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The effect of interpersonal compatibility between teacher and student on student grades

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THE EFFECT OF INTERPERSONAL COMPATIBILITY BETWEEN
TEACHER AND STUDENT ON STUDENT GRADES

by

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B.A., University of California, Davis, 1974

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It was the purpose of this study to focus on one factor that related to teachers' grading of students. Specifically, it focused on the link between the grade a student received in the Introduction to Public Speaking course and that student's interpersonal relationship with his or her teacher. Research up to this point suggested that the student who was interpersonally compatible with the teacher would receive higher grades than the student who was incompatible with the teacher.

In order to explore this link, a study was designed that used Schutz's FIRO-B as the instrument to measure teacher-student interpersonal need compatibility. Scores from the FIRO-B questionnaire produced ten categories of compatibility based on the interpersonal needs of inclusion, affection, and control and the three dimensions of compatibility: interchange, originator, and reciprocal. On each of the categories the students were ranked from most compatible with their teacher to least compatible with their teacher. These rankings were correlated with rankings based on the student's grades using the Kendall Tau Correlation Coefficient. A total of 102 students from five Interpersonal Communication 111, Introduction to Public Speaking, classes were used as subjects. The classes were taught by three graduate teaching assistants.

The results of the Kendall Tau Correlations showed that of the 40 positive relationships predicted to occur between teacher-student compatibility and student grades, only six were significant. That is, teacher-student interpersonal need compatibility on all three dimensions of control was related to the teachers' grading of student speeches. Further statistical analysis also showed that the magnitude of these significant correlations increased with time.
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Special thanks go to my wife, Christy, for putting up with me during the past two years. Without her this thesis would never have been started, much less completed.
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CHAPTER I

PROBLEM

Purpose of Study

It was the purpose of this study to test the effect that interpersonal compatibility between a teacher and a student had on the grades assigned to the student. In other words, did a grading influence exist because a teacher-student dyad was interpersonally compatible or incompatible?

Classroom grading influence has been studied extensively (Wells, 1907; Thorndike, 1920; Winter, 1961; Bills, 1952). None of the grading influence studies however had focused on teacher-student dyad interpersonal compatibility as a possible source of influence. This was surprising in light of the empirical evidence demonstrating that (1) interpersonal compatibility has affected many other types of dyads (Van Sickle, 1963; Sapolsky, 1965; Kerchoff & Davis, 1962; Allen, 1963) and (2) the interpersonal relationship between teacher and student significantly affected learning.

Over twenty years ago Bush (1954,1) wrote that "teaching is essentially a problem in human relationships. It involves the dynamic interplay of human personalities, the central ones being those of the teacher and the pupil." Twenty years before Bush, Torgenson (1937,246) had summed up the importance of the teacher-student relationship as follows: "the fundamental importance of
the teacher-pupil relationship is self evident because it is essential to the promotion of optimum conditions of learning."

Studies by Amidon & Flanders (1961), Grimes & Allensmith (1961), Beach (1960), and McKeachie (1961) have empirically demonstrated the link between the teacher-student relationship and learning.

This learning was judged for the record in terms of student grades and it was in the judging process that grading influence became a serious problem. According to Remmers (1963) a study of raters and the rating process was equivalent to the study of accuracy of interpersonal perception. Unfortunately there was not much accuracy in interpersonal perception. Wilmot (1975,61) stated that "we can never perceive the 'real' person because the concept of the 'real' person is a myth. We see things in them that are not in them but are in us." In other words, we project onto others. To Wilmot (1975,59) only "the psychologically naive individual operates under the assumption that he 'perceives and observes other people in a correct, factual, unbiased way.'"

The accuracy of interpersonal perceptions were further found to be affected by three response sets (Wilmot, 1975). In judging others, people revealed (1) halo effects, (2) logical errors, and (3) leniency effects. The halo effect operated when a person observed certain characteristics of another person and then generalized about the other person based on them. Logical error had to do with the judge's conception of what went with what - his system of categories. A logical error occurred when the categories a person used caused him to combine behaviors that may have been distinct. The leniency error
took place when a person judged another too high on favorable traits and too low on unfavorable traits.

Wilmot (1975, p.68) stated that

the process of person perception is essentially the attachment of meaning to another’s behavior. The meaning we attach to another’s behavior takes many forms depending on the type of relationship...

In all types of dyadic pairs however, the attraction between the two people is a force central to their perceptions of each other. We all experience degrees of attraction toward others - there are some people we enjoy being around and others that, for some reason we find repelling.

In other words, if we were attracted to another we then perceived his or her behavior in a more positive manner.

Schutz (1958) explained behavior in terms of orientations toward others. He held that every person oriented himself toward others in certain characteristic patterns, which were explained in terms of three interpersonal needs: inclusion, control, and affection. According to Shaw (1971) the satisfaction of these needs can be facilitated or interfered with when two or more people interact. When two or more people interact, each one usually enacted in each need area in the characteristic behavior pattern developed in childhood. When two or more persons mutually satisfy each other’s needs they are compatible. They are incompatible when their needs cannot be satisfied or when the interaction process interferes with the satisfaction of their needs.
Schutz (1966) has empirically demonstrated that the more compatible a dyad was, the more likely the members of the dyad were to prefer each other for continued personal contact, in other words, the more attracted they were to one another. Thus the teacher and student who mutually satisfied each other's needs were likely to be attracted to one another. This attraction caused each to perceive the other's behavior in a more positive light. The question then arose, does this positive perception of the student's behavior by the teacher influence the teacher's grading of that student?

It was the intent of this study to facilitate a better understanding of teacher-student relationship by focusing on one aspect of that relationship; interpersonal compatibility. By measuring teacher-student compatibility and correlating it with the student's grades, it was determined if compatibility influenced grading.

Hypotheses to be Tested

The statements that follow represent the effects which were hypothesized to occur within this study.

H₁: There will be a significant positive relationship between the grades a student receives from a teacher and the interpersonal compatibility of the teacher and student. Specifically, there will be a relationship between;

1) reciprocal inclusion compatibility and grades
2) reciprocal control compatibility and grades
3) reciprocal affection compatibility and grades
4) originator inclusion compatibility and grades
5) originator control compatibility and grades
6) originator affection compatibility and grades
7) interchange inclusion compatibility and grades
8) interchange control compatibility and grades
9) interchange affection compatibility and grades
10) total compatibility and grades

$H_2$: The correlations will increase in magnitude as the quarter progresses.

Conceptual and Operational Definitions of Variables

The term interpersonal compatibility can take many forms. In order to be meaningful, interpersonal compatibility must be specific. Shaw (1971,205) wrote that "Although approaches to the analysis and study of compatibility are varied, they can be classified into two general categories: need compatibility and response compatibility." This study was specifically concerned with need compatibility.

According to Shaw (1971,206)

Individuals have differing needs the satisfaction of which may be either facilitated or interfered with through group interaction. When the needs of two or more persons can be mutually satisfied through interpersonal activities, they are compatible in terms of needs; when their needs cannot be satisfied through interaction or when the satisfaction of their needs is interfered with through the interaction process, they are incompatible.

This definition of need compatibility was still not specific enough. Therefore, in this study, need compatibility was the one defined in William Schutz's theory of interpersonal behavior; FIRO-Fundamental Interpersonal Relations Orientations.
Compatibility, according to Schutz (1966, 105), "is a property of a relation between two or more persons, between an individual and a role, or between an individual and task situation, that leads to mutual satisfaction of interpersonal needs and harmonious coexistence." FIRO compatibility does not necessarily imply liking although it is probable that liking and compatibility are often linked. Schutz (1960) stated that there are four types of compatibility; area compatibility, reciprocal compatibility, originator compatibility, and interchange compatibility. Each type can be defined in mathematical terms based on scale scores derived from FIRO-B, a measuring instrument. These four types of compatibility however, can only be understood in light of Schutz's theory of interpersonal behavior.

Compatibility was central to Schutz's theory which attempted to explain interpersonal behavior in terms of orientations toward others. It held that every person oriented himself toward others in certain characteristic patterns, which were explained in terms of three interpersonal needs: inclusion, control, and affection.

Schutz (1960) held that these needs were present during childhood, and the characteristic interaction pattern that an individual developed with respect to each need area was a consequence of the way the child was treated by his parents or other adults and of a manner in which he responded to these treatments. Therefore, when two or more people interact, each one usually enacted in each need area in the characteristic behavior pattern developed in childhood.
Inclusion referred to the need for togetherness, the need to associate with others. This need manifested itself through behaviors designed to attract the attention and interest of others. The person who had a strong need for inclusion would reveal this through strivings for prominence, recognition, prestige, etc.. A person without a strong need for inclusion would reveal this through shyness and attempts to avoid social interactions.

Control referred to the decision making process between people. The need for control varied from the need to dominate others, to have power and authority over them, to the need to be controlled. At one extreme, the person would want to control others completely, at the other extreme, he would want to be completely controlled. Again, this need was manifested through the person's behavior vis-a-vis others. The person with high need to control would display rebellion and refusal to be controlled; the person with a high need to be controlled was compliant and submissive to others.

Affection referred to close personal and emotional feelings between two individuals, and its extremes were represented by love and hate. The person with a strong need for affection would be friendly, make overtures to others, and generally try to establish close emotional ties with others. At the other extreme the low-need person would avoid close interpersonal relations.

