proximo-distal sequence. (5) None of the above is true. Ans. = 1

25. The fact that an infant can control its arm before it can control its fingers reveals which principle of development? (1) Encephalization (2) Cephalocaudal sequence (3) Mass action, differentiation (4) Proximo-distal sequence (5) Both 3 and 4. Ans. = 4

26. Gross brain size in humans is related to (1) intelligence. (2) personality. (3) learning ability. (4) memory. (5) none of the above. Ans. = 5

27. The distinction between communicative and integrative functions of the nervous system does not parallel the distinction between (1) white matter and grey matter. (2) nerve tracts and nuclei. (3) axons and cell bodies of neurons. (4) language and thought. (5) It parallels each of the above. Ans. = 4

28. Most neurons in the central nervous system are usually (1) stimulated by many other neurons but themselves stimulate only one other neuron. (2) stimulated by one other neuron but themselves stimulate many others. (3) stimulated by many others and stimulate many others. (4) stimulated by one other and stimulate one other. (5) None of the above are typical. Ans. = 3

29. A nerve impulse traveling along an axon (1) slowly dies out. (2) maintains its size throughout the length of the axon. (3) is strictly an electrical event. (4) is a neuron's only response. (5) None of the above is true. Ans. = 2

30. The chief functional distinction between structures of the nervous system is (1) white matter vs. grey matter. (2) thinking vs. doing. (3) learning vs. maturation. (4) sensory vs. motor. (5) None of the above is true. Ans. = 4.

31. The unique contributions of the new forebrain include (1) emotion. (2) memory. (3) language. (4) vision. (5) None of the above is true. Ans. = 3

32. Accommodation is a function of the (1) lens. (2) retina. (3) fovea. (4) blind spot. (5) iris. Ans. = 1

33. Which of the following is/are associated with dark adaptation? (1) The Purkinje shift (2) Greater sensitivity to green (3) Lowered sensitivity to red (4) The rod-cone break (5) All of these. Ans. = 5

34. By comparison with the sound produced in the normal atmosphere, an object vibrating in a total vacuum produces a sound that is (1) higher in pitch. (2) lower in pitch. (3) louder. (4) different in timbre. (5) None of the above is true. There is no sound at all. Ans. = 5

35. Pitch is to hearing as what is to color vision? (1) Brightness (2) Hue (3) Saturation (4) 1 and 3 above (5) 2 and 3 above. Ans. = 2

36. The Doppler effect is related to (1) pitch. (2) loudness. (3) saturation. (4) timbre. (5) hue. Ans. = 1

37. There are how many primary tastes? (1) 3 (2) 4 (3) 5 (4) 6 (5) 7. Ans. = 2

38. Phobias seem easiest to interpret as what kind of learning? (1) Classical conditioning (2) Instrumental conditioning (3) Chaining (4) Principle learning (5) Problem solving. Ans. = 1

39. Which of the following is/are effects on performance rather than learning? (1) Spontaneous recovery (2) Reminiscence (3) Differences in performance produced by motivational differences (4) All of the above (5) None of the above. Ans. = 4

40. In a certain type of experiment dogs are conditioned by pairing a light or tone with electric shock to the foot. One of the responses elicited by the shock is an increase in heart rate. After several trials with light and shock, the light elicits an increase in heart rate. Based on this description, the classically conditioned CR is most definitely (1) lifting the leg to avoid shock. (2) lifting the leg although it does not avoid shock. (3) increased heart rate produced by the shock. (4) increased heart rate to the light. (5) 1 and 3 above but not 2 or 4. Ans. = 4

41. "Incentive" refers to (1) the same thing as "motivation." (2) the so-called "depression" and "elation" effects. (3) a motivational property of rewards. (4) the same thing as reinforcement. (5) an improvement in performance that is not the result of practice. Ans. = 3

42. Which of the following is most obviously not an example of instrumental learning? (1) Wheel-turning avoidance learning (2) Bar pressing for food (3) Salivary conditioning with a food reward (4) Maze learning (5) Key pecking for food. Ans. = 3

43. Which of the following expressions best suggests the behavior criterion of insightful learning? (1) Steady improvement (2) Grasping relationships (3) Learning set (4) Error factor theory (5) Sudden solution. Ans. = 5

44. The idea that learning is a perceptual process is most acceptable to the (1) continuity theory. (2) S-R theory. (3) multiprocess theory. (4) cognitive theory. (5) drive-stimulus reduction theory. Ans. = 4

45. What has been used as a reinforcement for responses conditioned in curarized animals? (1) Food (2) Water (3) Brain stimulation (4) All of these (5) None of these. Ans. = 3

46. The S-R explanation of transposition relies heavily upon the concept of (1) perceptual learning. (2) drive reduction. (3) stimulus generalization. (4) learning without responding. (5) learning of relationships. Ans. = 3

47. Verbal conditioning has been used in studies related to which controversial issue? (1) Learning without awareness (2) Continuity-noncontinuity issue (3) Cognitive vs. S-R theory (4) Single process vs. multiprocess issue (5) The mechanism of reinforcement. Ans. = 1

48. If a subject is required to learn a list of nonsense syllables in order and to pronounce each syllable as the preceding syllable appears in the window of the memory drum, this is the (1) method of serial learning. (2) method of paired associate learning. (3) serial anticipation method. (4) method of successive criteria. (5) study and test method. Ans. = 3

49. The associations formed in paired-associate learning include associations of which type(s)? (1) Forward (2) Backward (3) Context (4) All of these (5) None of these. Ans. = 4

50. Which of the following is characteristic of the second phase of an experiment involving a nonreversal shift? (1) The subject now must choose the stimuli that were to be avoided in the first half of the experiment. (2) Stimulus dimensions that were irrelevant in the first half of the experiment became relevant. (3) New stimuli are introduced and the subject must learn a new discrimination. (4) The subject must continue to respond to the same relationships although the specific stimuli are different. (5) The subject must learn to alternate the stimulus dimensions to which he responds, shifting dimensions from trial to trial. Ans. = 2

51. Which of the following finds reversal shifts easier than nonreversal shifts? (1) Lower animals (2) Kindergarten children (3) College students (4) All of the above (5) None of the above. Ans. = 3

52. When one's prejudices and preconceptions determine the solutions he offers to problems involving syllogistic reasoning, we speak of (1) semantic generalization. (2) the semantic differential. (3) intrusion errors. (4) the atmosphere effect. (5) phonetic symbolism. Ans. = 4

53. In an effort to control the subject's method of memorization in verbal learning, we use (1) the memory drum. (2) reversal and nonreversal shifts. (3) trials to successive criteria. (4) materials scales for meaningfulness. (5) nonsense syllables. Ans. = 1

54. Transfer of learning refers to the situation in which (1) learning one thing benefits the learning of another. (2) learning one thing interferes with the learning of another. (3) the subject learns new responses to old stimuli. (4) the subject transfers old responses to new stimuli. (5) learning one thing influences the learning of another. Ans. = 5

55. Which method of habit-breaking suggests most directly that this process is the same as that involved in ordinary forgetting? (1) Exhaustion method (2) Change of environment method (3) Toleration method (4) Incompatible response method (5) None of these. Ans. = 4

56. Waugh and Norman's study using the probe-digit technique suggests that (1) forgetting in short-term memory experiments is produced by proactive and retroactive inhibition. (2) the process of short-term memory extends over a time span of about 20 seconds. (3) short-term memory involves a process of response integration. (4) short-term memory decreased as a function of time rather than of the number of items occurring between a target item and the request to recall. (5) the procedure of backward counting used in studies of short-term memory produced no interference. Ans. = 1

57. The study of Brown and McNeill on the tip-of-the-tongue phenomenon suggests that an item in memory is stored in two ways: (1) in an associate network relating it to previous and succeeding stimulus events. (2) in a form describable in terms of formal attributes and in a location describable in terms of association. (3) in a short-term form for perhaps 20 sec. and in a long-term form, perhaps permanently. (4) one of these ways being subject to retroactive inhibition, the other to proactive inhibition. (5) structurally as a verbal habit and functionally in relationship to the subject's needs or motives. Ans. = 2

58. Positive transfer occurs under circumstances where one is required to make (1) old responses to old stimuli. (2) new responses to new stimuli. (3) new responses to old stimuli. (4) old responses to new stimuli. (5) 3 and 4 above but not 1 or 2. Ans. = 4

59. The critical period associated with imprinting appears to be the result of the interaction of two conflicting tendencies, (1) imprintability and anti-imprintability. (2) appetite and aversion. (3) primary and acquired drive. (4) action-specific energy and innate releasing mechanism. (5) mobility and fear. Ans. = 5

60. Instinctive behavior occurs only to objects in the environment with certain distinctive features. This statement defines (1) action-specific energy. (2) innate releasing mechanism. (3) inhibitory block. (4) fixed action pattern. (5) displacement activity. Ans. = 2

61. In the case of secondary motivation established by the method of classical conditioning, which of the following elements of the situation becomes the motivator? (1) CS (2) UCS (3) CR (4) UCR (5) None of these. Ans. = 1

62. The main point of the experiment in which subjects were injected with adrenalin ("suproxin") and then tested for angry and happy moods is that it shows that (1) the exact form an emotion takes depends upon environmental conditions. (2) adrenalin produced emotional arousal. (3) the opportunity to express an emotion tends to decrease its strength. (4) information can counteract some of the effects of emotional arousal. (5) the James-Lange theory of emotion is definitely inadequate. Ans. = 1

63. The work of Bridges suggests that emotional development in infants is sequential in that it moves from a stage of X to one of Y. (1) X=excitement; Y=pleasure (2) X=diffusion; Y=relaxed boredom (3) X=specificity; Y=diffusion (4) X=undifferentiated excitement; Y=relaxed quiescence (5) X=diffusion;Y=specificity. Ans. = 5

64. Both smiling and visual fixation behavior in early infancy (up to six months of age) appear to be greatest in response to which of the following stimuli? (1) A face in profile (2) A full face with features randomly placed (3) Geometric designs in a variety of colors (4) A full face with regular features (5) A moving mobile. Ans. = 4

65. The decrease in generalized smiling in infants after six months of age appears to be most closely related to (1) an improvement in the infant's visual fixation time. (2) the development of attachment behavior to the mother. (3) the non-responsiveness of strangers to the infant. (4) the presence of multiple caretakers of the infant. (5) all of the above are untrue since smiling continues as a generalized response after six months of age. Ans. = 2

66. "Separation anxiety" is first manifested in the infant at about what age? (1) 20 months (2) 12 months (3) 18 months (4) 4 months (5) 7 months. Ans. = 5

67. "Puppies reared in social isolation are unable to learn to interact socially with human beings or other dogs." This sentence suggests the critical importance of (1) the innate quality of social responding. (2) the genetic pattern of social responsivity in mammals. (3) the maturation sequence for social behavior in various species of dogs. (4) the arousal of anxiety through avoidance conditioning in puppies. (5) the potential application of a critical period hypothesis to social responding in puppies. Ans. = 5

68. In Rheingold's study in which she "mothered" a sample of institutionalized children and compared their subsequent behavior with a control group, the concept of "mothering" was defined primarily in terms of (1) systematically smiling at the infant to reinforce responsiveness. (2) play behavior between infant and experimenter. (3) holding and bathing the infant. (4) providing for the infant's needs through soothing, diapering, cuddling and feeding by the experimenter. (5) a complex pattern of interaction defined by the various activities above. Ans. = 5

69. Monkeys who have known a long period of isolation show an incapacity for (1) fear. (2) mothering. (3) climbing behavior. (4) sensory responsiveness. (5) autonomic responding. Ans. = 2

70. Farber et al., in their description of the techniques of thought control used by the Chinese with prisoners of war, indicate that the mere act of talking with one's interrogator after a period of prolonged isolation could serve as a reinforcement for further communication with the enemy, which could lead to active collaboration. This is illustrative of the method of (1) classical conditioning. (2) partial reinforcement. (3) omission training. (4) chaining. (5) instrumental conditioning. Ans. = 5

71. With regard to the question of what effect the emphasis on violence in mass media has upon the observer, the studies of Berkowitz and Bandura et al. suggest that (1) observing acts of violence tends to reduce the observer's aggressive tendencies. (2) there is no discernible effect. (3) an increase in manifest aggression is likely. (4) the effect is dependent upon whether or not the observed situation is similar to the life situation of the observer. (5) the effects are related to the prior experiences of the individual. Ans. = 3

72. In conflict theory, the more the generalized stimulus differs from a situation in which the threat of retaliation inhibits an aggressive response (1) the greater the likelihood that aggression will be shown. (2) the less the likelihood of aggression being shown. (3) the greater the likelihood of an intense aggression-anxiety conflict. (4) the greater will be the height of the avoidance gradient. (5) the lower the height of the approach gradient. Ans. = 1

73. The distinction between the effects of punishment and catharsis on aggression is that punishment X while catharsis Y the instigation to aggression. (1) X= strengthens; Y=weakens (2) X=inhibits; Y=strengthens (3) X=strengthens; Y=inhibits (4) X=extinguishes; Y= reinforces (5) X=inhibits; Y=weakens. Ans. = 5

74. In a diagrammatic representation of a conflict situation, when the gradients intersect at a point very distant from the goal, one can assume (1) marked vacillation the closer the subject is to the goal. (2) marked ambivalence toward the goal by the subject. (3) strong fear arousal in the subject. (4) apathy and avoidance as a prominent aspect of behavior. (5) a lessened likelihood of displaced behavior. Ans. = 3

75. In a study not reported in your text, an investigator placed hungry rats in an approach-avoidance conflict, using food and shock as stimuli, in the type of apparatus used by Miller and Brown. He then injected the rats with alcohol. Based on Clark's study of sexual arousal in college students what would you predict to be the likely result? (1) The animals moved toward the food box as a result of a rise in the approach gradient. (2) Vacillation was heightened by the use of alcohol. (3) Both the approach and avoidance gradients were raised, thus intensifying the conflict. (4) The animals moved toward the food box as a result of a lowering of the avoidance gradient. (5) Both the approach and avoidance gradients were lowered, leading to a reduction in conflict. Ans. = 4

76. In Lewin, Lippitt and White's study of groups of boys with different types of leadership, "scapegoating" was most common with the group having (1) leaders who determined policy exclusively. (2) leaders who initially determined policy and then were provided with more democratic leaders. (3) leaders who initially allowed the group free rein and then clamped down. (4) greater proportions of aggressive children. (5) laissez-faire leaders and then autocratic leaders later on. Ans. = 2

77. A young woman whose conception of an ideal husband involves the attributes of youth, vigor, physical attractiveness and wealth, is faced with the choice of a young, impoverished suitor or an old, wealthy one. Which type of conflict is involved? (1) Approach-approach conflict (2) Approach-avoidance conflict (3) Double-approach-avoidance conflict (4) Avoidance-avoidance conflict (5) Temporal conflict. Ans. = 3

78. Life situations that emphasize excessive dependence increase the likelihood of which of the following types of behavior? (1) Aggression (2) Apathy (3) Fixation (4) Regression (5) Repression. Ans. = 4

79. Freud suggested a distinction between the following types of anxiety: (1) reality, neurotic and moral anxiety. (2) state, trait and neurotic. (3) somatic vs. psychological anxiety. (4) normal vs. pathological anxiety. (5) fear vs. anxiety proper. Ans. = 1

80. Two students are described by a counselor in the following way: "A has suddenly become nervous and irritable with the approach of final exams. B has simply been unchanged. He's always nervous." Which of the following alternatives refers to the distinction being made? (1) Reality vs. neurotic anxiety (2) Neurotic vs. reality anxiety (3) State vs. trait anxiety (4) Trait vs. state anxiety (5) Somatic vs. bodily anxiety. Ans. = 3

81. Sibling rivalry, as an example of an aggression-anxiety conflict, closely approximates Freud's concept of (1) reality anxiety. (2) state anxiety. (3) trait anxiety. (4) neurotic anxiety. (5) moral anxiety. Ans. = 5

82. Insofar as defense mechanisms seem to reduce anxiety, they are characterized as (1) unconscious. (2) adaptive. (3) learned. (4) trait-relevant. (5) conditioned. Ans. = 2

83. Escapism and indecision are aspects of which of the following defense mechanisms? (1) Denial (2) Projection (3) Rationalization (4) Substitution (5) Sublimation. Ans. = 1

84. The text indicates that the distinction to be made between fear and anxiety is essentially (1) psychophysiological. (2) neurological. (3) literary. (4) anthropomorphic. (5) morphological. Ans. = 3

85. "The grown-ups assure him, when he has hurt himself, that he is 'better now' or that some food which he loathes 'isn't a bit nasty,' or, when he is distressed because somebody has gone away, we tell him that he or she will be 'back soon.'" The above excerpt from a quotation by Anna Freud describes the way in which parents may cultivate which of the following mechanisms? (1) Projection (2) Suppression (3) Inhibition (4) Rationalization (5) None of the above. Ans. = 5

86. According to the frustration-aggression hypothesis, the strength of the instigation to aggression should (1) vary directly with the strength of the motivation behind the frustrated impulse. (2) vary inversely with the point in a behavioral sequence at which frustration occurs. (3) bear little relationship to the degree of interference with ongoing behavior. (4) be negatively related to the number of frustrated response sequences that have occurred. (5) All of the above are true. Ans. = 1

87. The partial attachment of the libido to objects and activities appropriate to an earlier stage of development is called (1) transference. (2) catharsis. (3) repression. (4) hysteria. (5) fixation. Ans. = 5

88. According to Freud, the earliest direction of sexuality is toward (1) the maternal figure. (2) the opposite sexed parent. (3) parental figures. (4) one's own body. (5) inanimate objects. Ans. = 4

89. Which of the following concepts would be least important to the learning theorists treatment of personality? (1) Generalization (2) Discrimination (3) Spontaneous recovery (4) Habit family hierarchies (5) Frustration. Ans. = 3.

