INTERPERSONAL ORIENTATION AND CHOICE
OF VOCATIONAL TRAINING

A thesis submitted in partial satisfaction of the requirements for the degree of Master of Arts in
Educational Psychology

by

Steve Saxon

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The thesis of Steve Saxon is approved:

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ABSTRACT

INTERPERSONAL ORIENTATION AND CHOICE OF VOCATIONAL TRAINING

by

Steve Saxon

Master of Arts in Educational Psychology

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This research examines factors of interpersonal orientation associated with two specific choices of vocational training. Sixty-six (66) classified graduate students in the Department of Psychological Foundations of Education at California State University, Northridge were tested with the FIRO-B. A survey method was used to determine the relationship between choice of vocational training and interpersonal orientation factors. The subjects were divided into two groups; half of which were enrolled in the Counseling and Guidance Master's program, and half were enrolled in the following three areas, Educational Psychology, Early Childhood, and Learning and Reading Disorders.

The FIRO-B provides six independent scores. Only three hypotheses were stated: (1) differences in the desire for control over others, (2) differences in the
desire to be controlled by others, and (3) differences in the desire to be included in social activities.

The resulting matrix was then analyzed by the use of a t test to determine the significance of differences between the two groups. Six t's were computed, one for each dimension of the FIRO-B scale.

Although two of the three differences were in the predicted direction, the t test revealed no significant differences in any of the areas; a mean FIRO-B profile of both groups is provided with general interpretations.
CHAPTER I

THE PROBLEM

Training an individual for any occupation is costly and time consuming. As educational costs increase, it becomes crucial for the individual and the educational institution to take steps to assure that the time and money is well spent (Izard, 1960). If individuals receive little or no job satisfaction the cost of their training is wasted. It is equally wasted if the individual is operating ineffectively in his chosen field. Since people in our society are becoming increasingly more interdependent, a job ineffectively done is costly to everyone (Karson & O'Dell, 1971). Often personal turmoil is the result of limited job satisfaction and may lead to inefficient job performance.

If factors of interpersonal orientation can be identified which would predict job training satisfaction possibly leading toward optimal job performance, then wasted time and money might be diminished. Furthermore, personal conflict and potential mental health problems may also be limited.

The review of previous research findings in the relationship between interpersonal orientation and choice of vocational training was one of the specific goals of this
study. It was also the author's purpose to accomplish these other specific goals: to contribute empirical data to the area; and to apply research findings in the area of personality and vocational choice in a manner that would be useful to the students and faculty of the Psychological Foundations of Education Master's program, by attempting to identify specific differences in interpersonal orientation between the Guidance and Counseling and other Master's programs in Educational Psychology.

**Fundamental Interpersonal Relations Orientation (FIRO) Theory**

Our research is based on the theory of interpersonal relations developed by William C. Schutz (1958). Schutz's theory is based on two postulates: (1) every person has three interpersonal needs (inclusion, control, and affection) and (2) that these factors represent a sufficient set of areas of interpersonal behavior for the prediction and explanation of interpersonal phenomena. The FIRO theory was developed from the statement, "people need people." From this comes the question, "In what ways do people need people?" The idea, "people need people," is elaborated on by Schutz to produce three kinds of relations: (1) inclusion, (2) control, and (3) affection.

The three interpersonal needs are defined as:

**Inclusion**—the need to establish and maintain a satisfactory relationship with people with respect to interaction and
associations; control--the need to establish and maintain a satisfactory relationship with people with respect to responsibility and decision making; affection--the need to establish and maintain a satisfactory relationship with people with respect to love and intimacy (Schutz, 1967).

The next elaboration was "people need people to receive from, and to give to," for the dimensions of (1) wanted and (2) expressed. The three interpersonal needs are examined in terms of expressed and wanted behavior. Expressed means the manner in which a person acts towards others. Wanted means the manner in which a person wants others to act toward him.

It is somewhat difficult to grasp the basis (static or dynamic) of the FIRO theory, since Schutz fails to explore this notion in depth. It appears that the theory is dynamically based because Schutz refers to "the close relation between the way people act as adults and the way they acted as children--the constancy principle, and also the way people act as adults and the way their parents acted toward them--the identification principle." (Schutz, 1966)

From this theory, the Fundamental Interpersonal Relations Orientation (FIRO) scales were developed. The "B" (behavior) scale (see Appendix II) was chosen because it is known and has been used by other researchers with success (to be examined later). The "B" scale is the only FIRO scale which has been tested for reliability and validity.
Validity and Reliability of the FIRO-B

To establish the reliability of the FIRO-B a coefficient of internal consistency, and a coefficient of stability were performed. The standard means of determining the coefficient of internal consistency is the split half method (Schutz, 1966; Isaac & Michael, 1971; Downie & Heath, 1959). However, since the FIRO-B is comprised of Guttman scales, reproducibility is the appropriate measure of the coefficient of internal consistency. There is no hard and fast rule that says reliability has to be of a certain size before any measuring instrument can be useful; however, reliability coefficients of well made standardized tests tend to be high, .90 or above (Downie & Heath, 1959). The reproducibility score for the expressed control subscale was .93 and for the remaining five subscales .94. The mean reproducibility score was .94 with the mean number of subjects of 1543. The number of subjects used was from 1467 to 1615.

