SOME PERSONALITY CHARACTERISTICS OF STUDENT

TEACHERS OF GUIDANCE

by

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B.A., M. Ed., University of British Columbia, 1962

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

in the Faculty

of

Education

We accept this dissertation as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

June, 1968

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The University of British Columbia Vancouver 8, Canada June 4, 1968. Date

ABSTRACT

Thompson, S.D. Some personality characteristics of student teachers of Guidance. Unpublished doctoral dissertation, University of British Columbia, 1968.

Problem

The problem of this study was to ascertain whether selected personality dimensions that can be hypothesized from a model stressing positive health relate to success in practice teaching in Guidance. From clinically observed behaviours of self-actualized people, three were selected as relevant: flexibility, self-acceptance, and concern for others. The general hypothesis of the study was: there will be a positive relationship between ratings of student teachers and their scores on selected measures.

Methods of Investigation

The selected personality dimensions were measured by the scales of the Personal Orientation Inventory and of the California Psychological Inventory, and by scores on five supplementary measures: the Haigh-Butler Q sort, the Dymond Adjustment scale, a case study, a questionnaire, and a lesson plan. These constituted the independent variables of the study.

Two types of criteria were used: a Faculty of Education rating of student teaching, and ratings based on the teaching

of a demonstration lesson.

The sample of this study was limited to student teachers of the University of British Columbia, winter session 1966-67, enrolled in Education 404 (Curriculum and Instruction in the Teaching of Guidance) in the professional year of training for teaching in secondary schools.

Simple correlation, multiple regression, the discriminant function, and image analysis were used in the analysis of relationships between the independent variables and the criteria.

General Conclusions

Four research questions were asked. The first was: how strong a relationship will exist between the scores on the independent variables and the University ratings? Significant correlations were found between this criterion and the following variables: Capacity for status (CPI), Existentiality (POI), the Q sort, and the case study. Correlations in the POI measure and the Q sort were negative.

The second question: how strong a relationship will exist between ratings given by students and by adult judges to student teachers on the basis of demonstration lessons and their scores on the instruments used? The criterion of students: ratings proved to be non-discriminating, and therefore was not formally analyzed. On the adult judges! ratings, significant correlations, all in the negative direction, were found between this criterion and the following: Self-actualization total (POI), Time competence (POI), Inner directedness (POI), Selfactualizing values (POI), and Existentiality (POI).

To answer the third question: will scores on the independent variables contribute anything to the classification of student teachers of Guidance as superior and non-superior on either criterion, t tests for significance between means were performed on four different groupings, and the general results were in the direction of the previous findings, i.e. a direction opposite to that hypothesized.

The fourth question: will dealing with patterns of scores through multivariate procedures yield more information about the student teachers than univariate techniques? The results were in general agreement with the results of univariate techniques, viz., scales the model indicated should select good criterion people in fact did not; indeed, the reverse tended to be true.

The use of image analysis on the Q-sort answers further corroborated these findings. Four interpretable factors were isolated, the characteristics of those people loading heavily on one factor appearing to be similar to those hypothesized in the model. Generally, however, the relationship with criteria was a negative one.

The major conclusion of the study is quite clear: the hypothesis that student teachers rated as self-actualized and well-adjusted as measured on the scales of the instruments of this study would be judged as superior in performance was not supported. In fact, the correlation was negative. Examination of the data from the instruments gave no evidence that these findings could be attributed to the uniqueness of the sample.

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ACKNOWLEDGMENT

The writer wishes to express her appreciation to the members of her committee, and in particular to Dr. M.B. Nevison, and to Dr. D. McKie.

CHAPTER I

THE PROBLEM

Background of the Problem

Considerable attention has been devoted to the study of characteristics of teachers generally (Barr, 1955; Combs, 1965; Peck, 1960; Ryans, 1960a) and to the study of characteristics of counsellors (Allen, 1967; Cottle, 1953; Whiteley, Donaghy, Mosher, & Sprinthall, 1967). Thought has been given, also, to distinguishing between the guidance and instructional roles of the classroom teacher (Cottingham, 1962). Here the guidance function has been envisaged as embracing those activities and experiences designed to assist students in making decisions, solving problems, and choosing goals, whereas the instructional role has been seen as primarily emphasizing the acquisition of knowledge, skills, facts, and attitudes considered to be socially necessary.

Little research appears to have been devoted, however, to the question of characteristics of teachers of Guidance. This lack may be partially explained by the absence of any clear definition as to what constitutes Guidance teaching. In some areas, home-room periods are devoted to a Guidance program; in other places, specific courses on topics such as vocational information or personal development are considered integral to the Guidance program. In British Columbia, however, a Guidance curriculum has existed for a number of years, a curriculum consisting of an outline of required courses in the public school system from grades 8 to 11. Nevertheless, in the past, no specific training or preparation existed for teachers in this curricular area. Various practices in choosing people to teach the Guidance course had evolved. In some schools, counsellors or home-room teachers were the Guidance instructors; in other schools, any available teacher was asked to assume this responsibility.

One aspect of this situation changed in 1965 when the Faculty of Education at the University of British Columbia introduced a teaching major in the field of Guidance. From that point on, student teachers began to select Guidance as a teaching major, and a group of teachers began to enter the school system requesting Guidance as one of their two teaching majors.

The Problem

Once training for Guidance teachers became available, a number of questions became pertinent, questions related to admission and selection, and to evaluation of performance. The initial general question which formed the basis for this study was: what personality dimensions that can be hypothesized from a model stressing positive health relate to success in practice teaching in Guidance?

The questions on which the design was based are the following:

- Are there measures that will correlate substantially with superior performance in the practice teaching of Guidance?
- 2. Among various kinds of measures--standardized and situational--which kind will correlate most highly with performance in the practice teaching of Guidance?
- 3. Among personality measures, can any be selected on theoretical grounds that could be expected to correlate with superior performance in the practice teaching of Guidance?
- 4. Can additional personality characteristics of student teachers of Guidance who are rated as superior in performance be identified?
- 5. Of the measures selected on theoretical or a priori grounds, which ones singly or in combination will best predict superior performances on the criterion measures?

CHAPTER II

A SUMMARY OF STUDIES IN THE LITERATURE

This chapter will review studies having general relevance to the problem, and those concerned particularly with the instruments used.

Studies Having General Relevance to the Problem

Little research appears to exist directly pertinent to the area of this study--the personality characteristics of teachers in the curricular area of Guidance. As a consequence of this lack, most studies are somewhat peripheral, related to teacher characteristics (e.g., Burkard, 1962; Combs, 1965; Gillis, 1964; Isaacson, McKeachie, & Milholland, 1963; Peck, 1960; Reed, 1961; Ryans, 1960a), to criteria and prediction of teacher effectiveness (e.g., Barr, 1955; Cogan, 1958; Gowan, 1960; Guba & Getzels, 1955), and to characteristics of counsellors (e.g., Allen, 1967; Astin, 1967; Benoit, 1964; Cottle, 1953; Gruberg, 1964; Sprinthall, Mosher, & Whiteley, 1966; Van Buren, 1963; Whiteley et al., 1967).

Helen Driver (1958), however, presented summaries of projects in which counsellors used group methods in classroom situations, and though she recognized the problems of a counsellor in a teaching situation, she presented no experimental data. Kemp (1964) and Lifton (1962) also discussed the question of the role of the teacher in group discussion situations, but again without research evidence.

Although most of the studies in the literature are peripheral to the concern of this study--characteristics of a teacher using a curricular area and group discussion method-nevertheless, some of the peripheral studies are of considerable interest. Two studies examining the problem of predicting from personality instruments to teacher effectiveness are those of Michaelis (1954) and Tyler (1954); results in both, however, were disappointing, in that no scales on the instruments used were found to have a significant relation to rated success in student teaching. Michaelis concluded his study thus:

There is a need for a theoretical analysis of teacher personality. One drawback in personality theory is the lack of basic information about personal traits and characteristics of normal persons who choose teaching as a profession. An analysis of theoretical considerations oriented toward teaching may give clues to the development of predictors that will prove more valuable than the approaches that have been employed in the past (Michaelis, 1954, p. 477).

Durflinger (1963) conducted a study using a sample of 464 college students enrolled in education courses. He had two purposes in mind: the assessment of the validity of certain instruments designed to measure the personality of students as predictors of success in student teaching; and the determination of those personality traits most highly correlated with specific characteristics of teacher effectiveness. He used five criteria of teacher effectiveness: a teacher-rating scale, grades in student teaching, grades in methods courses, the grade-

point average, and parts and combinations of the preceding four. The personality inventories used were the California Psychological Inventory, the Heston Personal Adjustment Inventory, and the Minnesota Teacher Attitude Inventory. He developed a multiple R, from his four highest predictors, of .37 with the rating scale, and .67 with student-teaching grades. The three scales of the CPI of interest in the present study-flexibility, self-acceptance, and psychological-mindedness--all correlated negatively, from -.27 to -.47, and significantly at the .01 level, with student-teaching grades.

Another pertinent study is that of Dunteman, Anderson, and Barry (1966). Their research program had two general areas: an examination of the personality characteristics which might discriminate among students entering several of the healthrelated professions, and an examination of those personality and other characteristics which might differentiate between successful and non-successful students in these health-related professions. This study was concerned, therefore, with differential prediction of success for different major areas, and the technique of multiple regression analysis was used to develop equations for predicting academic and clinical success for the three curricular areas under study. Then, from the discriminant analyses of the same predictor variables, equations predicting the similarity of a prospective student to each of the three groups were obtained. Thus, the regression and discriminant analyses indicated for each student his similarity

to, and predicted success in, each of the three curricula. The measures used were the Florida Placement Examination, the School and College Ability Test, the Attitude toward Disabled Persons Test, the Minnesota Multiphasic Personality Inventory (MMPI), and the Strong Vocational Interest Blank (SVIB). The criterion was the stated occupational choice of the students.

The findings to date indicate that the Florida Placement Examination and the SVIB discriminated among the groups, while the other measures did not. The SVIB predicted group membership most efficiently. One of the interesting findings in this research was the low correlation between clinical and academic success. It was felt that these areas demanded separate abilities, each necessary for successful completion of training.

A study by Flanagan (1961) used the MMPI in an attempt to establish a relationship between scores on its scales and success in practice teaching. It was hypothesized that profiles of highly rated teachers would differ significantly from those rated lower. The study involved 167 freshmen--11,7 females, 20 males. The author stated his belief in the value of studying the students in their chosen major fields, but concluded that his sub-groups would be too small. However, the most interesting finding was the positive relationship for women, at a significance beyond the .02 level, of a high coding on scale 3 (Hy) with a supervisory rating of outstanding efficiency in practice teaching. High coding on this scale appears to indicate lack of social problems.

Cogan (1958) in a study of 33 grade-eight teachers and 987 pupils found a correlation of .28, significant at the .01 level, between teacher behaviour described as inclusiveness-defined as behaviour expressive of the teacher's integrative, affiliative, and nurturant needs--and pupils' scores on required work. This study made use of a product type of dependent variable rather than the more common process type.

Two studies having their theoretical foundation in Rogerian research are those of Scheerer (1949) and Ganther (1962). Both hypothesized on the basis of Rogers' presuppositions that a positive relationship would exist between acceptance of self and acceptance of others, and they found correlations of .40 to .44 between measures of self-acceptance and indications of the acceptance of others.

A study by Wrightsman, Noble, and Richard (1966) also indicated that measures of self-concept and of attitude toward human nature are sensitive indicators of characteristics which are present in the highly-rated counsellor.

Dixon and Morse (1961), using empathic potential as a predictor correlate, found only one correlation coefficient to be significant at the .01 level: an r. of .42 between the Teacher Self-Concept Inventory and the empathy rating obtained from students. The results indicated that students do have different perceptions of the teacher's ability to develop good interpersonal relationships. Those student teachers who developed positive feelings toward their students were

significantly more stable in their appraisal of themselves.

Other studies cited relate directly to the instruments used in this design.

Studies Having Particular Relevance to the Problem

Personal Orientation Inventory

Although the Personal Orientation Inventory (POI) has only been available for research use since 1963, several studies have been reported.

The author of the Inventory, Shostrum, conducted a study (1964) which demonstrated the effectiveness of the POI in differentiating between two groups, one composed of individuals nominated by qualified therapists as fully functioning, welladjusted individuals, and the other composed of individuals nominated as less fully functioning. A second study, conducted by him with Knapp (1966), involving two groups of patients in psychotherapy--one a beginning and one an advanced group--gave significant indications that as therapy progresses, pathology as measured by the MMPI decreases, and health, as measured by the POI, increases. A study by Knapp (1965) examined the relationship of POI to neuroticism and to extraversion as measured by the Eysenck Personality Inventory. The study was designed to examine the concurrent validity of the instruments, in that both had been shown to be valid in terms of differentiating between groups nominated by clinicians as being

representative of poles of the dimensions specified. Knapp hypothesized that mean scores on the POI would be lower for a highly neurotic group than for a group comparatively low on neuroticism, and his data supported his hypothesis on every scale. All obtained differences were significant at or beyond the .05 level. One observation that Knapp makes is pertinent to the present study:

The mean POI scores of the present total group are below those of the mean profile for the adult norm sample presented by Shostrum. The basis of this appears to be that the present data are based on a college undergraduate sample. Shostrum (1963) also found his college normative sample (obtained in a similar institution) to be lower on all scales than the mean adult normative sample presented. This finding would be predicted by Maslow (1954), who, in searching a college campus for self-actualized subjects, stated, "I had to conclude that selfactualization of the sort I had found in my older subjects was not possible in our society for young developing people (p. 200)."... It may be that it is the peculiar situation of the young adult attending college in our society that results in scores suggestive of a "searching for identity" rather than the age per se. The availability of an objective measure of self-actualization makes this a relatively easy hypothesis to test (Knapp, 1965, p. 171).

Other studies (Fox, 1965; Weir, 1965) conducted with non-normal groups demonstrated the usefulness of the POI in differentiating between these samples and the original clinically-nominated, self-actualized, validation sample. All but one scale showed these experimental groups to be significantly lower than the normal adult sample reported by Shostrum.

A study using the POI in an industrial setting (Margulies, 1965) revealed marked mean differences in values measured by the POI between various departments of an electronics manufacturing company. The differences were found to be related to organizational climate within departments, thus leading to the conclusion that a relationship existed between levels of self-actualization of department members, and organization of work.

Three studies (Leib & Snyder, 1967; Murray, 1966; Pearson, 1966) relate more directly to an educational setting.

Murray's study, based on a sample of 26 teachers and 2333 students, hypothesized that the self-actualized teacher would be perceived as "more concerned," as measured by the Students! Estimate Of Teacher Concern (SETC). Data supported this hypothesis. However, the sample was of an unusual population comprised of teachers all rated as "successful"; therefore, the mean on the total self-actualization score, 140.3, appears high, and the standard deviation, 13.5, restricted. This study was the first, apparently, to use the total score of the timecompetence and inner-directedness scales; and to determine whether the use of this total score would be as effective in ranking teachers as the use of ratio or scale scores, Kendall's concordance coefficient was used. The resulting value was .31. The F ratio obtained was significant at the .001 level. In this study the ranking of teachers was determined by the total POI score.

Pearson's (1966) study attempted to assess the effectiveness of a group guidance program for 154 freshmen at the Kentucky State College, and to evaluate the usefulness of other methods of orientation. The problem was stated thus: does group guidance contribute significantly to students' college adjustment? Self-actualization as measured by the POI was considered to be the dependent variable, and the design involved the use of four groups: one using small-group interaction, one using large-group participation, one using lectures, and the fourth being considered a control group. The F ratio for the analysis of variance of different scores of the 14 scales (using the ratio scales for time competence and innerdirectedness) showed only one scale, existentiality, to be significant. Differences were found between means, however, using t ratios of differences, for the following scales: other-directedness, existentiality, self-acceptance, and synergy.

Leib and Snyder (1967) examined the effects of group discussion on underachievement and self-actualization. Specifically, the problem was: would group discussion result in greater gains in self-actualization (as measured by the POI) for underachievers than would the lecture method? As in Pearson's study the POI was regarded as the dependent variable; a single scale, however--that of inner-directedness--was used. No significant between-groups effect was found in this study, though both groups showed an increase in self-actualization, as measured by this scale, between initial and final testing. The

authors attribute the increment to the Hawthorne effect of the special attention to both groups. They conclude their study by stating the need for clarification between the concepts of selfactualization and under-achievement, recommending a correlation study between self-actualization and academic achievement to clarify the connection between these two concepts.

California Psychological Inventory

Although the California Psychological Inventory was published as recently as 1957, hundreds of studies based on its use have been reported. Those reviewed here fall into three categories: those related to counselling or prediction, those related to faking and set response, and those related to factor analytic studies.

In a study on the use of the CPI in a university counselling service (Goodstein, Crites, Heilbrun, & Rempel, 1961) the over-all elevation of the CPI profiles for males was found to differ significantly at the .01 level between client and non-client groups. The sample consisted of 88 students. A Model Type 1 analysis of variance was performed in which the blocks, columns, and rows effects corresponded to the differences in the three groups of the design: those asking for counselling services concerning personal adjustment, those concerned with vocational education, and a control group.

A study by Holland (1959) was designed to test the usefulness of the CPI alone and in combination with the Scholastic

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Aptitude Test as a predictor of scholastic achievement for a sample of exceptionally talented college freshmen. Multiple regression equations were derived for the sample and applied to cross-validation samples, and the results tended to confirm the use of the CPI in predicting scholastic achievement. Holland says:

In scale terms, these findings suggest that the high achiever lacks capacity for status, is unsociable, lacks poise and self-confidence, is self-deprecating and inflexible, minimizes worries and complaints, is conscientious and responsible, is well controlled, and creates a favorable impression, does well academically under direction but is not as adept in situations demanding independent judgment, is interested in and responsive to the feelings of others, and has feminine interests. In contrast, the low achiever is poised and socially skillful, has positive self-attitudes, is flexible, admits worries and complaints, has less intense superego qualities, is impulsive, creates a less favorable impression, possesses less motivation for academic achievement, and has more extraceptive and masculine interests. Although individual colleges follow this general pattern, the eight colleges show a wide range of differences on a more limited number of scales. These findings suggest that achievement in the majority of colleges results from a general cluster of personality and aptitude variables, but that a given college may demand, in addition, a limited number of specific characteristics (Holland, 1959, p. 144).

The unusual population of this sample must be remembered, however. All the students were exceptionally talented, and differentiation between the high and low achiever in such a group might have few implications for other groups. Nevertheless, the finding of the unexpected predictive efficiency of the flexibility scale is interesting. The negative correlation is in the opposite direction to that hypothesized in the present study. One explanation may lie in the uniqueness of the group; another, in the differences indicated by Dunteman, Anderson, and Barry in effectiveness in academic and clinical settings. More important, however, is the conclusion by Holland that combinations of personality and scholastic aptitude measures are more efficient in predicting scholastic achievement than either used separately.