90. Response sets and test-taking attitudes are closely akin to which of the following? (1) Unlearned habit tendencies (2) Actuarial prediction (3) Cardinal dispositions (4) Social desirability (5) None of the above are true. Ans. = 4

91. Which of the following theorists represents the approach to personality which emphasizes the process by which a personality develops as opposed to the other general approach, which emphasizes the nature of personality structure? (1) Allport (2) Freud (3) Cattell (4) Sheldon (5) Eysenck. Ans. = 2

92. Which of the following MMPI scales reflects somatic complaints and denial of any kind of difficulty? (1) Psychopathic deviate (2) Paranoia (3) Depression (4) Mania (5) Hysteria. Ans. = 5

93. Which of the following is not a projective test? (1) TAT (2) Rorshack (3) MMPI (4) Word associations (5) Draw a person test. Ans. = 3

94. Jung's notion of introversion-extroversion is characteristic of (1) trait theories. (2) type theories. (3) psychoanalytic theory. (4) learning theory. (5) None of the above is true. Ans. = 2

95. Approximately what percentage of the hospital beds in the United States are occupied by mental patients? (1) 4% (2) 10% (3) 15% (4) 25% (5) 50%. Ans. = 5

96. A schema for the definition of behavior pathology which emphasizes that any behavior that produces anxiety and lowered efficiency is abnormal would be classified as (1) a personal adjustment definition. (2) a cultural definition. (3) an etiological definition. (4) a symptom cluster definition. (5) a statistical definition. Ans. = 1

97. The mechanism of _____ occupies a place of central importance in both conversion reactions and dissociative reactions. (1) projection (2) regression (3) rationalization (4) repression (5) identification. Ans. = 4

98. A totally unresponsive schizophrenic patient who spends years sitting in a chair on a back ward exhibits what psychiatrists have called (1) abulia. (2) anhedonia. (3) delusions. (4) ambivalence. (5) dementia. Ans. = 1

99. A traumatic neurosis is one generated by (1) physical trauma. (2) a specific and identifiable stress. (3) psychological deprivation. (4) a meticulous, moralistic pattern of personal traits. (5) "free-floating" anxiety. Ans. = 2

100. The "social isolation" and "social drift" hypotheses have been formulated in an effort to explain (1) the higher rates of schizophrenia in slum populations. (2) the lower rates of schizophrenia in suburban populations. (3) the concentration of schizophrenia in certain sections of the country. (4) the mobility patterns of schizophrenic patients. (5) the role played by social class and race factors in mental disorder. Ans. = 1

101. The "neurotic paradox" describes (1) the retention of psychoneurotic symptoms over time by patients. (2) the failure of treatment to modify symptoms in the neurotic. (3) the continued use of self-defeating symptoms by the neurotic. (4) the childlike behaviors of adult neurotics. (5) the use of fixation as a means of defensive adaptation in neurosis. Ans. = 3

102. LSD produces symptoms similar to those of another psychotomimetic drug (1) chlorpromazine. (2) thorazine. (3) mescalin. (4) ergot. (5) serotonin. Ans. = 3

103. The major symptom of neurosis is (1) depression. (2) physical complaints. (3) dissociation. (4) withdrawal. (5) anxiety. Ans. = 5

104. Miller attributes the high frequency with which patients return to hospitals to (1) severity of illness. (2) absence of an adequate support in the patient's social and psychological world. (3) premature release from the hospital. (4) the inadequacy of large number of therapists available in the community. (5) decreased use of tranquilizing medication in outpatient services. Ans. = 2

105. Recent research on the effect of placebos, such as that conducted by Goldberg et al., is providing evidence which indicates that the administration of placebos (1) has no influence on psychopathological symptoms. (2) can produce improvement in the symptoms of hostility, hallucinations, and persecutory delusions. (3) can produce improvement in all types of symptomatology if the patient is also being treated with chlorpromazine. (4) can produce improvement in the symptoms of apathy, flattened effect, and motor retardation. (5) has none of the effects described in 1 through 4 above. Ans. = 2

106. Which of the following is the best known and probably the most effective of the phenothiazine compounds? (1) Taraxein (2) Sodium pentothal (3) Reserpine (4) Chlorpromazine. (5) Rauwolfia. Ans. = 4

107. Which of the following techniques is equivalent to the extinction of a response through nonreinforcement? (1) Reward training (2)Avoidance training (3) Omission training (4) Aversion therapy (5) Systematic desensitization. Ans. = 3

108. In systematic desensitization, the purpose of having the patient witness a hierarchy of scenes in order of their power to evoke anxiety is to (1) inhibit anxiety arousal by a slow and gradual process of deconditioning. (2) present anxiety-evoking events with vividness. (3) facilitate the recall of traumatic experiences that produced the phobia. (4) test the reliability of the patient's awareness of his phobic behavior. (5) evaluate the degree of generalization produced by the patient's phobia. Ans. = 1

109. Some critics of behavior therapy claim that symptom removal does not get to the core problem of neurosis. Lazarus and Wolpe would argue that (1) the symptom is the neurosis. (2) symptom improvement enhances the patient's relationship with others. (3) the "dynamics" of neurosis are not essential for effecting change. (4) results of the method's effectiveness is the best refutation. (5) All of the above are true. Ans. = 5

110. On the basis of his survey of 19 studies that covered more than 7,000 cases seen in therapy, Eysenck concluded that (1) there is a higher rate of improvement in patients treated by psychoanalysis than by other psychotherapeutic methods. (2) the more psychotherapy, the higher the recovery rate. (3) those who receive primarily custodial care show the lowest rate of improvement. (4) recovery and psychotherapy are negatively correlated. (5) None of the above is true. Ans. = 4

111. In terms of physiological as well as behavioral responses paranoid schizophrenics can be classified as X and simple schizophrenics can be classified as Y. (1) X=severely disturbed; Y= mildly disturbed (2) X="over-responders"; Y="under-responders" (3) X= feminine; Y=masculine (4) X=psychologically disturbed; Y=neurologically disturbed (5) X=reality oriented; Y=fantasy oriented. Ans. = 2

GENERAL INSTRUCTIONS FOR INTERPERSONAL QUESTIONAIRE RATED BY SELF

This questionaire seeks to know how certain behaviors of yours have changed during the term. Read each description and decide how characteristic the description was of your general interpersonal behavior at the beginning of the term and how characteristic it is now. Then print a "B" (beginning) in the column which best fits how characteristic the behavior was at the beginning of the term and an "N" (now) in the column which bests fits how characteristic it is now. Finally, decide how characteristic you would like the behavior to be, and put an "L" (like) in the column which best fits where you would like to be.

Here is an example.

How characteristic were these descriptions of you at the beginning (B) of the term, and how characteristic are they now (N)? Where would you like (L) to be with regard to these descriptions?	VERY CHARACTERISTIC	CHARACTERISTIC	SLIGHTLY CHARACTERISTIC	UNDECIDED OR DON'T KNOW	SLIGHTLY UNCHARACTERISTIC	UNCHARACTERISTIC	VERY UNCHARACTERISTIC
1. SILLY	B		N		L		
2. FEAR OF CRITICISM					BNL		

Example 1. This would be true of you if silliness were "very characteristic" of you at the beginning of the term, but only "slightly characteristic" of you now, and if you would have liked it to be "slightly uncharacteristic" of you.

Example 2. This would be true of you if fear of criticism were "slightly uncharacteristic" of you at the beginning of the term, were still "slightly uncharacteristic" of you, and you liked it that way and didn't want to change.

Please answer all the items.

How characteristic were these descriptions of _____ at the beginning (B) of the term, and how characteristic are they now (N)?	VERY CHARACTERISTIC	CHARACTERISTIC	SLIGHTLY CHARACTERISTIC	UNDECIDED OR DON'T KNOW	SLIGHTLY UNCHARACTERISTIC	UNCHARACTERISTIC	VERY UNCHARACTERISTIC
1. FRIENDLY TO OTHERS							
2. SARCASTIC							
3. DOES WHAT HE THINKS IS RIGHT, EVEN IF AFRAID							
4. ALWAYS TRYING TO PLEASE							
5. TRIES TO MANAGE OTHERS							
6. REPEATS HIMSELF							
7. SHOWS INTEREST IN PEOPLE AND THEIR IDEAS							
8. ASKS FOR HELP							
9. LETS YOU KNOW HOW HE THINKS AND FEELS							
10. STICKS TO HIS POINT ARBITRARILY							
11. USES HUMOR AS DEFENSE							
12. TREATS OTHERS GENTLY							
13. ALWAYS HAS TO BE RIGHT							
14. BECOMES HURT EASILY							
15. PAYS CLOSE ATTENTION TO WHAT IS GOING ON							
16. ABLE TO FACE ANXIETY							

How characteristic were these descriptions of you at the beginning (B) of the term, and how characteristic are they now (N)? Where would you like (L) to be with regard to these descriptions?	VERY CHARACTERISTIC	CHARACTERISTIC	SLIGHTLY CHARACTERISTIC	UNDECIDED OR DON'T KNOW	SLIGHTLY UNCHARACTERISTIC	UNCHARACTERISTIC	VERY UNCHARACTERISTIC
17. OPEN ABOUT HIMSELF							
18. UNKIND TO OTHERS							
19. SEEKS FRIENDLY FEELINGS FROM OTHERS							
20. ADMITS MISTAKES							
21. SEEMS TO BE REACHING OUT TO OTHERS							
22. EVADES UNPLEASANT TOPICS							
23. LISTENS WITH UNDERSTANDING OF WHAT OTHERS SAY							
24. HAS ANNOYING MANNERISMS							
25. CONDEMNS SELF							
26. PROBES OTHER'S VIEWPOINTS							
27. SYMPATHETIC							
28. SEEMS ANXIOUS, GUILTY AND SELF-EFFACING							
29. SEEKS SUPPORT FROM OTHERS							
30. TRUSTS OTHERS							

Assume that you were a member of a group this term. How characteristic would these descriptions have been of your general interpersonal behavior at the beginning (B) of the term, and how characteristic are they now (N)? Also where would you like (L) to be on this dimension?	VERY CHARACTERISTIC	CHARACTERISTIC	SLIGHTLY CHARACTERISTIC	UNDECIDED OR DON'T KNOW	SLIGHTLY UNCHARACTERISTIC	UNCHARACTERISTIC	VERY UNCHARACTERISTIC
1. DRAWS ATTENTION TO HIMSELF IN SOME WAY							
2. AWARE OF WHAT OTHERS ARE SAYING OR DOING							
3. WILLING TO DO WHAT NEEDS TO BE DONE							
4. DOMINATES AND IMPOSES HIS WILL ON THE GROUP							
5. STAYS OUT OF THE GROUP							
6. PROTECTS THE RIGHTS OF OTHERS IN THE GROUP							
7. HELPS THE GROUP TO STAY ON TARGET							
8. SUSPICIOUS							
9. CONFUSING TO LISTEN TO							
10. KEEPS PEOPLE PULLING TOGETHER AS A TEAM							
11. FIGHTS RATHER THAN WORKS							
12. GIVES SUGGESTIONS ABOUT HOW TO PROCEED							
13. WANTS TO HELP WHATEVER THE JOB							
14. PLAYS FAVORITES							
15. BLOCKS THE GROUP							
16. OFTEN MANAGES TO BE NOTICED							

Assume that _____ had been a member of a group this term. How characteristic would these descriptions have been of his general interpersonal behavior at the beginning (B) of the term, and how characteristic would they be now (N)?	VERY CHARACTERISTIC	CHARACTERISTIC	SLIGHTLY CHARACTERISTIC	UNDECIDED OR DON'T KNOW	SLIGHTLY UNCHARACTERISTIC	UNCHARACTERISTIC	VERY UNCHARACTERISTIC
17. TALKS SUPERFICIALLY							
18. GIVES HELP MORE THAN ASKS FOR IT							
19. SPEAKS ONLY WHEN SPOKEN TO							
20. INTERRUPTS OTHERS							
21. SEEKS AND FINDS A CENTRAL GROUND FOR RESOLVING DIFFERENCES							
22. FREQUENTLY DIGRESSES FROM THE TOPIC							
23. OPEN ABOUT FEELINGS							
24. FINDS WAYS TO HELP THE GROUP							
25. CAUTIOUS							
26. PUSHES THE GROUP TO STAY ON THE CENTRAL AGENDA							
27. COMES TO THE AID OF ANYONE BEING ATTACKED BY OTHERS							
28. KEEPS THE GROUP OFF RISKY TOPICS							
29. MAKES TIMELY COMMENTS							
30. DOES NOT INITIATE, NOR FOLLOW							

ON THE WHOLE, DESCRIBE HOW MUCH YOU HAVE GROWN IN UNDERSTANDING INTERPERSONAL BEHAVIOR THIS TERM: PUT AN "X" ON THE SCALE TO DESIGNATE WHERE YOU ARE AT PRESENT.

I've grown somewhat, but I vaguely understand it — I understand more than I expected to understand

1 2 3 4 5 6 7 8 9

no change — I understand some significant new things — my understanding has grown as fully as I possibly could have expected

ON THE WHOLE, DESCRIBE HOW MUCH YOU HAVE BEEN ABLE TO CHANGE YOUR OWN BEHAVIOR THIS TERM BASED ON HOW MUCH YOU HAVE GROWN IN YOUR GENERAL UNDERSTANDING OF INTERPERSONAL BEHAVIOR: PUT AN "X" ON THE SCALE TO DESIGNATE WHERE YOU ARE AT PRESENT.

sporadic and uncontrolled behavior change — I have made and am comfortable with quite a few behavior changes, but I slip back to my old patterns every so often

1 2 3 4 5 6 7 8 9

no behavior change — some behavior change especially when I try — I'm a new person

HOW MUCH OF YOUR INCREASED INTERPERSONAL UNDERSTANDING WAS DUE TO PSYCHOLOGY 151? PUT AN "X" ON THE SCALE TO DESIGNATE HOW MUCH WAS DUE TO PSYCHOLOGY 151.