The second reliability test performed was a coefficient of stability, often called the test-retest method. The Pearson product-moment correlation coefficient scores for each of the six subscales is as follows: expressed inclusion .82, wanted inclusion .75, expressed control .74, wanted control .71, expressed affection .73, and wanted affection .80.

A coefficient of equivalence requires an alternate form of the instrument to be tested. This measure was not
performed on the FIRO-B since no alternate form exists.

There are three general forms for determining the validity of any test instrument (Downie & Heath, 1959; Isaac & Michael, 1971). Content validity is a nonstatistical type of validity usually associated with achievement tests. When a test is constructed so that it adequately covers the content it intends to test, it is considered to have content validity. In addition, if the items on the test provide a good definition of the subject, the test will have content validity.

Construct validity is established by determining the degree that psychological qualities, traits, or constructs, often called factors, are associated with that which is being tested. A test that correlates significantly with such factors would have construct validity.

For example, it might be hypothesized that differences in academic achievement are related to a construct called study-habit skills, other things being equal. If a study-habit inventory is made and administered, construct validity is demonstrated if the inventory scores are correlated with other evidence of study habits (Downie & Heath, 1959, p. 249).

Criterion-related validity, formerly concurrent and predictable validity, is the correlation between a score or set of scores and one or more external variables considered to measure the characteristic or behavior in question (Isaac & Michael, 1971).

In discussing the content validity of the FIRO-B, Schutz (1966) states:
If the theory underlying the use of Guttman scales is accepted, then content validity is a property of all legitimate scales. If all the items are measuring the same dimension, and if they are of descending popularity, then they must represent a sample of items from that dimension as such content validity is established (p. 66).

Prior to the development of the FIRO-B several other FIRO forms were developed, such as the FIRO-1, the FIRO-4, and the FIRO-5B3. A number of construct validity tests were done with these instruments, and the results were used in the development of the final form FIRO-B.

Although construct validity tests have been done with regard to the FIRO-B specifically, the amount of data available on the construct validity of the FIRO-B is somewhat limited.

Ernest Kramer (1967) studies the FIRO-B with the intent of supplying data for its construct validity. Twenty-five subjects took the FIRO-B. Then the instrument, its approach, and what it was designed to measure were discussed. No specific information was given with regard to which questions related to specific dimensions or typical scores for various types of subjects. Subjects were then asked to rate themselves on the six FIRO dimensions. Rank-order correlations were calculated for each of the subscales between the FIRO-B scores and the subjects' self-ratings. Five of the six correlations reached acceptable significance levels of rho (rank-order correlations) being less than .05, while the sixth came close to it. Kramer concludes that "these results do, therefore, contribute
to the construct validation of the test."

The demonstration of criterion-related validity suffers from problems similar to those in the demonstration of construct validity, (1) limited data, and (2) attempts were made with non-finalized forms of the FIRO-B. One attempt at establishing criterion-related validity was done by McElheny (1957). This study showed significant correlations in predicted directions of political attitudes, the FIRO-4 and the FIRO-5B3.

Schutz (1966) attempted to look for correlations between occupations and FIRO-4 scores. A design was used with Harvard and Radcliffe freshmen. Whereas no numerical data was provided with these reports, data was reported that implied approximate correlations.

Bunker (1957), in investigating conformity, used the FIRO-1. An attempt was made to find correlations between persons who changed their opinions due to group pressure (changers) and those who didn't (non-changers), and FIRO-1 scores. An objective answer sheet was used to note changes of opinion. Ninety-five per cent of the changes of opinion were toward conformity, toward the majority opinion. In comparing changers and non-changers on the basis of their FIRO-1 scores, two significant results and one interesting trend were found. The first was that persons who were non-changers stated (according to the FIRO-1) that they participated in group discussions, as opposed to changers who
stated they did not tend to participate in group discussions. A chi square was used to determine the extent of the difference with the result being $p<.001$. The second finding showed that changers tended to like strict rules, as opposed to non-changers who stated that they didn't. Again, a chi square was used to determine the extent of differences with the result being $p<.05$. The trend observed from the finding showed that changers tended to state that it was important for them to be liked. A chi square was used to determine the extent of differences with the result being $p<.10$.