A study by Allen (1966) was designed to investigate the relationship between certain scores on two measures--the CPI and Leary's Interpersonal Check List, and the criterion of successful student teaching for a group of students at the University of Maryland. The technique used was the discriminant function analysis, and three of the independent variables were retained as predictors. Two of the CPI scales were found to be significantly correlated with the criterion at the .01 level: dominance and achievement via conformity. In an interesting passage with implications for the present study, Allen states:

According to the scale descriptions in the CPI manual, the "most successful" student teachers tend to be seen as being more ascendant, self-centered, persuasive, planful, persistent, conforming, valuing intellectual activities, and having positive regard for authority figures. Many interpretations of such a composite definition are possible. One of these recognizes the presence in this composite of elements which partially support a tendency toward.... "creeping dogmatism" among beginning teachers. If...the presence of directive, conformistic tendencies favors such a dogmatic orientation, and provided such a condition is judged to be a function of present training

procedures, examination of the success criteria in these programs should be considered. Further research of this specific question might prove worthwhile.

The CPI scales were judged to be sufficiently promising to be worth further investigation. If this is attempted, it is suggested that a greater effort be made to increase the uniformity of the basis for assigning grades and ranks to student teachers. Having all student teachers rated by the same panel of raters might be one way of achieving such improvement (Allen, 1966, pp. 15,16).

In Durflinger's (1963) research, already alluded to, it should be noted that the sample was comprised of elementaryschool student teachers only. The author's discussion of his findings is certainly not encouraging in terms of the theoretical position taken in this study.

There is indication from the grade in student teaching that the more successful teacher shows a lower degree of self-acceptance--a finding which suggests that he tends to be conventional and quiet and given neither to self centeredness nor aggressive behavior...he exhibits a significant tendency to be less flexible than those members of the standardized sample.... The Psychological Mindedness scale determines the degree to which the individual is interested in and responsive to the needs and motives and experiences of others. Of all the variables studied, standing on this scale shows the highest negative correlation with grades in student teaching (Durflinger, 1963, p. 390).

One of the major problems discussed in the literature concerning the CPI is the role of response styles of acquiescence and desirability. Messick stated:

In the construction of <u>empirically derived inventory</u> scales, items are selected that significantly discriminate among criterion groups. The most widely known examples are scales from the Minnesota Multiphasic Personality Inventory (MMPI) and from the California Psychological Inventory (CPI).... Because of the widespread use of these inventories in the clinical settings, considerable attention has been given to the problem of faking.... A major problem on the MMPI and CPI is the predominant role of the response styles of acquiescence and desirability.... Presumably, these response styles are correlated with the criterion distinction utilized in the empirical scale construction...but their massive influence on these inventories drastically interferes with the attempted measurement of other content traits and limits their possible discriminant validity (Messick, 1966, pp. 561,562).

Jackson (1960) called attention to the fact that the response-evoking properties of a particular item may contribute consistently to the variance of a test above and beyond the variance attributable to content. With regard to social desirability, he concluded that those scales which showed the largest susceptibility to faking (as reported in the manual) should be considered to reflect greater social desirability. He found that the index of social desirability correlated negatively with the proportion of items keyed "true," an r of -.36. His study supported his hypothesis that acquiescence is a major source of variance in the CPI, and indicated that a response set was an important score determinant.

Dicken (1960) also found that some scales are vulnerable to acquiescence bias but he nevertheless concluded that the CPI is relatively resistant to differential bias and that simulation is detectable.

A number of studies have been conducted to answer the question: what psychological variables are assessed by the

CPI? According to Gough (1964), there were eighteen different characteristics, but evidence has been given that these aspects of personality might be described more parsimoniously. Thorndike (1959) asserted that of the 18 scales of the CPI there are only four that fail to correlate at least .50 with some other scale.

Mitchell and Pierce-Jones (1960) undertook a study to obtain evidence that would help to shed light on the empirical justification of the scales and scale groupings offered by Gough (1964). A total of 258 cases was employed, enrollees in a teacher-training curriculum. A correlation matrix was constructed which consisted of the 153 CPI scale product-moment intercorrelations. From this matrix four factors were extracted by the centroid method, these factors accounting for 26%, 15%, 7%, and 12% of the total variance. The authors described the four factors as: (1) adjustment by social conformity, (2) social poise or extroversion, (3) super-ego strength, (4) capacity for independent thought and action. These four factors contrast considerably with those of Gough. The three scales referred to in this study fell into three separate scale groupings by the Mitchell --- Pierce-Jones nomenclature, two by Gough's. The authors stated, further, that judging by their results, individual personality profiles might well be based on only a few selected CPI scales; for example: social poise by the self-acceptance scale, and capacity for independent thought and action by the flexibility scale. The selection of

these two scales was of particular interest to the writer.

Springob and Struening (1964) also indicated that a large percentage of the reliable variance of the sub-scales of the Inventory could be predicted by five or six reference dimensions or scales. They emphasized the need to reconsider what is being measured by the scales and the desirability of reducing the number of scales. Kelly (1965) in a review agreed that most of the information obtained in the 18 scores could be reflected in four or five scores, and he also suggested that some of Gough's scales might be incorrectly classified into the basic four groupings.

Dicken (1963) reported a study on the convergent and discriminant validity of five CPI variables, according to the criteria proposed by Campbell and Fiske (1959). Their concern was similar to that expressed by Springob and Struening: if assessment is to be efficient, scores of presumably different traits should have a low correlation. Measurement of five personality dimensions by CPI and by composite ratings of observers were compared in regard to the four criteria of convergent and discriminate validation proposed by Campbell and Fiske (1959). Four of the five CPI variables met the criterion of convergent validity, two only minimally; two satisfied the criterion of discriminant validity. The difficulty may rest, Dicken suggested, either in the inadequacy of the ratings used or in the restricted variability and high average scores on the CPI.

A number of studies such as those of Wittenborn (1961) and Sheldon (1960) have been conducted using Stephenson's (1953) Q technique. Only two of the most comprehensive of these are alluded to in this review: those of Rogers and Dymond (1954) and of Block (1961).

The book by Rogers and Dymond described a large-scale research program on psychotherapy conducted over a period of years at the Counselling Centre of the University of Chicago. Their associates, Butler and Haigh, described one part of the research in Chapter IV of <u>Psychotherapy and Personality Change</u>.

The authors began by stating two assumptions: first, that the individual is able to make types of judgment about his self-perception and to order them along a continuum; second, he is able to order his self-perceptions along a continuum of value, from "unlike my ideal" to "like my ideal." The discrepancy between placements on these two scales yields an indication of self-esteem.

The instrument was composed of one hundred self-referent statements selected, as the author says, on an accidental rather than on a truly random sampling basis from available therapeutic protocols. The major hypothesis of the study was that clientcentered counselling results in an increase in congruence between self and ideal-self concepts in the client. The relationship

Q Sort

approached a zero correlation at the outset; by the end of counselling, the mean correlation was .34, a statistically significant change. The control group exhibited a correlation between sorts at the out-set of .58, and at the follow-up point, of .59. The authors concluded:

In our opinion the results discussed here indicate that low correlations between self and ideal are based on a low level of self-esteem related to a relatively low adjustment level and that a consequence of client-centered counseling for the clients in this study was, on the average, a rise in the level of self-esteem and of adjustment (Rogers & Dymond, 1954, p. 75).

Wylie (1961), in her comprehensive review of the literature concerning the self-concept, gave a detailed account of this instrument, voicing many of the reservations expressed by Cronbach and Gleser (1954) and others. Kerlinger (1965), however, supported the use of the Q sort when ipsative measures are desired. The fact that Q methodology sacrifices level and spread for shape is of concern; discrepancy scores and global indices tend to have an obscuring effect with regard to individual differences. Wylie questioned whether the ideal sort contributes significantly to the data, since the major changes in therapy appear to occur with the self sort. The question of the meaning of any given size of discrepancy between the sorts was not really dealt with in the study by Butler and Haigh.

In the present design, the writer used the Q sort as one measure of self-regard, hoping to discover some kind of

relationship between it and the other measures of self-regard used in the POI and the CPI. Because of the criticism by Wylie, it was decided that, should the Q sort contribute anything to the problem of classification in the initial analysis, further analysis would be confined to the self sort.

No single study of the several reported by Block (1961) is referred to, because of the great extent of his research. Rather, his different use of the Q sort is of interest, because the sort is used chiefly for purposes of ratings by observers, rather than as an ipsative measure. One of the modes suggested by Block is that of the sort and criterion sort, similar to the self-ideal sorts of Haigh and Butler.

Of particular interest to the writer is the suggestion that it may be desirable to go beyond the simple correlation of Q sorts to the analysis of matrices of Q-sort correlations. Block says:

Rather than grouping people on some independent basis of classification and then analyzing the characteristics of the Q-sorts that come out of each group, we may reverse the sequence and group individuals on the basis of their Q-sorts, then analyzing independent sources of information for the correlates of group membership (Block, 1961, p. 107).

Out of this grouping, some answers may be found to the question of what members of any sub-groups in the present sample are like.

CHAPTER III

THE DESIGN

The Theoretical Framework and Model Building

The theoretical framework for the present study is provided by the proponents of the "Third Force" theory of personality. Just as the other two comprehensive theories, identified broadly as the psychoanalytic and behavioristic, are not single cohesive theories, so the "Third Force" may be described as a family of theories embracing ego psychology, humanistic psychology, existentialism, phenomenology, and rational psychology (Hall, 1965, p. 5). The group includes the Jungians, Rankians, and Adlerians, as well as neo- and post-Freudians such as Szasz and Marcuse. The influence of Gestalt and Lewinian psychology and of personality psychology such as that of G. Murphy, G. Allport, Murray, and Moreno has been substantial within the movement. It would appear that the Third Force movement is diverse, but a few central concepts characterize this school of thought.

The primary emphasis is on health, and on the necessary conditions for the development not only of healthy personalities but of healthy societies. Maslow maintains that this point of view in no way denies the Freudian picture, but he claims it adds to and supplements it (1962). He admits the twofold nature of man, his lower and his higher selves, but he seeks, like the
existentialists, to avoid dichotomizing, stressing rather that both are ways of defining or describing characteristics of human nature. Neither side is rejected, but Maslow stresses the need for integrative techniques, techniques of "insight, of intellect in the broader sense, of love, of creativeness, of humor and tragedy, of play, of art (1962, p. 11)." He questioned:

How can we encourage free development? What are the best educational conditions for it? Sexual? Economic? Political? What kind of world do we need for such people to grow in? What kind of world will such people create? Sick people are made by a sick culture; healthy people are made possible by a healthy culture. But it is just as true that sick individuals make their culture more sick and that healthy individuals make their culture more healthy. Improving individual health is one approach to making a better world. To express it in another way, encouragement of personal growth is a real possibility; cure of actual neurotic symptoms is far less possible without outside help (Maslow, 1962, p. 5).

A second central characteristic of the Third Force position is a positive approach to personality growth in which man's basic drive is seen as a striving to attain the potential of which he is capable. Various theorists use different terms to describe this point of view. Maslow (1962) uses the term "self-actualization" by which he means "full-humanness"; G. Allport (1963) speaks of the "integrated or mature personality" in describing an individual who lives comfortably with himself, is able to relate warmly to others, and lives in harmony with a unifying philosophy. Rogers (1959) uses the phrase "a fully functioning person"; Bugental (1965), the

"authentic personality." All agree in their emphasis on growth and development.

In this positive approach to personality components, effectiveness is seen, not as an absence of pathology but as the possession of positive attributes of good health. In support of this position, Maslow (1962) has postulated a hierarchy of human needs, self-actualization being considered a "higher" need which can be met only after "lower" needs -physiological needs, safety needs, affection needs, and esteem needs--are met. He has listed characteristics of people described as self-actualized, based on clinical and experimental study. Though the initial selection was made on the basis of a global or holistic approach, he discovered that the selected group exhibited many traits in common such as: superior perception of reality; increased self-acceptance, acceptance of others, and of nature; increased spontaneity; emphasis on problem centering; increased autonomy and resistance to enculturation; identification with the human species; and improved interpersonal relations.

Third Force theory was considered logically appropriate to this study for two reasons: its emphasis on the development of potential is in agreement with the objectives of the Guidance program (Province of British Columbia, 1965); its stress on health rather than on pathology brings it into the area of education rather than into areas of treatment and psychotherapy.

Further, it would seem reasonable to assume that the more a person displayed the characteristics of Maslow's selfactualized person, the greater would be the likelihood of his being effective in his vocational performance. The question therefore becomes: are some of the characteristics of the self-actualized person particularly pertinent to the vocation of a Guidance teacher?

Since the Guidance teacher is conceptualized as being at a half-way point on a continuum of school personnel, sharing with the counsellor at one end the objectives of attempting to provide the student with opportunity for personal growth through the development of self-understanding and understanding of others, and providing opportunity for decision making; and, at the other end, sharing with classroom teachers a classroom environment and a curriculum, are there then particular characteristics of both counsellors and teachers that could be considered as applicable to the Guidance teacher?

Studies of general teacher effectiveness reported by Barr (1955) underline the multidimensionality of teaching proficiency, and indicate that there are many kinds of characteristics effective for different situations, programs, and subject areas. Combs' (1965) study, however, points out the inadequacy of research on competency that has attempted to isolate common traits or practices of good teachers. He claimed that the good teacher is not one who behaves in a given way but one who achieves desirable results, whatever the way (p. 7). He defined the effective teacher as "a unique human being who

has learned to use himself effectively and efficiently to carry out his own and society's purposes in the education of others (p. 9)." He listed five areas he considered crucial for all teachers, areas that have been defined as a consequence of his research:

- 1. Rich, extensive, and available perceptions about one's subject field.
- 2. Accurate perceptions about what people are like.
- 3. Perceptions of self leading to adequacy.
- 4. Accurate perceptions about the purpose and process of learning.
- 5. Personal perceptions about appropriate methods for carrying out one's purposes (p. 20).

In a study concerned with characteristics of counsellors, Wrenn addressed himself to the question of personality dimensions of the counsellor:

It seems that a counselor must have considerable strength to handle the ego-involved counseling relationship, that he must be a socially perceptive (sensitive) person, and that he must have a firm sense of purpose and an articulate value structure (Wrenn, 1957, p. 182).

Though the writings of Combs and of Wrenn have implications for this study, the concern is not with general teacher characteristics, nor with counsellor characteristics, but with characteristics of teachers of Guidance, and, particularly, of student teachers of Guidance. In order to determine those characteristics germane to a Guidance teacher, it was considered advisable to indicate the behavioural outcomes expected in a Guidance class and to attempt to relate these to characteristics of teachers and of student teachers of Guidance that might be expected to evoke or facilitate such outcomes.

The process of guidance has been defined (G. Allport, 1962; Bordin, 1955; Gelatt, 1962; Katz, 1963; Sprinthall & Tiedeman, 1966; Tyler, 1964) as the process of developing within the student the ability to make wise choices. It would seem to follow that a Guidance class should offer opportunity for students to explore alternatives, to compare points of view, and to evaluate consequences of different choices. Thus, the major question: what characteristics in the Guidance teacher would seem most necessary to facilitate this process? What model of an effective Guidance teacher would appear most appropriate?

A survey of the literature concerning both teaching and counselling reveals the existence of a number of models. Some studies (Allen, 1967; Astin, 1967; Dixon & Morse, 1961; Murray, 1966; Reed, 1961) have been based on a univariate approach to characteristics, on variables such as understanding of others, kindness, self-acceptance, acceptance of others, and empathic potential. The difficulties encountered in interpreting the results have arisen, in many instances, from the singleness of the predictor correlate and the multidimensionality of the In Stern, Bloom, and Stein, it is said, "Individuals criterion. do not behave as a manifestation of single variables. They are better described as possessing a constellation of interacting variables (1956, p. 47)."

Other studies (Combs, 1965; Cottle, 1953; Ryans, 1960a) have listed many desirable traits of teachers, but these lists are so inclusive in nature that their relevance is questionable.

The model for an effective Guidance teacher selected in this study was based on Maslow's characteristics of the selfactualized person. However, because of the global nature of the concept of self-actualization, the approach by Sprinthall (Sprinthall et al., 1966) was followed in this study. The approach was to shift from general characteristics to a selection of those considered most salient to the model of an effective Guidance teacher who is attempting to encourage a free exchange of ideas, an exploration of alternative behaviours, and a clarification of objectives and goals of both immediate and ultimate concern.

From among the qualities of the self-actualized person, then, which could be selected as particularly relevant to the Guidance teacher?

Model building involving this selection relied primarily on research done in three areas: that of Combs (1965) concerning the perceptual view of helping relationships; that of Whiteley, Donaghy, Mosher, and Sprinthall (1967) in the area of cognitive flexibility; and that of Rogers (1961) in the area of self-acceptance and acceptance of others.

Combs' position underlines the necessity of the shift from the possession of given traits to the possession of higher-

order concepts, or of value orientations, as Buhler (1962) put it. Stern, Bloom, and Stein (1956, p. 49) called such characteristics organizing factors in behaviour, because they enable the individual to shift and adapt to changes in the environment. Evaluations by others serve as "feedback" on the basis of which the individual may either reorganize or reinforce his behaviour. The building of a model, therefore, revolved around the question: what are the crucial organizing factors in the behaviour of effective Guidance teachers?

Whiteley, Donaghy, Mosher, and Sprinthall (in press) in their studies on both teacher and counsellor effectiveness, have selected the area of cognitive flexibility for research, stating that this psychological dimension represents for them a most relevant theoretical statement for deriving operational judgments about effective behaviour. They also reject the idea of the trait approach to flexibility, claiming rather that its operation is dependent on situational factors. Their position that complexity of perception makes possible alternative behaviours, and that such complexity would be an antecedent factor in making possible flexibility of reponse, is consistent with the perceptual point of view advocated by Combs (1965). Particularly relevant to Guidance teaching is the discussion of pathological openness, defined as the tendency to seem so flexible that effective functioning is not possible. As they pursue this dimension, they stress the need for providing structure when it is appropriate. In their words:

Flexibility is reflected in the capacity for and implementation of alternative behaviors when justified by changing circumstance. Pathologically open individuals cannot respond to the requirements of altered circumstance (Ch. 11, p. 14).