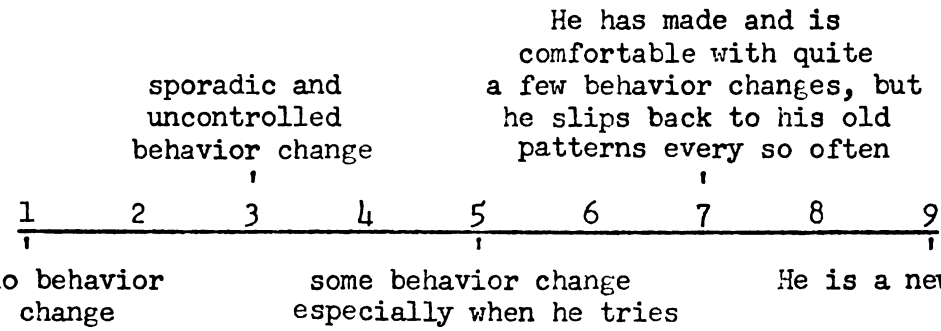
helped a little, but vaguely — helped very much in a wide variety of areas or areas of central importance

1 2 3 4 5 6 7 8 9

151 was irrelevant — helped pretty much by sparking some new awareness — helped me so much that I feel overwhelmed

Assume that you were a member of a group this term. How characteristic would these descriptions have been of your general interpersonal behavior at the beginning (B) of the term, and how characteristic would they be now (N)? Also where would you like (L) to be on this dimension?	VERY CHARACTERISTIC	CHARACTERISTIC	SLIGHTLY CHARACTERISTIC	UNDECIDED OR DON'T KNOW	SLIGHTLY UNCHARACTERISTIC	UNCHARACTERISTIC	VERY UNCHARACTERISTIC
17. TALKS SUPERFICIALLY							
18. GIVES HELP MORE THAN ASKS FOR IT							
19. SPEAKS ONLY WHEN SPOKEN TO							
20. INTERRUPTS OTHERS							
21. SEEKS AND FINDS A CENTRAL GROUND FOR RESOLVING DIFFERENCES							
22. FREQUENTLY DIGRESSES FROM THE TOPIC							
23. OPEN ABOUT FEELINGS							
24. FINDS WAYS TO HELP OTHERS							
25. CAUTIOUS							
26. PUSHES THE GROUP TO STAY ON THE CENTRAL AGENDA							
27. COMES TO THE AID OF ANYONE BEING ATTACKED BY OTHERS							
28. KEEPS THE GROUP OFF RISKY TOPICS							
29. MAKES TIMELY COMMENTS							
30. DOES NOT INITIATE, NOR FOLLOW							

ON THE WHOLE, DESCRIBE HOW MUCH _____ HAS CHANGED HIS INTERPERSONAL BEHAVIOR THIS TERM. PUT AN "X" ON THE SCALE TO DESIGNATE WHERE HE IS AT PRESENT.



GENERAL INSTRUCTIONS FOR SUBJECTIVE UNDERSTANDING QUESTIONAIRE

This questionaire seeks to know how much you have grown in your understanding of yourself during the term. Read each statement and decide how clearly you understood it and could relate it to yourself at the beginning of the term, and how clearly you understand and can relate it to yourself now. Then print a "B" (beginning) in the column which best fits the quality of your understanding at the beginning of the term and an "N" (now) in the column which best fits the quality of your understanding now. Finally, decide where you would like to be with regard to this statement, and put an "L" (like) in the column which best fits where you would like to be.

Here is an example.

How well did you understand yourself with regard to these statements at the beginning (B) of the term, and how well do you understand yourself with regard to them now (N)? Where would you like (L) to be with regard to them?	DON'T KNOW	VERY VAGUE UNDERSTANDING	MORE VAGUE THAN CLEAR UNDERSTAUDING	EQUALLY CLEAR AND VAGUE UNDERSTANDING	MORE CLEAR THAN VAGUE UNDERSTAUDING	ALMOST CLEAR UNDERSTANDING	VERY CLEAR UNDERSTANDING
1. HOW WELL-BEHAVED I APPEAR				BNL			
2. WHAT I LIKE FOR BREAKFAST		B			N		L

Example 1. This would be true of you if you had a"very vague understanding" of how well-behaved you appeared at the beginning of the term, and were "more clear than vague" now, but you would like to be "very clear" on how well-behaved you appear.

Example 2. This would be true of you if both at the beginning of the term and now you sometimes knew and sometimes didn't know what you liked for breakfast, and you liked it that way and didn't want to change.

Please answer all the items.

Your name _____

How well did you understand yourself with regard to these statements at the beginning (B) of the term, and how well do you understand yourself with regard to them now (N)? Where would you like (L) to be with regard to them?	DON'T KNOW	VERY VAGUE UNDERSTANDING	MORE VAGUE THAN CLEAR UNDERSTANDING	EQUALLY CLEAR AND VAGUE UNDERSTANDING	MORE CLEAR THAN VAGUE UNDERSTANDING	ALMOST CLEAR UNDERSTANDING	VERY CLEAR UNDERSTANDING
1. WHAT OTHERS LIKE ABOUT ME							
2. WHAT OTHERS DISLIKE ABOUT ME							
3. WHAT I LIKE TO DO FOR RECREATION							
4. WHAT MAKES ME ANGRY							
5. HOW TO BE AT EASE WITH OTHERS							
6. WHEN TO ASSERT MY VIEWS							
7. HOW TO TELL WHAT OTHERS ARE FEELING							
8. WHAT KIND OF PEOPLE HELP ME MOST							
9. WHAT I AM AFRAID OF							
10. HOW MY FEARS ARE RELATED TO MY PAST							
11. HOW MY PHYSICAL STATE INFLUENCES ME							
12. HOW TO BE HONEST WITH OTHERS							
13. HOW TO HELP OTHERS							
14. WHAT MAKES ME SEXUALLY SATISFIED							
15. WHAT MOOD I'M IN							
16. WHAT I SAY THAT ALIENATES PEOPLE							
17. HOW I AM RELATED TO THE COMMUNITY I LIVE IN							
18. HOW TO CRITICIZE CONSTRUCTIVELY							
19. HOW TO HAVE A CLOSE RELATIONSHIP WITH OTHERS							

How well did you understand yourself with regard to these statements at the beginning (B) of the term, and how well do you understand yourself with regard to them now (N)? Where would you like (L) to be with regard to them?	DON'T KNOW	VERY VAGUE UNDERSTANDING	MORE VAGUE THAN CLEAR UNDERSTANDING	EQUALLY CLEAR AND VAGUE UNDERSTANDING	MORE CLEAR THAN VAGUE UNDERSTANDING	ALMOST CLEAR UNDERSTANDING	VERY CLEAR UNDERSTANDING
20. WHAT I WANT TO DO IN THE FUTURE							
21. HOW MY FEARS ARE RELATED TO MY FUTURE							
22. WHAT ABOUT ME IS CREATIVE							
23. WHAT ABOUT ME NEEDS CHANGING							
24. HOW I WANT OTHERS TO SEE ME							
25. WHEN I AM BEING DEFENSIVE							
26. WHEN I AM TOO PUSHY							
27. WHEN I CUT OTHERS DOWN							
28. WHEN I BUILD OTHERS UP							
29. WHAT IT IS HARD FOR ME TO SAY							
30. WHAT MY AESTHETIC TASTES ARE							
31. HOW I FEEL ABOUT MY APPEARANCE							
32. WHEN ARE MY BEST TIMES FOR DOING THINGS							
33. HOW TO LISTEN TO OTHERS							
34. HOW TO LEAD PEOPLE CONSTRUCTIVELY							
35. HOW TO FIND MY WAY AROUND							
36. WHAT MAKES ME FEEL AT EASE							
37. WHEN I SHOULD SPEAK UP							
38. WHAT I LOOK FOR MOST IN OTHERS							

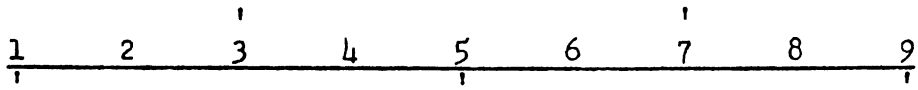
How well did you understand yourself with regard to these statements at the beginning (B) of the term, and how well do you understand yourself with regard to them now (N)? Where would you like (L) to be with regard to them?	DON'T KNOW	VERY VAGUE UNDERSTANDING	MORE VAGUE THAN CLEAR UNDERSTANDING	EQUALLY CLEAR AND VAGUE UNDERSTANDING	MORE CLEAR THAN VAGUE UNDERSTANDING	ALMOST CLEAR UNDERSTANDING	VERY CLEAR UNDERSTANDING
39. WHAT I AM FEELING RIGHT NOW							
40. WHAT I AM DOING RIGHT NOW							
41. WHAT I LIKE BEST ABOUT MYSELF							
42. WHAT I LIKE LEAST ABOUT MYSELF							
43. WHEN I SHOULD BE QUIET							
44. WHAT I USUALLY DO POORLY							
45. MY RELIGIOUS BELIEFS							
46. HOW TO TREAT OTHERS THE WAY I WANT TO							
47. HOW TO STOP BEING ANGRY IF I WANT TO STOP							
48. HOW TO GET WHAT I WANT FROM OTHERS							
49. WHEN I AM LYING TO MYSELF							
50. HOW TO RELAX							

Now please go back and put an "X" in the left hand column by the statements that are most important to you.

(Turn page over.)

ON THE WHOLE, DESCRIBE HOW MUCH YOU GROWN IN UNDERSTANDING YOURSELF THIS TERM: PUT AN "X" ON THE SCALE TO DESIGNATE WHERE YOU ARE AT PRESENT.

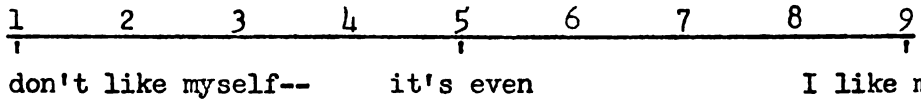
I've grown somewhat, but I vaguely understand it — I understand more than I expected to understand



no change — I understand some significant new things — my understanding has grown as fully as I possibly could have expected

ON THE WHOLE, DESCRIBE HOW YOUR FEELINGS ABOUT YOURSELF HAVE CHANGED THIS TERM BY PUTTING A "B" ON THE SCALE TO SHOW WHERE YOU WERE AT THE BEGINNING OF THE TERM AND AN "N" ON THE SCALE TO SHOW WHERE YOU ARE NOW.

I usually don't like myself — I usually do like myself



I don't like myself-- I'm not OK — it's even — I like myself-- I'm OK

APPENDIX B

SUBJECTIVE AND INTERPERSONAL ASSIGNMENTS PRESENTED TO THE EXPERIMENTAL CLASS

SUBJECTIVE ASSIGNMENTS

The following are the Subjective assignments presented to the Experimental Class in the third of the course devoted to increasing subjective understanding. A short one to four page paper was required for each assignment.

I. Family Influences.

What are the important shaping influences used by each of your parents, i.e., what did they do to make you who you are? What are the most important aspects of your sibling relationships? (Or if you are an only child, how has this affected who you are?) What did a "significant other" give you that the others couldn't?

II. Value Influences.

Fill out the scale on the next page the way you think your mother, father, sibling, significant other, and yourself would answer it. What conclusions do you draw from this? (See Fig. 2).

III. Perception.

This exercise is designed to help you become more acutely aware of how you experience your bodily functioning. By watching what you become conscious of and how you become conscious of it, you may be able to read the cues - psychological as well as physical - that your body sends you. In addition, other people may become more understandable because you have more material to understand them with. Do this exercise, but take your time to concentrate on what is really happening to you. When you're finished, write a short paper on what you experienced.

I. Sharpening the Body-Sense:

1. (a) Maintain the sense of actuality - the sense that your awareness exists here and now. (b) Try to realize that you are living the experience; acting it, observing it, suffering it, resisting it. (c) Attend to and follow-up all experiences, the "internal" as well as the "external," the abstract as well as the concrete, those that tend toward the past as well as those that tend toward the future, those that you "wish," those

FIGURE 2
ATTRIBUTE PREFERENCE INVENTORY

Instructions: After reading completely through the qualities or characteristics of persons, as listed below, assign number "1" to the quality or attribute which you believe would be the most desirable quality in this list for a teenage person. Than assign "2" to the attribute which you regard as second most desirable, "3" to the third most desirable and so on. Continue until you have assigned numbers 1 through 10 to all of these listed qualities. Or, you may prefer to begin with what you regard as the least desirable quality; if so, give it "10" and assign "9" to the next most undesired quality, etc. You lmay, of course, change your mind or correct any assigned numbers as you go along. Please assign a number to each of these attributes, even if you find it quite difficult to make some choices. No tie scores, please.

MALE TEENAGER	FATHER	MOTHER	SIBLING	SIGNIFICANT OTHER	SELF
responsible and trustworthy					
neat and clean					
curious					
interacts well with others					
considerate and cooperative					
assertive and self-reliant					
able to make friends					
respectful toward adults					
fun-loving and carefree					
imaginative and creative					

When finished with this side, please turn the page over and continue.

This time we would like to obtain your preferences of the same list of qualities, but with reference to a FEMALE of the same age, rather than for a MALE. The rest of the instructions are the same as before.

FEMALE TEENAGER	FATHER	MOTHER	SIBLING	SIGNIFICANT OTHER	SELF
responsible and trustworthy					
neat and clean					
curious					
interacts well with others					
considerate and cooperative					
assertive and self-reliant					
able to make friends					
respectful toward adults					
fun-loving and carefree					
imaginative and creative					

MA:dj

that you "ought," those that simply "are," those that you deliberately produce and those that seem to occur spontaneously. (d) With regard to every experience without exception, verbalize: "Now I am aware that . . ."

So we proceed in such a simple fashion as this: "Now I am aware that I am lying on the couch. Now I am aware of the wish to do the awareness-experiment. Now I am aware of hesitating, of asking myself what to do first. Now I am aware that I meant to listen to that program. I am aware that I have stopped myself from wandering. Now I feel lost again. I am remembering the advice to stick to the surface. Now I am aware that I am lying with my legs crossed. I am aware that I have a pain in the back. I am aware of wishing to change my posi tion. Now I am doing that," etc.

2. Try first to attend mainly to external events--sights,sounds, smells--but without supressing other experiences. Then, in sharp contrast, concentrate on internal processes - images, physical sensations, muscular tensions, emotions, thinking. Then, one by one, differentiate these various internal processes by concentrating, as exclusively as you can, on images, then on muscular tensions, etc. Follow these through, as previously, by detailed recognition of the different objects or activities, or, if possible, of whatever dramatic scene they may be components.

3. Walk, talk, or sit down; be aware of the proprioceptive details without in any way interfering with them.

4. As you sit or lie comfortably, aware of different body-sensations or motions (breathing, clutching, contracting the stomach, etc.), see if you can notice any combinations or structures - things that seem to go together and form a pattern - among the various tensions, aches, and sensations. Notice that frequently you stop breathing and hold your breath. Do any tensions in the arms or fingers or contractions of the stomach or genitals seem to go with this? Or is there a relationship between holding your breath and straining your ears? Or between holding your breath and certain skin sensations? What combinations can you discover?

II. Noticing the reaction in others.

Pay attention to someone's voice. How does it sound? Monotonous? Varying? High pitched? Strident? Melodious? Too soft in volume? Careless in articulation and difficult to understand? Too loud? Flowing or faltering? Forced? Easy? Now ask yourself two questions: first, what is your own emotional reaction to the particular qualities of that voice? Are you, for instance, irritated by the too-soft tone, frozen by the loudness? Second, what is the emotional background in the other person that produces the particular qualities in his voice? Is it whining, oily, sexy, angry? It often happens that, quite unaware of what he is doing, and often in contradiction to what he is saying, this other person is trying to produce in you, with his voice quality, precisely the reaction that he does produce! His words may be of a calm, soothing kind, but his voice is indifferent. Or the words may be wooing, but the voice angry and freezing.

Can you now attend to the sound of your own voice? This is very difficult, as shown by the fact that our own voice, when heard for the first time on a recording, may seem quite alien to us. But be aware of the difficulties which you encounter in this attempt.

