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An interpersonal profile of area school instructors

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An interpersonal profile of area

school instructors

by

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TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION

Teacher effectiveness is an area of research which is concerned with relationships between the characteristics of teachers, teaching acts and their effects on the educational outcomes of teaching.

It is popularly agreed that the teacher plays an important role in the educative process, but there the unanimity ends. Little accord is obtained as to what it is that the teacher does which contributes significantly to the students' learning experience.

In the past decade, research has begun to relate certain teacher behaviors to specific consequences in the climate of the classroom and in the academic achievement of the students. The shift has been from subjective evaluations to a more objective counting of teacher-student interactions. The locution "Teacher Effectiveness" rather than "Teaching Effectiveness" is used advisedly. The present study limits its domain of investigation to the teacher as a person, his personality traits, and behavior. "Teaching Effectiveness" connotes a concern for all variables involved in the teaching situation. Those related to the teacher, as well as those dealing with instructional materials, physical facilities, administrative policies and others. Of course, a teacher does not function in isolation from the teaching situation and interpretations of the findings must be tempered by these and other sources

of invalidity.

The community college in the advancement of its purposes largely depends upon the quality of its instruction. More than 40 years ago, Koos (52, p. 23) identified "offering better instruction in those years" as one of the purposes of the junior college. Similarly in 1931, Eells cited "superior instruction" and "superior instructors" as among the reasons for having junior colleges (29, p. 202).

Since teaching is the major responsibility of junior college instructors, they are largely selected and promoted on the basis of the quality of their teaching. Consequently, although the improvement of instruction is important in any college or university, in the junior college, particular emphasis must be given to high quality teaching.

Need for the Study

The employment of effective community college instructors has been of great interest to educators for a long period of time. In more recent years, this problem has become prominent by the acute shortage of qualified and experienced teachers and by the rapid increase of community colleges being developed within the United States. As more and more community colleges are developed, the need for effective teachers will become very acute.

The types of beliefs, understandings, and values that

characterize a successful community college teacher have long
been wanted, but never really understood. Looking at teachers
in the effective role is so new in community colleges, that
as yet there is not sufficient research to give direction.
This need not be a deterrent, however, for there is evidence
enough at least to begin designing a new technique for research
that is needed. To this point, the following sources of infor-
mation are available to draw upon for defining the probable
dimensions of effective teaching in perceptual terms:

1. Perceptual psychological theory, especially that
   having to do with the nature of self and fully
   functioning behavior.

2. Research on the perceptions of good practitioners
   in other professions.

3. Research already existing.

4. The experiences accumulated by thousands of teachers
   engaged in day to day "action research" in the
   classrooms.

Drawing upon these four sources, it would appear that an
effective teacher is characterized in six general areas:

A. His knowledge of the subject

B. His frame of reference for approaching his problem

C. His perceptions of others

D. His perceptions of self

E.   His perceptions of the process and purposes of

learning

F.   His perceptions of appropriate methods

Of these six areas, sections C and D are the areas of
interest in this study. These are the areas that make up a
persons' interpersonal behavior.

The term "interpersonal" has also been called social
need and refers to relations that occur between people rather
than relations in which at least one participant is inanimate.
It is assumed that owing to the psychological presence of
other people, interpersonal situations lead to behavior in
an individual that differs from the behavior of the individual
when he is not in the presence of other persons. Therefore,
an interpersonal need is a requirement to establish a
satisfactory relation between the individual and his human
contacts.

The Problem

The purpose of this study was to investigate the inter-
personal profile of effective instructors in the Iowa Area
Community Colleges and Vocational-Technical schools. This
study sought the answers to the following questions:

1.   What are the interpersonal behavior patterns of

effective community college instructors in the various

area colleges of Iowa?

2. Are the interpersonal behavior patterns of effective community college instructors different when categorized with the major academic assignments of the individual instructors? The major academic assignments being Arts and Sciences and Vocational-Technical.

   a. Are the interpersonal behavior patterns of effective community college instructors different when categorized as to relationship to control (e) expressed?

   b. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to control (w) wanted?

   c. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to inclusion (e) expressed?

   d. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to inclusion (w) wanted?

   e. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to

affection (e) expressed?

f. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to affection (w) wanted?