While these studies of criterion-related validity may seem of limited value, it should be noted that all scales used were earlier forms of the FIRO-B and that as a result of these studies, the FIRO-B was believed to have evolved into a better instrument. Insel, Reese, & Alexander (1968) seem willing to accept the validity of these studies in that they state "the FIRO has been used successfully to predict interpersonal expectations in terms of political attitudes, occupational choice, and conformity behavior, thereby demonstrating satisfactory concurrent validity...."

The FIRO-B has been used in a variety of studies. It has been used to help determine factors operating in mate selection (Kerckhoff & Davis, 1962). The study examined the factors of value concensus, as measured by Faber's index of concensus, and need complimentarity, as measured by the
FIRO-B, in relation to "progress toward a permanent union" as measured by subjects' self-reports. Two of the measures of complementarity, inclusion and control, approached the .05 level of significance (test not indicated) and the third was in the predicted direction. One conclusion reached was that for short-term couples (a relationship of less than eighteen months), there was no relationship between complementarity and progress toward permanence. For long-term relationships (eighteen months or longer), the relationship between complementarity and progress toward permanence was significant at the .02 level for the inclusion area and at the .05 level in the control area. In the affection area, the direction of the relationship was the same but it was not significant.

Insel, Reese & Alexander (1968) undertook to explore systematically some of the psychological dimensions related to self-presentation. The study attempted to find differences between persons who described themselves with the use of external referents, as with respect to a group (black, white, married, single, etc.), and internal referents, those denoting and describing perceptions of internal processes (happy, sad, confused, etc.). The 204 subjects completed a 50 to 100 word essay, entitled "Who Am I?", which was subjected to a content analysis as used by Kuhn & McPartland (1954) and Bugental & Zelen (1950). Subjects also completed the Myers-Briggs Type Indicator to determine the way in
which they deal with their world, and the FIRO-B to determine their wants and self-expectations in interpersonal relationships. The only significant correlation found with the FIRO-B was with females who presented themselves with internal referents; they had significantly higher expressed affection scores than did the external referents counterparts (p<.05). It was noted that the lack of significance found with the FIRO-B may be explained in that the structure of the referents (internal or external) is less differentiating in terms of wants and self-expectations in interpersonal relationships than is the specific content of the referent.

The studies of Kerckhoff & Davis, and Insel et al. show a variety of the potential uses for the FIRO-B. They give an indication of the variety of situations where interpersonal orientation can be useful. Further, they indicate that the FIRO-B is a viable and useful research tool.

The FIRO-B has been used to determine receptivity to verbal conditioning techniques (Taylor, 1968). The article states that "Schutz's theory suggests that combinations of scores on more than one of the three dimensions (inclusion, control, and affection) may be valid predictors of interpersonal phenomena." Control and affection were the two dimensions judged most important in the verbal conditioning situation. Total FIRO-B scores were significant and indicated that subjects who scored above the scale median
on total interpersonal orientation (scored above the median on all the FIRO-B subscales), conditioned better than those who scored below the median.

An earlier version of the FIRO-B, the FIRO-4, was used to explore personality differences in different occupational groups (Schutz, 1966).

A unique feature of the FIRO-B is that the scale is designed not only to assess individual behavior, but also to measure characteristics in such a way that scores of two or more persons may be combined to predict their interaction (Schutz, 1967). The FIRO-B can be administered in eight to fifteen minutes and is easily given to large groups of people. Short test administration time is important in the control of test taking motivation (Ryan, 1971). These factors were of particular importance to the authors since the test was administered while students were in class.

Another attractive feature of the FIRO-B is that it is easily scored. The test is comprised of six questions which are repeated, some verbatim, nine times for a total of fifty-four items. Scoring is based on acceptance-rejection cut-off points. This allows the subject to modify his responses without changing the interpreted meaning. This makes the likelihood of "faking", or obtaining false results minimal. To invalidate the scale, the subject must consistently respond with answers which are directly opposite
to his true answer (Ryan, 1971).

The author's purpose was to determine differences in factors of interpersonal orientation between persons presently involved in the Master's program in Counseling and Guidance and persons presently involved in the other Master's programs (combined into one group) of the Department of Psychological Foundations of Education. No data was gathered as to why one specific Master's program was selected over another. By using the FIRO-B scale (see Appendix II), at least six comparisons would be made; the author elected to make specific hypotheses. Further hypotheses could have been developed to predict multiple subscale groupings (two or more subscales). The three specific hypotheses were made based on general impressions of the students and faculty in the Department of Psychological Foundations of Education, and a general impression of the term "counseling."