Whiteley and his associates examined conditions which tend to produce rigid behaviours, and concluded that situations of stress and anxiety may result in rigid behaviour. Translated to a situation of student teaching, this would imply the need for student teachers' learning to understand situations that tend to mobilize rigid behaviours in themselves. "Openness to learning about oneself and capacity for self-insight would become critical qualities in individuals who...seem to have some rigid qualities (Ch. 11, p. 20)."

The work of Rogers is primarily oriented to counselling, and his client-centered philosophy is considered relevant to the field of Guidance with its emphasis on student needs. In discussing the facilitation of personal growth, he stated:

If I can create a relationship characterized on my part: by a genuiness and transparency in which I am my real feelings; by a warm acceptance of and prizing of the other person as a separate individual; by a sensitive ability to see his world and him-self as he sees them:

Then the other individual in the relationship: will experience and understand aspects of himself which previously he has repressed; will find himself becoming better integrated, more able to function effectively; will become more similar to the person he would like to be; will be more self-directing and self-confident; will become more of a person, more unique and more self-expressive; <u>31</u>

will be more understanding, more acceptant of others; will be able to cope with the problems of life more adequately and more comfortably (Rogers, 1961, pp. 37,38).

On the basis of the work of Combs, of Whiteley and his associates, and of Rogers, and from Maslow's clinically described behaviours of the self-actualized person, a model for Guidance teachers has been hypothesized based on the postulation of personality factors as crucial, on the belief that the dimensions selected are primary, and that Guidance teachers will vary on these dimensions according to their rating as effective or ineffective teachers. The "model" teacher would stand high on all dimensions. The three attributes or organizing factors selected as significant for this model of the effective Guidance teacher and student teacher of Guidance are: flexibility, self-acceptance, and concern for others. These factors may be described as follows:

1. Flexibility. This personality dimension is inferred from Maslow's descriptions of his self-actualized subjects as having superior perception of reality; resistance to enculturation; increase in problem-centering; spontaneity; efficiency in the use of time.

2. Self-acceptance. This characteristic is related to an absence of guilt, shame, and anxiety, and to a healthy acceptance of things as they are. Lack of defensiveness and protective colouration characterizes the self-actualized person, who, because he can accept himself, finds it easier to

accept others. Accompanying this willingness to accept one's limitations and strengths is an increased autonomy, an independence of culture and environment, a quality of being "selfcontained."

3. Concern for others. Maslow describes the selfactualized person as tending to be kind and patient, and in a very real sense having compassion for mankind. There is a tendency to give respect to every human being, just because he is a human individual.

This, then, became the hypothetical model for this study: a student teacher of Guidance standing high on the dimensions of flexibility, self-acceptance, and concern for others. On theoretical and empirical grounds, this model seemed appropriate, and the major instruments of the study were selected in accordance with this model.

Paradigm

The form of the paradigm is as follows:

- 1. Select a set of criteria of teacher effectiveness. These criteria become the dependent variables.
- 2. Measure the criteria.
- 3. Measure potential correlates or the predictors of these criteria, selected in accordance with the model.
- 4. Determine the relationships between the criteria and the potential correlates.

The Sample

This study was limited to the student teachers enrolled in Education 404 (Curriculum and Instruction in the Teaching of Guidance) at The University of British Columbia, winter session 1966-67. Most of the members of the class were completing their one-year professional training in the Faculty of Education at The University of British Columbia after having received the baccalaureate degree. Data regarding the background of the members of the class are presented in Table 1.

This sample should be regarded as an "intact" (Tyler, 1954) sample. Any generalizations made from this study could be regarded as valid only in so far as this group may be considered as representative of a conceptualized population of student teachers in the Guidance field. Generalization to any actual population (for example, future Education 404 classes in Guidance at The University of British Columbia) would be a matter of advancing specific hypotheses for testing rather than applying the general findings of this study to another sample.

The Criterion Problem

One of the major problems in experiments concerning teacher effectiveness has been the question of the criterion. In spite of more than fifty years of research in this field, no agreed-upon criteria have been established (Mitzel, 1960) and the literature pertaining to studies on the relationship between

TABLE 1

INFORMATION ABOUT SAMPLE MEMBERS $(N = l_{1}l_{1})$

1. Previous Faculties of Members of Guidance Class

Arts	Science	Education	Other
33	2	3	6

2. Majors in Undergraduate Courses

Psychology	(Other) Humanities	Science	Physical Education	
27	25	6	1	

3. Average Reported Mark in Graduating Year

-				and the second secon	_
	1	2	Р	Missing	
	3	35	4	2	
1. 2. P.	.ls .2n	t cla d cla ss	133 133		

4. Teaching Majors in Education

Guid.	Phy. Ed.	En.	Soc. Stu.	Sci.	Math.	Others	Guid. Audits
36	6	21	5	4.	3	5	8*

" These students did not take Ed. 404 (Guidance) for credit.

5. Marital Status

Married	Engaged	Single	
11	6	27	

6. Place in Family

Eldest	Only	Youngest	
18	8	6	

7. Age, Sex, and Rating in Final Practicum

		والمعاري والمكالب وبرا الشاكر والمتعالي والمتعاد	ومداور ماكر على مزيد فاعر مارد	والمحاصية فالحكا متساكاته ببغ	-	
	Mal	.0	Fem	ale		
	Old	Young	01d	Young	lotal	
 Superior 	9	2	2	12	25	
Non Superior	10	1	2	3	16	
Total	19	3	4	1 5 N	= 41*	

* 3 women, 2 old, 1 young, were not rated because they held Elementary Teaching Certificates, and thus were not eligible for evaluation.

01d	Ξ	over 23	•	
Young	=	23 or under		
Superior	=	1st or 2nd class (a	as	defined)
Non Superior	Ξ	below superior		

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predictor variables and criteria, though extensive, fails to select probable correlates of teacher effectiveness. Gowan (1960, p. 413) voiced the opinion of many, including Tyler (1954), when he stated that the usual experience is to find studies sophisticated in the analysis of personality scales but naive in analysis of criterion parameters. Tyler (1954), in his concluding discussion concerning his research, believed that the unreliability of the criterion might have been a factor in the production of his negative results. Nevertheless. the type of criterion he used was the type commonly used in teacher training institutions, namely rating of student-teacher performance in practice teaching. Some of the inadequacies of this method are apparent: raters differ in competency and in experience; bias and subjectivity enter into rating; observations are not always spaced; assumptions are made about the "global" nature of teacher effectiveness so that a teacher rated as effective in one subject area may be given a "global" rating which is supposed to pertain to other subject areas. In spite of the weaknesses of this criterion of effectiveness, it is certainly the most common kind in use.

The discussion in the literature of the criterion problem is extensive. One method for classification of criteria is that dependent on types of ratings--ratings by students, by sponsor teachers, by instructors of the teacher training institution, or by school principals. Other approaches involve

considering criteria as either ultimate or proximate, or as process or product criteria. Some researchers argue that ultimate and product criteria are the only truly meaningful ones, but the difficulty of isolating variables in longitudinal studies has so far resulted in few designs based on this type of criteria. Teacher research is currently moving toward the use of process and proximate criteria (Howsam, 1963; Mitzel, 1960), emphasizing teacher behaviours and classroom conditions, climates, and typical situations. In any study based on work with student teachers, the criterion must be proximate, and some assumption is made that there will be a relationship to demonstrated effectiveness in the later teaching situation, though the literature provides no such evidence.

In the present study, an attempt was made to diversify the criterion variables, by including not only the usual ratings given by the Faculty of Education for suitability for teaching and for performance in practice teaching, but also ratings from judges, based on a standardized lesson situation, and evaluations from students in the standardized lesson situation.

The Measures

Criterion Measures

Two types of criteria were used: the first a Faculty of Education composite rating of student teaching; the second, ratings based on the teaching of a demonstration lesson.

Faculty of Education ratings

The rating used in this study was composite in form, based on three kinds of ratings: two groups of ratings (from February and May practica) from teacher sponsors in the schools where practice teaching was performed; two groups of ratings by members of the Faculty of Education who observed students while practice teaching; and a rating by a seminar adviser who met the student in a weekly seminar. This third rating was based on a five point scale of general suitability for teaching. In the two periods of practice teaching used for rating, at least eighteen faculty members participated in evaluating the fortyone students each time, and at least one sponsor teacher for each student teacher contributed evaluations each practicum. The faculty members rating in the February practicum were, in most instances, the seminar advisers of the students. Those faculty members rating in the May practicum, however, were, in most instances, not the students' seminar advisers, and were, in some cases, strangers to the students, and specialists in fields other than the students' teaching majors. Ratings for the two practicum periods were combined for the final composite rating, which formed the basis of the standing awarded these students by the Faculty of Education. This composite rating was entered into the data in two forms: a numerical rating out of a possible 50 points, and a two-category division of superior and non-superior.

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Demonstration lesson ratings

The student teachers in this sample group were required to teach a lesson at a senior secondary school, a lesson prepared by the writer. The same lesson outline was given to each student teacher, a lesson consisting of four case study situations. One case study was chosen for a lesson by each student teacher. The students, in pairs, took charge of a fifty-minute period in regularly scheduled Guidance classes in Grades 9 to 11, each student taking charge of the class for half the period. Each student teacher was given a standard introduction, and a conclusion involving the distribution to students of a rating form. Copies of the lesson outline and forms are in Appendix A. All lessons were tape recorded.

Two ratings resulted from these lessons:

- 1. An average of students' ratings, based on a possible total of 16, derived from four fourpoint scales.
- 2. An average of the ratings of three judges: (a) two judges, experienced Guidance teachers, who listened independently to the tapes at the conclusion of the year of training (May, 1967). All directions to them were conveyed in written form to assure independence of judgment. These ratings were out of a possible 10 points.

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(b) the writer evaluated the student teachers out of a possible 10 points, on the basis of seeing the lessons taught. Any possible criterion contamination on the part of the writer may be balanced against the reliability resulting from the opportunity of observing all the lessons, and having, consequently, a basis for comparison available to few judges. Furthermore, though the writer may have a bias concerning the theoretical approach, none of the predictor data was known to the writer at that time. Neither could any of the ratings be construed as based on the measurement of self-actualization claimed for the instruments.

Copies of the directions to the judges and the rating form given to the students are in Appendix A. Data concerning reliability of judges are in the analysis of data, Chapter IV.

It should be noted that this criterion measure, ratings based on a demonstration lesson, was performed at an earlier time in the year than was desirable. In this instance, the criterion measured followed closely in time most of the predictor measures. In fact, one predictor measure of the thirty-six measures--the case study--followed the criterion measure. However, no other time block was available in the secondary school because of the organization of its Guidance program.

Predictors

The measures used as potential correlates or predictors to the criterion measures were suggested in part by a statement by Tyler:

A practical program for the selection of student teachers and ultimately of teachers, is highly desirable... Paper and pencil inventories should be supplemented with other types of measurement and evaluation, such as projective techniques and situational tests prepared for the specific problem of predicting teaching efficiency (Tyler, 1954, p. 308).

The two general types of measurement used as potential correlates were, therefore:

- Standardized paper-and-pencil inventories which contained certain scales considered appropriate to the theoretical model.
- Other instruments of the type suggested by Tyler to supplement the data from the standardized inventories.

A. Standardized Paper and Pencil Inventories

The two paper-and-pencil inventories were selected for their suitability in terms of the theoretical model postulated. Both are oriented to a positive growth approach to personality.

Personal Orientation Inventory

The Personal Orientation Inventory (Shostrum, 1966) was created to meet the need for a comprehensive measure of values and behaviour seen to be of importance in the development of self-actualization. It was selected for this study because it was the one known inventory based on the theory of selfactualization. Shostrum stated:

In recent years, Maslow (1954, 1962) has developed the idea of the self-actualizing person--a person who is more fully functioning and lives a more enriched life than does the average person. Such an individual is seen as developing and utilizing all of his unique capabilities, or potentialities, free of the inhibitions and emotional turmoil of those less self-actualized. Rogers' (1951, 1961) writings as well as those of the present author (Bramner and Shostrum, 1960) reflect the same idea and all of these authors suggest that such a person might be seen as the goal of the psychotherapeutic process. Many counselors and therapists have felt the need for a comprehensive measure of values and behaviour seen to be of importance in the development of self-actualization. The Personal Orientation Inventory (POI) was created to meet this need (Shostrum, 1966, p. 5).

The POI is self-administering and not speeded. It consists of 150 two-choice (paired opposites) comparative value judgments. The items are scored twice: first, for two basic scales of personal orientation, inner-directed support (127 items) and time competence (23 items); and second, for ten subscales, each of which measures a conceptually important element of self-actualization. The ten scales are described as follows: self-actualizing values (SAV), existentiality (Ex), feeling reactivity (Fr), spontaneity (S), self-regard (Sr), selfacceptance (Sa), nature of man (Nc), synergy (Sy), acceptance of aggression (A), capacity for intimate contact (C). In addition to these ten scales, a total estimate of self-actualization can be gained by summing the first two basic scales (Shostrum, 1966, p. 7), and ratio scales based on time competence and innerouter directedness may be calculated for profile purposes.

The scales which appear to relate most closely to the hypothesized model are:

- 1. The summed score of the first two basic scales: a global score of self-actualization.
- 2. Existentiality: a measure of ability to react situationally or existentially without rigid adherence to principles.
- 3. Self-regard: a measure of affirmation of self in terms of worth and strength.
- 4. Self-acceptance: a measure of affirmation or acceptance of self in spite of weaknesses or deficiencies.
- 5. Capacity for intimate contact: a measure of ability to develop contactful [sic] intimate relationships with other human beings.

Norms are given in the manual for different groups-college students, selected occupational groups, and clinical groups, the largest of which is a college freshmen sample of 2,607. A profile sheet is provided on which raw scores can

automatically be converted into standardized scores, but the manual gives no information about the group on which the standardized scores are based except to state that the profile sheet was constituted from adult norms.

Test-retest reliability coefficients have been obtained by the authors for POI scales based on a sample of 48 undergraduate college students. The Inventory was administered twice, a week apart, to the same group with instructions that it was part of the experiment to take the inventory twice. The manual reports the test-retest reliability coefficients for the two major scales of time competence and inner directedness as .71 and .84 respectively, and coefficients for the subscales ranging from .55 to .85. These coefficients are reported as being as high as those reported for most personality measures. However, more data about reliability are obviously required.

Evidence for validity rests on examples of clinically selected groups nominated by experts. Results of one study (Shostrum, 1964) indicated that the Inventory discriminates at the .01 level between clinically judged self-actualized and non-self-actualized groups on 11 of the 12 scales. Other studies cited in the manual (Shostrum, 1966, p. 27) give support to the claim for concurrent validity, in that the instrument successfully differentiates between two groups of cutpatients in therapy, one in the beginning stage and one in the advanced stage; between two groups, one of hospitalized psychiatric

patients, the other from the nominated self-actualized sample; and between a group of seventy alcoholics and the original nominated self-actualized sample.

An intercorrelational matrix (Knapp, 1965) reveals the interrelationship among the scales. The time competence and inner-directed scales are the only scales that do not have overlapping items. The correlation between them is indicated as .49. All other scales contain items which contribute to the measurement of more than one scale. The highest correlations in the matrix are associated with the inner-directed scale, .37 to .71, a scale which would appear to represent a general factor in the Inventory. Intercorrelations among the scales are as follows: Time competence, r's of .17 to .49; Inner directedness, r's of .37 to .71; Self-actualizing values, r's of .15 to .58; Existentiality, r's of .21 to .70; Feeling reactivity, r's of -.03 to .64; Spontaneity, r's of .17 to .71; Self regard, r's of .21 to .62; Self acceptance, r's of .03 to .63; Nature of man, r's of -. 04 to .53; Synergy, r's of .12 to .58; Acceptance of aggression, r's of -. 04 to .64; Capacity for intimate contact, r's of -.02 to .55.

Efforts have been made to estimate the effects of faking on the Inventory. Profiles of college samples responding to the instruction "Make a good impression" are given, and reveal scores much lower than those of self-actualized individuals. Copies of sample questions from the Inventory and of the profile sheet are in Appendix B.

California Psychological Inventory

Since the use of the POI was still in the exploratory stage, the CPI was also selected for this study as an instrument oriented to favourable and positive aspects of personality rather than to the morbid and pathological, and as an instrument with considerable research associated with it.

Like the POI, the CPI is self-administering and not speeded. It consists of 480 items organized into eighteen scales within four broad categories as follows:

Class I: Measures of poise, ascendancy, and selfassurance.

1.	Dominance	(Do)
2.	Capacity for status	(Cs)
3.	Sociability	(Sy)
4.	Social presence	(Sp)
5.	Self acceptance	(Sa)
6.	Sense of well-being	(Wo)

Class II: Measures of socialization, maturity and responsibility.

1.	Responsibility	(Re)
2•	Socialization	(So)
3.	Self-control	(Sc)
4.	Tolerance	(To)
5.	Good impression	(Gi)
6.	Communality	(Cm)

Class III: Measures of achievement potential and intellectual efficiency.

1.	Achievement	by	conformity ·	(Ac)
2.	Achievement	by	independence	(Ai)
3•	Intellectual	ef	ficiency	(Ie)

Class IV: Measures of intellectual and interest modes.

1. Psychological-mindedness (Py)
2. Flexibility (Fx)
3. Femininity (Fe)
(Gough, 1964, p. 5)

Three scales were of particular interest in this study, selected for their appropriateness to the hypothesized model. These three are:

> 1. Self-acceptance: an assessment of factors such as sense of personal worth, self-acceptance, and capacity for independent thinking, and action.

High scorers, selected from criterion groups, are described as: intelligent, outspoken, sharpwitted, demanding, aggressive, self-centered; as being persuasive and verbally fluent; as possessing self-confidence and self-assurance.

Low scorers are described as: methodical, conservative, dependable, conventional, easygoing, and quiet; as self-abasing and given to feelings of guilt and self-blame; as being passive in action and narrow in interests.

2. Psychological-mindedness: a measure of the degree to which the individual is interested in, and responsive to, the inner needs, motives, and experiences of others.

High scorers are described as: observant, spontaneous, quick, perceptive, talkative, resourceful, and changeable; as being verbally fluent and socially ascendant, and as being rebellious toward rules, restrictions, and constraints.

Low scorers are described as: apathetic, peaceable, serious, cautious, and unassuming; as being slow and deliberate in tempo; as being overly conforming and conventional.

3. Flexibility: an indication of the degree of flexibility and adaptability of a person's thinking and social behaviour.

4.8

High scorers are described as: insightful, informal, adventurous, confident, humorous, rebellious, idealistic, assertive, and egoistic; as being sarcastic and cynical; and as highly concerned with personal pleasure and diversion.

Low scorers are described as: deliberate, cautious, worrying, industrious, guarded, mannerly, methodical, and rigid; as being formal and pedantic in thought, and as being overly deferential to authority, custom, and tradition (Gough, 1964, pp. 10,11).