The theory thus far presented described each individual as desiring a certain optimal relation between himself and others in each need area. For the dyad this theory meant that a person wanted to act a certain way toward the other, and wanted to be acted toward
in a certain way. By comparing A's description of how he liked to be acted toward with B's description of how he liked to act toward people and vice versa, a measure of mutual need satisfaction emerged. An important assumption underlay this statement; person A could describe the behavior he desired in other persons along an infinite number of dimensions. Schutz assumed the important ones to be inclusion, control, and affection and measured them with a self-description questionnaire, FIRO-B. FIRO-B was designed to measure the individual's behavior toward others (e) and the behavior he wanted from others (w) in the three areas of interpersonal interaction; inclusion, affection, and control. This measure led to six scores: expressed inclusion behavior (eI), wanted inclusion behavior (wI), expressed control behavior (eC), wanted control behavior (wC), expressed affection behavior (eA), and wanted affection behavior (wA).

Using the scale scores from FIRO-B, and exact definition of compatibility was given in mathematical terms. The mathematical operations used to define compatibility were no more complicated than addition and subtraction and used only the three variables defined above. These mathematical operations defined four types of compatibility, three of which were best understood by considering Figure 1.
"I want others to behave ... toward me" (w)

receive only

high interchange

low interchange

"I try to behave..." (e)

originate only

Interchange Compatibility

The high-interchange quadrant represented those people who preferred a great deal of exchange of the commodity (interaction, power, love) relevant to each need area. The low-interchange quadrant included those people who wished to avoid exchange of the appropriate commodity, those who neither initiated or wanted to receive inclusion, control, or affection. For two people to be compatible, they were similar with respect to the interchange variable. Compatibility based on similarity along this diagonal was called interchange compatibility and symbolized by xK, x stood for interchange and K stood for compatibility.

The dimension high interchange-low interchange for an individual had these characteristics according to Schutz (1960,110).
1. For inclusion, high interchange meant high interaction with others in terms of general activities, a desire to associate with others and to have them associate with the self, as opposed to being separated from them and being alone, low interchange.

2. For control, high interchange meant a preference to be both influenced or controlled by others and to influence or control their actions, as opposed to neither influencing nor being influenced by others, low interchange.

3. For affection, high interchange meant a preference for close personal relations both toward people and from them toward the self, as opposed to maintaining affectional distance, low interchange.

In the three need areas, interchange compatibility meant:

1. For inclusion, people agreed on how involved they liked to become with other people, varying from always with others to always alone.

2. For control, people agreed on how much of an authority structure they would operate under, varying from entirely structured to entirely unstructured.

3. For affection, people agreed on the same degree of closeness of personal feelings, of expression of confidences, and so forth, varying from close and intimate to very cool and distant.

In the three need areas, interchange incompatibility meant:

1. For inclusion, the conflict was between the joiner and participator who always liked to do things together (high interchange) and the withdrawn person who preferred to be by himself or herself.
2. For control, the conflict was between the conformist and the rebel. The one who wanted to follow the rules from above and enforce the rules below (high interchange), with the one who wanted to do neither.

3. For affection, the conflict was between the affectionate, expressive person who liked others to be the same (high interchange) and the more reserved, distant individual who preferred that others keep their emotional distance.

The amount of interchange an individual desired was measured by combining his FIRO-B scores on both the expressed and wanted scales. Thus the major diagonal was the direct measure of interchange. That is, each individual's score was the point on the graph obtained by projecting both the expressed and wanted scale scores onto the major diagonal. This value was conveyed by the sum of the two scores \((e_i + w_i)\). This value for an individual was called his interchange score.

Since the more similar two person's scores were on this diagonal the more compatible the persons were, to measure compatibility one score was simply subtracted from the other. Since the direction of the difference was not important, the absolute value of the difference was used. The interchange compatibility score for two persons, \(i\) and \(j\), was given by \(x_{K_{ij}} = |(e_i + w_i) - (e_j + w_j)|\). In other words, interchange compatibility for persons \(i\) and \(j\) was equal to the absolute value of (the expressed behavior of person \(i\) plus the wanted behavior of person \(i\)) minus (the expressed behavior of person \(j\) plus the wanted behavior of person \(j\)). The smaller the value of the greater the compatibility.
Originator Compatibility

The other diagonal in Figure 1 went from those who desired only to initiate or originate behaviors to those who wished only to receive it. On this diagonal in order to be compatible, two people had to complement each other, that is, were equidistant from the center in opposite directions. Compatibility based on complementarity along this diagonal was called originator compatibility and symbolized oK.

Individual scores falling along this diagonal were interpreted by Schütz (1960,109) as follows:

1. For inclusion, a preference for applying, joining, or always being in interpersonal activities but not wanting to be asked in by other (originate only), as opposed to never actively participating but waiting to be asked or invited to join (receive only).

2. For control, a preference for always dominating and controlling the actions of others and strongly resisting their influence (originate only), as opposed to always being influenced and never being influential (receive only).

3. For affection, a preference for loving over being loved (originate only), as opposed to the passive role of being loved without loving (receive only).

Originator compatibility in each area occurred when

1. For inclusion, people who very actively initiated group activities worked with those who wanted to be included in such activities.
2. For control, those who wished to dominate and control the activities of others worked with those who wanted to be controlled.

3. For affection, those who wished to give affection worked with those who wanted to receive affection.

For each need area there were two types of conflict: between two originators, competitive originator incompatibility, and between two receivers, apathetic originator incompatibility.

1. For inclusion, the competitive conflict was between two persons each of whom wanted to "select his own company". The apathetic conflict was between two persons; both wanted to be included, but neither acted to join the other.

2. For control, the competitive conflict was between two persons each of whom wanted to be dominant and run activities but did not want to be told what to do. The apathetic conflict was between two submissive people each of whom wanted to be told what to do but neither of whom would take the initiative to do it.

3. For affection, the competitive conflict was between two persons who desired to originate close relations but not to receive them. The apathetic conflict was between two who wanted to be liked but did not want to initiate it.

To measure originator compatibility a score for each individual, to express his degree of preference for initiating and not receiving, was obtained. The simplest measure of this preference was the difference between the expressed and wanted aspects of a given need area, that is, \( e_i - w_i \).
Highest compatibility occurred when the two person's scores were complementary. Complementarity of two scores was measured by adding algebraically two originator scores. If they were exactly complementary, this is, had the same value with opposite signs, their scores added to zero. For the computation of originator compatibility, the sign was retained to indicate competitive or apathetic types of incompatibility. The originator compatibility of persons i and j was given by \( oK_{ij} = (e_i - w_i) + (e_j - w_j) \). In other words, originator compatibility equaled (the expressed behavior of person i minus the wanted behavior of person i) plus (the expressed behavior of person j minus the wanted behavior of person j). If the sign of \( oK_{ij} \) was positive the answer was greater than zero, and negative if it was less than zero.

**Reciprocal Compatibility**

The measure derived from the major axes rather than the diagonals was based on the assumption that the expressed behavior of one member of a dyad equaled the wanted behavior of the other member, and vice versa. It was called reciprocal compatibility, and symbolized as \( rK \).

To determine how well i's needs were met in the dyadic situation with j, two aspects were considered by Schutz (1960).

1. Did j express the behavior wanted by i?
2. Did j respond favorably to the type of behavior i characteristically expressed?

Reciprocal compatibility was indicated quantitatively by letting \( e_i \) and \( e_j \) stand for the score on the expressed behavior for the first
and second members of the dyad and \( w_i \) and \( w_j \), the score of the behavior wanted from others, for the dyad members. A comparison was made between the way member liked to be acted toward (\( w_i \)) and the way member \( j \) liked to act toward others (\( e_j \)), and similarly between \( w_j \) and \( e_i \). The smaller the difference between each pair of scores, the better each person satisfied the needs of the other. The measure of the reciprocal compatibility of persons \( i \) and \( j \) was given by 
\[
|rK| = |e - w| + |e - w|
\]
In other words, reciprocal compatibility for persons \( i \) and \( j \) equaled the absolute value of the expressed behavior of person \( i \) minus the wanted behavior of person \( j \) plus the absolute value of expressed behavior of person \( j \) minus the wanted behavior of person \( i \). Absolute measures were used since the main concern was with the size rather than the direction of difference.

**Total Compatibility**

The fourth type of compatibility depended on the relative importance of the interpersonal need areas. It was different from the other types of compatibility according to Schutz (1960) in that it dealt with the relations among interpersonal need areas rather than examine relations within areas. To indicate need compatibility all measures of compatibility in the need area were combined to obtain a general measure of affection compatibility (\( K^A \)) and inclusion compatibility (\( K^I \)), and reciprocal compatibility (\( K^C \)). The measures of area compatibility were
\[ K_A^A = rK_A^A + oK_A^A + xK_A^A \]
\[ K_I^I = rK_I^I + oK_I^I + xK_I^I \]
\[ K_C^C = rK_C^C + oK_C^C + xK_C^C \]

where

- \( rK \) = reciprocal compatibility
- \( oK \) = originator compatibility
- \( xK \) = interchange compatibility

By this combining either area compatibilities or compatibility types, total compatibility was computed.

\[ K = rK + oK + xK = K_I^I + K_C^C + K_A^A \]

**Student Grades**

The only variable in this study besides compatibility was grades. The grades used in this study were the ones assigned to a student by his teacher; the first, second, and third speech grades and the overall course grade. In this case the grades were either A, A-, B+, B, B-, C+, C, C-, D+, D, D-, or F.
CHAPTER II
REVIEW OF LITERATURE

The review of literature was divided into two sections: section one covered research concerned with factors that influenced classroom grading, while section two covered research studies which used FIRO-B as a measuring instrument.

Classroom Grading Influences

The concept of classroom grading influence has a long history. E. L. Thorndike coined the term "Halo effect" in 1920. Thorndike (1920) reported that ratings were apparently affected by a marked tendency to think of the person in general as rather good or rather inferior and to color the judgments of his qualities by this general feeling. L. L. Barker (1969) found that several investigations with the measurement of speech effectiveness ratings indicated that the individual evaluator was a significant variable in speech ratings. The review of literature dealing with grading influence that follows first looked at the research in the area of speech rating.