The specific hypotheses are as follows: (1) that persons presently involved in a Master's program in Counseling and Guidance will score lower on the dimension of expressed control than persons presently involved in the other Master's programs in the Department of Psychological Foundations of Education; (2) that persons presently involved in the Master's program in Counseling and Guidance will score lower on the dimension of wanted control than persons presently involved in the other Master's programs in
the Department of Psychological Foundations of Education;
and (3) that persons presently involved in the Master's
program in Counseling and Guidance will score higher on the
dimension of wanted inclusion than will persons presently
involved in the other Master's programs in the Department
of Psychological Foundations of Education. A t test will
be used to determine the significance of the differences,
with the level of acceptability for all hypotheses being
.05.
CHAPTER II

LITERATURE

Many theories of personality and vocational choice have been developed. These theories were separated into four models of Osipow (1968): (1) Trait-Factor, (2) Sociological, (3) Developmental/Self-Conception, and (4) Personality.

The Trait-Factor model says that an individual's abilities and interests will match with existing vocational options. According to Osipow, some of the original trait-factor theorists who influenced thinking about vocational psychology are Parsons, Hull, & Kitson. From this, the vocational testing model has grown. Interest inventories and aptitude tests like the Strong Vocational Interest Blank, Kuder Preference Record, Differential Aptitude Test, and the Guilford-Zimmerman Aptitude Survey are outgrowths of the Trait-Factor stream of thought.

The Sociological model forwards the idea that vocational choice is largely accidental. It views the environment as beyond an individual's control and sees vocational choice as part of an individual's coping techniques. This model appears to the author to contain certain paradoxes which make it non-functional. If vocational choice is a
coping mechanism, then investigations into coping mechanisms and the behaviors, feelings, and drives for which the particular set of coping mechanisms developed should give insight into vocational and career choice and make it somewhat predictable.

The Developmental/Self-Conception theory views vocational choice as a synthesis of the individual's self-concept and his perception of any given vocation. This theory contains three areas: (1) individuals develop more clearly defined self-concepts as they grow older, (2) people develop images of the occupational world which they compare with their self-image in making career decisions, (3) the adequacy of the career decision is based on the similarity between an individual's self-concept and the vocational concept of the career he eventually chooses.

The Personality model, which is by far the most complex and internally varied model, deals with the personality and personality variables in relation to vocational choice. This model views needs, normal and pathological, life styles, and personality factors of specific occupational groups, all with regard to the satisfaction of personal needs. The essence of this model is that certain personality factors lead to specific vocational choices.

The authors are assuming that specific personality factors are associated with different occupations and the choice of research instruments reflects this assumption; as
such, the focus of the research fits Osipow's "personality" model. It should be noted that these four models are not necessarily mutually exclusive and that they often overlap and draw from one another.

One of the early theorists in the area of vocational choice was Ann Roe. Roe found personality differences between various scientific professions. One of the differences noted was in the manner of interaction in interpersonal relationships. Roe's theory is based on three interacting variables: (1) genetic composition, (2) Maslow's Need Hierarchy, and (3) early childhood experiences (Roe, 1958).

Roe deals with personality and vocational choice by explaining that occupation affects the role of the individual and therefore affects the needs and drives as well. She uses Maslow's constructs as a basis for personality identification and relates its pertinence to occupational behavior. Roe arranges Maslow's need hierarchy as follows:

1. The physiological needs.
2. The safety need.
3. The need for belongingness and love.
4. The need for importance, respect, self-esteem, independence.
5. The need for information.
6. The need for understanding.
7. The need for beauty.
8. The need for self-actualization.
Roe explains that in our society there is no single situation which is potentially so capable of giving some satisfaction at all levels of basic needs (as described in Maslow's list) as is the occupation.

Another theorist, Holland (1966), developed a theory of vocational choice based on two factors: (1) that vocational choice is an extension of an individual's personality and an attempt to act out his personal life style within an occupation, and (2) an individual's views and feelings of himself are projected onto occupational titles.

A similar theory was developed by Super (1957). He theorized that when a person moves into an occupation, his self-concept is being implemented. The theory also included a description of a developmental sequence which leads to occupational choice.

Hoppock's theory (1966) is also similar to Holland's and Super's, but is more general. Hoppock views vocational choice and changes in vocations as an attempt to fulfill personal needs.

Steffler (1966) noted that contemporary vocational choice theories can be categorized into the "how" and the "why" theories. The "how" theories attempt to define the sequence which leads to occupational choice, and the "why" theories attempt to explain the process.

Gunderson & Nelson (1966) used the FIRO-B to examine a part of Roe's theory that says occupational groups can be
ranked according to the extent of personal interaction required on the job. Six Navy occupational groups were used; Administrative, Technical, Mechanical, Construction, Electrical, and Cooks. These occupations were then divided into "white collar" (administrative and technical) and "blue collar" (mechanical, construction, electrical, and cooks) groups. No information was given about the background, aspirations, etc. of the men with regard to "white" or "blue" collar jobs. It was concluded that "white collar" personnel scored significantly higher than "blue collar" personnel in the areas of expressed inclusion, wanted inclusion, and wanted affection on the FIRO-B, leadership on the Allport-Vernon-Lindzey Survey of Interpersonal Values (SIV) religious on the Study of Values, motivation, confidence, personal usefulness, change, endurance, and achievement on an Opinion Survey (conducted by the authors).