IV. Learning.

Think about something which you cannot do or which you can't do well and that you wish that you could do better. Think about what you could do to improve where you are with respect to it. In other words, learn to do something which you would like to be able to do. Pay attention to how you learn and/or do not learn. For instance if you decide to learn to ski, watch how your body feels as you start. Are your movements coordinated? If not, what seems to give you the greatest difficulty? How much influence does your mind seem to have on your body? What methods of practice seem to work best?

Describe the process of your learning in a paper.

V. Experiencing the Continuity of Emotion

(1) Attempt to mobilize some particular pattern of body-action. For instance, tighten and loosen the jaw, clench the fists, begin to gasp. You may find that this tends to arouse a dim emotion--in this

case,frustrated anger. Now if to this experience you are able to add the further experience--a fantasy perhaps--of some person or thing in the environment which frustrates you, the emotion will flare up in full force and clarity.

Conversely, when in the presence of some frustrating person or thing, you may notice that you do not feel the emotion unless or until you accept as yours the corresponding body-actions; that is, it is in the clenching of the fists, the excited breathing, and so on, that you begin to feel the anger.

(2) Lie down and try to get the feel of your face. Can you feel your mouth? Your forehead? Eyes? Jaws? When you have acquired these feelings, ask, "What is the expression on my face?" Do not interfere, but simply permit the expression to persist. Concentrate on it and you will see how quickly it changes of itself. Within a minute you may feel a number of different moods.

(3) In fantasy relive over and over again, every time trying to recover additional detail, experiences which have carried for you a strong emotional charge. What, for instance, is the most terrifying experience you can recall? Feel it through again, just as it happened. And again. And again. Use the present tense.

Perhaps in the fantasy some words will come up, words which you or somebody else uttered on that occasion. Say them over and over again aloud, listening to yourself say them, and feeling yourself forming and expressing them.

On what occasion were you most humiliated? Relive this repeatedly. As you do so, notice whether you tend to recall some still earlier experience of the same kind. If so, shift to it and work it through time after time.

Do the same for as many kinds of emotional experiences as you can find the time for. Do you, for instance, have an unfinished grief situation? When someone dear to you died, were you able to cry? If not, can you do it now? Can you in fantasy stand beside the coffin and express farewell?

When were you most infuriated, most ashamed, embarrassed, guilty, etc.? Can you feel the emotion now? If not, can you feel what you did to block it?

VI. Social Awareness.

Go somewhere you are not used to going and where people congregate. For instance, if you are middle class, go to a lower class restaurant or bar; if you are apolitical, go to a political rally; if you don't like modern music, go to Grandmother's. Keep in mind while you are at wherever you go that most of the people there are used to the kind of social functioning that is taking place. Try to get a feel for what they are thinking and feeling--for the kinds of people that do this particular thing, for the kinds of people that identify with it. Notice in yourself what reactions you have: alienation, anxiety, calmness, surprise, and what these are reactions to. Also think about how your life would be different if you regularly came to such a social function. Give the social situation meaning.

VII. Interpersonal Behavior Assessment.

(This Subjective assignment consisted of filling out the Interpersonal Behavior Change package, which included the Interpersonal Behavior Change Questionnaire, the Interpersonal Behavior Understanding Scale, the Interpersonal Behavior Change Scale, and the General Effectiveness Scale.)

VIII. Subjective Understanding.

(This Subjective assignment consisted of filling out the Subjective Understanding package, which included the Subjective Understanding Questionnaire, the Subjective Understanding Scale, a General Attitude Toward Self Scale, and the Attribute Preference Inventory.)

IX. Evaluation.

1. Psychologically, what are the most important things you have learned about yourself this term? What things have become more clearly aware than they were before?

2. What are the most important things you have learned about others?

3. Considering what you know and feel about yourself right now, what do you need to change the most? What do you wish were different? Are there any specific ways you might go about changing what needs changing?

4. Since I will be teaching Introductory Psychology next term, I would like to know what parts of the course were most and least beneficial. What should be kept and what should be thrown out?

INTERPERSONAL ASSIGNMENTS

The following are the Interpersonal assignments presented to the Experimental Class in the third of the course devoted to increasing interpersonal understanding. These assignments supplemented the on-going T-group experiences.

I. "What's your bag?"

An introductory exercise in which each member of the group brings a bag containing items which symbolize who he is, who he wants to be, etc. Each member explains what the contents mean to him so that the group can get a better feel for who he is. One example is bringing a school book bag containing a favorite book, a school pendant, a candle symbolic of favorite mood, a deck of cards, a class schedule, and an anti-war button.

II. Abstract Impression Formation.

An exercise used to start the group focusing on interpersonal differences in a non-defensive framework. One group member chooses another member to focus on without revealing the individual's name. The other group members ask the first member abstract questions about the unknown member, such as "What kind of animal is he like?" "What novel could he be found in?" "Where would he go on a vacation?" After approximately five minutes, each group member guesses who the unknown member is, and the name of the person is revealed. The person described tells how accurate he thinks the central abstractor was, and how he feels about being characterized as he was.

III. Group Problem Solving.

This exercise is designed to highlight styles of interpersonal interaction within small groups. The class is divided into groups of five people. Each member of the group is given an envelope containing 3 to 5 pieces of a jigsaw puzzle. Before opening the envelopes, the members are told that each is to make a square from the jigsaw pieces contained in the envelopes, but that the pieces in any one envelope may not make a square. In this case, the individual must obtain the correct pieces from the other group members. Two rules govern exchanging pieces: (1) no one may talk or in any way signal

another person, and (2) no one may take a puzzle piece from anyone else. The only sanctioned method of exchanging pieces is for one member to give a piece to another. The members are then instructed to open their envelopes and begin making their puzzles.

Frequent results are that group members think more about getting their own pieces than giving their pieces to others. Often the last group member to finish flounders in desperation without giving his pieces to someone else to solve, or without having someone else give him their completed puzzle in anticipated exchange for his unfinished one.

Lastly, the relationship of interactions in the group problem solving task to other group situations is explored.

IV. Interpersonal Distance.

The purpose of this exercise is to illuminate interpersonal feelings of closeness or distance between group members, especially when the feelings have not been expressed verbally. Each group member takes a turn standing in the middle of the room, while the other group members stand at a distance from him which represents how close they are feeling toward the person at the present moment. In addition to this, each group member stands in a position which represents his relationship with the person in the center. Examples of positions are: standing on a chair above the person, standing in a fighting position, standing with one's back turned, kneeling on the floor. After each group member has assumed a position at a representative distance from the central figure, the central person asks those whom he wishes to explain their position and distance.

V. Feeling Indicator.

This exercise is designed to bring the feelings each individual has about the group out in the open. It is especially useful when an undercurrent of feelings are thought to be influencing group behavior. Each member is asked to write down two words which express how he feels about the group at the present time. When everyone has finished, each person reveals his words and explains his reasons for choosing them.

VI. Alienation and Reconciliation.

(See Exhibit 1.)

VII. Other-perception.

This exercise is similar to the Feeling Indicator. It is designed to help each group member clarify how he is perceived by others. One member of the group volunteers to be the central focus. Then each group member writes down two words which he thinks best describe that particular member. When everyone has written his two words, each person reveals his words and explains his reasons for choosing them.

VIII. Gift-giving.

This exercise has two purposes: (1) to highlight the value of giving and receiving interpersonal information, and (2) to increase the awareness of the receiver. Gift-giving is defined as giving something of value to another person. It is explained that the valued object need not be valued physically, but may have informational value. Moreover, the primary importance of the information should be that it is useful. It need not be flattering. Keeping this in mind, each group member is asked to give a gift to each other group member. Members take turns being the receivers of gifts.

Frequent results of this exercise are that individuals reveal previously unexpressed feelings, thoughts and wishes. Examples are: "I'm jealous of you when we're with men"; "I like the way you listen to me"; "I wish you wouldn't assume you know what I think."

IX. Openness, Data Seeking, and Data Giving.

Rankings of Behaviors

You are asked to rate all the members of your group, including yourself, on several dimensions of behavior using the definitions given below. Exclude your impressions of how these people act elsewhere, including all outside the group contacts. It is essential that you use the full range of ranks permitted (1 through 9) in making each rating. First, think of the individuals who represent the most and least of the described behavior in your group, and assign the extreme numbers (9 and 1) to them. Then work from the extremes toward the middle placing the others in relationship to the extremes.

OPENNESS: Think about how fully each person has shared, within this group, personal reactions, thoughts, and feelings with the other group members. The emphasis is on "here and now" interaction, such as how one felt when confronted, challenged, or ignored by others in this group. Persons who have offered very limited or disguised presentations of themselves would be rated lower than those who have fully and authentically shared themselves.

1 2 3 4 5 6 7 8 9

DATA SEEKING: Consider how fully each person in your group has sought to obtain authentic reactions and information about how he or she has been experienced by others within this group. How fully has each person sought to elicit and encourage others to share their reactions and views of him? Persons may block others from providing data in many ways, including a threatening manner, being too timid, by keeping in the background, by filibustering, or even by disguising their interpersonal tensions. Consider only how fully each person has sought to obtain a better grasp of how he or she relates to others within this group.

1 2 3 4 5 6 7 8 9

DATA GIVING: Reflect on how fully each person has attempted to give authentic reactions and information to others about how he experiences them within this group. How fully has each person sought to give feedback to others about how their expressions, feelings, or behavior are experienced? Also remember that sometimes too many words tend to confuse, so persons who are especially clear in their communication may give more data in a few words than others give in many words. Persons who tend to withhold such data should be rated below average.

1 2 3 4 5 6 7 8 9

EXHIBIT 1
INTERPERSONAL ASSIGNMENT VI
Alienation and Reconciliation Tasks For Sensitivity Training Groups [1]

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Alienation is defined as an act or series of acts which either increases the psychological distance or decreases the harmony between two parties, be they individuals or groups. Plainly, then, alienation increases the likelihood of conflict between two parties, whether it takes the form of interpersonal strife or international war. Designed for use with sensitivity training groups, the present exposition deals with transactions between individuals. Intergroup alienation is not explicitly treated in this paper, although the basic ideas appear equally applicable to the behavior of both individuals and groups.

A perceived negative evaluation by the receiver of messages, be he listener or viewer, that his worth, importance, motives, or self-esteem has been impugned or denigrated by the message sender constitutes the essential initial stimulus to alienation. This perceived devaluation may be clear or only vaguely sensed; it may be in response to either subtle or blatant behavior by the message-sender, or it may even be the receiver's reaction to misperceptions or delusions which are objectively independent of the sender's behavior. More typically, however, the receiver is responding to a real message, whether or not the message sender is consciously aware of its delivery. A common instance of such subtle devaluating messages of this type occurs in inattentive behavior. Here, the sender may literally "not even hear" the receiver's verbalized concerns, although the latter may accurately perceive the devaluing inattention when the sender responds quite positively to valued persons in this context of selective inattention. The inference, 'I'm unimportant to him' may hardly be avoidable. Children commonly receive this kind of 'What you have to say is not worth listening to" response from their parents, as do other subordinates of all ages. A common variant of this is "Don't bother me now, I'm too busy.' Another is the 'you bore me' message which may be communicated by yawns or other nonverbal expressions.

Stronger devaluational messages may take the form of relatively open assaults upon the value of the receiver's work, beliefs, appearance, or merit. These should be distinguished from non-devaluing disagreements which are characterized by an unmistakable respect for the worth and dignity of both parties. This mutual esteem is painfully absent in the devaluing communication. Again, it is the "perception" of the receiver which is critical, for the person who refuses to 'feel devalued,' even under circumstances of brutal and bombastic dissent, may not feel alienated. However, such instances are probably quite rare in our society. On the other hand, some individuals readily 'read in' devaluation to even the most cautious disagreement. Examples of middle-strength devaluating messages in the context of adult-to-adult interchange might be, 'Why did you not do your task (teaching assignment, repairing the car, or cooking dinner) in the right way?' An illustration from parent-child or teacher-child interaction would be, "Why did you not do your work more neatly?" or 'Why did you do such a sloppy job? (making your bed, writing a test paper, eating, etc).' The note of smug, self-righteous superiority by the message sender is clear in these illustrations, and the receiver understands that he is supposed to feel apologetic or humiliated for a performance which the sender judged unacceptable. Usually it is clearly implied that the sender would have performed the task better. The impact of these messages is principally that of a reprimand. Plainly missing is an invitation to join in a constructive search for a better understanding or a sounder relationship.

In its strongest form, the devaluing message is a statement to the effect that the receiver is "no damn good" and morally inferior to the sender. Or, as Crabby Appleton, the cartoon character, phrases it, "you're rotten to the core." Other, slightly disguised versions of the strong devaluational message are, "you are less responsible than I," or "I am a much more ethical and moral person than you." A modest variation in phrasing is, "I am a more mature and rational individual than you." While there may be occasions when certain elements of the foregoing messages appear objectively defensible, it should be stressed that differences in opinion or judgement are not intrinsically devaluing. To the contrary, it is difficult to imagine a fruitful relationship with another person which was not enriched by such differences. The critical missing element in the devaluing message is the element of respect for the other's worth. Typically, however, globally negative messages exclude this constructive element and only the most insensitive or, perhaps, self-confident receiver will feel less than deeply annoyed with those who attempt to assault his self-esteem.

Indicative of the difficulty of overcoming the tendency to alienate is the apparent historical fact that our religious institutions have traditionally taken destructive approaches to their efforts to proselytize non-believers. Many bloody pages in history document the tendency of religious authorities, both Christian and non-Christian, to treat persons of different beliefs as not even deserving to live. Almost needless to add, non-religious power groups have rarely treated their opponents with greater personal respect than have the religious groups.

Within the context of this formulation of alienation, please identify the individual within your T-group or microlab subgroup toward whom you feel the greatest alienation. Then using the attached Form 1, on the next page, follow the instructions which are intended to help you to formulate: (A) a clearer picture of the ways in which this alienation was rooted in specific behaviors of this person, as you experienced or observed them; and (B) to more clearly identify your own contribution to the alienation by specifying how you "processed" or "decoded" these behaviors by your own assumptions or interpretations as to their "meaning."

Read the "RECONCILIATION" instructions only after you have completed both tasks A and B.

Form 1

THE STRUCTURE OF ALIENATION

Perceived Messages from the Alienating Person	Your Interpretations or Assumptions About the Sender
A. Below, identify 3 or more specific behaviors or messages which you received from the identified individual, regardless of whether he or she acknowledges sending these messages. Remember that these perceived negative evaluations may range from clear and specific verbal or non-verbal acts to vague and subtle impressions of feelings.	B. Now try to identify the assumptions or interpretations which you made concerning the senders meaning and intent for each specified act. Stated simply, these assumptions often have the form of "he thinks he's better than me," "she doesn't respect me," "he doesn't value my opinion," "she doesn't believe me," "he thinks that I'm less intelligent than himself," "she doesn't think I'm competent," etc.
a)	a)
b)	b)
c)	c)
d)	d)
e)	e)

RECONCILIATION

Reconciliation may be viewed as the opposite of alienation. It is operationally defined by acts which decrease the psychological distance between parties and which increase the likelihood of transactions or interchanges which build mutual self-esteem or interpersonal competence.

The essential stimulus to reconciliation is a perceived positive evaluation by one party that the other views them as an important and valuable potential ally. This perceived positive evaluation must be substantiated in subsequent contacts, of course, if it is to serve as a solid foundation for continued acts of mutual endorsement. Because most, if not all, humans possess some desirable and attractive personal qualities, a potential for reconciliation seems at least latent in the vast majority of interpersonal relationships. Most of us, however, have acquired many ways of alienating, or at least of severely frustrating, others through devaluing verbalizations, irrational competitions, or other defensive behaviors aimed at extending or protecting our own sense of adequacy. These defensive mannerisms appear to be so distressingly omnipresent that it is rather uncommon for individuals to deeply value persons whose beliefs sharply differ from their own, regardless of whether the content of these beliefs is political, racial, economic, child-rearing, or religious.