Bock (1970) investigated the effects of persuasibility on the errors made in the evaluation of speeches. Persuasibility was treated as the independent variable while leniency, halo, and trait errors were isolated as dependent variables. He hypothesized that 1) the leniency errors of easy-to-persuade raters would reflect a
significantly more positive tendency than the leniency errors of
hard-to-persuade raters. 2) the halo errors of easy-to-persuade
raters would reflect a significantly more positive tendency than
would the halo errors of hard-to-persuade raters.

Persuasibility was defined as the tendency for an individual to
be persuaded in the direction of the message, regardless of the
subject matter. Leniency error was defined as the general tendency
for a person to be too easy or too hard in his rating of a speech,
over all speakers. Halo effect was defined as the tendency for a
rater to overvalue or under value a specific speech because of the
rater's like or dislike of the speaker. Trait error was defined as
an error resulting from a rater's tendency to judge the effectiveness
of a speech based on a personal bias about the ingredients of the
speech.

The subjects (N=145) for the investigation were enrolled in the
required basic communication course at Southern Illinois University.
The subjects took parts I and II of the Janis-Field Test of Per­s­
suasibility and two weeks later took part III. Subjects were trained
in the use of the Bock Rating Scale, and then exposed to the four
stimulus speeches - a series of nine video taped, five-minute per­s­
suasive speeches developed for as stimuli for the evaluations.

The subjects were defined as easily persuasable if their scores
fell in the upper quartile of the range 0-30 on the Janis-Field Test
of Persuasibility, and hard-to-persuade if their scores fell in the
lower quartile. The respective leniency, halo, and trait errors
were compared for easy-to-persuade and hard-to-persuade raters using
a one-way analysis of variance.
Bock reported that the results tended to support hypothesis one, lent some support to hypothesis two and did not support hypothesis three. Generally it was found that easy-to-persuade raters tended to be more lenient than hard-to-persuade raters.

Barker (1969) examined the relationship between speech evaluations and sociometric choices with specific reference to experience of the evaluator and type of sociometric choice indicated. Barker posed two research questions. The first was, what relationships exist between speech ratings and sociometric choices: a) with respect to experience level of the speech evaluator? b) with respect to type of sociometric choice elicited from the evaluator? The second was, do intrinsic interactions exist between experience level of the speech evaluator and level of sociometric choice: a) when the sociometric criterion is personal-social regard? b) when the sociometric criterion is academic regard?

The subjects in the investigation were broken into two groups: (1) Students (N=200) enrolled in oral-communication classes at Ohio University; (2) Instructors teaching the oral-communication classes in which the selected students were enrolled.

Barker used two types of criterion measures - a speech rating form and a sociometric test. The rating form consisted of a series of nine individual five point rating scales which attempted to measure specific variables concerning speech-communication. The sociometric test was designed to assess subjects' sociometric preferences in personal-social and academic contexts.
Data was collected over the entire semester. Each of four speeches given by the 200 students was evaluated by student evaluators and the instructor. The ratings were then averaged independently for instructors, and student evaluators. During the last week of the semester Barker administered the sociometric test to all classes included in the study.

The first research question was answered by correlating speech evaluators and sociometric choices (number of times chosen). The second research question was answered by an analysis of variance. Treatment groups were assigned on the basis of number of sociometric choices received. Three groups were classified as high, medium, and low choice groups. Four different analyses of variance were computed using sociometric criteria (personal-social and academic) and source of sociometric choice (instructor and peers). Of primary concern to Barker was the assessment of potential interaction between the level of evaluator experience and the evaluator's sociometric choices.

Barker reported the following results: (1) A significant positive relationship was found between instructor evaluations of speeches and personal-social regard indicated on the sociometric test, (2) A similar relationship was found for instructors between speech ratings and academic regard, (3) A definite but low, positive relationship was found between student evaluations of speeches and personal-social regard for a speaker indicated on the sociometric test, (4) A definite, and somewhat higher positive relationship was found between students' speech ratings and academic regard for their peers, and (5) the second research question was answered in the negative, based on a
failure to reject the hypothesis of no interaction for both types of choices.

The results of Barker's study suggested a significant positive relationship between speech evaluations and sociometric choices. Both instructors and students exhibited slight tendencies to rate a speaker higher if they regarded him highly as a person or as a scholar.

Bostrom (1964) studied the effect of objectivity on speech rating behavior. He defined objectivity in the study as open-mindedness as measured by the Rokeach Dogmatism scale and nonrigidity as measured by the Gough-Sanford rigidity scale. The study was designed to answer the following questions: (1) Did dogmatic or rigid persons tend to rate differently than non-dogmatic or flexible persons? (2) If so, did they rate higher or lower? (3) Was there greater agreement among dogmatic and rigid persons, or was there a tendency to vary widely in total ratings given? (4) Did dogmatic and rigid persons tend to give average ratings or did they use extreme values on the scales? (5) To what extent did dogmatic and rigid persons tend to agree or disagree with the speaker when they rated?

The subjects for Bostrom's subjects were 76 undergraduate students enrolled in the program of fundamentals of speech at Western Illinois University. At the beginning of the quarter, the subjects were given both the Rokeach dogmatism scale and the Gough-Sanford rigidity scale. Near the end of the quarter, each student received a rating assignment, which consisted of the ratings of five classmates each presenting a
persuasive speech. Raters used a numerical scale ranging from 1 (poor) to 7 (superior). In addition, each rater was asked to indicate whether he agreed, disagreed, or was neutral toward the proposition advanced by the speaker. To insure that the students being compared were clearly different on the variables being studied, Bostrom used only the upper and lower quartiles.

Bostrom reported these results: (1) the open-minded group did not rate significantly higher or lower than did the closed-minded group, but the rigid group did rate significantly lower than did the non-rigid group, (2) no differences were apparent that could be attributed to dogmatism, but rigidity seemed to produce greater variances in the total score, (3) no significant relationships were apparent when the divergent ratings were examined, and (4) where the frequency of "agree-er" was compared to the frequency of "disagree-ers" for each group, there was no difference produced by rigidity, but close-mindedness produced greater agreement with the position taken by the speaker.

In summary this study found that rigid raters tended to rate lower than non rigid ones, and tended to exhibit greater variance among their total rating scores. Open-minded raters showed no significant differences in rating behaviors from close-minded raters.

Henrikson (1940) conducted a study which attempted to answer two questions: (1) What was the relationship between the degree to which one knew a person and one's judgment of him as a speaker? and, (2) What was the relationship between the degree to which one liked a person and one's judgment of him as a speaker?
The subjects in Henrikson's study were eighty-one students from three classes in an elective five-semester hour course at the University of Montana, and ninety-eight Iowa State Teachers College students from four classes in a required three credit course in Fundamentals of Speech. Subjects were asked to rate their classmates on three items at the end of the semester or quarter. The ratings consisted of (1) How well he knew the person, (2) How well he liked the person, and (3) How good he thought the person was as a speaker. Each rating was on a five point scale.

Henrikson reported the following results. The better known students were judged to be somewhat better speakers and the better liked students were judged to be better speakers.

Bills (1952) investigated the relationship of agreement or disagreement of the student's and instructor's values and the effect on the student's learning. The specific value which was studied was respect for the integrity of a person.

Two child psychology classes of 49 and 126 students were used as the experimental groups. On the first day of class a multiple-choice test of 69 items was given to 37 students in the smaller class and to 93 students in the larger class. The test was a measure of the extent to which the student was willing to permit another person to accept responsibility for his own behavior. The student was allowed to select alternatives ranging from complete control of the behavior of another person to willingness for the other person to accept complete control of his own behavior. To determine the final class grades four objective tests were given based on material covered in the two classes.
The 130 students who completed the counseling test were divided into two groups on the basis of scores above and below the mean of the test. This placed 63 in one group and 67 in the second group. Analysis of the final class grades for the two groups showed that the group which had made scores above the mean on the counseling test scored an average of .34 standard scores higher than did the group which made scores below the mean. The final grades of the students with scores above the mean on the counseling test were significant-by higher than were the final marks of the students with scores below the mean on the counseling test.

When Bills correlated the counseling test scores with the final grade for the 37 students in the smaller class, the coefficient was not significant. In the larger class the correlation of the 93 counseling test scores with the final grades was significant.

On the basis of his findings, Bills concluded that agreement or disagreement between values of the students and the instructor may have influenced the final marks of the students even where objective tests were used as the basis of determining the final grade.

Winter (1961) measured the similarity in values between a group of college students and their instructor and related this similarity to their academic achievement in his class.

The subjects for the study were 34 freshmen men enrolled in a required course in general psychology taught at San Jose State College. Each student was asked to fill out a Semantic Differential which measured values, according to their first impressions. They were then
given another copy of the test and told to predict the responses that their instructor had given. The instructor also filled out the Semantic Differential. The student's final rankings in the course based on these grades, were obtained at the end of the quarter.

For each student the total value score for any given concept was subtracted from the value score given to it by his professor. This discrepancy score was correlated with grade achievement to test Winter's prediction that the greater the similarity in values between professor and student, the higher the student's grade.

The findings of this study were: (1) the more similar in values a student was to his instructor, the higher his achievement in class, and (2) grades were significantly correlated with the student's ability to predict his instructor's values.

Thelen (1967) studied the effect that matching teachers and students had on student grades. Thirteen teachers, grades 8 through 11, in eight schools participated in the study. Each of the thirteen teachers was assigned two classes. In one, the students were carefully chosen on the basis of a 405 item assessment battery to resemble closely the students the teacher felt had benefited the most from his teaching. In the other class, control group, students were chosen by the school's regular selection process.