3. a. Are the interpersonal behavior patterns of effective community college instructors different when compared with beginning community college instructors in relationship to control (e) expressed?

b. Are the interpersonal behavior patterns of effective community college instructors different when compared with beginning community college instructors in relationship to control (w) wanted?

c. Are the interpersonal behavior patterns of effective community college instructors different when compared with beginning community college instructors in relationship to inclusion (e) expressed?

d. Are the interpersonal behavior patterns of effective community college instructors different when compared with beginning community college instructors in relationship to inclusion (w) wanted?

e. Are the interpersonal behavior patterns of
    effective community college instructors dif-
    ferent when compared with beginning community
    college instructors in relationship to affection
    (e) expressed?

f. Are the interpersonal behavior patterns of
    effective community college instructors dif-
    ferent when compared with beginning community
    college instructors in relationship to affection
    (w) wanted?

Hypotheses

The following null hypotheses were tested in this study:

1. There is no significant difference in the inter-
    personal behavior patterns of effective community
    college instructors when categorized with major
    teaching assignments of Arts and Sciences and
    Vocational-Technical education in relationship to
    control (e) expressed.

2. There is no significant difference in the inter-
    persona. behavior patterns of effective community
    college instructors when categorized with major
    teaching assignments of Arts and Sciences and
    Vocational-Technical education in relationship to
    control (w) wanted.

3. There is no significant difference in the inter-personal behavior patterns of effective community instructors when categorized with major teaching assignments of Arts and Sciences and Vocational-Technical education in relationship to inclusion (e) expressed.

4. There is no significant difference in the inter-personal behavior patterns of effective community college instructors when categorized with major teaching assignments of Arts and Sciences and Vocational-Technical education in relationship to inclusion (w) wanted.

5. There is no significant difference in the inter-personal behavior patterns of effective community college instructors when categorized with major teaching assignments of Arts and Sciences and Vocational-Technical education in relationship to affection (e) expressed.

6. There is no significant difference in the inter-personal behavior patterns of effective community college instructors when categorized with major teaching assignments of Arts and Sciences and Vocational-Technical education in relationship to affection (w) wanted.

7. There is no significant difference in the inter-
   personal behavior patterns of effective community
   college instructors when compared to the inter-
   personal relationships of beginning community
   college instructors in relationship to control (e)
   expressed.

8. There is no significant difference in the inter-
   personal behavior patterns of effective community
   college instructors when compared to the inter-
   personal relationships of beginning community
   college instructors in relationship to control (w)
   wanted.

9. There is no significant difference in the inter-
   personal behavior patterns of effective community
   college instructors when compared to the inter-
   personal relationships of beginning community
   college instructors in relationship to inclusion
   (e) expressed.

10. There is no significant difference in the inter-
    personal behavior patterns of effective community
    college instructors when compared to the inter-
    personal relationships of beginning community
    college instructors in relationship to inclusion
    (w) wanted.

11. There is no significant difference in the inter-
    personal behavior patterns of effective community
    college instructors when compared to the inter-
    personal relationships of beginning community
    college instructors in relationship to affection
    (e) expressed.

12. There is no significant difference in the inter-
    personal behavior patterns of effective community
    college instructors when compared to the inter-
    personal relationships of beginning community
    college instructors in relationship to affection
    (w) wanted.

Definitions

For the purpose of the study selected terms were defined
as follows:

1. Area Community College - An Area Community College
   should satisfy the definition of both vocational
   education and the first two years of college work.

2. Superintendent - The superintendent of an Area
   Vocational School or an Area Community College
   shall be the chief administrative officer operated
   under the jurisdiction of a merged area board and
   shall be the executive officer of that board.

3. Director - A director shall be authorized to serve
   in the administrative position of the director of
   a division of an Area Community College or of a
   separate attendance area and shall be administrative-
   ly responsible to the superintendent.

4. Arts & Science - That portion of the educational
   program of an Area Community College which is devoted
   to instruction yielding credits for the first two
   years of college work including pre-professional
   education.

5. Vocational - Technical - That portion of the educa-
   tional program of an Area Community College which is
   devoted to instruction taught at a standard con-
   sistent with the quality and quantity of work needed
   to prepare the student for successful employment
   in the occupation for which instruction is being
   offered.