A powerful incentive to reconciliation can arise from a review of the possible gains to be realized from decreasing this alienation. These gains include reduced isolation, increased feelings of competence, reduced hostility, increased affection, etc., as well as many more tangible and specific benefits associated with intimacy, ranging from friendly companionship to such physical gratifications as food and sexual pleasure.

The initial step to overcoming either isolation or alienation can be accomplished in many ways, but one of the most profitable beginnings stems from an individual's search of their own techniques for either maintaining or escalating alienation. Usually these techniques are associated with some kind of sweeping negative judgements about the worth or value of another. Often these take the form of sentences such as "she's not intelligent," "he is just an irrational hothead," "she is just plain lazy," "he is deliberately mean," etc. Typically these adverse judgements are a defensive reaction to some poorly handled (perhaps by both parties) interpersonal encounter which was sufficiently threatening to each person's sense of self-esteem to trigger the defensive counter-measures represented by these global negative evaluations. Such evaluations also serve, unfortunately, as a kind of cognitive fortress or mental prison which, although perhaps temporarily offering an impenetrable refuge, also prevents constructive investigation of the prickly relationship. The decision to search for one's own contributions to this alienation opens a channel for constructive reconnaissance. Even such a simple statement to the other person as "I found that I reacted quite irritably to your question or statement" serves as an effective communication reopener when it is free of accusative undertones. Such a sentence may serve notice of a nonjudgemental stance by the message sender and invites nondefensive responses.

Even more powerful stimuli to reconciliation are franker or fuller acknowledgments of how one's own goofs have imperiled important relationships. Examples include a parent disclosing to his child that the child was spanked or reprimanded more because of parental harassment or irrationality about other life problems, than because the child really "deserved" the punishment; or a teacher disclosing that he had socially snubbed a colleague because of competitive sensitivities and hurts aroused when the colleague received coveted recognitions.

Commonly the maintenance of alienation serves a protective, defensive function which blocks the path to a mutually beneficial reconciliation. Sustained alienation also yields certain psychological gains or "payoffs" which, although damaging in the long run, may be more acceptable than more constructive efforts because they provide support for illusions of strength, self-righteousness, or competence. In this sense, these "payoffs" are much like a narcotic habit or, in a simpler example, too many cocktails. When feeling inadequate or insecure, humans frequently prefer a state of "splendid isolation" to the more demanding task of reconciliation. Perhaps this is because reconciliation efforts require a confrontation with reality which is likely to expose one's fantasies and delusions. These beliefs may be used to justify continued withdrawal or isolation, or even such alienation-escalating actions as exaggerated counter-aggression. The extreme form of this case is represented by the paranoid psychotic who kills innocent bystanders, claiming that they were "enemies about to kill me."

Frequently even serious reconciliation efforts will fall short of attaining the optimally desired outcomes of both parties, but such efforts promise at least a clearer understanding by both parties of their own and their opponents' positions. Assuming that one has approached an alienated party with a frank revelation of some of one's own destructive inputs into the alienation phenomena in a manner which was neither self-righteous nor devaluing, the other person would appear to have but three principal action alternatives: (1) joining the reconciliation seeker's self-disclosures by similar self-revelations which would tend to minimize defensiveness and support a genuine search for constructive possibilities; (2) utilizing the reconciliation seeker's self-revelations to justify the maintenance of a defensive, alienated position; (3) demonstrating indifference or "blindness" to the meaning of the reconciliation seeker's efforts.

My observations suggest that Type 1 responses are surprisingly common on those relatively rare occasions when the reconciliation seeker is genuinely self-disclosing and nonaccusative. This represents an optimal outcome because it provides for reality-oriented, mutually enhanced feelings of competence and adequacy. It is not suggested that fragmentary and sporadic Type 1 reactions will quickly and easily lead to a state of eternal bliss, as most people in our culture regress and stumble often along the unfamiliar road to the mastery of this constructive behavior. Type 2 reactions can be brought into sharper focus and a potentially more beneficial confrontation if the reconciliation seeker can take the following position: "I have acknowledged at least some of my own contributions to our struggles while you seem only interested in examining my errors, rather than acknowledging your own. Please show me how this analysis of the situation is erroneous. Do you truly believe that you are totally innocent of responsibility for our alienation?" Often a persistent but non-accusatory probe of this kind by the reconciliation seeker will facilitate movement toward a Type 1 response. Should this fail, however, and the other party maintains a rigidly self-righteous stance, no more constructive alternative may remain than a temporary disengagement. Some self-righteous defenders are probably too deeply fixated in their punitive mode to respond positively to anything less than extensive psychotherapeutic interventions. Type 3 reactions should be carefully reappraised to determine how truly nonaccusative and genuinely self-disclosing the reconciliation seeker has been. Such responses will generally prove resolvable into reactions of one of the two more basic types.

Now turn to Form 2 on the following page and follow the instructions which are designed to provide you with an experience in applying these ideas about reconciliation.

Form 2

THE STRUCTURE OF RECONCILIATION

Following the time schedule and instructions listed below, apply these steps to your relationship with the person you previously identified as alienated from you.

1. (2 minutes) Identify what you perceive to be 3 or more valuable and attractive attributes or competencies of that individual, such as being intelligent, spontaneous, articulate, sensitive, intuitive, etc. a) _____
b) _____ c) _____
d) _____ e) _____

2. (2 minutes) Identify what you could conceivably gain from overcoming or bridging your estrangement from this person, such as increased sense of acceptance, reduced hostility, increased attention, fuller communication, decreased isolation, increased sense of competence and adequacy, etc.
a) _____ b) _____
c) _____ d) _____
e) _____ f) _____

3. (3 minutes) Identify what you contributed to either the maintenance or escalation of this state of alienation, in terms of either overt or covert responses or acts toward that person (counteraggression, withdrawal, etc.) and/or your negative assumptions about his or her value, such as "basically hostile, "intentionally mean," "poorly educated," "irreligious," "just a hot head," "a poor listener," etc. a) _____
b) _____ c) _____
d) _____ e) _____

4. (2 minutes) Now describe what you think would probably be the outcome of a serious effort on your part to share with this person what your own contribution was to this alienation.

5. (5 minutes) Now, returning to your Microlab subgroup of last evening, share your contributions to the alienation with that person.

6. (2 minutes) Describe your appraisal of the effectiveness of your efforts in 5, above, identifying any clear remaining problems or hangups.

APPENDIX C

SCORES OF ALL SUBJECTS

CUMULATIVE CLASS SCORES ON MULTIPLE CHOICE TEST ITEMS

		Alternative Responses					Correct
		1	2	3	4	5	Answer
Item 1							2
Exp.	N =	1	15	6	6	1	
	% =	3%	52%	21%	21%	3%	
Lec. I	N =	75	339	55	104	30	
	% =	12%	55%	9%	17%	5%	
Item 2							4
Exp.	N =	1	0	0	28	0	
	% =	3%	0%	0%	97%	0%	
Lec. I	N =	5	7	14	576	9	
	% =	1%	1%	2%	94%	1%	
Item 3							5
Exp.	N =	10	0	2	6	11	
	% =	34%	0%	7%	21%	38%	
Lec. I	N =	140	18	30	222	201	
	% =	23%	3%	5%	36%	33%	
Item 4							3
Exp.	N =	1	12	6	6	9	
	% =	3%	41%	21%	21%	14%	
Lec. I	N =	26	312	94	101	78	
	% =	4%	51%	15%	17%	13%	
Item 5							2
Exp.	N =	1	18	0	10	0	
	% =	3%	62%	0%	34%	0%	
Lec. I	N =	28	441	14	110	16	
	% =	5%	72%	2%	18%	3%	
Item 6							3
Exp.	N =	1	1	24	1	2	
	% =	3%	3%	83%	3%	7%	
Lec. I	N =	58	10	493	32	18	
	% =	9%	2%	81%	5%	3%	
Item 7							2
Exp.	N =	9	7	4	5	3	
	% =	31%	24%	14%	17%	10%	
Lec. I	N =	112	215	92	73	117	
	% =	18%	35%	15%	12%	19%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 8							1
Exp.	N =	19	3	2	2	3	
	% =	66%	10%	7%	7%	10%	
Lec. I	N =	431	27	50	44	57	
	% =	71%	4%	8%	7%	7%	
Item 9							4
Exp.	N =	7	2	9	11	0	
	% =	24%	7%	31%	38%	0%	
Lec. I	N =	74	27	133	344	32	
	% =	12%	4%	22%	56%	5%	
Item 10							1
Exp.	N =	15	1	3	9	1	
	% =	52%	3%	10%	31%	3%	
Lec. I	N =	438	45	52	56	20	
	% =	72%	7%	9%	9%	3%	
Item 11							3
Exp.	N =	5	0	20	1	2	
	% =	17%	0%	69%	3%	7%	
Lec. I	N =	32	12	451	12	103	
	% =	5%	2%	74%	2%	17%	
Item 12							4
Exp.	N =	1	5	11	10	2	
	% =	3%	17%	38%	34%	7%	
Lec. I	N =	26	84	214	194	92	
	% =	4%	14%	35%	32%	15%	
Item 13							5
Exp.	N =	0	3	1	1	24	
	% =	0%	10%	3%	3%	83%	
Lec. I	N =	30	67	47	24	441	
	% =	5%	11%	8%	4%	72%	
Item 14							2
Exp.	N =	2	6	2	16	3	
	% =	7%	21%	7%	55%	10%	
Lec. I	N =	60	173	46	274	55	
	% =	10%	28%	8%	45%	9%	
Item 15							5
Exp.	N =	0	7	0	1	21	
	% =	0%	24%	0%	3%	72%	
Lec. I	N =	42	95	22	28	421	
	% =	7%	16%	4%	5%	69%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 16							1
Exp.	N =	16	2	0	4	7	
	% =	55%	7%	0%	14%	24%	
Lec. I	N =	385	22	22	32	147	
	% =	63%	4%	4%	5%	24%	
Item 17							3
Exp.	N =	0	4	9	9	7	
	% =	0%	14%	31%	31%	24%	
Lec. I	N =	14	59	180	160	196	
	% =	2%	10%	29%	26%	32%	
Item 18							3
Exp.	N =	1	12	10	0	6	
	% =	3%	41%	34%	0%	21%	
Lec. I	N =	11	277	207	45	70	
	% =	2%	45%	34%	7%	11%	
Item 19							3
Exp.	N =	0	0	27	2	0	
	% =	0%	0%	93%	7%	0%	
Lec. I	N =	13	23	527	34	14	
	% =	2%	4%	86%	6%	2%	
Item 20							2
Exp.	N =	7	9	4	7	2	
	% =	24%	31%	14%	24%	7%	
Lec. I	N =	167	234	61	86	59	
	% =	27%	38%	10%	14%	10%	
Item 21							2
Exp.	N =	0	17	1	7	3	
	% =	0%	59%	3%	24%	10%	
Lec. I	N =	31	358	62	88	65	
	% =	5%	59%	10%	14%	11%	
Item 22							5
Exp.	N =	0	0	1	0	28	
	% =	0%	0%	3%	0%	97%	
Lec. I	N =	15	9	20	27	539	
	% =	2%	1%	3%	4%	88%	
Item 23							2
Exp.	N =	5	11	9	3	1	
	% =	17%	38%	31%	10%	3%	
Lec. I	N =	91	231	160	52	66	
	% =	15%	38%	26%	9%	11%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 24							1
Exp.	N =	17	2	2	4	4	
	% =	59%	7%	7%	14%	14%	
Lec. I	N =	290	105	57	44	114	
	% =	47%	17%	9%	7%	19%	
Item 25							4
Exp.	N =	0	2	5	9	13	
	% =	0%	7%	17%	31%	45%	
Lec. I	N =	3	101	72	153	279	
	% =	0%	17%	12%	25%	46%	
Item 26							5
Exp.	N =	1	1	1	0	26	
	% =	3%	3%	3%	0%	90%	
Lec. I	N =	31	4	23	9	540	
	% =	5%	1%	4%	1%	88%	
Item 27							4
Exp.	N =	2	3	0	5	19	
	% =	7%	10%	0%	17%	66%	
Lec. I	N =	113	46	49	100	301	
	% =	18%	8%	8%	16%	49%	
Item 28							3
Exp.	N =	3	1	15	8	2	
	% =	10%	3%	52%	28%	7%	
Lec. I	N =	82	43	383	76	25	
	% =	13%	7%	63%	12%	4%	
Item 29							2
Exp.	N =	1	16	6	2	4	
	% =	3%	55%	21%	7%	15%	
Lec. I	N =	8	444	54	25	79	
	% =	1%	73%	9%	4%	13%	
Item 30							4
Exp.	N =	4	3	0	19	3	
	% =	14%	10%	0%	66%	10%	
Lec. I	N =	63	23	14	432	77	
	% =	10%	4%	2%	71%	13%	
Item 31							3
Exp.	N =	12	14	6	1	6	
	% =	41%	14%	21%	3%	21%	
Lec. I	N =	120	79	252	37	122	
	% =	20%	13%	41%	6%	20%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 32							1
Exp.	N =	14	7	5	2	1	
	% =	48%	24%	17%	7%	3%	
Lec. I	N =	185	136	108	22	159	
	% =	30%	22%	18%	4%	26%	
Item 33							5
Exp.	N =	6	0	0	2	21	
	% =	21%	0%	0%	7%	72%	
Lec. I	N =	75	4	15	155	357	
	% =	12%	1%	2%	25%	58%	
Item 34							5
Exp.	N =	2	0	1	3	23	
	% =	7%	0%	3%	10%	79%	
Lec. I	N =	52	16	11	46	484	
	% =	9%	3%	2%	8%	79%	
Item 35							2
Exp.	N =	5	23	1	0	0	
	% =	17%	79%	3%	0%	0%	
Lec. I	N =	117	302	42	73	75	
	% =	19%	49%	7%	12%	12%	
Item 36							1
Exp.	N =	5	10	7	4	3	
	% =	17%	34%	24%	14%	10%	
Lec. I	N =	219	162	70	116	41	
	% =	36%	27%	11%	19%	7%	
Item 37							2
Exp.	N =	4	20	3	2	0	
	% =	14%	69%	10%	7%	0%	
Lec. I	N =	68	407	64	56	16	
	% =	11%	67%	10%	9%	3%	
Item 38							1
Exp.	N =	13	5	3	2	3	
	% =	50%	19%	12%	8%	12%	
Lec. I	N =	367	91	60	30	34	
	% =	63%	16%	10%	5%	6%	
Item 39							4
Exp.	N =	3	2	4	17	0	
	% =	12%	8%	15%	65%	0%	
Lec. I	N =	52	19	151	299	62	
	% =	9%	3%	26%	51%	11%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 40							4
Exp.	N =	4	1	2	18	1	
	% =	15%	4%	8%	69%	4%	
Lec. I	N =	48	14	55	403	65	
	% =	8%	2%	9%	69%	11%	
Item 41							3
Exp.	N =	6	1	15	1	3	
	% =	23%	4%	58%	4%	12%	
Lec. I	N =	148	19	331	46	41	
	% =	25%	30%	57%	8%	7%	
Item 42							3
Exp.	N =	7	0	11	7	1	
	% =	27%	0%	42%	27%	4%	
Lec. I	N =	140	7	337	2	0	
	% =	24%	10%	58%	0%	0%	
Item 43							5
Exp.	N =	3	3	0	2	18	
	% =	12%	12%	0%	8%	69%	
Lec. I	N =	26	120	22	28	388	
	% =	4%	21%	4%	5%	66%	
Item 44							4
Exp.	N =	2	6	2	13	2	
	% =	8%	23%	8%	50%	8%	
Lec. I	N =	94	117	53	299	18	
	% =	16%	20%	9%	51%	3%	
Item 45							3
Exp.	N =	4	0	9	8	4	
	% =	15%	0%	35%	31%	15%	
Lec. I	N =	26	17	263	177	102	
	% =	4%	3%	45%	30%	17%	
Item 46							3
Exp.	N =	5	1	9	1	10	
	% =	19%	4%	35%	4%	38%	
Lec. I	N =	80	29	283	23	168	
	% =	14%	5%	48%	4%	29%	
Item 47							1
Exp.	N =	14	7	3	1	1	
	% =	54%	27%	12%	4%	4%	
Lec. I	N =	313	52	123	58	38	
	% =	54%	9%	21%	10%	6%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 48							3
Exp.	N =	5	5	13	1	2	
	% =	19%	19%	50%	4%	8%	
Lec. I	N =	218	72	261	24	10	
	% =	37%	12%	45%	4%	2%	
Item 49							4
Exp.	N =	2	0	1	21	2	
	% =	8%	0%	4%	81%	8%	
Lec. I	N =	26	9	31	488	31	
	% =	4%	2%	5%	83%	5%	
Item 50							2
Exp.	N =	1	8	3	11	3	
	% =	4%	31%	12%	42%	12%	
Lec. I	N =	49	259	162	47	1	
	% =	8%	44%	28%	8%	0%	
Item 51							3
Exp.	N =	5	9	6	2	4	
	% =	19%	35%	23%	8%	15%	
Lec. I	N =	52	132	270	71	59	
	% =	9%	23%	46%	12%	10%	
Item 52							4
Exp.	N =	10	1	5	8	2	
	% =	38%	4%	19%	31%	8%	
Lec. I	N =	163	93	120	158	50	
	% =	28%	16%	21%	27%	9%	
Item 53							1
Exp.	N =	10	1	1	5	9	
	% =	38%	4%	4%	19%	35%	
Lec. I	N =	226	48	47	44	220	
	% =	39%	8%	8%	8%	38%	
Item 54							5
Exp.	N =	4	0	3	8	11	
	% =	15%	0%	12%	31%	42%	
Lec. I	N =	123	20	36	105	301	
	% =	21%	3%	6%	18%	51%	
Item 55							4
Exp.	N =	1	9	5	4	7	
	% =	4%	35%	19%	15%	27%	
Lec. I	N =	60	133	71	112	208	
	% =	10%	23%	12%	19%	36%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 56							1
Exp.	N =	6	6	4	9	1	
	% =	23%	23%	15%	35%	4%	
Lec. I	N =	155	183	58	161	26	
	% =	26%	31%	10%	28%	4%	
Item 57							2
Exp.	N =	5	7	5	3	6	
	% =	19%	27%	19%	12%	23%	
Lec. I	N =	109	216	102	53	103	
	% =	19%	37%	17%	9%	18%	
Item 58							4
Exp.	N =	1	2	3	13	7	
	% =	4%	8%	12%	50%	27%	
Lec. I	N =	13	27	135	257	153	
	% =	2%	5%	23%	44%	26%	
Item 59							5
Exp.	N =	2	4	6	7	7	
	% =	8%	15%	23%	27%	27%	
Lec. I	N =	47	46	128	153	210	
	% =	8%	8%	22%	26%	36%	
Item 60							2
Exp.	N =	2	7	2	14	0	
	% =	8%	27%	8%	54%	0%	
Lec. I	N =	106	202	79	165	31	
	% =	18%	35%	14%	28%	5%	
Item 61							1
Exp.	N =	12	7	2	3	3	
	% =	46%	27%	8%	12%	8%	
Lec. I	N =	304	143	73	24	41	
	% =	52%	24%	12%	4%	7%	
Item 62							1
Exp.	N =	10	6	1	6	3	
	% =	38%	23%	4%	23$	12%	
Lec. I	N =	222	82	57	152	70	
	% =	38%	14%	10%	26%	12%	
Item 63							5
Exp.	N =	4	1	4	6	11	
	% =	15%	4%	15%	23%	42%	
Lec. I	N =	58	14	26	211	197	
	% =	10%	2%	4%	51%	32%	