The CPI contains three scales to assist in detecting those subjects who deliberately exaggerate or distort their responses: the good impression scale, on which very high scores raise the possibility of faking or of an undue concern with making a good impression; the well-being scale on which exceptionally low scores are found among persons attempting to fake the test; and the communality scale on which very low scores indicate the possibility that answers have been given in some random or unmeaningful way.

Though the CPI has much in common with the POI in terms of its orientation and purpose, the development of its scales has been quite different. The basic method for 11 of the scales was "empirical keying" where a pool of items which seems to bear psychological relevance to a criterion dimension are assembled in a preliminary scale and then administered to a group demonstrated independently to possess the trait or dimension. Only items which discriminated satisfactorily were retained. The psychological-mindedness scale was constructed by this technique. The other two scales alluded to, self-acceptance and flexibility, were constructed by the technique of internal consistency analysis, by which the experimenter selects items and assigns weights on the basis of a predicted relevance to the personality trait or dimension.

Norms were based on a somewhat heterogeneous sample of over 13,000. Though these numbers were large and include a wide range of ages, socio-economic groups, and geographical areas, no claim was made that this was a random sample of the general population. Separate male and female norms are given. Separate mean profiles for selected groups were presented in the manual. The profile sheet, like that of the POI, yields an automatic conversion of raw scores into standardized scores, based on the scores obtained from the sample of 13,000. Considerable emphasis was given to profile interpretation in the manual, it being made clear that interaction among the scales influences profile interpretation. The manual presented two scale intercorrelational matrices, based on samples totaling 4,098 men and 5,083 women, samples compounded from five smaller samples (Gough, 1964, p. 40). These matrices show low intercorrelations of from -.13 to .12, between the scales alluded to in this study. Evidence for reliability of the scales of the CPI was based on two studies using the test-retest method. In the first, 226 high school students, boys and girls, were tested twice with an interval of one year between testing. The correlations ranged from . 38 to .74, the three scales of

particular interest having the following correlations:

		ТВоуз	Girls
1.	Self-acceptance	.67	71
.2.	Psychological-mindedness	•1+8	.49
3.	Flexibility	.60	.67
-	• , ,	(Gough, 1964,	p. 19)

The lowness of the r's may have reflected in part the differing rates of maturation among adolescents. The interval of one year appears long for test-retest purposes.

The second sample consisted of 200 male prisoners retested after one to three weeks, with correlations ranging from .49 to .87, with a median of .80. The three scales of particular interest had the following correlations:

- 1. Self-acceptance.712. Psychological-mindedness.533. Flexibility.49
- J. FIERIOTITO

Evidence for validity was obtained from cross-validational studies comprising data on correlations between scales and lifeperformance criteria. On the self-acceptance scale, three studies were reported: the first, of 70 medical school applicants whose self-acceptance scores correlated .32 with staff's rating of self-acceptance; the second, of 40 graduating seniors in engineering whose self-acceptance scores correlated -.57 with the staff's Q sorting of the phrase, "Has a readiness to feel guilty"; the third, of 204 high school students nominated by principals as "highest" and "lowest" on self-acceptance whose self-acceptance scores showed differences in means between the nominated groups significant beyond the .01 level.

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(Gough, 1964, p. 19)

Studies on the psychological-mindedness scale reported a sample of 70 University of California medical school applicants whose scores correlated .44 with the Psychologist key on the Strong Vocational Interest Blank, and a sample of 152 adult males whose scores showed a .40 correlation with the same Strong scale.

The flexibility scale was shown to correlate -.36 and -.48 in two assessment samples of 40 University of California students with staff's ratings of rigidity. In a college class of 180 students, this scale correlated -.58 with the California F scale.

With regard to general validity of the CPI, Kelly stated that there is convincing evidence that each of the scales has some validity when judged against life performance criteria. Kelly continues:

All in all, the CPI in this reviewer's opinion is one of the best, if not the best, available instrument of its kind. It was developed on the basis of a series of empirical studies and the evidence for the validity of its several scales is extensive (Kelly, 1965, p. 169).

Copies of sample questions from the inventory and of profile sheets are in Appendix B.

B. <u>Non-standardized</u> <u>Measures</u>

Five measures of a more projective or idiographic and situational type, as recommended by Tyler (1954), were used to supplement the data of the standardized paper-and-pencil

inventories.

Q sort

Q technique, developed by Stephenson (1953), uses the symbol Q to distinguish between-person correlations from r, the symbol for correlations between variables, over persons. In this technique, the subject is provided with a number of items placed on cards, which he sorts into a specified number of piles along a continuum ranging, for instance, from statements "least like me" to statements "most like me." A second sorting may be performed by the subject, by another subject, or by a judge to provide a criterion or a basis for comparison, and a correlation obtained. Sorts may be either "forced" into a normal distribution, or free. In the present study a "forced" normal distribution was used.

Q sorts have been used extensively in recent research, but some questions have been raised with regard to the general methodology. The technique appears relevant to personality theory, particularly to the phenomenological approach. Block (1961) considers the procedure appropriate for complex personality descriptions in a form suitable for statistical analysis.

The Q sort of the present study was the Haigh-Butler Q sort, used by Carl Rogers and his associates (Rogers & Dymond, 1954) in their research at the University of Chicago Counseling

Center. The Q sort consists of 100 items, and the student was asked to sort the items twice, at one sitting: the first time to describe his actual self; the second time, his ideal self. Examples of items are: "I am intelligent"; "I am submissive"; "I am worthless." According to Rogers (Rogers & Dymond, 1954), the correlation between the two sorts may be interpreted as an indication of adjustment. Ordinarily, the higher the correlation, the greater the degree of adjustment, but a very high correlation may indicate faking or defensive behaviour. In the present study, the procedure used followed that of Haigh and Butler (Rogers & Dymond, 1954)--conversion of all r's to Fisher's Z scores and treatment of the Z scores as raw scores for purposes of analysis.

A further measure of adjustment was provided in the Rogers and Dymond study by a sort selected by six therapists as characteristic of the selection of adjusted persons (1954, pp. 76-84). The measure was scored out of a possible 74, the number of discriminating items nominated by the therapists. Accordingly there are two Q-sort measures in this study: the Q-sort r, and the adjustment Q score.

Copies of the items and instructions are in Appendix B. Other measures

Three other measures, devised by the writer, attempted to simulate in some way decision-making situations in the Guidance classroom. These measures were presented before instruction in classroom methods had commenced in the professional year of training. They were:

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- 1. A series of classroom situational tests, requiring decisions as to procedures and reasons for choice. This measure was designed to estimate the degree of flexibility possessed by the student teachers. The request for reasons was expected to give opportunity to student teachers to display attitudes related to the other two dimensions of the model--self-acceptance, and concern for others. Each question was marked out of a possible five marks, evaluation being based on evidence of flexibility, self-acceptance, and concern for others. This measure is denoted as "Questionnaire."
- 2. A lengthy classroom situational test, requiring decision-making on the part of the student teacher. This situation was devised to estimate the same behaviours as the previous measure, but a more detailed problem was presented. Evaluations were based on the same criteria as were used in the questionnaire. This measure is denoted as "Case study."
- 3. An assignment to the student teachers asking them to present their idea of a good Guidance lesson. They were asked to give reasons for their answers. Evaluations were based on the writer's experience and knowledge in the area. This measure is denoted as "Lesson plan."

Copies of the above measures are in Appendix B. No estimate as to reliability or validity of these situational tests was feasible, but some claim to content validity may be made since the situations depicted were selected from the universe of tasks confronting the Guidance teacher. In a sense these tests were a miniature of the universe criterion. That is to say, validity existed to the extent that the test tasks duplicated ultimate-criterion decision-making behaviours, and hence they formed a type of proximate criterion.

Plan of the Research

The plan of research was as follows:

1. Predictor measures.

Administration of paper and pencil inventories and the other measures was carried out in the first term of the university year, from September to November, 1966, all measures from a given instrument being obtained at the same time.

2. Criterion measures.

(a) The demonstration lessons were held in November, 1966--the most convenient time in the school year for the secondary school involved in the research to have student teachers take over two weeks of instruction in the Guidance classes. The ratings by the writer were carried out at the time the lessons were taught; the ratings of the tapes by the judges were made in May, 1967.

(b) The composite totals and class categories for student-teacher performance from the Faculty of Education were obtained in May, 1967, at the close of the professional year of training.

Definition of Terms

For the purpose of clarification, the following definitions were employed throughout this study:

Guidance: refers to the subject as prescribed by the Division of Curriculum of the Department of Education in British Columbia, Grades 8 through 11.

guidance:

a term in general use in the literature usually meant to refer to a group of student services such as services to students in groups; services to students as individuals; services to teachers, parents, and the community; and research services (Froehlich, 1958). Guidance services are delineated in contrast to administrative and instructional services. This is not the sense in which the term "Guidance" has been used in this study.

self-actualization: defined operationally as the sum of the scores received on the time competence and

inner directedness scales on the Personal Orientation Inventory.

student teacher of Guidance: a term used to describe students in the Faculty of Education enrolled in the one-year professional training course, electing a major in the field of Guidance.

superior: defined in this study as those students receiving a first- or second-class rating on the Faculty of Education's final composite rating. The rationale for selecting this cut-off point is as follows:

> (a) concern in teacher-training institutions is to produce better than minimally competent teachers.

(b) many of those electing Guidance majors intend to pursue post graduate work in counselling. Admission to graduate school requires a reasonably high second-class standing.

non-superior: defined in this study as those students receiving a final rating from the Faculty of Education for practice teaching below a secondclass standing.

old: defined as describing any student teacher who is over 23 years of age. The reason for this arbitrary choice is that 23 years of age is the typical age of students who have proceeded through their

educational experience without any interruptions. Students over 23 have had other experiences interspersed with their educational experiences. young; defined as describing any student teacher who is 23

years of age or younger.

independent variables: defined as those 36 scores obtained from the CPI (1 to 18), the POI (19 to 31), the Q-sort r and adjustment scores (32, 33), the questionnaire (34), the case study (35), the lesson plan (36).

dependent variables: defined as those criterion measures
 provided by the University ratings and by the
 demonstration lessons: University composite
 rating (37), University rating in class form (38),
 student ratings on demonstration lessons (39),
 judges' ratings on demonstration lessons (40),
 University composite ratings for extreme
 groups (41), student ratings for extreme groups
 (42), judges' ratings on demonstration lessons for
 extreme groups (43).

Research Questions

The questions outlined in Chapter I fall into two categories: questions concerning characteristics of student teachers of Guidance, and questions concerning classification of these students into superior and non-superior, on the basis of
scores on criteria. These questions when related to the instruments formed the basis for this research in the following specific form.

- 1. How strong a relationship will exist between the University composite ratings obtained by student teachers and their scores on each of the independent variables?
- 2. How strong a relationship will exist between the ratings given by judges and students to student teachers on the basis of demonstration lessons and scores on each of the independent variables?
- 3. Will the scores on the independent variables contribute anything to the classification of superior students of Guidance, on either criterion, University composite rating or demonstration lesson performance?
- 4. Will dealing with profiles through multivariate procedures yield more information about the student teachers of this sample than univariate techniques?

In addition, the scales which purport to measure selfacceptance will be examined to ascertain whether any substantial relationship among or between them exists. The data will be reviewed also in an attempt to discover whether clusters of "like" people with regard to personality dimensions are revealed.

60.

Statistical Procedures

The statistical techniques used were both univariate and multivariate in nature. All data were processed at The University of British Columbia Computing Centre, and the initial procedures were simple correlation, multiple regression analysis, and multiple discriminant analysis. Decisions with regard to subsequent analysis followed examination of the data; those used were the t test for means, analysis of variance, and image analysis.

Limitations of the Study

Limitations in this study fall into two categories: those recognized at the outset as inherent in the design and methodology, and those that became apparent as the study progressed and was completed. The latter group is discussed in Chapter V.

Among the most serious of the limitations of this study was the size and nature of the sample. Although a number of researchers (Ryans, 1960a; Tyler, 1954) have advocated studies of student teachers in specified major fields, nevertheless, the small sample size makes statistical inferences in such studies difficult. Furthermore, in this instance, since the sample consisted of all the students in the major field in 1966-67, no evidence about representativeness of the sample existed, and generalizations would need to be made very cautiously. In

addition, the homogeneous nature of such a professional group makes it more difficult to see relationships clearly. Some studies suggested that professional groups in training courses such as the one studied here, when examined with respect to effectiveness in performance, are likely to display a skewed curve, with more successful than unsuccessful members. A partial explanation for this may rest in the fact that drop-outs from a training course are not usually included in the study because of absence of criterion data.

Some limitations existed in terms of the instruments used. Though the CPI provides separate norms for males and females, the small size of this sample group made it impracticable to divide it into such sub-groups. Also, with the POI, it was recognized that Maslow's reservations about the use of such instruments with a college group might result in data that would not be meaningful in terms of classification or selection.

The lack of data concerning reliability of the other instruments, which were subject also to the bias of the writer, was of concern.

With regard to criteria, the general lack of standardized procedures among judges and raters gives rise to many questions concerning reliability of the criteria. Though efforts were made to standardize procedures in the demonstration lesson, it was not possible to bring together those Faculty members evaluating Guidance lessons in practice teaching in order to

have agreement on objectives and procedures. Even with the demonstration lessons, it was not possible to estimate the influence of other factors such as grade level, previous teacher, sex, and the time of the day the lesson was taught. Throughout the criterion process, reliance was placed on the professional judgment of raters, but little external evidence of the reliability of these kinds of ratings appears to exist.

In spite of these limitations, however, it was considered desirable to conduct this study on an exploratory basis simply to attempt to discover some answers to some important questions--answers which are necessary to decisions concerning future admission procedures, and, to some extent, to decisions related to course content and professional experiences in training. Though it was felt that any descriptive data would be helpful, it was recognized that any data with predictive possibilities would need to be checked in future crossvalidational studies.

CHAPTER IV

PRESENTATION AND INTERPRETATION OF DATA

Analysis of Data

The purpose of this chapter is to examine the relationship between the personality variables and the selected criteria.

Initial processing of data was performed by the computer program (UBC-TRIP) which yielded means, standard deviations, and correlations for all the independent and dependent variables organized as follows:

- (a) Thirty-six independent variables, organized as follows:
 - 1-18: Scales of the CPI, Dominance, Capacity for status, Sociability, Social presence, Selfacceptance, Sense of well-being, Responsibility, Socialization, Self-control, Tolerance, Good impression, Communality, Achievement via conformance, Achievement via independence, Intellectual efficiency, Psychologicalmindedness, Flexibility, Femininity.
 - 19-31: Scales of the POI, Self-actualization total, Time competence, Inner directedness, Selfactualizing values, Existentiality, Feeling reactivity, Spontaneity, Self-regard, Self-

acceptance, Nature of man, Synergy, Acceptanco

- of aggression, Capacity for intimate contact.
- 32,33: Q sort and adjustment scale.
 - 34: Questionnaire.
 - 35: Case study.
 - 36: Lesson plan.
 - (b) Four dependent variables consisting of:
 - 37: Composite scores obtained by student teachers from the University of British Columbia Faculty of Education as a final studentteaching mark.
 - 38: A two-way classification of student teachers into superior and non-superior (as defined) based on the composite rating from the University. Those rated as superior were assigned values of .5570; those non-superior, -1.0743, following a procedure for a kind of discriminant analysis suggested by Wert, Ahmann, and Neidt (1954).
 - 39: A score obtained by student teachers from student ratings of demonstration lessons.
 - 40: A score obtained by student teachers from judges' ratings of demonstration lessons.

In addition, the analysis yielded multiple regression equations for each of the criteria on that set of two or three of the dependent variables that contributed significantly to the prediction of criterion variance.

The total n during the analysis of the independent variables was 44, but in each of the criterion situations, three student teachers were not rated--three were excluded from the University composite ratings because they already held elementary teaching certificates; three were absent from the demonstration lessons. As a result, the total n for each criterion was 41.

(c) Dummy dependent variables (+.5 and -.5) were used to indicate membership in two extreme groups on each of variables 37, 39, and 40 (Johnson & Jackson, 1959, pp. 445, 446). This was done to allow the use of a stepwise multiple regression program to perform a stepwise discriminant analysis. The variables so created were:

- 41: Based on persons scoring in the top and bottom 27% on criterion 37.
- 42: Based on persons scoring in the top and bottom 27% on criterion 39.
- 43: Based on persons scoring in the top and bottom27% on criterion 40.

The findings of this study are presented in the following way:

1. The research question is stated.

2. The statistical results are stated.

3. The conclusions based on the findings are presented. Univariate procedures will be reviewed first; then, multivariate.

.66

CORRELATIONS BETWEEN CRITERION 37 (UNIVERSITY COMPOSITE RATING) AND SCORES ON THE CPI SCALES

	CPI Scal	les r	C	PI Sca	les r	C	PI Sca	les r
· 1	Do	• 1476	7	Re	•1712	13	AC	114/
2	Сз	• 3266"	8	So	0648	14	Ai	1148
3	Sy	.1082	9	Sc	1270	15	Ie	0773
4	Sp	0089	10	То	• 3060	16	Ру	0514
5	Sa	0839	11	Gi	.0258	17	Fx	0020
6	Wb	1369	12	Cm	0484	18	Fe	•2524

TAD	מעו		3	
		•		

CORRELATIONS BETWEEN CRITERION 37 (UNIVERSITY COMPOSITE RATING) AND SCORES ON THE POI SCALES

				the second s	
	POI Scales	2°		POI Scales	r r
19	Self actualiza total	tion 0821	26	Sr	.1380
20	TC	•0348	27	Sa,	1663
21	I	1088	28	Nc	.0751
22	SAV	.1226	29	Śy	• 2210
23	Ex	- •3375 ^{**}	30	A	1050
24	Fr	0785	31	C	2667
25	S	.0653	٠		

N = 41

* p < .05

	TA		•	
RELATIONS	BETWEEN	CRITERION	37	(UNIVER

CORRELATIONS BETWEEN CRITERION 37 (UNIVERSITY COMPOSITE RATING) AND SCORES ON THE NON-STANDARDIZED MEASURES

32	Q sort	4551***
33	Q adjustment score	1247
34	Questionnaire	0496
35	Case study	• 3776*
36	Lesson plan	1189
	ترحينين وترجيع والمرجلين والمرجو والمتارية والمتعاون والمستعد والمحم والتواسي والمرابقة فتراجعو	an a

N = 41* p $\langle .05$ ** p $\langle .01$

Research Question 1

How strong a relationship will exist between the University composite ratings obtained by student teachers and their scores on:

> The scales of the California Psychological Inventory.