6. Certification and Preparation in the Field of
   Instruction in Area Community Colleges or Vocational-
   Technical Schools - An Area Community College
   instructor or Area Vocational school instructor
   must hold a certificate issued by the state board
   of public instruction, which is valid for teaching
   in such institutions. The instructor must be
   prepared in his respective field of education. In

Arts & Sciences, each instructor shall hold a
master's degree in his principle field of instruction
from an accredited graduate school. Instructors in
Vocational-Technical education areas shall meet the
approval standards for the fields taught as outlined
in the Iowa State plan for Vocational-Education.

7. Effective Instructors - Those instructors who were
judged effective in the viewpoint of the chief admin-
istrative officers of the area college in which they
were employed. To develop their listing of effective
instructors, the officers of the college were asked to
evaluate instructors using the following criteria:

a. Organizing and communicating information and
skills

b. Creating a healthy relationship with pupils

c. Creating good relations within the community

d. Creating good relations with other teachers

e. Their personal evaluation ("Who would you pick
to take with you if you moved to a new school?")

8. Beginning Instructors - Those instructors who were
new to area college instruction as of the 1970-71
academic year.

9. Expressed behavior - The behavior an individual
expresses towards others (e)

10. Wanted behavior - The behavior an individual wants
others to express towards him (w)

Sources of Data

All of the data used in the study dealing with effective community college instructors were taken from the evaluative instrument FIRO-B. Personal data concerning the instructors were gathered by including along with the evaluative instrument a short check list that was filled out by each individual involved in the study.

Delimitations of the Study

This study was limited to the community college instructors within Area Vocational-Technical, and Area Community Colleges in Iowa. The instructors that were involved were those who were actively teaching within the fifteen area schools of Iowa in the fall semester of the academic 1970-71 year. These people were chosen by the chief administrative officer of the institution. A total of 138 instructors were used. The reasons for this number are two-fold: 1) Because some of the existing area community colleges are quite small, it was felt to request more than five effective instructors might be a severe limitation on the study. 2) Because of the size of some of the institutions and because of the relatively low turnover of instructors to attempt to gain more than five beginning instructors per institution could be a severe limitation.

Organization of the Study

This study was organized into five chapters. The first chapter includes the need for the study, the problem, hypotheses, definitions, sources of data, delimitations of the study and organization of the study. The second chapter contains a review of related literature. Chapter three explains the procedure used in the study. Chapter four contains the findings. Chapter five contains the summary, conclusions, and recommendations.

CHAPTER 2. REVIEW OF LITERATURE

Approaches to individual understanding through person-
ality assessment are neither unique nor recent phenomena.
Rather, they have a long history, stemming from the early
Greek scholastics who attempted to measure people by
categorizing them as specialized types or "humors" and con-
tinuing to our current relatively mechanized ways or modes
of perceiving man (9).

Until Murray (70) proposed his individual need/environ-
mental press concept, little attention was paid to the inter-
actional effects of people as they function and relate to
others in particular situations. The concepts of projection
and observer roles had appeared earlier, but the integration
of situational and personal determinants in predicting per-
formance had not been previously emphasized.

The field of education and the people working in it,
especially the faculty, have accounted for a considerable
amount of research. In this area, generated by the many
questions that pertain to individual performance, evaluations
of teaching performances often have been interwoven with
assessment of teachers' personalities. To this end multi-
various measures have been employed, measures which stem from
one or more theories of personality, or in many cases, from
none at all. Independent ratings of both experienced and
beginning instructors range from simple value judgments to

elaborate questionnaires and intricate statistical procedures

which isolate a range of pertinent parameters (38).

The research has attempted to answer questions in many

ways. For example, specific personality characteristics

have been isolated and then plotted against estimates of

future teaching success and utilized to discriminate between

successful and unsuccessful individuals (18). Both general

and global judgment of personality (11, p. 128) have been

used to predict success, Brawer and Cohen suggest accordingly

that:

> Judgments of global personality may well provide
> preferable means for assessing both the general adjust-
> ability of teachers and teachers-in-training and their
> ability to integrate past experiences with present situ-
> ational demands (11, p. 180).