		Alternative Responses					Correct
		1	2	3	4	5	Answer
Item 64							4
Exp.	N =	0	1	2	16	7	
	% =	0%	4%	8%	62%	27%	
Lec. I	N =	16	44	28	467	53	
	% =	3%	7%	5%	77%	9%	
Item 65							2
Exp.	N =	5	13	1	0	7	
	% =	19%	50%	4%	0%	27%	
Lec. I	N =	56	342	29	14	167	
	% =	9%	56%	5%	2%	27%	
Item 66							5
Exp.	N =	4	9	3	2	8	
	% =	15%	35%	12%	8%	31%	
Lec. I	N =	35	133	81	85	273	
	% =	6%	22%	13%	14%	45%	
Item 67							5
Exp.	N =	6	0	2	7	11	
	% =	23%	0%	8%	27%	42%	
Lec. I	N =	121	33	47	66	341	
	% =	20%	5%	8%	11%	56%	
Item 68							
Exp.	N =	1	0	1	4	20	
	% =	4%	0%	4%	15%	77%	
Lec. I	N =	13	15	11	152	415	
	% =	2%	2%	2%	25%	68%	
Item 69							2
Exp.	N =	2	13	1	6	4	
	% =	8%	50%	4%	23%	15%	
Lec. I	N =	21	406	10	100	69	
	% =	3%	67%	2%	16%	11%	
Item 70							5
Exp.	N =	0	15	3	3	5	
	% =	0%	58%	12%	12%	19%	
Lec. I	N =	64	275	97	63	108	
	% =	11%	45%	16%	10%	18%	
Item 71							3
Exp.	N =	1	0	9	9	7	
	% =	4%	0%	35%	35%	27%	
Lec. I	N =	82	30	302	93	99	
	% =	13%	5%	50%	15%	16%	

		Alternative Responses					Correct
		1	2	3	4	5	Answer
Item 72							1
Exp.	N =	13	6	4	3	0	
	% =	50%	23%	15%	12%	0%	
Lec. I	N =	216	137	148	73	29	
	% =	36%	23%	24%	12%	5%	
Item 73							5
Exp.	N =	7	9	6	1	3	
	% =	27%	35%	23%	4%	12%	
Lec. I	N =	97	132	74	52	252	
	% =	16%	22%	12%	9%	41%	
Item 74							3
Exp.	N =	4	5	6	10	1	
	% =	15%	19%	23%	38%	4%	
Lec. I	N =	97	192	120	144	54	
	% =	16%	32%	20%	24%	9%	
Item 75							4
Exp.	N =	5	4	1	8	8	
	% =	19%	15%	4%	31%	31%	
Lec. I	N =	54	48	128	229	147	
	% =	9%	8%	21%	38%	24%	
Item 76							2
Exp.	N =	5	6	5	4	6	
	% =	19%	23%	19%	15%	23%	
Lec. I	N =	226	87	131	76	87	
	% =	37%	14%	22%	13%	14%	
Item 77							3
Exp.	N =	5	0	19	1	1	
	% =	19%	0%	73%	4%	4%	
Lec. I	N =	53	52	431	61	10	
	% =	9%	9%	71%	10%	2%	
Item 78							4
Exp.	N =	6	7	4	6	3	
	% =	23%	27%	15%	23%	12%	
Lec. I	N =	52	99	109	284	63	
	% =	9%	16%	18%	47%	10%	
Item 79							1
Exp.	N =	7	8	7	1	3	
	% =	27%	31%	27%	4%	12%	
Lec. I	N =	273	82	106	90	56	
	% =	45%	13%	17%	15%	9%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 80							3
Exp.	N =	6	1	19	0	0	
	% =	23%	4%	73%	0%	0%	
Lec. I	N =	98	32	401	56	20	
	% =	15%	5%	66%	9%	3%	
Item 81							5
Exp.	N =	5	10	1	4	6	
	% =	19%	38%	4%	15%	23%	
Lec. I	N =	171	122	93	121	100	
	% =	28%	20%	15%	20%	16%	
Item 82							2
Exp.	N =	12	7	3	0	4	
	% =	46%	27%	12%	0%	15%	
Lec. I	N =	138	224	101	26	119	
	% =	23%	37%	17%	4%	20%	
Item 83							1
Exp.	N =	13	1	4	3	5	
	% =	50%	4%	15%	12%	19%	
Lec. I	N =	284	41	52	94	136	
	% =	47%	7%	9%	15%	22%	
Item 84							3
Exp.	N =	8	7	6	1	4	
	% =	31%	27%	23%	4%	15%	
Lec. I	N =	245	92	220	29	22	
	% =	40%	15%	36%	5%	4%	
Item 85							5
Exp.	N =	2	8	2	7	7	
	% =	8%	31%	8%	27%	27%	
Lec. I	N =	43	169	28	143	223	
	% =	7%	28%	5%	24%	37%	
Item 86							1
Exp.	N =	17	0	0	2	6	
	% =	65%	0%	0%	8%	23%	
Lec. I	N =	419	48	20	22	96	
	% =	69%	8%	3%	4%	16%	
Item 87							5
Exp.	N =	16	14	4	4	18	
	% =	29%	25%	7%	7%	32%	
Lec. I	N =	151	56	70	16	313	
	% =	25%	9%	12%	3%	51%	

		Alternative Responses					Correct
		1	2	3	4	5	Answer
Item 88							4
Exp.	N =	17	12	1	25	1	
	% =	30%	21%	2%	45%	2%	
Lec. I	N =	134	102	21	337	13	
	% =	22%	17%	3%	55%	2%	
Item 89							3
Exp.	N =	9	0	34	7	6	
	% =	16%	0%	61%	13%	11%	
Lec. I	N =	97	23	343	62	82	
	% =	16%	4%	56%	10%	13%	
Item 90							4
Exp.	N =	3	13	3	22	15	
	% =	5%	23%	5%	39%	27%	
Lec. I	N =	53	99	92	156	205	
	% =	9%	16%	15%	26%	34%	
Item 91							2
Exp.	N =	4	33	14	5	0	
	% =	7%	59%	25%	9%	0%	
Lec. I	N =	79	330	83	85	30	
	% =	13%	54%	14%	14%	5%	
Item 92							5
Exp.	N =	18	11	10	9	7	
	% =	32%	20%	18%	16%	13%	
Lec. I	N =	115	179	91	78	142	
	% =	19%	29%	15%	13%	23%	
Item 93							3
Exp.	N =	6	4	38	3	5	
	% =	11%	7%	68%	5%	9%	
Lec. I	N =	127	73	272	66	69	
	% =	21%	12%	45%	11%	11%	
Item 94							2
Exp.	N =	15	36	4	0	1	
	% =	27%	64%	7%	0%	2%	
Lec. I	N =	171	271	76	19	71	
	% =	28%	45%	13%	3%	12%	
Item 95							5
Exp.	N =	1	2	3	15	35	
	% =	2%	4%	5%	27%	63%	
Lec. I	N =	14	35	62	94	402	
	% =	2%	6%	10%	15 %	66%	

		Alternative Responses					Correct Answer
		1	2	3	4	5	
Item 96							1
Exp.	N =	19	7	13	11	6	
	% =	34%	13%	23%	20%	11%	
Lec. I	N =	193	108	97	138	71	
	% =	32%	18%	16%	23%	12%	
Item 97							4
Exp.	N =	13	10	12	18	3	
	% =	23%	18%	21%	32%	5%	
Lec. I	N =	126	69	106	173	133	
	% =	21%	11%	17%	28%	22%	
Item 98							1
Exp.	N =	18	11	0	6	21	
	%	32%	20%	0%	11%	38%	
Lec. I	N =	286	50	16	92	164	
	% =	47%	8%	3%	15%	27%	
Item 99							2
Exp.	N =	18	27	5	2	4	
	% =	32%	48%	9%	4%	7%	
Lec. I	N =	165	276	54	41	70	
	% =	27%	45%	9%	7%	12%	
Item 100							1
Exp.	N =	17	0	5	5	29	
	% =	30%	0%	9%	9%	52%	
Lec. I	N =	189	7	61	70	280	
	% =	31%	1%	10%	12%	46%	
Item 101							3
Exp.	N =	5	10	29	4	8	
	% =	9%	18%	52%	7%	14%	
Lec. I	N =	69	75	304	50	109	
	% =	11%	12%	50%	8%	18%	
Item 102							3
Exp.	N =	8	4	30	1	13	
	% =	14%	7%	54%	2%	23%	
Lec. I	N =	129	51	313	19	96	
	% =	21%	8%	51%	3%	16%	
Item 103							5
Exp.	N =	5	5	1	5	40	
	% =	9%	9%	2%	9%	71%	
Lec. I	N =	58	63	27	81	379	
	% =	10%	10%	4%	13%	62%	

		Alternative Responses					Correct
		1	2	3	4	5	Answer
Item 104							2
Exp.	N =	1	47	3	4	1	
	% =	2%	84%	5%	7%	2%	
Lec. I	N =	27	493	39	42	7	
	% =	4%	81%	6%	7%	1%	
Item 105							2
Exp.	N =	1	20	5	16	14	
	% =	2%	36%	9%	29%	25%	
Lec. I	N =	29	193	24	126	235	
	% =	5%	32%	4%	21%	39%	
Item 106							4
Exp.	N =	10	20	2	19	5	
	% =	18%	36%	4%	34%	9%	
Lec. I	N =	77	177	24	268	60	
	% =	13%	29%	4%	44%	10%	
Item 107							3
Exp.	N =	3	6	25	10	12	
	% =	5%	11%	45%	18%	21%	
Lec. I	N =	37	100	320	58	92	
	% =	6%	16%	53%	10%	15%	
Item 108							1
Exp.	N =	43	1	9	1	2	
	% =	77%	2%	16%	2%	4%	
Lec. I	N =	316	45	116	32	48	
	% =	52%	7%	27%	5%	8%	
Item 109							5
Exp.	N =	11	5	4	5	31	
	% =	20%	9%	7%	9%	55%	
Lec. I	N =	98	61	46	61	342	
	% =	16%	10%	8%	10%	56%	
Item 110							4
Exp.	N =	9	7	20	9	11	
	% =	16%	13%	36%	16%	20%	
Lec. I	N =	113	117	140	95	142	
	% =	19%	19%	23%	16%	23%	
Item 111							2
Exp.	N =	23	15	1	8	9	
	% =	41%	27%	2%	14%	16%	
Lec. I	N =	271	132	15	114	73	
	% =	45%	22%	2%	19%	12%	

INDIVIDUAL SUBJECT SCORES ON ALL INTERPERSONAL AND SUBJECTIVE MEASURES

EXPERIMENTAL CLASS 1

	SELF				OTHER 1				OTHER 2				SELF				SELF		01	02	SELF	
	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	SUQ_b	SUQ_n	SUQ_{ch}	SUQ_{+ch}	IBUS	IBCS	IBCS	IBCS	SUS	GES
01	97	92	7	5	60	48	24	12	111	79	34	32	118	73	45	45	5	1.2	5.4	9	6	6
02	55	44	17	11	71	72	59	-1	112	96	22	16	128	92	41	36	8	6	1.6	4.5	7	6
03	72	47	27	25	104	71	62	33	78	63	23	15	89	66	29	23	5	6	7	7	7.1	3
04	50	32	32	18	62	59	35	3	88	81	51	7	81	28	53	53	8	6	5	2	7	7
05	130	88	72	42	99	92	9	7	103	72	63	31	182	123	65	59	7	7	4	7	5	5
06	70	54	18	16	87	82	43	5	115	106	116	9	141	92	57	49	5.5	5	6	7	7	6.5
07	34	25	12	9	67	67	8	0	86	77	34	9	54	40	14	14	7	6	7.4	1.7	6.6	4
08	116	99	36	17	114	121	48	-7	137	179	77	-42	146	104	47	42	7	3	7.4	8	5.6	4
09	86	94	26	-8	83	73	36	10	66	60	28	6	115	70	57	45	5	5	4.2	1.8	5.2	7.1
10	57	68	41	-11	83	73	34	10	78	73	34	5	149	112	64	37	7	7	5	5	6	5
11	121	40	81	81	76	71	5	5	115	118	15	-3	74	70	30	4	7	8	4.8	5.3	6.1	5
12	94	85	26	9	126	124	38	2	93	76	48	17	125	91	58	34	7	6	5	7	6	4
13	61	52	9	9	78	71	13	7	86	96	25	-10	84	67	16	17	6	6	2	3	5.5	4.5
14	66	30	36	36	96	59	73	37	92	79	31	13	90	38	52	52	6	5	7	6	6	5
15	57	49	8	8	60	57	3	3	81	81	0	0	94	81	17	13	5	2	2	1	7	5
16	84	73	64	11	80	52	69	28	62	50	31	12	107	54	55	53	6.5	6.5	6	4	5.5	7.4
17	46	40	8	6	95	92	27	3	80	61	37	19	122	71	25	51	7	7	2.2	8	7	7.8
18	92	37	77	55	119	113	41	6	106	58	93	48	154	51	109	103	7	8	6	7	6	6
19	73	50	25	23	120	131	20	-11	95	99	24	-4	90	61	39	29	6	7	1	4.5	7	6.8
20	101	97	24	4	113	109	25	4	96	85	28	11	145	97	52	48	6	5	6.5	2.4	5	6
21	111	107	20	4	106	98	14	8	111	110	27	1	206	148	60	58	7	6	1.2	3.4	6	4
22	115	98	23	17	125	128	32	-3	113	95	37	18	104	95	9	9	5	4	5.5	5	5	5
23	95	76	33	19	104	85	41	19	94	68	58	26	191	142	53	49	5	5	6.2	6	5	3.9
24	115	81	55	34	93	82	27	11	103	101	5	2	174	122	52	52	7	6	5	3	6	4
25	71	54	40	17	130	102	48	28	152	112	61	40	51	32	31	19	7.4	2	7	7	5	4.2
26	83	61	22	22	70	74	52	-4	89	66	53	23	65	33	34	32	7	7	7	6	7.5	6.5