2. The scales of the Personal Orientation Inventory.

3. The Q sort and the adjustment Q scale.

4. The three non-standardized instruments.

The results of the analysis are as follows: the CPI scales in Table 2, the POI scales in Table 3, the other measures in Table μ .

As indicated, relationships significant at the .05 level were found between this criterion and the following variables:

1. (#2) Capacity for status (CPI).

2. (#23) Existentiality (POI) -- a negative relationship.

3. (#32) Q sort--a negative relationship.

4. (#35) Case study.

Tolerance (#10, CPI) was borderline.

The nature of the relationships revealed is interesting. Only two of the four measures, Capacity for status--a scale which claims to measure the personal qualities and attributes typical of those desiring status--and the case study, have positive significant relationships. Existentiality--a scale which purports to measure ability to react without rigid adherence to principles, and which was hypothesized to measure flexibility--and the Q sort--hypothesized to be a measure of adjustment--have negative relationships with this criterion. It may be noted also that the correlation between the selfactualizion scale (#19) and this criterion is near zero. These findings, therefore, appear to be in a direction opposite to that hypothesized in the model. Student teachers rated high on the University composite rating showed desire for status, and an ability to perform well in writing a case study analysis.

Research Question 2

How strong a relationship will exist between the ratings given by students and by adult judges to student teachers on the basis of demonstration lessons, and their scores on the selected instruments?

The criterion of students' ratings of demonstration lessons was not pursued because it simply did not permit separation of students. There may have been some kind of Hawthorne effect--new faces, new ideas, new presentations--but for whatever reason, the students' ratings were almost uniformly very high and therefore of no use in this study.

The results of the analysis for correlations between the judges' ratings of demonstration lessons (Criterion 40) and the 36 independent variables are presented as follows: the CPI scales in Table 5, the POI scales in Table 6, the other measures in Table 7. As indicated, relationships significant

CORRELATIONS*	BETWEEN	CRITERION 40	(JUDGES
RATINGS ON	DEMONSTR	ATION LESSÓN) AND
SCORES C	ON THE CP	I SCALES	

(integration)	a aligi - aligi a ginda na malati minari si in ginar	Constant in the second s							المر الدروب
	CPI Scal	es r	С	PI Scale	s r	CP	I Scal	es r	
1	Do	.0585	7	Re	0852	13	Ac	1845	
2	Cs	1327	8	So	0602	14	Ai	2014	
3	Sy	1399	9	Sc	2341	15	Ie	- 2459	
4.	Sp	1747	10	То	1837	16	Py	2268	•
5	Sa	.1207	11	Gi	1474	17	Fx .	2003	
6	Wb	1156	12	Cm	.0703	18	Fe	• 24 39	
			•		1				

N = 41

* p

.05 for each of these; not significant.

CORRELATIONS	BETWEEN	CRITERI	ton 40 (JUDGES
RATINGS OF	N DEMONS	TRATION	LESSON)	AND
SCORI	es on th	E POI SC	ALES	

9 8243-43444	POI	Scales	r	P	OI Scales	r
19	Self	actualization total	 3671*	26	Sr	•0066
20	TC		-• 379 <u>3</u> *	27	Sa	1996
21	I		3313*	28	Nc	1820
22	SAV		 3883 [*]	29	Sy	3000
23	Ex		 31.65*	30	A	1933
24	Fe		0401	31	C	1189
25	S		 0301			

N = 41* p $\langle .05$

.73

CORRELATIONS* BETWEEN CRITERION 40 (JUDGES' RATINGS ON DEMONSTRATION LESSON) AND SCORES ON THE NON-STANDARDIZED MEASURES

	ین از این میشند و این میشند. بین این میشود بین بین میشند این این میشود این این میشود این این میشود این میشود ای به هم هم این این این میشود این این این این این میشود این میشود این این میشود این این میشود این این این این این ا	an an ann an
32	Q sort	11 39
33	Q adjustment score	0203
34	Questionnaire	.0855
35	Case study	.0719
36	Lesson plan	•11:22

N = 41

* p

.05 for each of these; not significant.

at the .05 level were found between this criterion and the following variables:

- 1. (#19) Self-actualization (POI)--a negative
 relationship.
- 2. (#20) Time competence (POI)--a negative relationship.
- 3. (#21) Inner directedness (POI)--a negative relationship.
- 4. (#22) Self-actualzing values (POI)--a negative relationship.
- 5. (#23) Existentiality (POI)--a negative relationship.

It is worth recalling that of these five scales, four were theoretically basic to the construction of the model, and the fifth--the holding of values characteristic of selfactualized people--could well have been selected for special attention. Yet, each of these scales had a negative correlation. The conclusion: that on the criterion of judges' ratings of a demonstration lesson, those students rated successful tended to score poorly on scales purporting to measure the dimension of self-actualization. Again, the direction of these findings was opposite to that hypothesized in the theoretical position of the present study.

Research Question 3

Will the scores on the independent variables contribute anything to the classification of students of Guidance on either criterion, the University composite rating or the demonstration lesson rating?

In order to determine whether any differences existed between the mean scores on the instruments of the student teachers classified into two groups as defined (superior being those students with second class ratings or better) a t test for significance between means was performed, the results of which are presented in Table 8.

As indicated, there were no significant differences between the means of the two groups as tested by t. However, it may be noted that the superior group had lower scores than the non-superior group on 14 of 18 CPI scales, on six of 13 POI scales and on one of the other five measures. In total, then, the non-superior group on the criterion had higher scores on 21 of 36 measures. This observation was in the direction of the previous findings of negative correlations between the criteria and measures selected as appropriate to test the model. Because this trend was unexpected on the basis of theory, it was decided to investigate further differences between means, using four bases of classification.

1. Superior and non-superior on criterion 40, judges' ratings on demonstration lessons.

RESULTS OF t TEST FOR SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS OF THE TWO GROUPS, SUPERIOR AND NON-SUPERIOR ON CRITERION 37, ON SCORES ON 36 INDEPENDENT VARIABLES"

	Variable	t Value		Variable	t Value
1	Do	0260	19	Sa Total	8106
2	Cs	• 2439	20	Тс	.1187
3	Sy	•0375	21	I	9990
- 4	Sp	7751	22	SAV	0515
5	Sa	6209	23	Ex	-1.6712
6	Wb	-1.3165	24	Fr	4665
7	Re	• •0928	25	S	•7522
8	So	-1.2726	26	Sr	•7235
9	Sc	141?7	27	Sa	.1835
10	То	1.4281	28	Nc	•9144
11	Gi	0192	29	Sy	•2813
12	Cm	3968	30	A	.1890
13	Ac	6812	31	С	6359
1 4	Ai	8481	32	Q sort	.4513
15	Ie	8529	33	adjustment	-1,0868
16	Py	4276	34	questionnair	e .1067
17	Fx	-1.0569	35	case study	1.8072
18	Fe	1.0508	36	lesson plan	.6518

 $N = l_{\downarrow} l$

df = 39

* p \rightarrow .05 for each of these; not significant.

2. Male and female.

3. Old and young (as defined).

4. The five students superior on two criteria, 37 and
40, and the seven students non-superior on these
two criteria.

The results are presented in Tables 9 to 12. As indicated in Table 9, significant differences between superior and non-superior groups on criterion 40 were found on the following CPI variables: Social presence, Sense of well-being, Socialization, and Intellectual efficiency. It is noteworthy that the differences were all in the negative direction, i.e., the means of the group judged superior on criterion 40 were lower than those of the group judged non-superior, on the scales mentioned. In addition, it may be observed that on this criterion, the non-superior group scored higher than the superior group on 16 of 18 CPI scales, on nine of 13 POI scales, and on three of the other five measures -- a total of 28 of 36 scales. Though not all of these differences are significant, they are, nevertheless, all in the same direction--opposite to that hypothesized in the present study.

As indicated in Table 10, in a comparison of differences between means of men and women, no significant differences were found, but again there was an observable trend, though not so definite a one in this instance. Men scored higher on nine of 18 CPI scales, on ten of 13 POI scales and on three of the

RESULTS OF t TEST FOR SIGNIF	ICANCE OF DIFFERENCES
BETWEEN MEANS OF THE TWO GI	ROUPS, SUPERIOR AND
NON-SUPERIOR ON CRITERIC	ON 40, ON SCORES
ON 36 INDEPENDENT	VARIABLES

	Variable	t Value	** :::::::::::::::::::::::::::::::::::	Variable	t Value
1	Do	5498	19	Sa total	-1.2097
2	Cs	1457	20	Тс	• 2240
3	Sy	-1.4780	21	I	-1.1067
4	Sp .	-3.1311***	22	SAV	.14036
5	Sa	4225	23	Ex	1134
6	Wb	-2.2082**	24	Fr	.5481
7	Re	•7003	25	S	• 3848
8	So	-2.0800	26	Sr	3191
9	Sc	0826	27	Sa	-1.6831
10	То	-1.9766	28	Nc	6193
11	Gi	-1.5633	29	Sy	-1.7104
12	Cm	5206	30	А	3681
13	Ac	-1.7875	31	С	7633
14	Ai	-1.7578	32	Q sort	-1.7957
15	Ie	-2.6288*	33	adjustment	-1.7667
16	Py	-1.2478	34	questionnaire	• 3924
17	Fx	-1.5247	35	case study	1.6159
18	Fe	1.9710	36	lesson plan	6325
* p	< .05	CTAN FUNDIN BY SHOULD BY			
** p	.01				• •
N =	41	· · ·			

df = 39

	·		•			
	Variable	t Value		Variable	t Value	
1	Do	.1598	19	Sa total	.0149	123
2	Cs	- •5554	20	Тс	- •9755	
3	Sy	8636	21	I	• 2676	
<u> </u>	Sp	.6567	22	SAV	9548	:
5	Sa	.8661	23	Ex	• 2333	
6	Wb	•7592	24	Fr	-1.4645	
7	Re	-1.1608	25	S	•9337	
8	So	1.3396	26	Sr	1.0819	
9	Sc	0787 ′	27	Sa	1.14962	
10	То	0071	28	Nc	1.1324	
11	Gi	.4570	29	Sy	1.1426	
12	Cm	1.8501	30	A	• 36 31	
13	Ac	.4150	31	C	•9414	
$\mathfrak{U}_{\downarrow}$	Ai	• 3322	32	Q sort	1.1781	
15	Ie	• • 7029	33	adjustment	•7263	
16	Ру	1.1268	34	questionnaire	• - • 2237	
17	Fx	4852	35	case study	- 1.0569	
18	Fe	- •5328	. 36	lesson plan	.6878	
				1		

RESULTS OF t TEST FOR SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS OF MEN AND WOMEN ON 36 INDEPENDENT VARIABLES*

N = 44

df = 42

∦ p

p

.05 for each of these; not significant.

RESULTS	OF	t	TEST	FOR	SI	GNIF	ICAN	ICE	OF	DIFFERENCES
·. 1	BETW	IEE.	N MEA	INS (OF	OLD	AND	YOU	NG	ON
		36	INDE	CPENI	DEN	T VA	RIAE	BLES		

					والموالية والمتحدة الفتوري الماسية ومطالبة ويسوعون مرود
	Variable	t Value		Variable 🛛	t Valuo
. 1	Do	•8364	19	Sa total	1.0577
2	Cs	1.2242	20	Тс	1.6810
3	Sy	•4924	21	I	.9707
4	Sp.	•5112	22	SAV	1.2354
5	Sa	1.2113	23	Ex	1.1630
6	Wb	1.6880	24	Fr	1.1780
7	Re	2.1727*	25	S	• • 60 32
8	So	1428	26	Sr	5919
9	Sc	1.4102	27	Sa	6240
10	To	• • 7 3 2 5	28	Nc	8478
11	Gi	•0935	29	Sy	- •9453
12	Cm	-1.0318	30	A	-1.1312
13	Ac	1.5462	31	C	4826
14	Ai	•9259	32	Q sort	-1.0124
15	Ie	• 3065	33	adjustment	• 3239
16	Ру	2. 2575 ^{**}	34	questionnaire	-1.8726
17	Fx	•0328	35	case study	-1.5890
18	Fe	• 75 35	36	lesson plan	-1. 39!+0

* p 🤇 .05

 $N = \frac{1}{4}$ $df = \frac{1}{4}2$

·81

RESULTS OF t TEST FOR SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS OF TOP FIVE AND BOTTOM SEVEN ON CRITERIA 37 AND 40 ON 36 INDEPENDENT VARIABLES

	Variable	Mean Difference		Variable	Mean Difference
1	Do	.6864	19	Sa total	-1.8955
2	Cs	-1.0501	20	Тс	-1.0511
3	Sy	• • 3582	21	I	-2.0206
4	Sp	6275	22	SAV	-1.0625
5	Sa	5692	23	Ex	-2.7802 ^{**}
6	Wb	-2.9538*	24	Fr	-1.0454
7	Re	5645	25	S	· · 9742
8	So	-3.2574***	26	Sr	1939
9	Sc	-2.5610	27	Sa.	8168
10	То	-1.0881	28	Nc	0400
11	Gi	-1.5468	29	Sy	-1.8402
12	Cm	•5513	30	A ···	5074
13	Ac	-1.9761	31	С	-3.5701***
14	Ai	-1.1309	. 32	Qsort	-1.7785
15	Ie	-1.9190	33	adjustment	-1.1894
16	Ру	4139	34	questionnai:	re2230
17	Fx	•0507	35	case study	•5785
18	Fə	2.0479	36	lesson plan	•7352

*p < .05 ** p < .01

other five measures -- a total of 22 of 36 scales. Though these results are not significantly different from chance, they did suggest possible avenues of further enquiry.

As indicated in Table 11, in a comparison of differences between old and young (as defined), differences significant at the .05 level were found on the CPI variables Responsibility and Psychological-mindedness. These two variables are interesting in that they are quite frequently thought of as aspects of maturity--the ability to be responsible, and to consider others--and as one might expect, older people scored more highly on these scales than did the young student teachers. The same general trend was observable on the other scales, though the differences were not significant.

Table 12 shows a comparison of differences between means of the five students in the class who were judged superior on Criteria 37 and 40, and the seven students judged non-superior on these criteria. These groupings suggested themselves from inspection of scores on the criteria, and the coincidence of the top five being women and the bottom seven being men, prompted further investigation. Significant differences at the .01 level on the Socialization scale (CPI) and on the Capacity for intimate contact (POI) and at the .05 level on the Sense of well-being scale (CPI), Self control (CPI), and the Existentiality scale (POI) were revealed. All the values were in the negative direction, indicating that the top five students

scored lower on the five scales than did the bottom seven students. The same trend was observable by inspection of the other means on which the top group scored higher on only five of 36 scales. As the top five students were women and classified as young, and of the bottom seven men, six were older, the question was raised: was there some interaction effect between sex and age?

In an attempt to answer this question, an analysis of variance on the full sample was carried out to ascertain the significance of the main effects, sex and age, and their interaction effects in relationship to the criteria 37 and 40. The cell frequencies were disproportionate, as illustrated in Table 13, which also shows the category means. Therefore, the approximate method of expected cell frequencies was used (Myers, 1966, p. 104). The results of the analysis are shown in Tables 14 and 15. They indicate that on both criteria, the interaction effects between sex and age were significant beyond the .001 level. The interpretation of these data was not easy, Though the interaction effects were large, and on however. both criteria all women scored higher than all men, nevertheless, on criterion 37, young men scored higher than old men, whereas on criterion 40, the trend was reversed. The cross-over, therefore, was not complete. Nevertheless, some kind of interaction certainly appeared to be operating. In addition, the main effect of sex was significant, at the .05 level on criterion 37, at the .01 level on criterion 40.

MEANS ON CRITERIA 37 AND 40 WHEN SUBJECTS ARE CLASSIFIED BY SEX AND AGE

	Criter 37	ion —		Criterio	
Y	$\frac{M}{X = 35}$	$\frac{F}{X} = 36.4$ $n = 15$	Y	$\frac{M}{\overline{X} = 6.1}$ $n = 2$	$\frac{F}{X} = 6.9$ $n = 15$
0	$\bar{X} = 31.9$ n = 19	$\overline{X} = 37.25$ $n = h$	0	$\overline{X} = 6.6$ $n = 18$	$\overline{X} = 6.7$ n = 6
		 м = 41		99879-52,0827-67,62,287577-90-477,494 9-6767	N = 41

Key: Criterion 37 = University composite rating

Criterion 40 = judges! ratings on demonstration lesson

Y = young 0 = old M = male F = female X = cell mean n = cell frequency

ΤA	BLE	1	L.

ANALYSIS OF VARIANCE (METHOD OF EXPECTED CELL FREQUENCIES) FOR AGE, SEX, AND INTER-ACTION ON CRITERION 37

Sources of Variance	dſ	MS	F	
A (Age)	1	16.26	. 64.	
B (Sex)	1	133.31	5.26*	
AB (Age x Sex)	1	50,083.83	1 979 . 6***	
S/AB "within cells"	37	25.3		

 $F_{1,37} = 4.11$ for .05 level

* p < .05 *** p < .001 - 86

ANALYS IS OF VARIANCE (METHOD OF EXPECTED CELL FREQUENCIES) FOR AGE, SEX, AND INTER-ACTION ON CRITERION 40

TABLE 15

Source Varia	s of nce	df	MS	F	
A	(Age)	1	2.65	2.19	
В	(Sex)	1	17.83	14.74***	
AB	(Age x Sex)	l	1749.32	1445.64***	
S/AB	"within cell	s" 37	1.21		

 $F_{1,37} = 7.37$ for .01 level

** p < .01

*** p < .001

Research Question 4

Will dealing with profiles, i.e. patterns of scores, through multivariate procedures yield more information about the student teachers of this sample than univariate techniques?

Though the smallness of the sample in this study made reliance on multivariate procedures unwise, nevertheless it was considered desirable to see whether such procedures would support or fail to support the findings of the univariate procedures.

Application of stepwise regression techniques resulted in the identification of certain variables that combined to predict each criterion. However, they usually had a weight contrary to that hypothesized, and occasionally there were contradictions. The scales which weighted positively were: Socialization (CPI), Nature of man (POI), and the Q sort. Those weighting negatively were: Synergy (POI) and Existentiality (POI). On the whole, however, the trend would appear to have been in the same direction as that indicated by the use of univariate procedures, namely that scales the model says should select good criterion people in fact did not: that indeed, the reverse tended to be true. The equations appear in Appendix C.

Two techniques were used in attempting to predict group membership, where this is defined as belonging to the top or bottom 27% of the group, on each of the criteria, the University

composite rating and the rating of the demonstration lesson: the discriminant function, one technique for maximizing differences between means, and image analysis of the Q-sort answers.