The major criticisms of all this research, repeated over

and over, deal with the lack of independent criteria upon

which to base appraisal. Getzels and Jackson, in particular,

point out that:

> Despite the critical importance of the problem and a
> half-century of prodigious research effort, very little
> is known for certain about the nature and measurement
> of teacher personality, or about the relation between
> teacher personality and teaching effectiveness. The
> regrettable fact is that many of the studies so far have
> not produced significant results. Many others have
> produced only pedestrian findings. For example, it is
> said after the usual inventory tabulation that good
> teachers are friendly, cheerful, sympathetic, and
> morally virtuous rather than cruel, depressed,
> unsympathetic, and morally depraved. For what con-
> ceivable human interaction-- and teaching implies first
> and foremost a human interaction-- is not the better
> if the people involved are friendly, cheerful,

sympathetic, and virtuous rather than the opposite?
What is needed is not research leading to the re-
iteration of the self-evident but to the discovery of
specific and distinctive features of teacher person-
ality and of the effective teacher (38, p. 57).

Heil and Washburne (44) followed up the notion that
certain types of teachers might be more effective with
certain types of pupils. By using a variety of tests in
fifty-five classrooms, some for teachers and others for
pupils, as well as ratings of teachers, teachers were classi-
fied into three types:

A. Turbulent, impulsive and variable
B. Self-controlling, orderly and work-oriented
C. Fearful

The pupils were divided into four types: 1) conformers;
2) opposers; 3) waiverers; 4) strivers. Most pupils made
the greatest progress in mathematics and science under
type A teachers and language arts under type B teachers.
Type C teachers seem most effective in social studies.
Certain differences in progress among pupil types were also
reported; for example, waiverers grew in friendliness most
with type C teachers, but did not grow with type A teachers.

Medley and Mitzel (65) administered the Edward's Personal
Preference Schedule to 91 female student teachers. Several
months later, pupil reactions were collected and used as a mea-
sure of pupil-teacher rapport. There were no relationships be-
tween personality and rapport scores when data from all teachers
were analyzed. When the scores of all but 25 teachers were

discarded on the basis that they scored high on the consistent scale, suggesting insincere responses, certain correlations became significant. Those teachers with the best rapport scores expressed a greater need to understand others, to analyze their own motives, to be successful, to feel guilty, and accept blame when wrong.

Burkhard (12) administered Thematic Aperception Tests (TAT) to 300 female teachers in a parochial school system - grades 4 to 12, with TAT evaluations processed by sequence analysis and 95 percent agreement among three judges. A total of 10,720 pupils completed ratings of the teachers on various dimensions including liking for the teachers, and teachers ability to explain. Fifty pairs of classes matched for age and IQ were selected from the highest and lowest percentiles of all classes. High ranking teachers appear to be more active, to recognize their own limitations, to be more objective and to have higher scores on similar virtues.

Flanagan (31) compared Minnesota Multi-Phasic Personality Inventory scores of 147 female teachers with ratings made in four categories of teaching effectiveness by supervisors. A high coding on hysteria (HY); was positively related to supervisor ratings of effectiveness.

Bowers and Soar (9) also found hysteria to be a useful predictor of a teaching effectiveness measure when using the MMPI, and in addition, the scales psychopathic deviate (pd),

schizophrenea (sc) and psychasthenia (pt). Flanagan con-
cluded the MMPI has potential usefulness in aiding in the
prediction of the success of teachers (31, p. 353).

MTAI

The most widely used instrument for the measurement of
teacher attitudes has been the Minnesota Teacher Attitude
Inventory (MTAI), developed by Cook, Leeds, and Callis (24)
from their research on teacher attitudes toward children. It
is designed to measure those attitudes of a teacher which
will predict how well he will get along with pupils, his
interpersonal relationships, and indirectly, how satisfied
he will be with teaching as a vocation. Norms are presented
for high school students, college students, teacher trainees,
and experienced secondary and elementary school teachers.
For preliminary tryouts on the MTAI, criterion groups were
established by asking principals of seventy elementary and
secondary schools to designate several teachers whom they con-
sidered to be superior and several considered inferior.
Identifications were made on the bases of (1) the teachers
ability to win pupil affection; (2) his fondness for children
and understanding of them; and (3) his ability to maintain
a desirable form of discipline.