Thelen reported that compared to the corresponding regular class, eleven of the teachable groups received higher grades, one received lower grades, and one the same grades. This was in spite of the fact that members of only five of the teachable classes made greater gains
on achievement tests than did students in the regular classes. Those in eight of the regular classes gained more than the ones in the experimental class. According to Thelen this grade discrepancy occurred because the kinds of students a teacher considers teachable may have had the characteristics that meet his needs.

Fretz (1968) also discovered a link between grades and needs. In a study to explore the interaction of teacher-student characteristics and needs as related to student achievement, improvement and satisfaction in an educational skills course, Fretz (1968,80) concluded that:

while no one teacher characteristic predominates as a source of influence; for the three characteristics in which teachers were divided into average (conventional) and low groups (social desirability, locus of control, and dogmatism) it was always the average group which emerged as the positive influence. These average teachers quite possibly can better meet the needs of students who are functioning in undergraduate settings; a situation in which students responding with proper and conforming statements attain the best grades.

These studies showed that classroom grading influence existed and that speech classes were particularly vulnerable. In review, the grading or evaluation of students has been found to be affected by or related to persuasibility of speech raters (Bock, 1970); sociometric choice (Barker, 1969); open-mindedness (Bostrom, 1964); knowing and liking (Henrikson, 1940); value agreement (Bills, 1952); and value similarity (Winter, 1961). The last two studies indicated that interpersonal needs may have been linked
to grade assignment. The literature reviewed next dealt with FIRO-B, an instrument designed to measure interpersonal needs.

**FIRO-B Research**

The research concerning FIRO-B was divided into four areas: (1) the study of the effect of interpersonal compatibility on the performance of groups and dyads, (2) the use of FIRO-B as a pre and post test to measure the effectiveness of T-groups, human relations training, etc., (3) the use of FIRO-B as a diagnostic tool, and (4) studies designed to test the reliability and validity of FIRO-B. The research centering on interpersonal compatibility was reviewed first.

Schutz (1954) studied the relationship between compatibility and group task performance. Schutz felt that the dominant reason for a group's productivity was the extent to which the members got along together -- were compatible. This was because the more energy a group expended on interpersonal problems arising from lack of compatibility, the less energy they would devote to the task at hand.

To test the relationship Schutz administered FIRO-Scales to thirty and to twenty-three men randomly selected from training units at Brainbridge Naval Base. Using the FIRO-Scales, four compatible groups were formed with five men per group. These groups then worked on three different tasks assigned by Schutz. The scoring method was constructed so as to be a good measure of the degree to which the group approached optimum performance.
Schutz reported these results: (1) compatible groups did perform better on the tasks provided but not until the tasks had increased in time pressure, (2) when pitted against each other for task games, the compatible groups won more games than did the incompatible groups.

Reddy (1972) hypothesized that those groups of business managers who were more compatible on the interpersonal dimensions of inclusion, control, and affection would perform the LEGOMAN TASK more effectively than managers in less compatible groups. He tested this hypothesis during a management workshop.

The subjects were 22 groups of middle managers employed by a large food merchandising company. All workshop participants completed the FIRO-B and on the second day all took part in the LEGOMAN exercise. Planning time and assembly times were recorded for each team which had been assembled according to compatibility. FIRO-B scores for each group were correlated with the scores obtained from the LEGOMAN exercise.

Reddy found that: (1) the more compatible the middle management groups were in "control" and "affection", the faster they assembled the model.

Sapolsky (1965) studied the effects of doctor-patient compatibility had upon the outcome of hospital treatment and upon perceptions developed of each other in the dyadic relationship. In this study the psychiatric hospital patient and his doctor were viewed as the dyad, where one individual (doctor) attempted to influence the behavior of another (patient).
The patient population (25) was made up of voluntarily hospitalized females with functional psychiatric disorders. The doctors consisted of two male and one female psychiatric residents. FIRO-B scales were administered to all 25 patients and to the three doctors. After a patient had been discharged from the hospital the senior psychiatrist rated the improvement shown by the patient.

Sapolsky reported a significant correlation between patient-doctor compatibility scores and the supervisors' rating of improvement. Highly compatible patients showed greater effects of their doctor's influence than did low compatibility patients.

Sapolsky (1960) took a somewhat different approach in another study. He investigated the effects of verbal reinforcement on acquisition and extinction as a function of the compatibility-incompatibility of experimenter and subject.

The subjects for this study were five female experimenters selected on the basis of their scores on FIRO-B, such that all were high on need for control but varied with respect to need for inclusion and affection and students selected to be either compatible or incompatible with the experimenter with whom they were to work. Each of the student subjects was asked to make up sentences using words presented on cards. During the procedure the experimenters verbally reinforced the use of first-person pronouns by saying "mmm-hmm" at the end of any sentence that began either with "I" or "We". This acquisition period was followed by an extinction period during which no reinforcement was given.
Sapolsky found that the subjects in the compatible dyads responded to verbal reinforcement more than subjects in incompatible dyads, and that this effect continued for some time after reinforcement was discontinued.

The studies that were reviewed next used FIRO-B as a pre and post test to measure the effectiveness of T-groups, human relations trainings, etc..

Gutride (1973) used FIRO-B to measure increases in social interaction expressed by chronic asocial schizophrenic inpatients after they participated in a four-week structured learning therapy program designed to enhance their level of overt social interaction.

The subjects were 30 acute and 57 chronic asocial psychiatric inpatients in a state mental hospital. Acute patients were those in the hospital less than one year, chronic patients were those in the hospital over one year. Within each of these two categories, patients were randomly assigned to experimental (structured learning therapy) and control (no structured learning therapy) groups.

FIRO-B scales were given to both groups before and after the four-week program. Gutride reported that there were no significant FIRO-B scale differences between the pre and post tests.

Hipple (1973) conducted a study that was concerned with investigating the effects of human relations laboratory experiences on the interpersonal behavior of male and female subjects. Hipple felt those participating in the laboratory would increase their ability to achieve and maintain effective human relationships in their back-home environments and that the effect would be greater for women than for men.
From the total number of students who applied, 40 males and 39 females, whose schedules allowed them to participate in the human relations training laboratory, were selected at random. Two experimental groups were formed to participate in the two off-campus laboratories. This laboratory experience was divided into four parts: T-groups, theory sessions, focused exercises, and other activities. Each laboratory lasted three days and all participants were involved in all four activities. All subjects took FIRO-B as pre and post tests.

Hipple subjected the FIRO-B scores to simple-randomized analysis of co-variance with the pretest scores used as control variables. He reported that the only statistically significance difference was on the expressed inclusion scale. The combined laboratory mean was higher than the control mean, which according to Hippie indicated that those individuals who participate in a human relations laboratory experience report more behavior that is aimed at becoming involved with other people. He found no significant differences between the scores of men and women.

Kaye (1973) used FIRO-B to gauge the success of a T-group laboratory. The subjects were 42 undergraduates who had failed in more than one course during 1962. The two experimental groups participated in a residential workshop including 18 group sessions spread over ten days. The subjects were administered FIRO-B during the first day of the workshop, on the last day of the workshop, and eight months later. The control group was tested before and after a period equivalent.
to the duration of the workshop and eight months later.

Kaye reported that no group trends were apparent on any scales of the FIRO-B for either experimental or control groups. According to Kaye, behavioral expression of needs for inclusion, control, and affection as measured by FIRO-B with the current sample, did not alter as a result of group participation.

Allen (1963) also used FIRO-B to gauge the effects of a T-group laboratory. In this study the subjects were 71 participants in the Western Training Laboratory in Human Relations sponsored by U.C.L.A. The control subjects were 30 student from an educational class at U.C. Berkeley.

Each subject was a member of two T-groups, one of which was composed randomly and the other composed using the FIRO-B questionnaire, to be homogeneous with respect to their interpersonal needs. Each participant took the FIRO-B questionnaire upon arrival at the first T-group session, at the termination of the training two weeks later, and approximately six months after the training. The control group was given the FIRO-B three times at the same intervals.

Allen found that the overall correlations between administrations for all scores combined were much lower for the experimental group than for the control group -- just what he had predicted. Allen reported that the most pronounced changes occurred during the first six months following the laboratory although some significant shifting of responses took place during the two-week laboratory period.
Goldstein (1967) designed an investigation to discover how undergraduates taking a human relations course may have changed. FIRO-B was used as the measuring instrument. The subjects were 59 male and 41 female students enrolled in five sections of Human Relations I. No control group was used.

FIRO-B was administered during the first class meeting and during the last class meeting of the semester. Goldstein found a number of unpredicted changes in interpersonal orientations and values took place between administrations. Goldstein reported that highly valued women and low valued males significantly increased in their expressed needs for control. Highly valued females decreased markedly and significantly their expressed need for close interpersonal relations, having entered the training experience with high needs in this area of interpersonal orientation.

Powell (1975) investigated the influence of public speaking and interpersonal communication courses, behavioral discrepancy, and behavioral type on behavioral changes in the inclusion, control, and affection areas of Schutz's FIRO-B. The subjects were 95 students in the basic speech courses of the University of Florida. Fifty-eight were enrolled in the basic interpersonal communication course and thirty-seven were enrolled in the basic public speaking course. These subjects were given FIRO-B at the beginning and the end of the speech courses.

Powell reported significant three-way interactions obtained for all three behavioral areas. For example, under-expressive students
had a significant decrease in wanted inclusion in the public speaking course, over-expressive subjects in the interpersonal communication course decreased in the expressed affection more than the under-expressive subjects, and over-expressive students had a decrease in expressed control in the public speaking course.

The only common elements in the final three studies reviewed was that each used FIRO-B as a variable.

Rosenfeld (1972) explored the feasibility of using scores derived from student responses to FIRO-B scales as a basis for preliminary identification of reticent students. The first step of the investigation was to compare scores obtained from typical speech students to the FIRO-B scales with the scores of other speech students who had already been diagnosed as reticent on the basis of currently used clinical procedures. Rosenfeld found that FIRO-B scale scores successfully differentiated reticent from nonreticent individuals—in other words, reticent individuals have different interpersonal needs than nonreticent individuals.