Since the FIRO-B subscales were factors of differentiation between "white" and "blue" collar Navy personnel, this directly makes two points, (1) that factors of interpersonal orientation are different for different occupational groups, and (2) that the FIRO-B is an effective means of identifying such differences.

Crites (1962) also attempted to examine this portion of Roe's theory. Education and Psychology undergraduate and graduate students ranked occupations according to how much they required personal interactions with people. He
concluded that a meaningful order was found with Social Service occupations at one end and Science, outdoor, and Technology (things, rather than people) clustered at the other. Although large generalizations from such a sample are unwise, the results tend toward some interesting points. Clearly, Education and Psychology students experience factors of interpersonal orientation as part of a vocation, even a differentiating part. It seems appropriate to assume that these students chose their own vocations for reasons of varying interpersonal orientations. In addition, it seems appropriate to assume that lines of differentiation (regarding extent of interpersonal interaction) could be drawn for occupations more closely related than Social Science versus Science, outdoor, and Technology, such as with the groups defined within this piece of research.

Goodman (1942), interested in engineers, used the Bernreuter to find that engineering students were less neurotic and more self-sufficient than liberal arts students. His study shows that different vocational training groups show different personality factors. It is as yet unclear what the relationship is between these personality factors and these vocational training groups. However, vocational training is a place where differences in personality factors are found.
McConaughty and Palmer (1971) sought to determine personality traits of state executives and federal field executives in South Carolina. Their study showed a general personality pattern for both state and federal field executives in South Carolina in that they are "more intelligent, more conscientious, and more self-controlled than the general population." Within this "personality pattern" four important personality differences were found between the federal field executives and state executives:

1. State executives were more "tender minded",
2. Federal field executives were more liberal and experimental,
3. State executives were somewhat calmer, and
4. State executives were less apprehensive. They concluded that "there is a great need for more study of the personality traits and attitudes of the managers in government...."

The above studies do show that distinct personality differences have been found in different occupational and occupational training groups. They also indicate that such differences are found in areas of interpersonal orientation. None of the above studies ask the same question as asked here, none compare the same groups, nor use the same general or specific basis of comparison. They do provide support for the perspective that different vocational training groups have different interpersonal orientations.
CHAPTER III

METHODOLOGY

The author used a survey method to determine the relationship between the subjects' choice of vocational training, as defined by enrollment in differing Master's programs and factors of interpersonal orientation as measured by the FIRO-B scale. Interpersonal orientation is defined as the three areas of inclusion, control, and affection.

The sample was not random. It consisted of all available 66 male and female classified graduate students enrolled in one of the four Psychological Foundations of Education Master's programs at the California State University, Northridge. The subjects were divided into two groups: (1) thirty-three (33) subjects enrolled in the Counseling and Guidance Master's program (CG group), and (2) thirty-three (33) subjects, eleven (11) from each of the other three Master's programs--Educational Psychology, Early Childhood, and Learning and Reading Disorders (O group).

The population of the Counseling and Guidance Master's candidates was approximately equivalent to the combined population of the other three Master's programs. Subjects came from graduate classes meeting during the Spring
1973 semester.

According to standard directions for administering the test, each subject was given verbally the following set of instructions:

This questionnaire is designed to explore the typical ways you interact with people. There are, of course, no right or wrong answers; each person has his own ways of behaving.

Sometimes people are tempted to answer questions like these in terms of what they think a person should do. This is not what is wanted here. We would like to know how you actually behave.

Some items may seem similar to others. However, each item is different so please answer each one without regard to the others. There is no time limit, but do not debate long over any item.

Prior to test administration, subjects were requested not to place their names on the tests and were assured that all test results were confidential. Upon the completion of the test, it was explained to the subjects that the data was to be used in the completion of a Master's thesis. An explanation of the test, its purpose and the intended use of the data was given to all subjects. Test results and interpretations were provided to all subjects who requested such information.

Questionnaires were individually scored (see Appendix I) and then divided into the appropriate groups. Scores from the resulting matrix were then subjected to a t-test to determine differences between the 0 group and the CG group. Six t-tests were performed, one for each dimension of the FIRO-B scale.
The methodology has two limiting factors; the sample size and the sample selection process. A sample size of 66 may be too small to give an accurate indication of the extent of differences in interpersonal orientation between these two groups. This is difficult to assess in that prior research with the FIRO-B has had sample sizes ranging from 25 to near 1,000. It may well be a factor of the closeness of these occupational groups and the sample size.