The equations resulting from the use of discriminant analysis supported the consistent trend throughout this study-the appearance of a negative relationship between measures of self-actualization and the criteria. The scales weighting negatively were Existentiality (POI), Socialization (CPI), Self-actualized values (POI), Synergy (POI), and the Lesson plan; those weighting positively were Communality (CPI), a measure of the tendency to follow a mode, and the Questionnaire. The equations are in Appendix C.

Following the suggestion made by Block (1961) of grouping individuals on the basis of their Q-sort responses, and then analyzing independent sources of information for the correlates of group membership, image analysis was performed on the data of the Q sort to ascertain whether clusters of people could be differentiated by the answers they had given to the 100 items of the Q sort. (Only the self-description items were used.)

Image analysis is considered suited to the problem of item-analysis, when the major factors are represented by more than one item. The concern in this analysis was to discover common aspects of the persons measured.

Veldman cites Guttman's image theory as a solution to the "communality" problem. He stated:

....image theory defines a matrix called G solely in terms of the R matrix. This G matrix contains image covariances which represent relationships between only the common portions of the original variations, where "common" means "shared by two or more variables." The total amount of common variation for an original variable is the square of the multiple correlation attained by predicting it from all other variables in the set....When some of the variation is unique to single variables, the number of factors extracted under the usual criterion of an eigenvalue of 1.0 will yield fewer factors than will analysis of the R matrix. Kaiser (1963) has suggested extracting and rotating a number of factors equal to one half the number of original variables (Veldman, 1967, pp. 218,219).

In this instance, persons were regarded as variables, and with an n of 43, the number of factors called for was 21. Kaiser recognizes that this number of factors is almost bound to be more than can be interpreted with any confidence, but his research has convinced him that in image analysis rotating too many factors does no harm, and permits the investigator to interpret as many factors as he feels able to.

In this analysis, common variance is that proportion of the variance of a person, over all 100 items, that can be predicted from the other persons' scores. If it can be predicted from them, then it must share something in common with them. Any factor isolated by the analysis must have at least two persons loading on it, although, when the total amount of variance explained gets down to very small percentages, the identification of the persons who "identify" the factor may become difficult.

The correlational matrix resulting from the analysis of the replies of the student teachers was converted to a matrix of image covariances revealing a common variance of 74.32%. This degree of "shared" variance indicates that the student teachers had a great deal in common in their way of responding to the Q sort. (This finding would appear to agree with the positive weighting of the Communality scale in the discriminant analysis.) A sub-cluster of three persons, however, did not appear to belong to the set, as the correlations and image covariances for them were largely negative.

A principal axis analysis was performed, extracting 21 factors, in accordance with Kaiser's (1963) recommendation to extract about half as many factors as variables. These 21 factors accounted for almost the entire common variance (97.16%). A varimax roation analysis was performed in an attempt to get dimensions or factors that had a reasonably clear interpretation. Only loadings above .30 were noted, and this procedure isolated four factors which appeared to represent interpretable "clusters" of people in terms of their Q-sort answers. Twelve other factors each had only one person with a loading of over .30, and since each of these factors represented about 2% of the variance, no interpretation of them was attempted.

Factor 1, representing 30.29% of total variance, appeared to cluster 10 people "strongly," 19 people less "strongly," and

three people in an anti-factor 1 group. At this point, the responses of these individuals were inspected, and those statements which were ranked similarly by the whole group were isolated. In addition, persons loading high on one of the four factors and low on another were identified; then their most discriminating responses were studied, i.e. only those answers weighted as "most like me" or "least like me," in the three extreme positions at each end of the nine category Q sort, were reviewed. In this way it was possible to distinguish among the factors.

It then appeared that Factor 1 could be described in the following way. People loading heavily on it considered selfcontrol no problem, liked people and lived comfortably with those around them, coped effectively, were optimistic, made their own decisions, were not at all hostile, felt contented, considered themselves rational and tolerant, liked themselves and were satisfied with themselves, and thought they understood themselves.

People loading heavily on Factor 2 had a sense of failure, felt unworthy, had doubts about sexual powers, and tended to be poised.

People loading heavily on Factor 3 seemed to possess a strong "masculine" quality, were responsible but stubborn, had a feeling of aloneness in crowds, felt their hardest battle was with themselves, considered themselves as intelligent.

The only persons loading strongly on Factor 10 had negative loadings. These persons characterized themselves as ambitious, hard-working, able to make their own decisions. So Factor 10 would appear to be a laissez-faire sort of factor.

Because the characteristics of those people identified by Factor 1 appeared to be reasonably similar to those hypothesized in the model of this study, their scores on three scales, the self-actualizing total and the two Q measures, and on four criteria are presented in Table 16. Also included are the 19 people high on Factor 1, but not so high as the first group of ten. Inspection of the criteria indicated that three of this total group of 29 were rated in the top 12 on two criteria; five were rated in the top 12 on one criterion, and not in the lowest 12 on the other; three were rated in the top 12 on one criterion and in the bottom 12 on the other; and six were rated in the bottom 12 on both criteria. It would seem. therefore, that the general findings of this study in the direction of negative correlations between measures of selfactualization and criteria are further supported by image analysis of answers on the Q sort.

An interesting thought for further research arises from this analysis. Since Factor 1 people appear to be relatively self-actualized, it might be useful to devise an instrument using only the items that characterize the Factor 1 people. Such a measure would need to be subjected to a good deal of

SOME DATA ON PEOPLE LOADING ON FACTOR 1

<u></u> ,	C1	ass means		<u>,</u>	Criteria		
	#19	#32	#33	#37	#40 The ter	#41	_#43
1	08.8	•9837	45•7	possible 50	possible 10	Upper &	Lower_
1	98	1.4365	55	29	6.3	L	L
2	96	1.7736	50	27	5.2	L	L
3	116	3.800	50	18	6.8	L	
4	1 04	1.0849	49	31	4.8	L	L
5	127	1.0098	57	36	600 × 1		
6	117	1.4828	50	 *	6.6		· .
7	115	1.5725	48	29	5.3	L	L
8	99	1.1979	51	m 光	7.9	U	U
9	126	1.6734	56	- ×	6.7		
10	112	1.6089	53	40	6.1		L
1	118	.861l	47	34	5.7		L
2	122	·8973	44	23	7.5	\mathbf{L}	U
3	121	.9118	49	36	7•7		U
4	77	•4999	46	36	8.6	U .	
5	111	1.0505	48	36	6.9		
6	115	1.4171	48	36	7.2		_
7	105	1.0082	49	31	5.1	L T	L
ð	99	•4722	45	20	1.2	بل TT	
9	100	•9604	50	30	0.0	U	U T
10		T. 144 (49	20	5•1	ىل	<u>با</u>
12	117	-2470			6.0	·IJ	Ť,
12	111	24-7 20-28	42	26	6.0	Ũ	т.
ر ⊥ اد	105 111	6117	40		6.3	TT	T.
14 15	70	7042	40	40	77	U II	L TI
16	110	•1042 1 1070	44 1	24	1•1 7]	0	0
17	1 00	1 1808	44 ፍነ	24	- <u> +</u>	Т.	
+1 1.8	+22 118		50	26	1.8	بد	т.
19	105	1,0080	19 19	3]	4°0 5_1	Г.	T.
±)		10002	47			لاستد	۰ لیم

* Not rated.

construct validation, but it could provide a promising approach to the assessment of self-actualization.

One other procedure was used in the examination of the data. Those scales which purported to measure the dimension of self-acceptance were reviewed to discover whether any relationship among them existed. The correlations between measures are shown in Table 17. Three of these were over .50, namely the Self-acceptance and Self-regard scales of the POI, the Self-regard scale of the POI and the adjustment Q scale, and the Q sort and the adjustment Q scale. The CPI Selfacceptance scale correlated with no other "self" measure at a significant level, and the Q sort only with the adjustment Q scale. Therefore, not too much in common was revealed among the five measures purporting to measure self-acceptance.

Data Regarding Instruments

In a study such as this where one is attempting to interpret data, attention is focussed on three areas of the study: the instruments, the criteria, the sample.

An examination of the instruments was necessary to supplement the assumption of the validity of the instruments.

California Psychological Inventory

An intercorrelational matrix for the CPI based on this sample is found in Table 18. It may be observed that the
	Sr(POI)	Sa(CPI)	Q sort	Q adj.
Self acceptance (POI)	•52**	.12	.18	•19
Self regard (POI)		-,06	.16	•52
Self acceptance (CPI)			• 08	•02
Q sort	•			•53**

CORRELATION AMONG SELF-ACCEPTANCE MEASURES

** p < .01

CPI SCALE INTERCORRELATIONAL MATRIX FOR THE SAMPLE OF STUDENT TEACHERS

														· · · · · · · · · · · · · · · · · · ·		
Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Λc	Ai	Ie	Py	Fx	Fe
.13	.32	.19	.39	.01	.27	.02	25	.11	.02	.02	.25	22	.12	.01	02	.02
•	•3 [*]	.30	.26	.02	.23	.02	17	·33	.01	.07	.01	.26	• <u>40</u>	.3ĩ	.19	.02
		.46	.33	.02	.12	.18	50	.17	.01	.31	.26	.01	.45	.14	.13	.11
			.29	12	01	04	.32	02	.04	.21	.39	.43	.56	.48	.12	.38
				03	02	01	23	02	.03	.05	.01	25	.01	01	.05	.14
					.19	•46	.68	-52	.52	.15	.60	.41	.42	• <u>5</u> 5	.01	49
						.33	.21	.41	.19	.18	.46	.02	.13	•32 [*]	.34	.21
	•						. 3č	.12	.33	•56	.50	.12	.28	.01	32	08
	· .							.35	.08	.16	•60	.30	.10	.25	.02	 34
									•43	11	.32	•54	.40	•45	•23	.01
										01	.39	.24	.16	.19	.02	16
			5. · ·								.35	.02	.03	05	32	.02
								•				.19	.32	.37	.17	26
													•55	.51	63	.01
•												`		•52	.36	.02
															.30	17
																05
	Cs .13	Cs Sy .18 .32 .35	Cs Sy Sp .13 .32 .19 .35 .39 .46	Cs Sy Sp Sa .13 .32 .19 .39 .35 .39 .26 .46 .33 .29	Cs Sy Sp Sa Wb .13 .32 .19 .39 .01 .35 .39 .26 .02 .46 .33 .02 .29 .12 03	Cs Sy Sp Sa Wb Re .13 .32 .19 .39 .01 .27 .35 .39 .26 .02 .23 .46 .33 .02 .12 .29 .12 .01 .03 .02 .12 .19 .35 .19	Cs Sy Sp Sa Wb Re So .18 .32 .19 .39 .01 .27 .02 .35 .39 .26 .02 .23 .02 .46 .33 .02 .12 .18 .29 .12 .01 .04 03 .02 .01 .04 .35 .39 .26 .02 .30	Cs Sy Sp Sa Mb Re So Sc .13 .32 .19 .39 .01 .27 .02 .25 .35 .39 .26 .02 .23 .02 .17 .46 .33 .02 .12 .18 .50 .29 .12 .01 .04 .32 .03 .02 .01 .04 .32 .03 .02 .01 .04 .32 .03 .02 .01 .23 .21 .19 .46 .68 .33 .21 .36 .35 .36 .36 .36	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							

*** p < .01

.97

intercorrelation among scales is generally not high, although there are 23 correlations significantly non-zero at the .05 level, 31 at the .01 level, out of a possible total number of correlations of 153. Scales which do overlap others considerably are the following:

- 1. Well-being (Wb), having r's from .41 to .68 with nine scales.
- 2. Tolerance (To), having r's from .32 to .54 with eight scales.
- 3. Achievement by conformity (Ac), having r's from.32 to .60 with ten scales.
- 4. Intellectual efficiency (Ie), having r's from
 .32 to .56 with eight scales.

The scales alluded to in the model correlate with other scales as follows:

- Self-acceptance (Sa), an r of .39 with dominance, an r of .33 with sociability.
- 2. Psychological-mindedness (Py) having r's from
 - .31 to .55 with eight scales.
- 3. Flexibility (Fx), having r's from .32 to .63 with five scales.

The Sa scale would appear to tap a relatively independent dimension on this instrument as it correlates with r's of over .30 with only two other scales. It has been pointed out, however, that it does not correlate with other scales purporting to measure self-acceptance of other instruments (see Table 15). It is worth noting that in the intercorrelational matrix presented in the manual, even with a very large sample, there is much more overlapping among scales than is apparent in the matrix in Table 18.

How did the members of this sample compare with the norm groups presented in the manual? Data concerning this are found in Table 19. Two norm comparison groups--psychology and social work graduates--were selected as being most similar in orientation to the sample of the present study. Norms for male college students are shown also. The femininity scale was not included for study since the sexes were not separated for purposes of analysis. It will be noted that the means and standard deviations of the present sample tend to resemble quite closely those of the selected comparison groups.

Figure 1 presents the profiled class mean on the CPI. In addition the profiles at the top five students and bottom seven students are shown. The elevation of the profile is generally higher than those presented in the manual as typical of a college group. The generally lower level of the scores in Class II may be observed, however. These are considered to be measures of socialization, maturity, and responsibility. Inspection of individual scores in the three scales for detection of faking already alluded to gave no indication that student teachers had not responded honestly to the inventories.

A COMPARISON OF STUDENT TEACHERS AND NORM GROUPS ON THE SCALES OF THE CPI*

	Raw Score Means and Standard Deviations										
	Scale	Stud Teac	ent hers	Male Gra	Psych. ds	Male Work	Social Grads	Male Stu	College Idents		
*****		М	SD	M	SD	M	SD	M	SD		
l	Do	29.1	5.3	30.1	5.4	30.9	5.1	28.3	6.3		
2	Cs	22•3	2.9	24.4	2.6	22.6	3•2	20.9	3.8		
3	S	27•2	3.1	26.4	4.6	27.0	4.1	25.4	5.0		
4	Sp	40.9	6.6	42.5	4.•6	40.5	5.8	37•3	5.8		
5	Sa	23.6	2.9	23.7	3.1	23.0	3.1	22.3	3.8		
6	Wb	36.6	4.7	36.9	3.5	38.9	3.8	36.6	4.6		
7	Re	30.6	3•4	31.6	3.6	32•2	3.8	30.8	4.5		
8	So	35.7	5.5	34.5	4.2	36.4	4.6	36.8	5.2		
9	Sc	27.0	6.6	27.8	5.5	31.1	5.7	27.6	7.5		
10	То	25.0	2.7	27.0	2.7	26.3	4.0	23•3	4.8		
11	Gi	17.5	5.2	15.4	5.0	19.6	5.7	17.2	6.2		
12	Cm	25•5	1.4	25.1	1.7	25.5	1.9	25.5	2.0		
13	Ac	27.8	3.7	29.3	3.9	30.1	3•7	27.4	4.5		
14	Ai	24.0	3.2	27.1	2.8	24.2	3.5	20.9	4.2		
15	Ie	41.4	3•3	44.9	3•2	42.8	4.1	39.8	5.0		
16	Ру	13.0	2.5	16.9	2.6	14.3	2.8	11.14	3.0		
17 **	Fx	15.6	3.1	16.5	2•9	13.7	3.9	11.1	3.8		

N = 144 117

187

1133

* Gough, 1964, p. 34.

** 18, Fe, omitted.



Figure 1

Reproduced from Manual for The California Psychological Inventory, by Harrison G. Gough, Ph. D. Copyright by Consulting Psychologists Press, Inc., Palo Alto, California. All rights reserved.

Personal Orientation Inventory

An intercorrelational matrix for the POI is found in Table 20. The very high interrelationship of scales is apparent, there being 42 correlations significant at the .01 level, 11 at the .05 level, of a possible total of 78. The only scales which do not have significant correlations with more than half the scales are Nature of man (Nc), Synergy (Sy) and Capacity for intimate contact (C). It is worthy of note that the estimated level of self-actualization yielded by summing the scales of Time competence (Tc) and Inner directedness (I) correlates with r's from .44 to .98 with all scales except Nature of man. The I scale correlates similarly, with r's from .39 to .98 with 11 of 12 scales. The scales selected as appropriate to the model correlate as follows:

- 1. Existentiality, with r's from .33 to .75 with nine scales.
- 2. Self-regard, with r's from .31 to .68 with eight scales.
- 3. Self-acceptance, with r's from .33 to .80 with ten scales.
- 4. Capacity for intimate contact, with r's from .47 to .59 with six scales.

This analysis of the matrix would lend support to the statement in the manual that in the logical development of the scoring categories, they were not conceptualized as representing

POI SCALE INTERCORRELATIONAL MATRIX FOR THE SAMPLE OF STUDENT TEACHERS

1.1

	Tc	<u></u> ⊢-i	SAV	EX	노	S	Sr S	ម ស	Nc	Sy	Å,	C
N. V.	.78	*** 86.	.55 **	.73	•53	.62 **	.64 **	• 80 **	.28	*** •44	·70	.51
lotal.		** .**	÷	**		**	**	**			**	
Тс		.65	.3ġ	. 144	.25	.45	.63	.65	.29	.13	.48	.27
ы			• 56	•75 •75	.57	•62	•57	.78	• 26	.50	•71	•54
SAV				.13	-21	•51	• 46	• 26	** **	.28	•36*	• 02
र हन					** **	.32*	.30	* \$0 •	-07	•50**	** 87.	• 59 **
г. Г							ଁତ		•03	.14	•54	**
ŝ							•43	.37*	.15	.29	.34	• 14
Sr	, ·							•52	•л- *С•	•29	** **	• 06
လို့ရာ									• 15	** **	•55	•47**
Nc			•							.32*	•07	• 16
Sy											•43	• 25
A				·								• 45 ^{***}
d *	· ·	05										
d **	\sim	TO						. '				

independent dimensions (Shostrum, 1966, p. 21). Though the correlations in the matrix in the manual based on an n of 138 are not so high as those for the student teacher sample, the trends appear to be similar.

How did the members of this sample compare with the norm groups presented in the manual? Data concerning this are found in Table 21 which compares means for the student-teacher sample, a "self-actualized" sample, a "normal adult" group, and a "nonself-actualized" group. The table in the manual indicated critical ratios between the self-actualized and non-selfactualized groups significant at the .01 level for every scale except Nature of man. It appears that the student-teacher sample might not be considered representative of the normal adult population as portrayed in this table. Their mean is above that of the normal adult group on every scale except Acceptance of aggression and Capacity for intimate contact, and is above that of the self-actualized sample on Self-actualized values, Feeling reactivity, Self-regard, Nature of man, and Synergy.