The subjects for the second half of Rosenfeld's investigation were 842 undergraduates registered for the beginning speech course. On the first day of class all students completed a speech proficiency exam, a reticence questionnaire, and two scales from FIRO-B. Of the 842, 205 students scored 7 or below (of a possible 18 for the two scales) on the FIRO-B scales and were considered for placement in a special section of the beginning speech course developed for reticent students.
Rosenfeld reported that slightly fewer students were diagnosed as reticent when the initial screening employed the two selected FIRO-B scales as opposed to traditional methods, the correlation coefficients calculated between the combined scores on the selected FIRO-B and the previously used reticent questionnaire were not significant, and teachers were not able to determine which students in their speech classes were reticent.

Hutcherson (1970) studied the relationship of student teaching grades to FIRO compatibility among the student teacher, supervising teacher, and university supervisor. Because this was the most closely related FIRO study to the topic of the thesis, it is reported in depth below.

Compatibility was measured by means of FIRO-B. The scores were used to rank the dyads in the study on the need areas of interchange and originator compatibility. The dyads consisted of: (1) student teacher-university supervisor, (2) student teacher-supervising teacher, (3) university supervisor-supervising teacher. The median test was applied to classify the rank-ordered dyads as compatible or incompatible, and the 27 percent most compatible and least compatible were included in the sample. Hutcherson then divided student teaching and student-teaching problem seminar grades into two arbitrary categories: A or B and C. This resulted in four categories: compatible, incompatible, A grades, and B and C grades.

Hutcherson proposed these hypotheses: (1) There was no relation between the student-teaching grade and the compatibility of the supervising teacher and the university supervisor, (2) There was no
relation between the student teaching grade and the compatibility of the university supervisor and the student teacher, and (3) There was no relation between the grade in student teaching problems seminar and the compatibility of the student-teacher and university supervisor conducting the seminar.

Hutcherson subjected the data to the chi-square test and reported the following results: (1) Reject the first null hypothesis for the areas of interchange affection and originator affection. The grade in student teaching was assumed to be related to whether the two supervisors liked, or had confidence in each other, (2) Considered rejecting the second null hypothesis for the area of interchange inclusion. Similarity of the interaction preference of the university supervisor and student teacher in the area of commitment, participation, belonging, attention, and prominence was considered as a factor in the student-teaching grade, and (3) Possibly reject the third null hypothesis for the area of interchange affection and originator affection. Similarity and complementarity of compatibility in the area of liking and personal confidence were found to be related to the perception of success in the student-teaching problems seminar.

The final study reviewed was also the most unique. Brown (1972) investigated the relationship between man's reported affection to dogs and his relation to people. The subjects were 30 men and 18 women varying in reported affection for dogs. They were selected from 200 introductory psychology students.
Each person was given a nine item statement rating scale with instructions to check the statement which best expressed the rater's feelings toward dogs. Each person was also asked to complete a FIRO-B questionnaire.

Brown found that people who express little affection for dogs also tend to manifest little affection for other people. Men reporting little affection for dogs apparently desire little emotional involvement with others. According to Brown it is possible that man's emotional involvement with other people is mirrored in his reported emotional involvement with dogs, and possibly cats.

In review, FIRO-B has been used in a wide variety of studies. It has been used to compose compatible and incompatible groups (Schutz, 1954; Reddy, 1972; Sapolsky, 1965, 1960); as a pre and post test (Gutride, 1973; Hipple, 1973; Kaye, 1973; Allen, 1963; Goldstein, 1967; Powell, 1975); as a diagnostic tool (Rosenfeld, 1972); to measure teacher-student compatibility (Hutcherson, 1970); and to investigate the relationship between a man's reported affection to dogs and his affection to people (Brown, 1972).

The last section of this chapter covered studies dealing with the reliability and validity of FIRO-B.

FIRO-B has been found to have acceptable reproducibility levels of .90 or more (Krafft, 1973). Test-retest reliabilities average .77 (Hutcherson, 1963; Schutz, 1958). And validity has been well established (Karmer, 1967; Schutz & Allen, 1966). A study by Gilligan (1973) was specifically concerned with FIRO-B reliability.
The purpose of Gilligan's study was to provide more relevant norms and reliability coefficients on FIRO-B test and re-tests. The subjects for the study were 296 (128 females and 168 males) students randomly selected from a group of 525 students enrolled in an introductory psychology course. The students were asked to complete a FIRO-B questionnaire early in the quarter and then again one month later.

Gilligan found that in comparison to the means provided by Schutz, the means were generally lower for his sample. Reliability coefficients also were lower than the ones provided by Schutz with a mean coefficient of .69 compared to Schutz's .76. According to Gilligan the overall scores, i.e., the sum of the six scales, provided the highest reliability and best measure of change at the level of interpersonal needs.

In a report to summarize some results of their investigations regarding the use of FIRO-B, Frandsen & Rosenfeld (1973) came out with some sharp criticisms of Schutz's theory and measuring instrument. They reported the following: (1) the three different forms of compatibility (reciprocal, originator, and interchange) did not seem to be practically distinguishable. They may be conceptually independent, but neither the responses to the FIRO-B questionnaire or the algorithms (or both) used to calculate the forms of compatibility produced sets of values for these variables which apparently are redundant. (2) FIRO-B has a structural bias against the need area of control. The bias was within the test or the structure of interpersonal needs was not orthogonally three-dimensional as Schutz
claimed, and (3) if future investigators wish to probe Schutz's theory for implications relevant to the complexities of interpersonal communications, their efforts may be fruitless. However, if their investigations employ Schutz's instrument and the derived total compatibility score as a basis for testing certain broad-gauge predictions, then they may find FIRO-B useful.
Subjects

The subjects for this study were students and instructors in the Department of Interpersonal Communication courses at the University of Montana. Specifically, the students used were enrolled in Interpersonal Communication 111, Introduction to Public Speaking. The instructors used were those teaching the sections of Interpersonal Communication 111.

All the instructors were graduate teaching assistants working on their master's degree in the Department of Interpersonal Communication. All the teaching assistants were teaching their first course at the university level.

The students are not so easily classified. They represented various academic disciplines; Forestry, Business, Chemistry among others and ranged in academic standing from first quarter freshmen to last quarter seniors. The majority of the 111 students were in the class because their curriculum required it.

Design

In this study only descriptive data were collected. These data consisted of teacher-student compatibility scores and student grades.
The compatibility scores came from FIRO-B scales administered to both teachers and students. The grades came from each instructor's final grading report.

Ten teacher-student compatibility scores were used: (1) reciprocal inclusion compatibility, (2) reciprocal control compatibility, (3) reciprocal affection compatibility, (4) originator inclusion compatibility, (5) originator control compatibility, (6) originator affection compatibility, (7) interchange inclusion compatibility, (8) interchange control compatibility, (9) interchange affection compatibility, and (10) total compatibility. Four student grades were used. For the 111 sections they were: (1) grade on the first speech, (2) grade on the second speech, (3) grade on the final speech, and (4) the overall grade.

The 111 sections used first were not randomly selected. Those included in the study were determined by whether or not the instructor allowed data to be collected on himself and his class. Compatibility data were collected on January 30, 1976, in five classes and on March 10, 1976, from two randomly selected 111 sections for a second administration of FIRO-B (to assess test-retest reliability).

Materials

FIRO-B scales. The compatibility measuring instrument was called FIRO-B, which stood for Fundamental Interpersonal Relations Orientation Behavior. The title represented how an individual characteristically related to other people. The B stood for the aspect of personality being explored -- behavior.
According to Schutz (1958) the purpose for developing FIRO-B was (1) to construct a measure of how an individual acts in interpersonal situations, and (2) to construct a measure that would lead to the prediction of interaction between people, based on data from the measuring instrument alone. In order to do this Schutz had to assess what behavior the individual expressed toward others (e), and how he wanted others to behave toward him (w).

FIRO-B therefore was designed to measure the individual's behavior toward others (e) and the behavior he wanted from others (w) in the three areas of interpersonal interaction; inclusion, affection, and control. This measure led to six scores: expressed inclusion behavior ($e^I$), wanted inclusion behavior ($w^I$), expressed control behavior ($e^C$), wanted control behavior ($w^C$), expressed affection behavior ($e^A$), and wanted affection behavior ($w^A$).

The FIRO-B scales were composed using the Guttman (1950) technique for cumulative scale analysis. This technique called for constructing scales comprised of items regularly decreasing in popularity; thus an individual will accept items to a given point and then reject the remainder. According to Guttman (1950) if a series of items approximated this model to the degree that 90 percent of all responses to all items can be correctly predicted from a knowledge only of how many items each person accepted, then the items are said to be reproducible and therefore to form an unidimensional scale.

For each of the six dimensions Schutz decided to construct a nine-item scale. According to Schutz (1966) the number nine had the
virtues of (1) providing sufficient length for acceptable re-
liability (stability) of the scale, (2) providing sufficient categories
for dividing respondents into as many classes as desired, (3) keeping
the questionnaire reasonably short (54-items), and (4) keeping scoring
uniform among scales for computational ease. (See Appendix A for an
example of the scales that constitute FIRO-B.)

When FIRO-B was given, few instructions were provided. The
questionnaire was usually completed by the group within fifteen
minutes. Once the questionnaire was completed, it was scored by
hand to obtain the scale score. This ranged from 0 to 9 and equaled
the number of items accepted for each scale. The reliability and
validity of FIRO-B has already been discussed in the last section of
the review of literature chapter.