In spite of its popularity, research with the MTAI has
not always lived up to expectations (77, p. 19). However,

new studies and replications of existing research may well
establish more encouraging results as, for example, those
reported by Tanner (91) who noted considerable differences
in expressed values between the sexes. He found that at
least two of the value-areas (economic and social) seemed
to describe groups of teachers who were judged to be
"superior" and "inferior". And Seagoe (85), correlating
student teachers' ratings with their ratings by principals
of field success three years later, found that economic
and aesthetic values were most highly related to rating
of effectiveness. However, neither value was consistently
related to the designated criterion of success.

In the same area of research are studies which made
use of the MTAI test to teacher attitudes. Ellis (30) and
Munro (68, p. 138) both compared MTAI scores with ratings
by either principals or supervisors. Although some correla-
tions were significant, Munro stated: "The magnitude of
these coefficients ... suggests that making predictions
based on MTAI scores would be an extremely hazardous under-
taking (68, p. 139). Ellis concluded "...none of the factors
herein considered are determinative in predicting outstanding
teachers of social studies" (30, p. 28).

To these conclusions, Lawler (53) added, after comparing
principal's ratings with pupil achievement, principals were
not good raters of teaching efficiency (53, p. 86-88).

Lawler's conclusion was reached after comparing the academic progress of 294 fifth grade classes who were taught by 98 teachers.

The notion that experience in teaching and completion or non-completion of the requirements for certification ought to be related to measures of teaching performance, was also investigated. LuPone (57, p. 62) stated after studying 240 elementary teachers "...the permanently certified vs. provisionally certified received higher ratings in the ability to translate subject matter into living experience, proficiency in using effectively-related materials in classroom instruction an understanding and more sympathetic attitude toward the child,..."

Hawkins and Stopps (43),.on the other hand, concluded that principal's training and years of experience show little significant advantage or disadvantage over either formal or informal evaluation for measuring teacher confidence, except that of greater objectivity.

Hall (41) concluded that fully certified teachers were more effective when pupil's achievement scores were used as an effectiveness criterion. Others have investigated different aspects of training in an effort to establish correlations. Freehill (34, p. 311) concluded that "the quality of teaching beyond the crucial minimum of failure is related to ability as measured by college entrance scores and academic

success. It is at least as closely related to records of social participation and attitude. The best predictor was from a scale measuring democratic attitudes. There have been many studies of the relation between attitudes measured by the MTAI and observed teacher characteristics.

In 1954, Chappell and Callis (16) attempted another replication of the same design, this time using adults. For this group of instructors, the MTAI was not significantly related to any other ratings singly or in combination. Investigators concluded there is a difference between, "teaching children" and "training adults" as conceived in a military situation.

Beamer and Ledbetter (5) examined the MTAI scores of various types of educational personnel. Subjects were 212 students enrolled in graduate courses and were subdivided into male and female, elementary and secondary school teachers, guidance workers, administrators, and inexperienced education majors. Of the experienced personnel, guidance workers have the highest mean score and administrators, the lowest. The inexperienced education majors had a higher mean score than experienced teachers; female teachers, a higher mean score than male; elementary teachers a higher mean score than secondary.

Kearney and Rocchio (50, p. 359) studied differences in MTAI scores between elementary school teachers who taught

all subjects to the same pupils and teachers who taught

different pupils in various courses. The scores for the

two groups were significantly different at the .01 level.

The investigators explained their findings as follows:

> Teachers who have pupils for longer periods during
> the day are interested not only in their acquisition
> of subject matter but also are concerned with the
> pupil's whole personality, which demands knowledge
> of the pupil's home background, his physical and
> mental health, and his outside activities. Conversely,
> teachers of special subjects think in terms of subject
> matter to be covered rather than in development of a
> self-directing personality in their pupils.

Studies have been made to relate the attitudes measured

by the MTAI to other personality variables, notably those

measured by the Minnesota Multi-phasic Personality Inventory

(MMPI), the Guilford-Zimmerman Temperment Survey (GZTS), and

the Kuder Personal Check, Kuder Preference Record Vocational.