EXPERIMENTAL CLASS 2

	SELF				OTHER 1				OTHER 2				SELF				SELF		O1	O2	SELF	
	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	IBUS	IBCS	IBCS	IBCS	SUS	GES
27	36	56	16	20	69	56	19	13	100	84	48	16	81	79	35	2	6	1	1	5	4	4
28	106	53	63	53	127	129	2	-2	105	93	24	12	134	64	70	70	6	7	2	5	7	7
29	134	58	78	76	82	45	41	37	73	60	32	13	70	30	46	40	5	7	7	5.5	5	5
30	53	51	4	2	98	94	18	4	78	71	40	7	91	91	0	0	5	1	1.5	7	4.9	5
31	114	97	33	17	138	131	43	7	111	102	29	9	141	128	30	13	6.1	5.8	5	7	6	6
32	25	16	1	9	92	96	14	-4	67	67	4	0	98	68	30	30	5	3	5	2	5.2	4.8
33	99	62	80	37	117	117	0	0	120	107	38	13	119	87	48	32	6	7	5.8	2	6	5
34	106	71	39	35	136	96	80	40	109	74	76	35	136	57	79	79	5.9	6.2	5	8	7.5	5.5
35	75	54	21	21	114	70	64	44	120	119	37	1	100	90	16	10	4	6	7	4.5	5	5
36	82	63	19	19	92	90	2	2	84	70	28	14	143	100	43	43	6.2	5.5	2	6	7	5.8
37	101	59	42	42	103	102	1	1	49	104	17	-5	215	126	89	89	4	7	2.5	5.5	4	5
38	63	56	39	7	42	46	18	0	70	71	23	-1	118	104	36	14	6	5	2	2	4	4
39	75	65	18	10	103	110	28	-7	151	150	37	1	43	40	3	3	6	7	4.2	5.4	5.8	5
40	92	51	49	41	86	84	2	2	97	97	0	0	151	118	33	33	7	4	1	1	6	6
41	64	57	47	7	105	66	53	39	67	58	55	9	136	96	42	40	6	4	6.8	6	7	6
42	25	23	2	2	102	94	36	8	124	90	42	34	90	74	16	16	8	6	6	7	8	8
43	107	61	82	46	94	101	21	-7	96	110	38	-14	111	45	97	66	7	6	5	4	7	7
44	147	125	30	22	85	61	58	24	114	91	51	23	170	122	52	48	9	7	4	5	7.5	5
45	86	48	46	38	131	150	35	-19	54	67	36	-7	132	63	72	69	6	7	7	8.2	6	7
46	89	78	27	11	113	145	50	-32	97	93	30	4	84	68	17	16	5	5	4	4	4.1	3.5
47	86	77	39	9	76	77	64	-1	102	94	18	8	145	120	32	25	5	2	6	6.1	6	4
48	57	30	31	27	106	107	1	-1	104	74	54	30	122	68	54	54	5	5	5	8	7	5
49	130	78	66	52	102	79	33	23	74	70	14	4	130	107	42	23	7	6	5	2.2	3.9	5
50	63	45	56	18	98	73	87	25	85	56	61	39	72	50	24	22	6	6	6.5	5	6	2
51	67	56	17	11	62	60	12	2	74	82	35	-8	95	66	34	29	7	5	5	5.3	5	7.1
52	48	50	2	-2	93	96	21	-3	87	90	17	-3	92	82	12	10	5	1	5	1.9	6	3
53	79	79	48	0	90	103	31	-13	87	89	32	-2	86	73	23	13	2	1	3.2	5	6	5
54	39	11	32	28	107	83	70	24	90	74	61	-4	87	14	75	73	7	7	7	6.5	5	7

LECTURE CLASS I

	SELF				OTHER						SELF		SELF		OTHER	SELF	
	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	SUQ_b	SUQ_n	SUQ_{ch}	SUQ_{+ch}	IBUS	IBCS	IBCS	SUS	GES
01	101	88	31	13	116	114	42	2	140	103	37	37	4.9	4.4	4.8	4.7	1.7
02	71	42	37	39	70	60	23	10	143	103	44	40	4.1	3	2	4	1
03	36	35	3	1	49	92	15	7	79	49	30	30	5.2	5.2	2	4	3.2
04	79	61	26	18	75	75	0	0	113	81	32	32	6.8	5.5	8	4.5	3
05	50	43	7	7	60	72	36	-12	124	111	13	13	6	7	1	6	1
06	71	33	44	38	105	117	20	-12	132	84	48	48	6	7	7	7	5
07	67	62	11	5	69	63	16	6	53	42	11	11	7	3	3.7	9	1
08	84	48	40	36	75	68	41	7	192	70	124	122	8	8	1	5	1
09	77	70	23	7	108	113	24	-5	132	136	28	-4	7	7	7	7	1
10	10	10	0	0	84	80	12	4	45	45	0	0	5	3	3.8	2	1
11	85	153	139	-68	116	118	46	-2	147	103	44	44	4	6	1.8	6	7
12	58	55	11	3	85	93	30	-8	58	56	2	2	5	3	4	4	5
13	76	66	10	10	85	76	17	9	93	65	28	28	5	5	2	5	5
14	75	59	18	16	115	125	33	-10	121	99	58	22	5	6	2	6	1
15	67	70	3	-3	93	67	70	26	128	126	2	2	7	5	4.5	3	3
16	43	47	8	-4	98	98	10	0	64	42	22	62	6	5	4	5	2
17	72	26	58	46	94	84	28	10	102	49	53	53	7	6	8.4	5	4
18	79	73	6	6	105	100	38	5	153	117	37	37	6	7	6	4	2
19	85	68	34	17	87	87	35	0	142	110	32	32	9	5	1.4	6	3
20	62	47	19	15	72	72	4	0	116	103	13	13	3	2	1.6	5	2
21	58	51	31	7	90	52	60	38	133	155	42	-22	7	6.2	5.2	6.5	7
22	101	74	67	27	95	91	28	4	90	67	47	23	6	7.6	4.5	6.1	6
23	103	84	33	19	78	78	16	0	170	103	67	67	6	5	7	6.5	4
24	119	115	14	4	186	159	45	27	133	126	21	7	1.2	1.2	2	1.2	1.2
25	95	73	34	22	127	120	7	7	147	126	57	21	6	5.8	7	5.6	5
26	57	47	24	10	112	104	60	8	151	148	3	3	7	7	6	8	7
27	42	31	23	11	166	116	118	50	101	81	20	20	5	4	6	5	2
28	43	25	36	18	68	57	18	11	90	64	26	26	7.8	1.2	6	5	3.8
29	95	81	17	14	101	104	38	-3	79	37	42	42	6	6	2	5	5
30	95	88	23	7	117	96	25	21	67	67	30	4	5	6	7	5	4

LECTURE CLASS I (Continued)

	SELF				OTHER				SELF				SELF		OTHER	SELF	
	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	SUQ_b	SUQ_n	SUQ_{ch}	SUQ_{+ch}	IBUS	IBCS	IBCS	SUS	GES
31	71	65	16	6	80	87	43	-7	69	61	16	8	4	5	5	5	4.2
32	105	132	51	-27	157	193	44	-36	105	95	16	10	7	7	2	5	5
33	82	82	24	0	90	90	0	0	90	78	12	12	7	9	5.2	5	1
34	127	122	32	5	80	75	17	5	93	65	30	28	6	6	1	5	3
35	61	21	54	40	56	39	27	17	137	72	73	65	5	6	2	5	1.5
36	107	98	25	9	128	113	63	15	104	89	65	65	6.3	7.8	6	7.2	1.5
37	70	69	20	1	99	101	55	-2	114	117	63	-3	7	6	5	4	1
38	14	12	4	2	95	94	48	1	192	75	116	117	5	7	4.5	5	3
39	172	90	180	82	115	81	108	34	150	64	105	84	3	2	1.2	2	5
40	154	141	17	13	102	91	17	11	122	96	26	24	5	7	5	5	5
41	126	72	84	54	106	110	66	-4	166	78	98	88	5	7	1.9	7	1
42	109	82	37	27	68	90	94	-22	142	104	38	38	5	5	8	7	3
43	12	12	0	0	185	181	23	4	104	82	11	22	5	5	6	5	3
44	78	71	7	7	87	80	29	7	107	65	54	42	7.5	7	2	5.3	6.5
45	142	110	34	32	184	156	70	28	149	113	36	34	5	5	3	5	3
46	32	32	16	0	57	53	30	4	105	81	28	24	7	6	6	8	2
47	58	39	21	19	111	85	52	26	130	96	34	34	5	5	6.5	7	1
48	103	104	7	-1	116	131	23	-15	134	126	8	8	4	4	3.4	3	2
49	63	45	20	18	101	100	14	1	71	60	11	11	5.3	7.4	7	7	2.5
50	79	93	30	-14	117	120	23	-3	110	117	21	-7	7.3	5.6	5	1	5
51	46	31	36	17	113	110	11	-7	170	55	121	115	7	7	6	7	3
52	57	39	22	18	102	82	44	20	76	39	35	37	7	6.2	6	5.4	3.5
53	143	111	42	32	149	149	60	0	112	78	34	34	4	5	1.3	6	3
54	36	36	0	0	82	88	26	-6	73	68	5	5	5	6	4.5	4.7	2.5
55	123	72	73	51	62	71	27	-9	176	93	84	81	7.5	6.5	5	9	1.1
56	137	53	90	84	74	95	77	-21	57	47	38	10	4.8	2.3	7	2	1.9
57	73	58	33	15	93	70	35	23	63	55	14	8	6	7	8	6	7
58	66	41	33	25	112	112	36	0	93	44	55	49	5	5	4	3	3
59	89	82	33	7	66	65	7	1	152	115	55	37	4.2	2.1	1.6	4.3	1
60	91	75	30	16	73	84	33	-11	136	112	38	24	5	7	7.5	5	3

LECTURE CLASS II

	SELF				OTHER				SELF				SELF		OTHER	SELF	
	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	$IBCQ_b$	$IBCQ_n$	$IBCQ_{ch}$	$IBCQ_{+ch}$	SUQ_b	SUQ_n	SUQ_{ch}	SUQ_{+ch}	IBUS	IBCS	IBCS	SUS	GES
01	77	75	2	2	70	73	7	-3	106	94	18	12	2	2	1.2	2	3
02	17	13	4	4	65	68	33	-3	93	77	16	16	7	7	6	7	1
03	98	66	36	32	82	77	47	5	96	74	30	22	6	5.5	6	5	5
04	94	68	60	26	96	97	17	-1	171	131	51	40	7	5	5	7	1
05	194	174	36	20	131	117	54	14	173	161	44	12	3	6	5.8	4	1
06	61	57	8	4	91	94	30	-3	133	91	52	41	5	5	57	3	2
07	56	50	18	6	99	102	50	-3	89	100	17	-11	5	7	6.5	7	1
08	100	78	40	22	83	77	44	6	101	65	36	36	6	7	7	8	4
09	23	17	22	6	70	72	2	-2	26	12	14	14	5	6	1	2	3
10	72	52	33	20	87	87	4	0	108	86	26	22	4	5.2	2	4	4
11	64	46	26	18	81	89	20	-8	125	48	35	27	5.4	5	4	7	5.5
12	91	49	58	42	98	88	52	10	94	78	26	16	4	6	7	4	2
13	102	82	34	20	119	95	74	24	130	85	47	45	3	5	6	5	3
14	86	86	0	0	104	104	0	0	154	151	7	3	1	1	1	2.3	1.7
15	85	61	41	24	80	67	46	13	148	119	45	29	5	7	5	5	5
16	110	111	67	-1	101	122	72	-21	178	127	85	51	5	3	4.2	6	3
17	95	88	24	6	113	115	23	-2	99	64	45	35	5.8	6.2	1.1	3.6	3.2
18	88	84	26	4	90	75	31	15	124	118	6	6	2	4	6	3	1
19	67	53	20	14	68	76	34	-8	117	68	51	49	5	4	3	6.4	5
20	60	54	18	6	103	102	13	1	85	45	46	40	1.7	1.6	7	1.5	1.5
21	58	41	25	17	70	61	23	9	56	49	7	7	5.5	1	2	1.3	1
22	24	8	16	16	93	85	28	8	48	30	29	18	6	7	3.4	7	6
23	76	68	35	8	67	67	0	0	82	60	26	22	6	3.8	1	5.8	1
24	49	40	13	9	69	65	24	4	78	46	38	32	7	7	7.7	6	3
25	86	53	46	33	94	84	27	9	84	53	61	31	7	5	3	7	3
26	110	104	35	6	132	117	36	15	172	123	49	49	5	5	5	5	1
27	113	89	26	24	139	138	57	1	153	96	37	57	5	6	4	5	4

APPENDIX D

ADDITIONAL DATA ON THE ADEQUACY OF QUESTIONNAIRES VERSUS SCALES IN THE PRESENT RESEARCH

QUESTIONNAIRE ON ADEQUACY OF QUESTIONNAIRES VERSUS SCALES IN PRESENT RESEARCH

1. Put an "X" before the appropriate description.

   These questionnaires were _____ to fill out.

   _____ easy

   _____ moderately difficult

   _____ difficult

   _____ very difficult

2. Which do you think more adequately described your interpersonal behavior this term?

   _____ the more specific items on the questionnaires

   _____ the general change scale at the end

3. Do you think most of the specific items on the questionnaires differentiate people from one another?

   _____ Yes _____ No

   Do you think the general change scale at the end of the questionnaires differentiate people from one another?

   _____ Yes _____ No

4. In what way could these questionnaires have been made more meaningful?

RESULTS FROM QUESTIONNAIRE ON ADEQUACY OF QUESTIONNAIRES VERSUS SCALES IN PRESENT RESEARCH

	Exp. (N=54)	Lec. II (N=11)	Tot. (N=65)
The questionnaires were _____ to fill out.			
easy	11%	18%	12%
moderately difficult	63%	64%	63%
difficult	22%	18%	22%
very difficult	4%	0%	3%
Which do you think more adequately described your interpersonal behavior this term?			
the more specific items on the questionnaires	73%	73%	73%
the general change scale at the end	27%	27%	27%
Do you think most of the specific items on the questionnaires differentiate people from one another?			
Yes	89%	82%	88%
No	11%	18%	12%
Do you think the general change scale at the end of the questionnaires differentiate people from one another?			
Yes	50%	64%	52%
No	50%	36%	48%

APPENDIX E

WRITTEN EVALUATIONS OF EXPERIMENTAL CLASS

APPENDIX E

WRITTEN EVALUATIONS OF EXPERIMENTAL CLASS

01: Marty--I really think you did a great job teaching this course and I have gotten an awful lot out of it. The greatest parts were the group discussions and learning views of other people and then trying to in a way, analyze them. The last part of the book was interesting and so was the first part but they just packed so much in to those first few chapters that it was impossible to learn it all. If a lot more time could be spent, like an extra term so things didn't go by so fast, it would be a lot more beneficial. Of course this is impossible but that's how the first part of the book left me--there was so much to comprehend in such a short time. I have thoroughly enjoyed the class and I really looked forward to the group discussions. I got to know myself so much more through the questionnaires and projects that the whole class was totally advantageous to me. Thank you for your help and insight into other people and myself.