Figure 2 presents the profiled class mean on the POI. In addition, the profiles of the top five students and bottom seven students (previously discussed) are included. The elevation of the class profile is certainly higher than that of the norm mean as shown in the profile sheet--a standardized score of 50. The profile more closely resembles that of the self-actualized group except on the Existentiality scale. It

POI SCALE MEANS IN RAW SCORES FOR STUDENT TEACHERS, SELF-ACTUALIZED, NORMAL, AND NON-SELF-ACTUALIZED GROUPS*

				· · · · · · · · · · · · · · · · · · ·	
		Comp	arison of To	tal Mean	Scores
	POI Scale	Student Teachers	Self- Actualized	Normal Adult	Non-Self Actualized
1.	Time Competence	18.54	18.93	17.7	15.82
2.	Inner Direct.	90.24	92.86	87.25	75.76
3.	Self Act. Values	20.85	20.69	20.17	18.00
4.	Existentiality	22•27	24.76	21.80	18.85
5.	Feeling React.	16.39	16.28	15.74	14.26
6.	Spontaneity	12.24	12.66	11.65	9.79
7.	Self Regard	13.32	12.90	11.97	10.21
8.	Self Accept.	18.61	18.93	17.09	14.21
9.	Nature of Man	12.44	12.34	12.37	11.29
10.	Synergy	7.756	7.62	7.32	6.18
11.	Accept. of Aggression	16.46	17.62	16.63	14.74
12.	Capacity for Love	18.05	20.21	18.80	16.47
	N ==	44	29	158	34

"Shostrum, 1966, p. 26.



is interesting to note, however, that the ratio scores (not included in this study, because they are not amenable to statistical analysis) on the profile -- obtained by the relationship of time incompetence to time competence, and by the relationship of outer-directedness to inner directedness-these ratios fall in the normal range. One is left with a question, however. On the basis of the POI norms as presented in the manual, this student-teacher sample cannot be considered representative of the normal adult population. This one could expect, but the sample does appear to be more self-actualized than the observations of Knapp (1965) concerning college groups would have led one to expect. However, when one compares the mean scores and standard deviations of this sample with other norm groups presented in the manual, e.g. college seniors and Peace Corps Volunteers (Shostrum, 1966, pp. 11,12) one sees few differences. Apparently, the profile sheet is based on a sample of a normal adult population. Compared to this group the student-teacher sample may appear self-actualized; when compared with relatively similar educational and vocational groups, however, it is not dissimilar.

2 Sort

Data on Q sorts can be misleading because the level of development is not taken into account. However, the adjustment Q scale partly avoids this difficulty in providing some external measure of growth or adjustment. The adjustment Q score was

derived from the Dymond Adjustment Scale, items selected by six therapists (Rogers & Dymond, 1954).

The data on the Q sort as used by Haigh and Butler are hardly comparable because of their smaller n, (25). Certainly, the comparisons favour the student teacher sample. Their mean r was .7545, whereas the mean r of the control group in the Haigh-Butler study was .58. From this it seems that the student teacher sample was better adjusted (by the definition used in their study) than the control group of the Haigh-Butler study. But this statement is not very meaningful, because if one looks at the adjustment Q scale further questions arise. The mean of the control group was 46; the mean score of the student teacher group, 45.73. By using an external criterion, the differences between the groups appear very small.

It would appear, therefore, that the unexpected findings of this study cannot be attributed to the uniqueness of the sample in comparison with the norm groups on which the validity of the instruments was based. No such uniqueness is evident.

Data Regarding Criteria

In an effort to diversify the types of criteria, several forms of rating were incorporated into this study. The data concerning intercorrelations among the criteria are presented in Table 22. It is apparent that the relationship between the two major forms of evaluation--the University composite rating and the rating of demonstration lessons--was very slight.

CORRELATIONS AMONG CRITERIA

Basar da California a referencia Basar de California da California da California Basar de California da California da California da California da	3 8	40	4 1	43
37	•83 ^{***}	.10	•87 ^{***}	.11
38		.16	•82 ^{***}	• 24
40			• 29	. 65***
4 1				• 31

** p < .01

N = 38, total number for whom all criteria available. Key: 37 = University composite rating

38 = University composite rating dichotomized

40 = Demonstration lesson

41 = Extreme groups on Criterion 37

43 = Extreme groups on Criterion 40

Although both criteria were performance ratings, the correlation is small. The attempt to diversify the criteria cannot be regarded as successful. The judges' ratings on the demonstration lesson are of low reliability (see Table 23) even though the situation afforded more possibilities for standardization than obtained in the University composite ratings.

The Sample

The data from the CPI and the POI already discussed would indicate that this sample of student teachers is not essentially different in mean scores and standard deviations from comparable groups at the same or similar levels of training. Yet, when the pool of personal data on the group is reviewed, it becomes apparent that the group was far from homogeneous in many ways. To describe them by using means may obscure some features rather than elucidate them. The larger proportion of older men in the group in comparison with younger women may explain scores that appear to reflect degrees of maturity, adjustment, and self-actualization. This imbalance in category membership appears to underlie the study. This disproportionality is illustrated in the following figures.

-		
	2	3
1	• 3152	.4198
2		•5422

CORRELATIONS FOR RATINGS OF THREE JUDGES

Mean r = .4257

1.1.1



Sex
$$\begin{array}{c}
\text{Criterion 37} \\
\text{S NS} \\
\text{Sex } F \\
\hline
11 \\
14 \\
\hline
14 \\
\hline
N = 41^{*} \\
\text{Figure 4.}
\end{array}$$

Classification of sample by sex and age

Figure 3

Classification of sample by sex on Criterion 37, University composite rating

in which

Μ	=	male	S	Ξ	superior
F	=	female	NS	=	non-superior
0	H	old			· · · · ·
Y	=	young			

In this sample, 50% of the men were rated as superior, 74% of the women. The following figures illustrate this analysis in a different way.

Male				Fer	nale	
	0	Y		0	Y	
S	9	2	S	2	12	
NS	1.0	1	NS	2	. 3	
		N = 22		•	N = J	.9
	Figu	ire 5		Figu	ire 6	

Classification of men by age and achievement on Criterion 37, University composite rating

Classification of women by age and achievement on Criterion 37, University composite rating

Three women, two young, one old, were not rated.

As indicated, 10 of 19 older men were rated non-superior, 52.6%; 12 of 15 younger women were rated superior, 80%. To put it differently, an older man's probability of a superior rating was a little better than one in three (36%); a younger woman's probability was almost one in two (48%).

Before any conclusions could be drawn from these figures, more data would be required. Possible explanations are:

- 1. Young people who continue through university without interruption know what is expected of them in performance, and hence can procure superior ratings.
- 2. Women who enroll in the Guidance major in teacher training are superior, on the whole, to men who enroll.
- 3. Younger persons make a more favourable impression on raters.
- 4. Older people returning to university find the adjustment difficult.
- 5. The relationship of age and sex to ratings occurs by chance.

However, in view of the consistent trend toward higher mean scores for older men revealed by the t tests for differences between means, it would appear unlikely that the relationship has occurred by chance. One is forced to conclude that the groupings in category membership may have had unexpected

results, both in terms of the scale scores and the criterion ratings. It is possible that Maslow's concern about the college-age group and their difficulties in achieving selfactualization has some foundation. College students may be so concerned with the problem of identity and achievement and status that any degree of the kind of maturity implied within the concept of self-actualization may be difficult to attain. The fact that older members of the class displayed a definite trend toward higher scores would offer support to the proposition that Maslow makes, as quoted in Knapp's study (Knapp, 1965). It is true that if one were to judge this sample by the class means, they might be considered relatively selfactualized, but the fact that the younger members of the class scored lower, on the whole, than did the older members of the class, lends support to Maslow's position.

The negative relationship revealed in this study between measures of self-actualization and criterion ratings heads one to ask whether the student teaching milieu is such that behaviours consonant with self-actualization are encouraged. Whiteley and his associates (1967) suggest that the anxieties and pressures of the student-teaching experience are conducive to the development of rigid behaviours. If this be true, the negative relationships should not be surprising.

CHAPTER V

SUMMARY, FINDINGS AND CONCLUSIONS

Statement of the Problem

The problem of this study was to ascertain what personality dimensions that can be hypothesized from a model stressing positive health relate to success in practice teaching in Guidance. The general hypothesis underlying the study was: there will be a positive relationship between ratings of student teachers and their scores on selected measures.

Theoretical Framework and Model

A basic assumption of the study was: the more a person displayed the characteristics of Maslow's self-actualized person, the greater the likelihood of his being effective in his vocational performance. From the observed behaviours of self-actualized people, three were selected as significant for a model of an effective student teacher of Guidance: the dimensions of flexibility, self-acceptance, and concern for others.

Procedures

The sample of this study was limited to the student teachers enrolled in Education 404 (Curriculum and Instruction in the Teaching of Guidance) in the professional year of training for secondary teaching at the University of British Columbia, winter session, 1966-67.

Two types of criteria were used: the first, a Faculty of Education composite rating, used for grading purposes; the second, ratings based on the teaching of a demonstration lesson.

Simple correlation, multiple regression, the discriminant function, and image analysis were the principal techniques used in the analysis of relationships between the independent variables--scales of the Personal Orientation Inventory, scales of the California Psychological Inventory, and scores on the five supplementary measures, two Q-sort measures, a questionnaire, a case study, and a lesson plan--and the criteria.

Findings

The findings of this study are presented in this section. For clarity, the conclusions are presented for each research question in the following manner:

1. The research question is stated.

2. The significant statistical results are stated.

3. The conclusions based on the findings are presented.

Other general conclusions are also presented following the discussion regarding specific research questions.

Research Question 1

How strong a relationship will exist between the University composite ratings obtained by student teachers and their scores on measures selected on the basis of the model?

Correlations as indicated were found between this criterion and the following variables: Capacity for status, CPI (r = .3266); Existentiality, POI (r = -.3375); Q sort (r = -.4551); Case study (r = .3776).

The implications of these findings are that in terms of the measures used, high scorers on this criterion displayed the following characteristics: desire for status and achievement, tendency to react with rigid adherence to principles; low sense of self-esteem; ability to analyze, in writing, problem situations relevant to Guidance teaching.

Research Question 2

How strong a relationship will exist between the ratings given by students and by adult judges to student teachers on the basis of demonstration lessons, and their scores on the selected measures?

The criterion of students' ratings on demonstration lessons proved, on inspection, to be non-discriminating, and therefore was not formally analyzed in this study.

On the criterion of adult judges' ratings of demonstration lessons, correlations as indicated were found between this criterion and the following variables: Self-actualization total, POI (r = -.3671); Time competence, POI (r = -.3793); Inner directedness, POI (r = -.3313); Self-actualizing values, POI (r = -.3883); Existentiality, POI (r = -.3165). The implications of these findings are that high scorers on this criterion displayed the following characteristics as measured by the instruments used: values atypical of the selfactualized person-lack of competence in linking the past and the future to the present in meaningful continuity, tendency to be unduly influenced by authorities and the peer group.

Research Question 3

Will the scores on the independent variables contribute anything to the classification of students of Guidance, on either criterion, the University composite rating or the demonstration lesson rating?

In order to answer this question, t tests for significance between means were performed based on the following classifications: superior and non-superior on two criteria; male and female; old and young; and five students superior on both criteria, seven students non-superior on both criteria. The general results of these investigations were in agreement with those already indicated, namely in a direction opposite to that hypothesized in the study. However, there was evidence of large interaction effects between sex and age, and also a main effect of sex.

Research Question 4

Will dealing with profiles, i.e. patterns of scores, through multivariate procedures, yield more information about the student teachers than univariate tecnniques?

The procedures of multiple regression and discriminant analysis did find certain scales entering into equations, but usually with a weight opposite to that hypothesized, and occasionally there were contradictions. The scales which weighted positively were: Communality (CPI), Nature of man (POI), the Questionnaire, and the Q sort. Those weighting negatively were: Synergy (POI), Existentiality (POI), Selfactualized values (POI), and the Lesson plan. On the whole, the trend was in the same direction as that indicated by the use of univariate techniques, namely that scales the model indicates should select good criterion people in fact did not; that, indeed, the reverse tended to be true.

Two other questions were asked. First, did the data reveal clusters of "like" people with regard to personality dimensions? Image analysis was used in an attempt to discover whether the method of answering questions about self on the Q sort had revealed clusters of "like" people. Four factors were isolated, accounting for approximately 46% of total variance, factors which appeared to present clusters of people in terms of their Q-sort answers. The characteristics of those people loading heavily on Factor 1 appeared to be reasonably similar to those hypothesized in the model of the study.

Second, did those scales which purported to measure the dimension of self-acceptance show any relationship? An inspection of these correlations indicated that not too much in

common was revealed among the five measures so designated.

Conclusions

The major conclusion of this study is quite clear: student teachers rated as self-actualized and well-adjusted as measured on the scales of the instruments of this study were not judged as superior in performance of student teaching. In fact, the reverse tended to be true: the correlation was a negative one.

An examination of the data from the instruments was carried out in order to ascertain whether the unexpected findings of the study could be attributed to the uniqueness of the sample. Such did not prove to be the case, however. When compared with relatively similar educational and vocational groups, the members of this sample showed few differences.

Two possible explanations may be made. One concerns the criteria. Ratings of student teaching as a proximate criterion may not be a valid test of the assumption underlying this study, that the more a person displayed the characteristics of Maslow's self-actualized person, the greater the likelihood of his being effective in his vocational performance.

Another explanation may lie in the failure to consider in the model the cluster of behaviours that might be described as class management--preparation, efficiency and organization. Ryans (1960a) identified the two major clusters in effective teaching: one embraced these behaviours, and the other embraced personality dimensions. The failure to consider the management cluster may be an explanation for the trend to negative correlations between hypothesized desirable personality dimensions and performance. Because behaviours associated with the management cluster are more easily observed and identified, they may enter into judgments about ratings more than do behaviours associated with personality dimensions.

Holland's (1959) findings about high achievers and low achievers appear very similar to the findings of this study. Allen (1966) and Durflinger (1963) also both found tendencies toward conformity, low level of self-acceptance, lack of aggressiveness and initiative among "successful" student teachers--findings which appear to be supported by the data of this study.

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References in text are given as pages of chapters, as this is the notation in the mimeographed form.

APPENDICES

APPENDICES

Α. Demonstration Lesson

- 1. Introduction
- 2. Case studies

- Student rating scale
 Instructions to raters
 University of B.C. rating form

Β. Instruments

- 1. Sample questions from the POI
- 2. Sample questions from the CPI
- 3. Sample Q-sort items 4. Instructions for the Q sort 5. Other measures
- - (a) questionnaire

 - (b) case study
 (c) lesson plan
 (d) examples of answers

C. Multivariate Equations

APPENDIX A

Demonstration Lesson

1. Introduction

My name is ______ and my partner's name is _____. We are student teachers in the Fifth year of our program at U.B.C., and we are planning to be teachers of Guidance. In this period we are spending with you to-day we hoped we could get your ideas on some problem situations that we know have occurred in some high school students' lives. We've written these incidents up as case histories, and we'd like to give you a chance to talk about alternative courses of action. We're going to tape record this discussion, so that our instructors may be able to listen to the ideas expressed here.

Our time is up - would you mind, before we finish, filling out the rating scale. Please fill in any comments that you feel you'd like to make. Thank you very much.

2. Case Studies

(a) A student in your class has obtained a copy of the examination paper and is selling it to others in the class. The exam results will be extremely important in relation to the year's work. The teacher is unaware of the situation. What would you do:

- (1) Get a copy of the exam.
- (2) Tell the teacher in an anonymous note what is going on.
- (3) Talk the matter over with your friends in the class, and get their opinion as to what to do.
- (4) Talk the matter over with your parents and get their opinions as to what you should do.
- (5) Tell the teacher privately.
- (6) Other possibilities.

(b) Two of your close friends have been stealing small articles from a neighbourhood drug store during lunch hour. You have heard, in a family conversation at home, that the druggist has laid a trap for your friends, so that the next time they attempt to steal anything, they are certain to be caught. Your family has always stressed honesty, and your parents have complete trust in you. What would you do:

- (1) Warn your friends of the trap.
- (2) Try to persuade your friends that what they are doing is wrong (without telling them of the trap).
- (3) Speak to some adult in whom you have confidence who could approach your friends (minister, adult friend, counsellor, etc.).
- (4) Tell your other friends about the trap, hoping the group will influence the two involved.
- (5) Tell your two friends to be more careful if they are going to continue to steal.
- (6) Do nothing.
- (7) Other possibilities.

1.35

(c) You are attending a private party. Both your parents and your date's parents have specified the time when you should be home. It is a good party, and half an hour before your curfew, it is still going strong. What would you do:

- (1) Leave the party at the specified time.
- (2) Phone home to your parents and your date's parents for permission to stay later.
- (3) Take a chance on your parents: approval and remain until the party is over.
- (4) Ask your host or his parents to phone your parents, asking permission to stay.
- (5) Talk the situation over with your date and come to a mutual decision.
- (6) Other possibilities.

(d) One of your best friends has been a consistently reckless driver. One day you witness an accident in which he is driving too fast, and, as a result, two people are seriously injured. You know he plans to lie about what has happened, What would you do:

- (1) Report to the police as a witness.
- (2) Warn your friend that you will testify against him unless he tells the truth.
- (3) Talk over the matter with your parents.
- (4) Talk over the matter with an adult in whom you have confidence.
- (5) Do nothing.
- (6) Other possibilities.

3. Student Rating Scale

Please fill in the following scale, giving your appraisal of the lesson you have had, and of the student teacher. Circle the most appropriate response.

1. Did you feel encouraged by the student teacher to participate in the class discussion?

	1.	2.	3.	4.
Very	encouraged	Encouraged	Neither really encouraged nor discouraged	Discouraged (No active encouragement)

2. Did you feel your ideas and those of the rest of the class were appreciated and listened to by the student teacher?

	1.	2.	3•	4.,		
Very	much	Usually	Seldom	Not	at	all

3. Did you feel that the student teacher was prepared to let the class discuss their ideas, even though it meant departing from a pre-arranged lesson plan?

3•

1.2.3.4.Very much soSomewhatSeldomNot at all4.4.Would you like to have this teacher for a Guidance

teacher?

Very much Satisfactory Indifferent

2.

Circle the appropriate number. Student teacher in first, second lesson.

Time

Comments:

Date

1.

4.

No

4. Instructions to Raters

Thank you for your participation in this project. You are asked to rate the student-teachers you hear on these tapes in terms of your evaluation of their performances as guidance teachers. The case studies they use in the lessons were selected by them from the accompanying sheet. Their introduction to the class is also attached. Their only instructions were to use the case studies as the basis for a lesson. On most of the tapes two students shared a guidance period, agreeing between themselves how to divide the period. In one or two instances (marked on tapes) one student took a whole period. (You may, in this instance, select from the tape--beginning, middle and end-to get as close an approximation to the general situation as possible. Having a longer period of time is usually an advantage, and if possible you should take this into consideration. The most useful part of the lesson to base any comparison on, will be the first fifteen minutes.)