Cook and Medley (25) used the standardization of MTAI

to identify two groups of teachers differing sharply in their

attitude scores. The MMPI was administered to these two

groups and 212 completed inventories were obtained, 112

representing those scoring highest and 100 from those scoring

lowest on the MTAI. From the returns, they developed two

new keys for the MMPI using items that discriminated sig-

nificantly between teachers scoring high and teachers scoring

low on the MTAI. The hostility scale reveals the type of

person characterized by a dislike and a distrust of others.

The pharisaic virtue scale reveals the type of person pre-

occupied with morality and ridden by fears.

In 1958, Lindgren and Patton (56) tested the hypothesis that (1) male teachers are likewise less favorably disposed than female teachers and (2) the attitudes of high school teachers are less favorable toward children and toward current educational theory and practice than the attitudes of the teachers in the lower grades. When these hypothesis were tested, both were supported at the .05 level of significance.

Personality

Personality appears to play an important role in the selection of candidates for the teaching profession. There have been studies that have attempted to measure and predict teaching success and the various testimonies reporting classroom observations indicate that the teacher's personality has an educative influence and that his behavior often correlates highly with the behavior of the students.

Symonds (89, p. 653) pointed out that although it had not been demonstrated that teacher personality had an appreciable effect on achievement, there were strong indications it markedly influenced pupil adjustment. "From what we know about personality, it appears that persons who are most successful as individuals will also be most successful as teachers. However, there is no one pattern of personality

that will make the best teachers and there is every reason
to believe that good teachers exhibit many different kinds
of personality traits."

Six general traits were described as qualifications
for the good teacher:

1. Every teacher should like teaching. The work should
   enable him to gain personal goals and satisfactions.

2. A good teacher should be personally secure as
   opposed to having predominant feelings of inferiority
   or inadequacy.

3. He must be able to identify with children.

4. He is emotionally stable.

5. He should be free from anxiety, free to experiment,
   to try innovative procedures.

6. He cannot be too self-centered, but able to give
   of himself freely.

Attitudes

Studies concerned with attitudes of teachers to social
and political issues, to their jobs and students, were found
to contribute information about teacher attitudes in general.
While most of these investigations concerned teachers in
areas other than higher education, the results are of
interest. Social attitude scales tend to show teachers as
being more liberal than members of the general public. Women

generally become teachers because they like to work with young people, while men do so because they are primarily interested in a particular subject area.

A report of a 20-year sampling of teacher attitudes found that "more favorable attitudes" were expressed by elementary teachers than by secondary teachers, and attitudes distinguished between individuals rated as outstandingly good or outstandingly poor. In a study of 5,000 teachers by the NEA Research Division (71) 66 percent of the women teachers from urban areas and 74 percent of the women teachers from rural areas reported, if given a chance to start again, they would probably teach. Positive attitudes were expressed by only 33 percent of the rural men teachers and 34 percent of the urban men teachers.

In a survey of 147 members of college faculties from Ohio to the west coast, Tuttle (95), found that 9 out of 10 teachers or professors believe that their work was satisfying.

Junior Colleges and Personality Assessment

Medsker (66) found differences between teachers who did not adapt to the goals of the junior college and suggested that training experiences may be significant in the development of role orientations and teacher effectiveness.

Thornton (92) discovered that people involved with the junior college movement and committed to its philosophy

expected teachers to accept the purposes and philosophies of that institution, to view the roles with respect to students in broad perspectives and to be student-focused. On the other hand, those who viewed the junior college teacher in a more traditional sense, as a teacher of lower division courses preparing for further academic work; tended to expect the teachers to be less accepting of the purposes and philosophies of the junior college and to be subject rather than student-focused.

The training of "good teachers" and the introduction of new programs may be hampered by various factors. For example: Stanford students were administered a questionnaire in which they were asked to describe some of their teachers. The men were unable to do this, the women made some remarks about the teachers, but only as a teacher. Neither group was able to conceptualize the teacher as a person.

In today's world with its explosion in student numbers, its emphasis on specialized sciences, and the organization of institutions of higher education, teachers may be strangers to the students and teaching may be considered a lost art.