The author used an accidental sample selection procedure and this fact affects the ability to generalize from the results. It would have been preferable to select the sample on a random basis. This was not possible due to the inaccessibility of Educational Psychology and Reading and Learning Disorders Master's candidates. An additional limiting factor, although not methodological in nature, is that the author did not design a means of determining if the personality differences found were due to the vocational training or they existed prior to such an involvement. This issue was too complex to be assessed with the limited time and resources available.

No attempt was made to determine or control the homogeneity or heterogeneity of the sample. It is obvious that all subjects are students, doing graduate work in the School of Education, Department of Psychological Foundations of Education. Most Counseling and Guidance Master's candidates attend classes at night. Few classes are given during
the day, preportedly because most students are working and can not attend. The ages of the subjects range widely, although it is unlikely that any are under 20 or 21 years of age (since all subjects were graduate students). Most subjects were ethnically "white."

The question of what a person chose any particular Master's program is also open to debate. Several interpretations seem most valid. To become a counselor in the Los Angeles Univied School District, one must have taught for at least three years. As such, it seems valid to assume that many of the Counseling and Guidance Master's candidates were involved in career advancement. This appears less likely to be as true for the other programs. In addition, this might make for an older age average for the Counseling and Guidance program.
CHAPTER IV

RESULTS

A t test was used to determine the extent of statistical differences between the O group and the CG group for the six scores obtained from the FIRO-B. The t test revealed no significant differences in any of the areas (Table 1). The CG group had lower scores than the O group in the areas of expressed control ($E_c$), 2.69 and 3.06, respectively. Although these differences are not statistically significant, they do coincide with the direction of the author's predictions. The prediction in the area of wanted inclusion ($W_i$) was not significant and failed to confirm even the direction of the author's prediction, CG group 3.03 and O group 3.57.

Table 1

<table>
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The CG group scored higher than the O group on the dimension of wanted affection (W^a). However, a t test failed to show a significance at or greater than the five per cent level of confidence. Hence, a comparison of the two groups for expressed inclusion and expressed affection showed no significant differences.

A mean profile for the CG group, derived from the FIRO-B scores, is shown in Table 2. Scores focus on the areas of inclusion—a social orientation, control—power and responsibility, and affection—intimate personal relationships. The focus is also along the dimensions of expressed—one's actions towards others, and wanted—actions wanted toward one's self (see Appendix III). Generally, as noted above, the profile is comprised of moderate scores

Table 2
Mean FIRO-B Scores for CG Group

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>C</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>4.18</td>
<td>2.69</td>
<td>4.63</td>
</tr>
<tr>
<td>W</td>
<td>3.03</td>
<td>2.81</td>
<td>5.75</td>
</tr>
</tbody>
</table>

which do not facilitate a clear interpretation (see Appendix I). The low control scores are: expressed 2.69, and wanted 2.81. The low expressed control score indicates a person who resists making decisions and taking responsi-
bility for others. This type of person would tend to shy away from supervisory or leadership roles, and would probably have difficulty in handling persons who demonstrate a great deal of dependency on him. The low wanted control score indicates a person who resists others taking responsibility for him. As such, this person would have difficulty in handling very dominant and bossy persons, such as a strict employer who would only give instructions and limit the individual's personal creativity. This type of person could move into new areas of responsibility if given a reasonable degree of reassurance (Ryan, 1970).

The low wanted inclusion score of 3.03 is indicative of a person who is selective about the persons with whom he associates. This person would tend to have a rather quiet social life, and would rather not have numerous social invitations. In addition, this person might well prefer to work alone or with a small select group, as opposed to large numbers of people.

The expressed inclusion ($E^i$) and expressed affection ($E^a$) scores are both moderate. Borderline scores mean the person may show characteristics of high or low scores. A low expressed inclusion ($E^i$) score indicates a person who is uncomfortable around people and tends to move away from them. Such a person would prefer small social gatherings rather than large parties. While a high expressed inclusion ($E^i$) score indicates a person who is comfortable in
social situations and tends to move toward people, this person would enjoy large parties. Low expressed affection (Eᵃ) scores denote a person who is cautious about initiating close and intimate relationships. This person might have many acquaintances but few close friends. His close friends would tend to be people he has known for a long time. High expressed affection (Eᵃ) scores suggest a person who can readily become emotionally involved on a close and intimate level. The person who can become close friends with someone he has known for only a short while, and communicate those feelings, would tend to have a high expressed affection score.

The wanted affection (Wᵃ) score of 5.75 is virtually a high score. A person with such a score would want others to initiate close intimate relationships with him. This person would welcome a close intimate relationship, but would tend to need others to communicate their close feelings to him.