Procedure

The procedure for administering FIRO-B to the selected class was
as follows. Each instructor who agreed to participate in the study
received a large envelope containing enough FIRO-B questionnaires for
the total enrollment of the class plus one for himself or herself.
This was given to the instructor five minutes prior to the beginning
of class to which it was to be administered. On the outside of the
envelope an instruction sheet (see Appendix B) provided the instructor
with the information necessary to administer the questionnaire to the
class and the information necessary to complete the questionnaire
himself. The questionnaires were administered during the first
twenty minutes of class.
At the end of the class period the questionnaires were placed in the envelope and picked up from the instructor. All completed questionnaires were hand scored. The scales scores were punched onto computer cards by two different people and then compared to assure correctness. The scores were analyzed by the FIRO-CALC FORTRAN IV PROGRAM to obtain the desired compatibility scores: (1) reciprocal inclusion compatibility, (2) reciprocal control compatibility, (3) reciprocal affection compatibility, (4) originator inclusion compatibility, (5) originator control compatibility, (6) originator affection compatibility, (7) interchange inclusion compatibility, (8) interchange control compatibility, (9) interchange affection compatibility, and (10) total compatibility.

Student grades for each section were obtained throughout the quarter. On the basis of each of the four grades used, the students were ranked academically from top to bottom. On top were those with an "A" grade, on bottom were those with an "F" grade. Thus, the students were ranked four times; first on the basis of the first speech grade, second on the basis of the second speech grade, third on the basis of the third speech grade, and finally on the basis of their overall grade.

Students were also ranked according to the ten compatibility scores. The students were ranked from most compatible to least compatible with the instructor on the basis of: (1) reciprocal inclusion compatibility, (2) reciprocal control compatibility, (3) reciprocal affection compatibility, (4) originator inclusion compatibility,
(5) originator control compatibility, (6) originator affection compatibility, (7) interchange inclusion compatibility, (8) interchange control compatibility, (9) interchange affection compatibility, and (10) total compatibility.

**Statistical Procedures**

The four selected student grade ranks were correlated with the 10 selected compatibility ranks. For example, total compatibility rankings were correlated with the overall grade rankings, etc. All correlations were carried out using the Kendall Tau Correlation Coefficient. All the data were analyzed by the Statistical Package For The Social Sciences (SPSS) version of Kendall Tau. In addition, the Pearson R Correlation Coefficient was used to determine the correlation between the scores derived from the first administration of FIRO-B and second administration of FIRO-B.
CHAPTER IV

RESULTS

This chapter contains the results of the study designed to test the effect that teacher-student interpersonal compatibility had on the teachers' grading of student speeches.

FIRO-B Reliability

In order to check the test-retest reliability of the FIRO-B questionnaires used in this study, two Interpersonal Communication classes (N=37) were randomly selected to receive a second administration of the questionnaire. The FIRO-B scores from the first administration were compared with the FIRO-B scores from the second administration for each of the two classes using the Pearson R Correlation Coefficient. The results of the comparison appear in Table 1. Generally, a highly significant degree of correlation between the scores on the first administration of FIRO-B and the second administration of FIRO-B was found to exist for the expressed inclusion scales (r = .810), the wanted inclusion scales (r = .718), and the expressed affection scales (r = .817). There was a lower but significant degree of correlation between the scores on the first administration of FIRO-B and the scores on the second administration of FIRO-B for the expressed control scales (r = .655) and the wanted affection scales (r = .591). A very low but still significant degree
of correlation was found to exist between the scores on the first administration of FIRO-B and the scores on the second administration of FIRO-B for the wanted control scale (r = .330). In other words, the scores on this last scale changed a great deal from the first administration of the FIRO-B questionnaire to the second administration of the FIRO-B questionnaire. The scores on the expressed inclusion scales, the wanted inclusion scales, and the expressed affection scales changed very little.

Table 1. FIRO-B Test-Retest Reliability Results (Pearson R Correlation Coefficient)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressed Inclusion</td>
<td>0.810*</td>
</tr>
<tr>
<td>Wanted Inclusion</td>
<td>0.718*</td>
</tr>
<tr>
<td>Expressed Control</td>
<td>0.655*</td>
</tr>
<tr>
<td>Wanted Control</td>
<td>0.330*</td>
</tr>
<tr>
<td>Expressed Affection</td>
<td>0.817*</td>
</tr>
<tr>
<td>Wanted Affection</td>
<td>0.591*</td>
</tr>
</tbody>
</table>

*p ≤ .05 (F2, 37 = .325)

Hypothesis One

It was hypothesized that there would be a significant positive relationship between the grades a student received from a teacher and the interpersonal compatibility of the teacher and student. In order to test hypothesis one, the Kendall Tau Correlation Coefficient was
used. The results of the SPSS (Statistical Package for the Social Sciences) Computer Version of the Kendall Tau Correlation Coefficient appear in Table 2. It was found that there was not a significant positive relationship between the grades a student received from the teacher and the following types of teacher-student interpersonal compatibility; (1) reciprocal inclusion compatibility, (2) reciprocal affection compatibility, (3) originator inclusion compatibility, (4) originator affection compatibility, (5) interchange inclusion compatibility, (6) interchange affection compatibility, and (7) total compatibility. In other words, compatibility between the teacher and the student along these dimensions of interpersonal compatibility did not significantly correlate with the teachers assignment of grades on any of the three speeches or on the assignment of the overall grade.

A significant positive relationship was found to exist between seven of the grades a student received from the teacher and the interpersonal compatibility of the teacher and the student along the dimensions of (1) reciprocal control compatibility, and (2) interchange control compatibility. Specifically, there was a significant positive relationship between reciprocal control compatibility and (1) the second speech grade, and (2) the third speech grade. There was not a significant positive relationship between reciprocal control compatibility and (1) the first speech grade, and (2) the overall grade. A positive relationship was also found to exist between interchange control compatibility and (1) the grade on the second speech,
(2) the grade on the third speech, and (3) the overall grade. No positive relationship existed between interchange control compatibility and the grade on the first speech.

In other words, interpersonal compatibility between the teacher and the student along the dimension of interchange control compatibility significantly correlated with the teachers assignment of grades on the second speech, the third speech, the overall grade, but not on the first speech. Interpersonal compatibility between the teacher and student along the dimension of reciprocal control compatibility significantly correlated with the teachers assignment of grades on the second and third speech, but not on the first speech or the overall grade.

A significant but negative correlation was found to exist between teacher-student interpersonal compatibility and teacher grade assignment along the originator control dimension of compatibility. Specifically, a significant negative correlation existed between originator control compatibility and the teachers assignment of grades on (1) the first speech, and (2) the third speech. No relationship existed between originator control and the teachers assignment of grades on the second speech or on the assignment of the overall grades. Thus, teacher-student interpersonal compatibility along this dimension of compatibility significantly correlated with the teachers assignment of grades on the first and third speeches, but not on the second speech or on the overall grade.
Based on an analysis of the results obtained from the Kendall Tau Correlation Coefficient, the null hypothesis failed to be rejected for the following subhypotheses of hypothesis one; (1) reciprocal inclusion compatibility and grades, (3) reciprocal affection compatibility and grades, (4) originator inclusion compatibility and grades, (5) originator control compatibility and grades, (6) originator affection compatibility and grades, (7) interchange inclusion compatibility and grades, (9) interchange affection compatibility and grades, and (10) total compatibility and grades. The null hypothesis was rejected for the following two subhypotheses of hypothesis one; (2) reciprocal control compatibility and grades, and (8) interchange control compatibility and grades. This indicated that a significant positive relationship between teacher-student compatibility and grades existed for only reciprocal control compatibility and interchange control compatibility.
Table 2. Correlations of FIRO-B Rankings with Speech Grade Rankings (Kendall Tau Correlation Coefficient)

<table>
<thead>
<tr>
<th>Compatibility Type</th>
<th>1st Speech Grade</th>
<th>2nd Speech Grade</th>
<th>3rd Speech Grade</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reciprocal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inclusion</td>
<td>-.048</td>
<td>-.012</td>
<td>.005</td>
<td>-.079</td>
</tr>
<tr>
<td>control</td>
<td>.057</td>
<td>.166*</td>
<td>.127*</td>
<td>.116</td>
</tr>
<tr>
<td>affection</td>
<td>.013</td>
<td>.032</td>
<td>.077</td>
<td>.070</td>
</tr>
<tr>
<td><strong>Originator</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inclusion</td>
<td>-.062</td>
<td>.040</td>
<td>.000</td>
<td>.012</td>
</tr>
<tr>
<td>control</td>
<td>-.124*</td>
<td>-.118</td>
<td>-.180*</td>
<td>.107</td>
</tr>
<tr>
<td>affection</td>
<td>.008</td>
<td>.019</td>
<td>.014</td>
<td>.061</td>
</tr>
<tr>
<td><strong>Interchange</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inclusion</td>
<td>.016</td>
<td>.006</td>
<td>.008</td>
<td>.042</td>
</tr>
<tr>
<td>control</td>
<td>.090</td>
<td>.176</td>
<td>.204*</td>
<td>.154*</td>
</tr>
<tr>
<td>affection</td>
<td>.020</td>
<td>.078</td>
<td>.095</td>
<td>.113</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>.007</td>
<td>.086</td>
<td>.081</td>
<td>.055</td>
</tr>
</tbody>
</table>

* p < .05
Hypothesis Two

It was hypothesized in hypothesis two that the correlations between teacher-student compatibility and grades would increase in magnitude as the quarter progressed. To test this hypothesis, the dimensions of compatibility with which significant grade correlations had occurred were graphed (see Fig. 2). The general trend was for the magnitude of the correlations to increase from the first speech to the third speech and then decrease for the final overall grade.