On the tape boxes, I have included this information: name of student-teacher(s), time of day, date, grade level.

You are asked to make a "global" evaluation, that is--a general overall rating of the student teacher in terms of his effectiveness in this situation. You are asked to use the following rating scale in two ways: (a) decide on a mark 1-10 (using halves also) (b) indicate the category. Please place these ratings on the rating sheet. Should the tape be so poor

that you cannot hear the student-teacher, or if for any reason you are unable to rate a particular performance, please so indicate in column c.

Category I	Category II	Category III	Category IV
Very good	Good	Satisfactory	Not satisfactory

The following points of information are relevant to your position as rater:

- (1) the student-teacher did not know these students, and in most instances the student-teacher introduced himself to the class. The classes knew nothing of the project or its purpose.
- (2) in many instances, the student-teacher had the class form into small groups for discussion. When this occurred, the other student-teacher usually turned off the tape recorder during that period. If this did not happen, you can pick up the return to general discussion by speeding up the tape.
- (3) each student-teacher asked the students to fill out a rating sheet at the end of the lesson. These instructions will be included on the tapes, in some instances.
- (4) the time allotment to each student was approximately 20-25 minutes.
- (5) enclosed charts are a record of the class participation. If small groups used so indicated.

Some clues that may assist you in reaching a global evaluation are listed below. This list is by no means inclusive, but is intended to supply some guidelines only. The questions are based on areas of general agreement as to the characteristics of good guidance lessons, as indicated by Margaret Bennett in "Guidance and Counseling in Groups" and on the items included in the student-teacher rating sheet used in the Faculty

of Education, University of British Columbia.

- 1. Did the student teacher have a satisfactory introduction? Did he make clear his purpose (goals) to the students? If not, was his explanation of his presence satisfactory?
- 2. Did the student teacher attempt to establish a climate in the class conducive to discussion? Was he "listening" to responses? Did he pick up cues from the students and pursue them in discussion?
- 3. Did the student teacher use the personal pronoun "I" extensively? Did he attempt to elicit from the students their experiences?
- 4. What proportion of the time did the student teacher talk? Was he able to get much response from the students? Did many students appear to participate, or did a few students monopolize the discussion? Did the student teacher do anything to avoid monopolization? Did he appear to "pinpoint" students, or did students volunteer?
- 5. Was sufficient care taken in terms of "class management"? Did the student teacher seem to know "where he was going" and "what he was doing" and did the class appear to understand and follow the guidelines (either explicit or implicit)?
- 6. Was the student teacher's voice and diction satisfactory for the situation?
- 7. Did the student teacher appear to develop interest in his presentation and in the lesson? Did he use methods to encourage the development of interest?
- 8. Did the student teacher tend to make judgemental or evaluative comments? If so, what was the reaction to these?
- 9. Did the student teacher appear to have an organized plan for his presentation? Did he appear to have thought about the lesson beforehand?

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SUMMARIZING THE LESSON.		•			· ·		
ASSIGNMENTS. SUPERVISION, INDIV. ASSISTANCE.				•	• •		
PACE, CONTROL AND CLASS MANAGEMENT.							
RELATIONSHIPS WITH PUPILS.		· · · ·		· · · ·			
RELATIONSHIPS WITH OTHERS.		•		· · · ·	· .		
BEST FEATURES-	•				OVER	LL'EVALU	ATION
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APPENDIX B

Instruments

1. Sample guestions from POI

Mark the statement "mostly true" about you.

- 1. a. I am bound by the principle of fairness.
 - b. I am not absolutely bound by the principle of fairness.
- 2. a. When a friend does me a favor, I feel that I must return it.
 - b. When a friend does me a favor, I do not feel that I must return it.
- 3. a. I feel I must always tell the truth.
 - b. I do not always tell the truth.
- 4. a. No matter how hard I try, my feelings are often hurt.
 - b. If I manage the situation right, I can avoid being hurt.
- 5. a. I feel I must strive for perfection in everything I undertake.
 - b. I do not feel that I must strive for perfection in everything that I undertake.

2. Sample questions from CPI

- If you agree with a statement, mark True; disagree, False.
 - 1. I enjoy social gatherings just to be with people.
 - 2. The only interesting part of the newspaper is the "funnies."

3. I looked up to my father as an ideal man.

- 4. A person needs to "show off" a little now and then.
- 5. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."

3. Sample Q-Sort Items

- 1. I feel uncomfortable while talking with someone.
- 2. I put on a false front.
- 3. I am a competitive person.
- 4. I make strong demands on myself.
- 5. I often kick myself for the things I do.
- 6. I often feel humiliated.
- 7. I doubt my sexual powers.
- 8. I am much like the opposite sex.
- 9. I have a warm emotional relationship with others.
- 10. I am an aloof reserved person.

4. Instructions for the Q Sort

A. Self Sort

Sort these descriptions (100 items) to describe yourself as you see yourself to-day, from those that are least like you to those that are most like you.

"Least like me" "Most like me" Pile number.....0 1 2 3 4 5 6 7 8 Number of cards....1 4 11 21 26 21 11 4 1

Instructions

- 1. Begin with your pile of 100, and try to divide it into thirds, left pile approximately 33-least like me--right pile approximately 33-most like me, and rest in middle.
- 2. From your left "least" pile, select the 1 item least like you (Pile number 0).
- 3. Then from your big left pile (now approx. 32 items) select the next 4 items least like you and place them in pile number 1.
- 4. Then continue to select the next 11 items least like you, and place them in pile number 2. (You will have approx. 17 left in original left pile.)
- 5. Follow same procedure with your right pile, setting up piles number 8, 7, 6.
- 6. You now have approx. 68 items left (17 from left, 17 from right, 34 in original middle pile). Force this group into 3 piles, least like me - 21 items, pile number 3, most like me - 21 items, pile number 5 and in between - 26 items, pile number 4.
- 7. Enter numbers of items on chart. Do not try to rank items within groups. In other words, the order of items in the piles is of no importance.

B. Ideal Sort

Now sort the 100 items again, this time to describe your ideal person--the person you would most like within yourself to be. Follow the same procedures as above.

5. Other Measures

(a) Questionnaire

Directions: You are asked to imagine yourself in the following situations. Choose the response you think you would

make, giving reasons for your choice. Circle the appropriate number.

- 1. Your Guidance 9 class is making oral reports on a unit on Vocations. Just as one committee is about to make its report, a student puts up her hand and says: "I know we're supposed to be making these reports, but could we stop for a few minutes and discuss the article in the paper last night about teen-age morals. I'd like to know what you and the others think about it." Would you:
 - (1) Ask the class for their opinions and wishes.
 - (2) Indicate you think the topic interesting, but suggest you would like to read the article yourself first, and then take it up during the appropriate unit.
 - (3) Indicate you do not think this an appropriate topic for Guidance 9.
 - (4) Begin a discussion right then, with a question such as: "What was it that you were particularly interested in?"
 - (5) Alternative suggestions.

Reasons for your choice.

- 2. A boys' Guidance class in Grade 10 is discussing how to get along with people, when one boy says: "Why do teachers always pick on kids?" Would you:
 - (1) Ask him to elaborate on what he has said.
 - (2) Explain that teachers are human and have to be allowed to have feelings too.
 - (3) Ask the class for their ideas on this topic.
 - (4) Indicate you think this is an unfair generalization.

(5) Alternative suggestions.

Reasons for your choice.

- 3. A group of boys in a Grade 12 class are arguing noisily as they come into the Guidance classroom, and you realize it has something to do with one of the boys being on probation. Would you:
 - (1) Lead into a general discussion about the law, hoping that the incident might be mentioned.
 - (2) Ignore the situation and begin your planned lesson.
 - (3) Direct a light "kidding" query to the boys--such as, "What's up? Is this a general fight we can all get into?"
 - (4) Attempt to speak to the boys concerned privately before the class begins, indicating there are some private matters that don't need to be discussed in public.
 - (5) Alternative suggestions.

Reasons for your choice.

- 4. A girls' Guidance class in Grade 10 is discussing personal relations when one girl says, "I know this isn't right on the topic, but could you tell me what masturbation means?" Would you:
 - (1) Indicate you'd like to talk with her privately about the question.
 - (2) Ask the class how many had heard of the word.
 - (3) Ask if someone in the class can answer the question.
 - (4) Indicate you think it a digression, and not a suitable question at this time.
 - (5) Alternative suggestions.

Reasons for your choice.

- 5. The boys in your Guidance class come in noisily, and are hardly seated before someone bursts out with, "That stupid teacher, Mr. Brown. He's too dumb to realize that half the class had seen a copy of that exam. He makes me sick he's so stupid!" Would you:
 - (1) Remonstrate with him for talking like that about a teacher.
 - (2) Appear sympathetic or/and interested, but indicate ethics do not permit you to listen to complaints against a teacher.
 - (3) Make use of the situation to discuss the matter of cheating.
 - (4) Suggest the student talk to you about the matter after class.
 - (5) Alternative suggestions.

Reasons for your choice.

- 6. A Grade 8 girl complains in class because her mother doesn't trust her. She won't let her bring her boyfriend home after school, because they are alone in the house. Would you:
 - (1) Indicate the possible reasons for the mother's behaviour.
 - (2) Ask the class for opinions.
 - (3) Suggest a panel of older girls (Grade 11 or 12) be asked to talk over problems like this with the class.
 - (4) Suggest role-playing of the situation.
 - (5) Alternative suggestions.

Reasons for your choice.

(b) <u>Case</u> <u>Study</u>

A. Answer either Question I or II

I. Subjects: Bob

Bob, a 16 year old boy in Grade 10. Last year he was rather small, a quiet boy who studied conscientiously and cooperated well with the teachers. He didn't bother much with the other students in the school. This year, one might describe Bob as tall, well-built, attractive in a manly way, and confident in his manner with both teachers and fellow students.

15 Boys in the same class as Bob, range in age from 14 1/2 to 15 1/2 years. Recently they have been involved in various kinds of trouble from jostling certain people in the halls to picking fights on the playgrounds. On two occasions these boys had to visit the principal for discipline.

Situation:

Through your individual interviewing it has become apparent to you as the counsellor of Gr. 10 boys that the fifteen boys (above) were individually most concerned about their recent behaviour in and out of school, You have learned from each one that he felt he was under real pressure for a long time. Each boy feels free to confide in you, knowing that you will keep his secret. In each case the pressure involved the power that each thought Bob had over them. They each said that Bob is the one who tells us to pick on someone. One such case involved the persecution of a quiet, 14 year old Indian boy. Rather than bear the brunt of being called "chicken" they followed orders.

Your judgment is that the fifteen boys were actually concerned and were suffering from both guilt and fear, but couldn't summon enough courage "to break away." Upon further investigation you find that while the fifteen boys involved have been disciplined several times, Bob was never among them.

Assume that you have Bob and the fifteen boys in your Guidance class.

Mary is a sixteen year old girl in Grade 9. Mary is "glamorous" with her long hair style and her mini-skirt.

II. Subjects:

so. She is witty, pretty, and confident. The other girls swarm around her even though she is caustic at times. She has not actually been in trouble in school, but she has been "on the fringe." 15 Girls who are in the same class as

least the other girls in her class think

Mary, range in age from 13 1/2 to 15 years. Recently these girls have been involved in various scrapes which seemed to begin for no reason at all. These girls seemed intent on making trouble.

Situation: Through individual interviewing it has come to your attention as the counsellor. of Grade 9 girls that the fifteen girls were very worried about the types of things they were doing. Each indicated some concern about her part in the persecution of one particular girl. The girl that was being "picked on" was not too attractive, was quiet and poorly dressed. This girl seemed to move to and from class in a quiet, almost fearful way.

> You have learned from each girl that she doesn't know why she does such things especially since she feels so guilty about it afterwards. Some indicated that they "were in too deep" now to do anything. Others indicated that they wanted to be friends with Mary. Mary wasn't apparently involved at all,

Assume that Mary and the fifteen girls are in your Guidance class.

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Directions: In discussing one of the above situations, include answers to the following questions:

- 1. What is the problem as you see it?
- 2. What steps, if any, would you take to prepare yourself for handling this problem in a group situation?
- 3. What developmental task(s) is (are) involved here?
- 4. What would you use as your topic and how would you introduce it to your class? Illustrate.
- 5. What group guidance techniques do you think would be most effective? Why?

(c) Lesson Plan

Write a short essay on your ideas about "an ideal Guidance lesson." Be concerned about objectives, content and method. Specify grade level and type of group you are planning to teach such a lesson to.

(d) <u>Examples of Answers</u> Examples of answers to the Questionnaire:

> 1. If choice (2) was marked, and reason given concerned the teacher's need for preparation and the class's similar need, a mark of three was given (out of a possible five). No realization of the students' concern for the importance of timeliness in lessons was given.

If choice (4) was made, and reason given was related to the importance of taking up those things that concern students, a mark of four was given. No concern for the students who had prepared a report was indicated.

Five marks were given for any answer that indicated a need to consider the whole class, the students who had prepared the report, the student who asked the question, and the teacher's preparedness. In this question, no answer was considered incorrect, because the reason given determined the relevance of the answer. However, (3) was the poorest choice.

2. A five point answer involved a combination of several answers, in most cases. The fourth answer was considered inappropriate as it stands, but as part of a question on generalizing, it was worth three marks.

Bases for rating answers to the Case study and the Lesson plan. Good answers in both instances indicated an awareness of the limitations inherent in the Guidance classroom situation, but a sensitivity to the varying needs of students was expected. Also, good answers revealed an awareness that situations like this were not unusual in schools, but that no single approach in or out of a classroom would "solve" the problem. The definition of the problem was an important part of a good answer. Good answers indicated that there were a number of problems: relationship with peers, concept of leadership, understanding of oneself and of others.

Poor answers tended to focus on the individual, Bob or Mary, and regard the other fifteen students as a homogeneous "mass." Those answers that tended to be of the "happy ending" type were regarded as unrealistic.

The lesson plan was judged for its content and appropriateness to developmental levels. A good answer indicated an awareness of the developmental tasks at various ages and grades. For example, a lesson plan on authority figures (parents, teachers, policemen, etc.) was usually more suitable for the junior high school age group. Problems concerning philosophical values were usually more appropriate to the senior secondary level.

APPENDIX C

Multivariate Equations

The equations resulting from the use of multivariate procedures are presented in this section. Though odd contradictions are apparent, there is generally agreement with the essentially negative trend evident through all of the analyses.

Four regression equations for the four dependent variables were obtained by stepwise deletion procedures. Equation 1. $Y_{37} = 20.30 + .29 X_{10} - .74 X_{29} + 3.65 X_{32}$

in which

	Y ₃₇ = predicted University composite rating on student teaching
	X_{10} = score on Tolerance scale (CPI)
	X ₂₉ = score on Synergy scale (POI)
	$X_{32} = score on Q sort$
Equation 2.	$\hat{Y}_{38} = .7835 + .03 X_804 X_{10} + .13 X_{28}2 X_{29}$
in which	\wedge
	Y = predicted University composite rating converted to a classification of superior and non-superior (Wert et al., 1954)
	$X_{10} = score$ on Tolerance scale (CPI)
	X_{28} = score on Nature of man scale (POI)
	X ₂₉ = score on Synergy scale (POI)
Equation 3.	The equation for Y ₃₉ was not included in the analysis, since students' ratings were not used in the study.

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<u>Equation 4</u>. $\hat{Y}_{40} = 9.12 - .11 X_{23}$

in which

 $Y_{40} =$ predicted ratings of judges on demonstration lessons

X₂₃ = score on Existentiality scale (POI) Those variables that weighted positively in the above

equations were:

- (a) Socialization (CPI, #8), the degree of social maturity, integrity, and rectitude which the individual has attained.
- (b) Nature of man (POI, #28), the degree of the constructive view of the nature of man.

(c) Q sort (#32), a measure of adjustment.

Those variables that weighted negatively were:

- (a) Synergy (POI, #29), ability to transcend dichotomies.
- (b) Existentiality (POI, #23), ability to react without rigid adherence to principles.

The Tolerance score (CPI, #10) was positively weighted for predicting criterion 37, the University composite rating, but negatively weighted when the same criterion was dichotomized to form criterion 38. This kind of inconsistency may well be attributable to sampling peculiarities. Whatever the explanation, it is hard to attach predictive meaning to X_{10} .

In addition to these equations resulting from the use of multiple regression, two others were obtained by maximizing any predictive relationship that might exist by concentrating only on people in the top and bottom 27% (Kelley, 1939) on two

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criteria, the University composite rating, criterion 37, and the rating of the demonstration lesson, criterion 40. These dependent variables were then described as variables 41 and 43; the selected groups were assigned values of +.5 and -.5 (Johnson & Jackson, 1959, pp. 445, 446) and the data were processed in a stepwise regression program using all 36 variables. This procedure effectively performs a stepwise discriminant analysis. The following equations resulted. Equation 1. \hat{Y}_{1} = .6010 + .0073 x_{12} -.0144 x_{23}

in which

 $\hat{Y}_{l+1} = \text{predicted dependent variable based on the University composite rating}}$ $X_{12} = \text{score on Communality scale (CPI)}$ $X_{23} = \text{score on Existentiality scale (POI)}$ $\underline{Fquation 2} \cdot \hat{Y}_{l+3} = .4931 - .011 X_8 + .0089 X_{12} - .0094 X_{22}$ $-.0183 X_{29} + .0049 X_{24} - .0296 X_{36}$

in which

 \hat{Y}_{43} = predicted dependent variable based on ratings of demonstration lessons by judges X_8 = score on Socialization scale (CPI) X_{12} = score on Communality-scale (CPI) X_{22} = score on Self-actualized values scale (POI) X_{29} = score on Synergy scale (POI) X_{34} = score on Questionnaire X_{36} = score on Lesson plan

Those variables that weighted positively in the above equations were:

- (a) Communality (CPI, #12), the degree to which an individual's responses and reaction correspond to the modal pattern.
- (b) The Questionnaire.

Those variables that weighted negatively in the above equations were:

- (a) Existentiality (POI, #23), ability to react without rigid adherence to principles.
- (b) Socialization (CPI, #8), degree of social maturity, integrity, and rectitude which the individual has attained.
- (c) Self-actualized values (POI, #22), those values characterizing self-actualized people.
- (d) Synergy (POI, #29), ability to transcend dichotomies.
- (e) Lesson plan.