A mean profile for the O group, derived from the FIRO-B scores, is shown in Table 3. This profile is also comprised of moderate scores which do not provide contrast, or facilitate a clear interpretation (see Appendix I).
Table 3

Mean FIRO-B Scores for O Group

<table>
<thead>
<tr>
<th></th>
<th>E</th>
<th>C</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>4.18</td>
<td>3.06</td>
<td>4.24</td>
</tr>
<tr>
<td>W</td>
<td>3.57</td>
<td>3.33</td>
<td>4.81</td>
</tr>
</tbody>
</table>

The t test showed no significant differences between the O and CG group, and the interpretations of their mean scores do not shed much light for differentiation between them. The difference is in the area of wanted affection. The O group wanted affection score is 4.81, a borderline score, indicating possible characteristics of either high or low scores. The CG group score for wanted affection is 5.75 and was interpreted as a high score. It should be noted that the CG group score was referred to as "virtually a high score." In summary, these profiles are quite similar and would differ only in terms of the degree of behavior associated with any area.

Although the mean scores of both the O group and the CG group are moderate, it is worth noting that for each group and each subscale, the scores range from 0 to 9, the full range of possible scores. It might have been valuable to analyze the data via item analysis, considering the possibility that the extreme scores for any group combined to present a false picture of no differences.
CHAPTER V

CONCLUSION

This study fits into Osipow's "personality" model of vocational choice theories. The author is assuming specific personality factors are associated with different occupations. There is a debate among professionals in this discipline regarding a cause and effect relationship in this association. The debate is whether the personality causes the vocational choice, or if the occupation causes the personality.

The issue is of a critical nature in regard to the application of theories into practice. It is an area where further research is necessary. This study was not designed to add evidence to the issue, nor did it do so, incidentally.

It is interesting to note that the study by Crites (1962), see Literature section, shows that Education and Psychology students rated different occupations as having different degrees of interpersonal interaction. It was felt appropriate to assume that these students might well have selected their vocational training on the basis of the interpersonal interaction such a vocation would require. If the results of this present study are accurate, such an
assumption seems false. There is the possibility that there may be some line of differentiation, a line at which the differences between interpersonal interactions required by a specific vocation are beyond the FIRO-B's power to find differences. Further research, perhaps between Education and Physics students as a start, with the FIRO-B to determine if there is such a line of differentiation, would be valuable. This information would be useful in determining how comfortable a person might be in any particular field, and could lead to the development of a better scale which would allow the user to draw finer lines of differentiation.

This study dealt only with students who were in the process of obtaining their Master's degree. Valuable future research could also include an investigation to determine if there are differences between persons who wish entrance into a specific Master's program but fail to obtain such, and those who do obtain entrance. In addition, comparisons between those that gain entrance but fail to complete the program, and those who do finish would be worthwhile noting.

In a comparative sense, the area of personality and choice of vocational training is very young and worthy of greater study. The questions of personality correlates to vocational choice, choice of vocational training, and personality correlates to job effectiveness, are ripe for
investigation.

The idea of personality assessment, perhaps by definition, seems bound, in a broad sense, to the use of tests. Investigation and application of personality factors to vocational choice and job performance seem equally bound. It is, at this point, that the author feels some reservations. Ryan (1970) has urged that the FIRO-B be used as a means of gathering additional information, suggesting that interpretations are less effective if the FIRO-B results are looked at alone. He suggested that the interpretations should be made with regard to what is known of the person from a face-to-face encounter. Steffler (1966) has reminded the vocational counselor that tests do not supply all the information and that talking to the client is crucial. Rosenhan (1973) reminded us that elements are given meaning by the context in which they occur. Schutz (1966) found it limiting and ineffective to solely use tests to determine who would most benefit from an encounter group experience.

In summary, it is the author's opinion that the state of the art does not encourage the use of a test as a sole determinant with regard to vocational choice, choice of vocational training and job performance, but rather a variety of means be employed.

Tests do appear, however, to be a valuable tool to be used in conjunction with other means of information gathering, such as subjective essays, personal interviews, etc.
The author believes that interpersonal orientation or interaction is, at present, best understood on an intuitive basis and that objective measures (tests) provide much help in clarifying this intuitive reaction.

The FIRO-B appears to be a useful tool to help potential Master's candidates, especially in the area of Counseling and Guidance, to clarify their factors of interpersonal orientation. This would help provide personal insight to the candidate, and would be useful in exploring the candidate's expectations of his course work and the requirements of his chosen Master's program.
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APPENDIX I

FIRO-B SCORING MATRIX

<table>
<thead>
<tr>
<th>EXPRESSED</th>
<th>CONTROL</th>
<th>AFFECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCLUSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WANTED</td>
<td></td>
<td></td>
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</tbody>
</table>

A person's score consists of the number of times he "accepts" an item. The highest possible score on any scale is nine. Acceptance-rejection cut-off points vary for each question and have been established by extensive empirical research (Schutz, 1966). Any response given on one side of the cut-off point means that the person rejects the item; any on the other side of the cut-off point is scored as an acceptance of the question. The subject has nine chances to reveal whether or not he accepts or rejects each of the six basic questions. After the number of "accepts" is totaled, the score is placed in its appropriate box.