Specifically, the magnitude of the conditions between interchange control compatibility and grades (1) increased from speech one to speech two, (2) increased from speech two to speech three, and (3) decreased from speech three to the overall grade. The magnitude of the correlations between reciprocal control compatibility and grades (1) increased from speech one to speech two, (2) decreased from speech two to speech three, and (3) decreased from speech three to the overall grade. The magnitude of the correlations between originator control compatibility and grades (1) decreased from speech one to speech two, (2) increased from speech two to speech three, and (3) decreased from speech three to the overall grade. For all the dimensions of control the magnitude of the correlation between compatibility and grades was greater for the third speech than for the first speech. This finding indicated that as the quarter progressed, the significant correlations between teacher-student control need compatibility and student grades increased in magnitude.
Based on an analysis of the graph in Fig. 2, the null hypothesis was rejected for hypothesis two, indicating that the magnitude of the correlations did increase as the quarter progressed for all three compatibility dimensions of control.
Compatibility
Grade Correlations

0.210
0.205
0.200
0.195
0.190
0.185
0.180
0.175
0.170
0.165
0.160
0.155
0.150
0.145
0.140
0.135
0.130
0.125
0.120
0.115
0.110
0.105
0.100
0.095
0.090
0.085
0.080
0.075
0.070
0.065
0.060
0.055
0.050

Speech Grade #1
Speech Grade #2
Speech Grade #3
Overall Grade

--- Reciprocal Control Compatibility
- - Interchange Control Compatibility
----- Originator Control Compatibility

Fig. 2. Graph of Significant Teacher-Student Compatibility-
Speech Grade Correlations.
CHAPTER V
DISCUSSION

This chapter contains a summary of the results of the study and a discussion of why the results occurred. It also contains a section dealing with the implications of the study and possible applications of the results.

Summary

The results of the Pearson R Correlations showed three categories of significant correlations between the scores on the first administration of FIRO-B and the scores on the second administration of FIRO-B. First, there was a highly significant degree of correlation between the scores for the expressed inclusion scales, the wanted inclusion scales, and the expressed affection scales. Second, there was a lower but significant degree of correlation between the scores for the expressed control scales and the wanted affection scales. Finally, there was a very low but still significant degree of correlation between the scores for the wanted control scales. These results were consistent with the reported findings of previous researchers. Goldstein (1967) reported that the only significant differences between pre and post FIRO-B scores at the completion of a human relations course were on the wanted control scales and the wanted affection scales. In Goldstein's study, highly valued
women and low valued males both significantly increased in their expressed need for control and highly valued females decreased significantly in their expressed need for affection. Powell (1975) found that the only significant differences that occurred on pre and post FIRO-B scales as a result of a public speaking course were on the wanted inclusion and expressed control scales. Specifically, underexpressive students had a significant decrease in wanted inclusion and overexpressive students had a decrease in expressed control.

The research of Goldstein and Powell suggested that the low correlations occurred because the students' needs changed as a result of certain educational experiences. A second explanation for two of the three low correlations was the possible unreliability of the FIRO-B questionnaire control scales. Frandsen and Rosenfeld (1973,20) reported that

These analyses reveal that FIRO-B contains a structural bias against the need area of control. In the calculation of compatibility indexes, control is minimally important... the proportions of variance in KTOT [total compatibility] that the need area of control accounts for [is] 23.59%...the bias must be within the test.

Based on the empirical investigations of Frandsen and Rosenfeld, Powell, and Goldstein, the low correlations obtained between the scores on the pre and post wanted and expressed control scales were assumed to be the result of a combination of an unreliable set of scales measuring the control dimension of interpersonal compatibility and changes in reported needs due to educational experiences.
The magnitude of the correlations between teacher-student interpersonal compatibility and speech grades increased as the quarter progressed. That is, for the three dimensions of control, the influence of teacher-student compatibility was greater on the final speech than it was on the first speech. This finding may be explained by the inherent norm of reciprocity discussed by Wilmot (1975,110-111) in his book on dyadic communication.

Wilmot stated that in any successful dyad, the norm of reciprocity existed. In the classes used in this study, the graduate teaching assistant and the individual student constituted the dyad. Thus, each class had many dyads. The norm of reciprocity was defined by Wilmot (1975,110-111) as follows

Whether a person is walking down the street and says 'Hi' to you or gives you a birthday present, you feel the need to respond to the other's behavior. In dyadic relationships, reciprocity implies that the behavior of either party is contingent to some degree on the perceived behavior of the other... Reciprocity does not mean that the behaviors of any two persons are identical. It does mean that each one's behavior is affected by the behavior of the other. The two individuals are bound together in a relationship.

By definition then, the graduate teaching assistants and the students were bound together in a relationship. At the beginning of the quarter the relationship was tentative because of the lack of interaction between the teacher and student. As the quarter progressed, however, and teacher-student interactions increased, the relationship became more formalized. The stages of development that occurred in the dyadic relationships were described by Wilmot (1975,111)
Relationships develop in stages, and as they do, the demands for reciprocity are likewise altered. In initial transactions the participants orient to each other, and as a relationship develops over a period of time, the participants expose more and more of themselves to each other. Concomitant with these relationship changes, reciprocity demands are altered. In initial encounters, awareness of and attention to the other are reciprocal demands. As the relationship progresses, the reciprocity expectations are increased so that participants expect behaviors will fulfill their needs. These expectations for reciprocity are apparently universal...

The teachers and students used in the present study were in the initial stage of the relationship at the time of the first speech which occurred during the first weeks of the quarter. The reciprocal demands were simply awareness of and attention to the other which accounted for the low compatibility-grade correlations. As the teacher-student relationships progressed through the quarter, the reciprocity expectations increased so that the teachers and students expected behaviors that fulfilled their needs. By the ninth and tenth week of the quarter the fulfillment or lack of fulfillment of the teachers' control needs was significantly related to their grade assignment.

The graph in Figure 2 also indicated that the magnitude of the correlations between teacher-student interpersonal compatibility decreased after the third speech. This decrease was attributed to the averaging of written and oral assignments for the overall grade. The averaging of early quarter grades, where teacher-student relationships had not yet fully developed, with grades assigned later in the quarter decreased chances of finding significant correlations.
The results of the SPSS Kendall Tau Correlations showed that only the three dimensions of control compatibility were correlated with grades. In the present study the teacher-student dyad was incompatible along the reciprocal control compatibility dimension when the teacher was frustrated because the student did not satisfy his control needs or if the teacher could not express his preferred behavior toward the student. Along the interchange control compatibility dimension the teacher-student dyad was compatible when there was a mutual expression of control behavior. The teacher who expressed the need to operate the class under an authoritarian structure (high expression of control) was compatible with those students who could reciprocate and express the need to conform to authority (high expression of control). The teacher was incompatible with the rebel, the student who could not reciprocate and expressed the need to not conform to authority (low expression of control). The student who reciprocated along these two control dimensions was rewarded with significantly higher grades than was the student who could not reciprocate.

The student who was compatible with the teacher along the originator control compatibility dimension was rewarded with significantly lower grades than was the student who was incompatible. On this dimension the teacher and the student were compatible to the degree that the expression of control behavior by one corresponded to that which the other wished to receive. In other words, if the teacher had the need to control and tried to dominate the student, and the
student had the need to be controlled, was submissive, they were compatible.

These findings might be explainable through the examination of certain primary "types" of people, identifiable according to the dominant values and needs held by each. Two types that seemed particularly applicable to the present study were identified by Spranger (1928). He identified the social type and the political type. The social type valued love, warmth, and sensitivity in a relationship; the social type appeared to have dominant needs in the areas of affection and inclusion. The political type valued influence and personal power; the political type appeared to have dominant needs in the area of control.

Steinberg and Miller (1975) suggested another possible determinant of "types" in their discussion of fundamental orientations of communications. Based on a combination of the needs, intentions, and values of an individual, Steinberg and Miller listed two fundamental orientations that bore a strong resemblance to Spanger's type of people. The first was an orientation toward understanding the behaviors of others and the second was an orientation toward controlling the behaviors of others.

According to Steinberg and Miller, controllers manifested a basic need to assume command over others, they developed a set of intentions in keeping with their needs and they adopted a communication strategy designed to put them in the dominant position. Understanders, on the other hand, were defined as having a basic need to figure out what they themselves, as well as other people, are like. They
enjoyed close, personal relationships; thus, their intentions lead them to employ strategies that maximized the probability of opening up honest relationships.

More and Fausti (1966,199) attributed many of the "political type" traits to college graduate teaching assistants.

Possibly the teaching assistant, who is closer to the student (indeed, he is a student part-time while engaged in a teaching role), is more sensitive to the needs in the students. The fact that the teaching assistant is a student himself is possibly the motivation for his wanting to establish some distance between himself and the class, since he has neither age nor a sufficiently high academic rank above the students in his classes. Possibly the teaching assistant is trying to establish himself as an entity apart from the 'almost peer' group that he is instructing. He attempts to establish this separation by overtly demonstrating little interest in the students' personal problems, by rejecting criticism of his academic qualifications to teach, and by instilling a slight degree of fear in the student.

If More and Fausti were correct in their assessment of graduate teaching assistants, then the teaching assistants in the present study should have also had dominant interpersonal needs centered around the control dimensions. An examination of the scores from the FIRO-B questionnaires showed this was indeed the case.

Since the teaching assistants and the students were bound together in a relationship each one's behavior was affected by the behavior of the other; the norm of reciprocity. According to Wilmot (1975,111) reciprocal behaviors take three main forms: (1) nonreciprocal behaviors, (2) symmetrical behaviors, and (3) asymmetrical behaviors.
The classroom situation closely approximated this latter form, that is, one person, the teacher, had a role to perform or was more powerful than the other, the student. The subordinate, the student, was expected to do all the adjusting. Wilmot further stated (1975,112) "the transaction is clearly complementary on both dominance/submission and love/hate dimensions. One individual sets both dimensions in motion because of his role, and the other must reciprocate."