02: Both parts of the class are beneficial, however, my favorite part was the group discussions. Perhaps more group discussions would be better, it gives people a better chance to interact with people, and realize what is going on because this is the objective as where discussion was just a talk between people before. In your tests don't make the objective questions so long. It causes confusion.

03: I think that a feeling of closeness could've been better established in our small groups if we had done things together not just talked. Sometimes actions do speak louder than words. It wouldn't have to be anything big, just some small game or perhaps a nature hike. I think the lectures were beneficial but the book is lacking. I retained absolutely nothing from this experience of the first half of the book. I do feel your way of dividing the course into three units was very satisfying and beneficial to us as well as to you as a teacher--(especially the interpersonal groups).

04: I feel that this course was most beneficial, especially our meeting discussions. They were interesting and helpful and yet everyone really had a lot of fun. I think

that it was really enjoyable without the formal type of lectures and hope, Marty, that you would continue teaching Introductory Psychology as you did ours.

05: I definitely liked the little group sessions. I got to know and understand a lot of different personalities and to respect them for their opinions. Lectures are necessary and you did a good job of making them interesting. I liked the idea of calling you Marty instead of Miss Aldenbrand, because it somehow made you on the approachable level.

P.S. Now that grades have been turned in I just want to say something about you and your first class.

To be perfectly truthful, I've enjoyed this class more than any class I've had up here so far; and although it doesn't show, I've learned the most from this class too. Maybe I haven't learned many statistical facts, but I've learned one hell of a lot about myself and the people I come in contact with. The class and the teacher were both the best I've had the privilege to take.

06: This course is the one that I have liked the most. I feel that the way you teach it should not be changed. You go by the book enough to get the major points across, plus you add your personality and little games to make it interesting. I truthfully do not think that I would have liked this course any other way. Your games and things actually help to let the groups communicate. I would not change a thing from the way you taught us.

07: I liked most the game we played during small discussion groups where we had to guess who the person was another person answered questions about. I don't think just going and sitting in small groups without something specific to do was such a good idea. I don't think the whole hour should be planned but I think the start of it could have a little help. I liked very much the idea of learning psychology from the subjective and interpersonal aspects as well as from the objective. I know that because of this I have gained a lot personally.

I also like your way of presenting the material. You are very interesting and you made the material come across to me very clearly. I really enjoyed your class and feel that I have learned a lot about myself and about others.

08: When the group idea was first brought up at the beginning of the term, I didn't like the idea because I had a bad experience with groups last term in a Communications class. After the first group meeting I became convinced of its worth and I think the idea is a good idea. I think the book (Kimble-Garmezy) is terrible and should be gotten rid of and the reading assignments assigned.

09: Keep the group discussions and these subjective assignments. They're the most beneficial. This type of class seems to be a combination of Garskof's system and the established booking procedure. Some of those subjective assignments seemed pointless--specifically the first and last one where we had to list our preferences. If there was more reason given, I might have been more [receptive?] to them.

10: I think the most beneficial part of the class has been the group discussions. I really feel badly that they've ended. Maybe this could be expanded to twice a week. The least beneficial was the detailed coverage of the brain, et.al. It seemed too deep for introductory psychology.

12: I honestly feel that the best part of the lectures were when you cited specific case histories, or vivid examples. The cut-and-dry parts were very difficult to listen to carefully. Our "do-your-own-thing" day goes without saying. It was extremely beneficial in learning about others as well as myself. Yet, I don't think it would have been as meaningful if it met every day. I think it would have been nice if all of the groups could have gotten together sometime to compare progressions.

13: I liked all of the course and nothing needs changing. The best parts were the groups and subjective assignments--but the book was interesting in parts.

14: In evaluating the class, I found that the most beneficial was the small group sessions. It's a very good idea to have one group meet per day instead of each group meeting all on the same day, because the instructor doesn't have to go from one group to the other. The other two days of the week were also very helpful to the understanding of a very disagreeable text. One more thing I liked was the easy-going, informal atmosphere in the classroom. Although I'd like to suggest getting rid of the book, I realize that some sort of text is necessary. I learned quite a bit from the book--not the detailed definitions, but a lot of the important concepts and theory. It's too bad that there's not a better text to use--one that doesn't try to incorporate so much material at once, and one that speaks in a more understandable language.

Just as an added comparison, my room-mate is taking psychology 151 with _____, which is a 3 times a week lecture. In comparing notes, I feel that I have not only learned more, but I have gotten much more out of the class than she did. The large lecture classes seem too impersonal and doesn't give the student any interest in learning to the extent that I have learned in a small class. Of course, I realize that lecture classes are necessary to accomodate the number of students, but I feel fortunate to have experienced this class, Marty, and I did learn a lot.

15: I really liked the way you handled the course. The only change I'd make would be issuing the questionnaires you gave us at the end of the term, at the beginning of the term also.

16: In this type of introductory course, I definitely feel that a text-type of study is essential, but the volume of the material covered is a little too much. May I suggest a shorter, more condensed text. If not, a supplement to your somewhat general lecture may prove helpful to the student.

The small group discussions I feel are extremely beneficial in that each person can express himself and if he or she is shy, this can be a very good means of overcoming it.

The weekly projects have caused a deeper sense of soul-searching and thinking on my part, and I'm sure others were similarly affected. This is excellent and should be kept up. I especially enjoyed the evaluation sheets, both of ourselves and others.

17: I thought the lecture periods were boring, and that reading assignments were too long. I would suggest cutting the reading a little bit, and the last four chapters were the most interesting and we didn't have time to really get into them very far.

The recitation periods were great. In this part of the class we really learned to interact with people. You experience problems, fears, and ideas together. You just have a close relationship with people who are willing to share themselves with you.

18: An important thing I got from this class was a perspective look at how others see me. I would say that the interpersonal group sessions were very valuable and should be continued as a part of the course. I also felt most of the subjective assignments to be of some value in helping me in a very difficult task--finding out who I really am and who others think I am. Although there are still many unanswered questions at least I have begun to end my quest.

19: Whatever you do keep the small group sessions. I wish that we could have had enough discussion groups so we could join different people after a while and meet new people. This is impossible because of the time limit.

The lectures were all right but it was hard to cover the whole book with so few lectures. (Suggestion: Throw out book?)

20: Small groups--most beneficial.

First half of book--least beneficial.

I don't think that anything should be eliminated because the material from the text is important just as are the subjective assignments.

21: I think the groups is the BEST thing ever, I learned more real psychology in the groups than I did reading the book. The Groups were very interesting and showed me alot. I discovered a lot of bad qualities in me and a way to change them. I learned a lot about the feelings of others, how they feel about certain issues. No two people can experience the same feelings. I also learned alot by doing these projects. I got a chance to sit down and think about myself. I would analyze myself and see what I was doing to annoy people or what I do that others liked. The part of the course that I didn't like was the reading of the book. I learned more, alot more, by looking up the given questions and knowing the answer. When I read the book I wouldn't pay real attention to anything, but when I looked up the answers I could read about it and use it against myself if the case applied. All in all the course was <u>great</u>. I learned quite abit. I wish more classes were taught this way. You put yourself on our level which made a big difference. The groups were really beneficial. I really enjoyed this class and I would like to thank-you for being such a great teacher. I learned alot not only about myself but of others and their actions.

22: As I mentioned before the group discussions were the most beneficial to me, especially the ones that were a little more intimate. They exposed a great many details that probably would seldom be recognized.

23: I think the course was pretty good. I wish you could have done a little more explaining of the objective parts, but I can see that it wasn't possible in just 2 days. I wouldn't change the format.

I think the groups were really great. It would be nice if we did more "games." I really enjoyed what we did the first day. More of that would be really great.

Although some of those papers were good, some were not very beneficial. Of all the parts, those subjective papers were the least beneficial.

25: If I was smart, I would say that the course is perfect, however, since I am stupid I will state a few things. First and primost is the boring book we have, it is really bad in that it takes hours to really learn anything. I really think that a better one could be found and used well. Second, I feel all the concentration on these special names is a short-term accomplishment, and that students should spend more time on real life personal problems. Such as today's contemporary society and its contradictory ethics and morals which cause these psychological disturbances. I would suggest that less emphasis be put on the details of our body, and look at the more important aspects of what the body actually does. I think that the group

sessions are a good thing, but it takes a long time to gain an atmosphere of common trust and sincerity. The puzzles, and "what is your bag" sessions were quite informative, however, let me add that some type of guessing game may quicken this desired atmosphere. Such a game on the initial sessions may have a pretest that the students have answered some frank questions concerning the other students. Then at the session they can try to guess the person's identity by the test results. This kind of thing just might break the ice, or at least thin it a bit. Later on the students could try to fake answers on a questionnaire and then see if the others can see through his constructed lies.

26: I think all the parts of the course were very helpful. They interacted with each other. The interpersonal and subjective parts were definately a necessity if the student wanted to get anything out of the course. I don't care for the textbook used, but I suppose there is nothing that can be done about that. I think that all the parts should be kept. Maybe you could spend a little more time on the chapters that are more difficult and explain more in detail in class.

27: The most beneficial part to me was the little groups. They were a unique idea and really were stimulating sometimes.

I do feel that you are very good at explaining things. Your lectures were excellent. It was easy to listen to you and I learned something always. You really know what you are talking about.

I didn't feel that I wasted any time in the class. I learned alot which is much more than I can say for other classes.

28: If I were to reorganize the class curriculum, I would change very little. In fact, the <u>only</u> change I would make would be to revolve the small groups and mix them occasionally.

29: The book learning part of this course was the least beneficial. The subjective part was good in that it made the individual more aware of himself and his environment. The groups would be more beneficial if the individuals became more sensitive to others.

30: In general I like the way you teach the class all together. Please don't throw away those question and answer sessions.

31: As far as 151 goes, I think it is very good the way it is presented. But to really study Psych I feel you must experience it and not read it out of a book. The self-evaluation forms were very good and really helped me a lot. All in all it was lots of fun and I really enjoyed myself.

33: Marty, I thought you were a tremendous teacher, but that "junk" they gave you to teach has little or no value. The reading in the book was too much and psychology isn't for reading. I definitely benefitted from the group discussions, though. Terms given in class, I think, are sufficient for testing. Then a short essay exam would suffice in the exam department. But that book--aaghh!

34: On the plus side of your teaching this term is the relaxed atmosphere in the class. Many classes are stiff and as a result the student loses interest. I also feel that your illustrations of the various areas help very much. They add interest to the concepts and hold the attention. I also enjoy the discussion groups. I realize that this is just an experiment but it would be nice if the class could be continued.

On the other side, it seems to me that most of the things you discuss and show by putting on the board are definitions. Most of your time is spent writing on the blackboard. You could mimeograph the information and hand it out just as effectively.

36: As far as the course goes, I thoroughly enjoyed all of it and plan to take more psychology classes because of it. Most of this is mainly due to you and your interest and relaxed attitude. Your lectures were effective because you talked "with" us more than "at" us. The group days were what I enjoyed most--more as time went on. I actually felt I got to know the other kids more than just on the surface. I think I learned more about myself and others in the group, this being more important to me than all of that reading in the book. At first I thought the subjective assignments were just busy work, but found when I started doing them I sometimes enjoyed it.

37: For next term have more things to do for the students to take part in and don't have so much on the subjective part. More participation on the students part is more helpful.

38: Keep the lectures and groups the same--informal. Throw out the objective tests.

39: I enjoyed the way you taught the course and I hope that there will be more courses that will be taught the same way. Your method of teaching is very simple and easy to understand. It seems to fit right in with my vocabulary.

40: The group was most beneficial to me. I think it is a very good idea to have the others in the group evaluate the people of the group. I would not use multiple choice tests. I think it was beyond almost all of us. I also feel that you could use a different book. This one seemed

to have many sections of very little importance in it. I got more out of your lectures than the book.

41: Group discussions--good.
Lectures--excellent.
Subjective--good.
Book--out--too much reading and don't remember it anyway. Maybe use of articles or a paperback with the class might go over fairly well. Maybe lecture on some parts, selected readings from book on others not covered.
Multiple choice on book--out--too much rote learning which you forget in a day or so.
Or offer a choice of either mult. choice tests, essay test, or short ans. tests.

42: I think your teaching style is probably the greatest asset of the course. You are able to make the students feel like they are participating in the course. They don't feel they are being taught this by some supreme force, but that they are being made aware of things that they were not aware of before. You are able to relate the things in the course to our everyday lives. I guess you can tell this in class when you are talking about some psychological term and applying this to the way we act and live and the class laughs or lights up because they are familiar with this situation. The best part of the course is that you can apply it to the way you are living right now. I think that these subjective assignments are good because they sometimes give you an insight to life and the way you are living. They should be more directed in this area. We should be able to apply the experiences of our lives to these subjective assignments and thus learn more about ourselves. I really can't think much that I would throw out; the improvement would be in more and more of a relationship between the course and our lives. It should help us to see ourselves and others through psychology.

44: Your lectures were very good. The discussion sections seemed like they could have been better. I know you want spontaneous conversation but I think you might have a topic on hand, or even better on the previous week ask one student to have a topic for the next week. Don't attempt to stick to a topic but let it wander.

45: The majority of the course was beneficial. There should be more emphasis on the later part of the book: chapters 20, 21, 22, 23. More presentations on case studies and actual findings would make the course interesting.

45: I think that the way the course was run was excellent. We were on our own most of the time, but help was available if we wanted it. I think that the groups were a

good idea, even if I didn't participate as much as I should have. There is really nothing that should be thrown out, except perhaps the multiple choice test.

47: Most Beneficial--the relaxed atmosphere; the group discussions (great!); the freedom to choose where the group meets and what it'll talk about; the understanding of the instructor; her interest in your opinions and feelings.
Least Beneficial--the lectures got boring--you defined, we wrote; the book (especially the first part) incomprehensible (!); more tests like the puzzles; use tests to show kids insight into themselves.

48: The most beneficial aspect of the class was the Thursday recitation. Through this class experience, I learned how to communicate better and feel I can express my ideas with confidence.

49: The major part of the subjective assignments and the group discussions should be kept. The "bring your bag" idea was a good way to get to know people. Regarding the tests, you probably already realized that the multiple choice questions are ambiguous and in need of change. On the whole, this was really one of my favorites.

50: I think certain chapters of the book should be illuminated.

51: The book was most beneficial to me because I learned a lot about psychology just by reading about it. Your class time is limited and it's hard to develop enough background material for the students to know what psychology is about just from discussion. The text was valuable to me. The group discussions were beneficial and should not be discarded either. I think a more general knowledge of psychology should be stressed. Rather than definition tests have an essay test or two. Students have to know the material or sink then. Otherwise I thought the course was pretty well organized and taught.

52: Most beneficial--Handouts to fill out on yourself and having others fill them out. Another, and most beneficial is the group discussion. It helps me and us greater. All should be kept. Least beneficial--Although should not be thrown out, the least beneficial to me was the lectures. I could have done just as well on the test if I hadn't went one time. I studied what you lectured on too hard and no questions were given. The most unbeneficial and should be thrown out are the exercise we first did. Analyzing yourself by lying in bed and going places.

53: I thought the course as a whole was very good. I definitely learned more about myself from the small groups,

though little of it came together before the end. The small group also aided me in detecting attitudes in others and translating them from actions and words used. I don't think any part of the course should be discarded, because the lectures served as a good background for what I learned in the small group, aiding me in discovering why I felt a certain way and what the reason was for someone's actions.