Interpretations are based on the following breakdown of scores and their explanations, as provided by Ryan (1971):

0-1 are extremely low scores; the behavior will have a compulsive quality.

2-3 are low scores; the behavior will be noticeably characteristic for the person.
4-5 are borderline scores; there may be a tendency for behavior of high or low scores.

6-7 are high scores; the behavior will be noticeably characteristic of the person.

8-9 are extremely high scores; the behavior will have a compulsive quality.
For each statement below, decide which of the following answers best applies to you. Place the number of the answer in the box at the left of the statement. Please be as honest as you can.

1. try to be with people.
2. let other people decide what to do.
3. join social groups.
4. I try to have close relationships with people.
5. tend to join social organizations when I have an opportunity.
6. let other people strongly influence my actions.
7. try to be included in informal social activities.
8. try to have close, personal relationships with people.
9. try to include other people in my plans.
10. let other people control my actions.
11. I try to have people around me.
12. I try to get close and personal with people.
13. When people are doing things together I tend to join them.
15. I try to avoid being alone.
16. I try to participate in group activities.

For each of the next group of statements, choose one of the following answers:
1. most people
2. many people
3. some people
4. a few people
5. one or two people
6. nobody

21. I try to have close relationships with people.
22. I let other people strongly influence my actions.
23. I try to get close and personal with people.
24. I let other people control my actions.
25. I act cool and distant with people.
26. I am easily led by people.
27. I try to have close, personal relationships with people.
28. I like people to invite me to things.
29. I like people to act close and personal with me.
30. I try to influence strongly other people's actions.
31. I like people to invite me to join in their activities.
32. I like people to act close toward me.
33. I try to take charge of things when I am with people.
34. I like people to include me in their activities.
35. I like people to act cool and distant toward me.
36. I try to have other people do things the way I want them done.
37. I like people to ask me to participate in their discussions.
38. I like people to act friendly toward me.
39. I like people to invite me to participate in their activities.
40. I like people to act distant toward me.

For each of the next group of statements, choose one of the following answers:
1. most people
2. many people
3. some people
4. a few people
5. one or two people
6. nobody

17. I try to be friendly to people.
18. I let other people decide what to do.
19. My personal relations with people are cool and distant.
20. I let other people take charge of things.
21. I try to have close relationships with people.
22. I let other people strongly influence my actions.
23. I try to get close and personal with people.
24. I let other people control my actions.
25. I act cool and distant with people.
26. I am easily led by people.
27. I try to have close, personal relationships with people.
28. I like people to invite me to things.
29. I like people to act close and personal with me.
30. I try to influence strongly other people's actions.
31. I like people to invite me to join in their activities.
32. I like people to act close toward me.
33. I try to take charge of things when I am with people.
34. I like people to include me in their activities.
35. I like people to act cool and distant toward me.
36. I try to have other people do things the way I want them done.
37. I like people to ask me to participate in their discussions.
38. I like people to act friendly toward me.
39. I like people to invite me to participate in their activities.
40. I like people to act distant toward me.
41. I try to be the dominant person when I am with people.
42. I like people to invite me to things.
43. I like people to act close toward me.
44. I try to have other people do things I want done.
45. I like people to invite me to join their activities.
46. I like people to act close and personal with me.
47. I try to influence strongly other people's actions.
48. I like people to act distant toward me.
49. I like people to include me in their activities.
APPENDIX III

BREAKDOWN OF TEST QUESTIONS AND CORRESPONDING NUMBERS

Expressed Inclusion

1 - I try to be with people.
3 - I join social groups.
5 - I tend to join social organizations when I have an opportunity.
7 - I try to be included in informal social activities.
9 - I try to include other people in my plans.
11 - I try to have people around me.
13 - When people are doing things together, I tend to join them.
15 - I try to avoid being alone.
16 - I try to participate in group activities.

Wanted Inclusion

28 - I like people to invite me to things.
31 - I like people to invite me to join in their activities.
34 - I like people to include me in their activities.
37 - I like people to ask me to participate in their discussions.
39 - I like people to invite me to participate in their activities.
42 - I like people to invite me to things.
45 - I like people to invite me to join their activities.
48 - I like people to include me in their activities.
51 - I like people to invite me to participate in their activities.

Expressed Control

30 - I try to influence strongly other people's actions.
33 - I try to take charge of things when I am with people.
36 - I try to have other people do things the way I want them done.
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<tr>
<th>Table</th>
<th>Description</th>
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</tr>
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<tbody>
<tr>
<td>1</td>
<td>Mean Scores and Significance Levels for t.</td>
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</tr>
<tr>
<td>2</td>
<td>Mean FIRO-B Scores for CG Group.</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>Mean FIRO-B Scores for O Group.</td>
<td>29</td>
</tr>
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</table>