Thus the teachers may have set forth the control behavior the class was to operate under and students had to be able to adjust in order to be compatible with the teacher. By the end of the quarter the teachers' perception of whether a student was satisfying his or her needs, may have influenced the grades assigned to that student on speech. This finding did not support the results reported by Hutcherson (1970) in a study of the relationship of student teaching grades to FIRO compatibility among the student teacher, supervising teacher, and university supervisor.

Hutcherson found that the compatibility of the supervising teacher and the university supervisor in the areas of interchange affection and originator affection influenced the grading. For the area of interchange inclusion the compatibility of university supervisor and student teacher influenced grading. Finally, the compatibility of the student teacher and the university supervisor conducting the seminar along the dimensions of interchange affection and originator affection influenced grading in the seminar. Hutcherson did not find any significant compatibility-grade correlations for the need area of control.
Implications

The present study raised a number of questions. First, are student grades influenced by teacher-student interpersonal compatibility in classes other than public speaking? It seemed reasonable to assume that the correlation between grades and compatibility would be greatest in the classroom with extensive teacher-student interaction and least in the classroom with the exclusive lecture format.

Secondly, in the public speaking classes, is there a correlation between teacher-student interpersonal compatibility and grades assigned to written assignments? Thirdly, would compatibility-grade correlations occur in classes taught by full-time professors? In other words, is the present finding limited to graduate teaching assistants?

Finally, could the magnitude of the correlations between compatibility and grades be increased by using greater specificity in the FIRO-B questionnaires? For example, instead of the general statement, "I like people to act friendly toward me," the more specific statement, "I like the instructor to act friendly toward me," could be used. The more specific statements would cause the subjects to answer in response to much more specific relationships, in this case the teacher-student relationship and not relationships in general.

For future research projects that use FIRO-B as a measuring instrument, it is suggested that the FIRO-B scales be administered
at the beginning of the term and at the end of the term. This allows a correlation coefficient to be used to test the stability of the scales over time.

Applications

The results of this study suggest that teacher-student interpersonal compatibility along all three control dimensions was related to the teachers' assignment of grades on speeches. That is, a factor other than the students' actual speech presentation influenced the teachers' perception of the speech. For the student who was compatible with the teacher the positive perception resulted in a higher assigned grade. For the student who was incompatible, the less positive perception resulted in a lower grade.

Based on the results of this present study it could be argued that students and teachers should be matched according to interpersonal compatibility as measured by FIRO-B. The matching would help reduce the unfair advantage that the students compatible with the teacher had over the students incompatible with the teacher. The matching process, however, seems unreasonable in light of the time that would be required to carry it out. Perhaps then the most important applications of the results of this study would be (1) to inform graduate teaching assistants that the potential exists for factors other than the speech itself to influence their grading, and (2) to stimulate others to study factors that may come into play when a teacher grades a student.
REFERENCES


________, The effects of interpersonal relationships upon verbal conditioning. *Journal of Abnormal and Social Psychology*, 60 (1960), 245.


APPENDIX A

(FIRO-B Scales)
1. I try to be with people.
   usually  often  sometimes  occasionally  rarely  never
2. I join social groups.
   usually  often  sometimes  occasionally  rarely  never
3. I tend to join social organizations when I have an opportunity.
   usually  often  sometimes  occasionally  rarely  never
4. I try to be included in informal social activities.
   usually  often  sometimes  occasionally  rarely  never
5. I try to include other people in my plans.
   usually  often  sometimes  occasionally  rarely  never
6. I try to have people around me.
   usually  often  sometimes  occasionally  rarely  never
7. When people are doing things together I tend to join them.
   usually  often  sometimes  occasionally  rarely  never
8. I try to avoid being alone.
   usually  often  sometimes  occasionally  rarely  never
9. I try to participate in group activities.
   usually  often  sometimes  occasionally  rarely  never

<table>
<thead>
<tr>
<th></th>
<th>usually</th>
<th>often</th>
<th>sometimes</th>
<th>occasionally</th>
<th>rarely</th>
<th>never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I like people to include me in their activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I like people to invite me to things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I like people to invite me to join their activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I like people to invite me to participate in their activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I like people to invite me to things.</td>
<td>most people</td>
<td>many people</td>
<td>some people</td>
<td>a few people</td>
<td>one or two people</td>
<td>nobody</td>
</tr>
<tr>
<td>6. I like people to invite me to join their activities.</td>
<td>most people</td>
<td>many people</td>
<td>some people</td>
<td>a few people</td>
<td>one or two people</td>
<td>nobody</td>
</tr>
<tr>
<td>7. I like people to include me in their activities.</td>
<td>most people</td>
<td>many people</td>
<td>some people</td>
<td>a few people</td>
<td>one or two people</td>
<td>nobody</td>
</tr>
<tr>
<td>8. I like people to ask me to participate in their discussions.</td>
<td>most people</td>
<td>many people</td>
<td>some people</td>
<td>a few people</td>
<td>one or two people</td>
<td>nobody</td>
</tr>
<tr>
<td>9. I like people to invite me to participate in their activities.</td>
<td>most people</td>
<td>many people</td>
<td>some people</td>
<td>a few people</td>
<td>one or two people</td>
<td>nobody</td>
</tr>
</tbody>
</table>
1. I try to be the dominant person when I am with people.
   usually often sometimes occasionally rarely never

2. I try to take charge of things when I am with people.
   most people many people some people a few people one or two nobody

3. I try to have other people do things I want done.
   usually often sometimes occasionally rarely never

4. I try to influence strongly other people's actions.
   usually often sometimes occasionally rarely never

5. I try to influence strongly other people's actions.
   most people many people some people a few people one or two nobody

6. I try to have other people do things the way I want them done.
   usually often sometimes occasionally rarely never

7. I try to have other people do things the way I want them done.
   most people many people some people a few people one or two nobody

8. I take charge of things when I'm with people.
   usually often sometimes occasionally rarely never

9. I try to take charge of things when I'm with people.
   usually often sometimes occasionally rarely never

10. I let other people decide what to do.
    usually often sometimes occasionally rarely never

11. I let other people decide what to do.
    most people many people some people a few people one or two nobody

12. I let other people take charge of things.
    most people many people some people a few people one or two nobody

13. I let other people strongly influence my actions.
    most people many people some people a few people one or two nobody

    usually often sometimes occasionally rarely never

15. I let other people control my actions.
    usually often sometimes occasionally rarely never

16. I let other people control my actions.
    usually often sometimes occasionally rarely never

17. I am easily led by people.
    usually often sometimes occasionally rarely never

18. I am easily led by people.
    most people many people some people a few people one or two nobody

19. I am easily led by people.
    most people many people some people a few people one or two nobody

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1. I try to be friendly to people.
   most people  many people  some people  a few people  one or two  nobody
   people

2. My personal relations with people are cool and distant.
   most people  many people  some people  a few people  one or two  nobody
   people

3. I act cool and distant with people.
   most people  many people  some people  a few people  one or two  nobody
   people

4. I try to have close relationships with people.
   usually  often  sometimes  occasionally  rarely  never

5. I try to have close, personal relationships with people.
   usually  often  sometimes  occasionally  rarely  never

6. I try to have close relationships with people.
   most people  many people  some people  a few people  one or two  nobody
   people

7. I try to get close and personal with people.
   most people  many people  some people  a few people  one or two  nobody
   people

8. I try to have close, personal relationships with people.
   most people  many people  some people  a few people  one or two  nobody
   people

9. I try to get close and personal with people.
   usually  often  sometimes  a few people  one or two  nobody
   people

1. I like people to act friendly toward me.
   most people  many people  some people  a few people  one or two  nobody
   people

2. I like people to act cool and distant toward me.
   usually  often  sometimes  occasionally  rarely  never

3. I like people to act distant toward me.
   usually  often  sometimes  occasionally  rarely  never

4. I like people to act cool and distant toward me.
   most people  many people  some people  a few people  one or two  nobody
   people

5. I like people to act distant toward me.
   most people  many people  some people  a few people  one or two  nobody
   people

6. I like people to act close toward me.
   most people  many people  some people  a few people  one or two  nobody
   people

7. I like people to act close and personal with me.
   usually  often  sometimes  occasionally  rarely  never

8. I like people to act close and personal with me.
   most people  many people  some people  a few people  one or two  nobody
   people

9. I like people to act close toward me.
   usually  often  sometimes  occasionally  rarely  never

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APPENDIX B

(Instructions)
Instructions

(Administer during first 15 minutes of InCo 111 class)

Instructions to Instructor

1. Pass out the questionnaires to the students. Collect any extra copies and place them in the envelope.

2. Read the following to the students:

"The questionnaire you have just received is part of a project being conducted by a graduate student in the Department of Interpersonal Communication. Your participation in the project would be gratefully appreciated; however, if you do not wish to participate you are under no obligation to do so. Participation or nonparticipation will in no way affect your grade in this class. At no time will your name appear in any write-up of the project. You will be asked to write your name on the questionnaire for identification purposes however. If you have questions concerning the project please do not ask them until people have completed filling out the questionnaire. The results of the project will be available at the beginning of Spring Quarter.

Please follow these DIRECTIONS while completing the questionnaire-(1) write your name on page one of the questionnaire, (2) complete the questionnaire by circling the answer to each question that you feel best describes your feeling toward it, (3) do not confer with other students or the instructor, (4) you have 15 minutes to complete the questionnaire, (5) make sure your name is on page one."

3. While the students are completing the questionnaire, please complete a questionnaire yourself. Be sure to write your name on page one.

4. Please do not answer any student questions during the administration of the questionnaire. You may answer questions once the questionnaires are handed in.

5. After 15 minutes collect all questionnaires and place them in the envelope. Remind students to write their names on page one.

The envelope will be picked up at the end of the class period.

Thank you,

Emil