> Parents, no doubt others, think of education primarily as a matter of taking courses, learning content, taking examinations, and getting grades. Who perpetuates this view? I'm afraid that the faculties and administrations in colleges have themselves done much to perpetuate it. Perhaps psychologists have contributed as well by treating learning as a simple accretion of more and more bits of information. Most of the

psychology of learning deals only with how content is
registered and remembered. Failing to recognize that
education really has more to do with unlearning, with
motivation, and with relationships with teachers and
with recall of facts. Perpetuation of this view has
also been seen in the tasks of the teachers colleges
or teacher training. Most of the training at schools
of education has proceeded along the assumption that
teachers are indeed transmitters of information.
Therefore, skills of the peer mandatory are stressed
and... a medium is emphasized, but there are few
opportunities for the student-teachers or education
people to become sensitive to the needs of the
students. (78, p. 169)

Graduate schools pay little attention to teachers who

are filling in student's time with specialized courses,

assuming that if one can earn a master's degree or a

doctorate, he can teach accordingly:

There is currently in American education a marked
gap between the preparation sequences experienced
by elementary, secondary school teachers on the one
end and by senior college teachers on the other.
Certification requirements for the former group demand
emersion in several courses dealing with the peda-
gogical theory and practice. For the latter, there is
no credential required other than the possession of a
graduate degree in an academic discipline. There can-
not be so much difference in teaching at the various
levels of education that one calls for a year more of
deliberate training to teach and the other calls for
none. The difficulty experienced by students moving
from high school to college may be in part a result
of the fact that teachers at the two levels of educa-
tion are selected differently, think of themselves
as members of different professions, are trained dif-
ferently and communicate little with one another.
One preparation sequence or the other is out of
pace. (19, p. 21)

Sanford (78, p. 170) pointed out the need to provide

opportunities for students to accept responsibility for their

personal growth and for the development and sensitivity and

acceptance of self and others. These qualities, however,
are not developed in isolation, but in relation to other
people. We need to know much more about how they are developed
and indeed whether they may be enhanced. It has been fortu-
nate that,

> ...prospective teachers who lack self-actualizing
> qualities are not provided with the appropriate guidance
> and experiences to help them confront themselves as
> persons who need to grow in the direction of greater
> commitment and responsibility and involvement.

Some people, of course, need little help in this area,
others need a great deal. Many teachers,

> ...find a transition from the passivity of being a
> student to the active involvement of being a teacher
> too demanding. They feel that it is unrealistic to be
> asked to take the responsibility for their actions, to
> exhibit genuine feelings, and to become actors in
> rather than reactors to life. (100, p. 473)

Beginning in the 1950's, a number of researchers have
focused their attention on teacher-pupil interactions in
the classroom. This was described by Bales (3), as occurring
when two or more persons behaved overtly toward one another
so that each receives some impression distinct enough to
induce a certain reaction.

An extensive investigation by Ryans (76b) involving many
elementary and secondary schools established correlations
among three dimensions of teacher behavior: Friendly vs.
aloof; business like vs. slip shod; and stimulating vs. dull.
The data yielded high intercorrelations in elementary, but
low correlations in secondary.

Reitz, Very and Guthrie (74) were interested in dis-
covering whether descriptions of ideal teacher-student rela-
tionships offered by university teachers would be similar to
descriptions of ideal therapeutic relationships made by
trained therapists. An attempt was also made to discover
whether content, length of teaching experience and, to some
extent technique, would reflect the teacher's belief about
the nature of the ideal teaching relations.

An experienced and a beginning group of teachers from
six colleges within the Pennsylvania State University were
asked to describe by means of a Q-sort, their conception of
the ideal undergraduate teacher-student relationship. The
results of this research suggested that: (1) Scores earned
by experienced teachers correlated more highly with each other
across the six schools studied than did scores of experienced
teachers of a given college with novices within that same
college. (2) Scores of experienced teachers correlated
more highly among themselves. Expertness and experience were
found to influence the types of relationships a teacher sets
as his goals with teachers generally agreeing on the ideal
teacher-student relationship. Moreover, experienced teachers
agreed more closely among themselves than with therapists
(35).

Emphasis should be placed on the teacher as a person, on
his interests and orientations. Hall and Vincent (42, p. 377)

noted that if,

> ...the teachers who receive satisfaction from teaching
> are the most effective, then the assignment process
> itself must guarantee the teacher certain personal
> satisfaction on the job. This demands a tremendous
> amount of information about the teacher and about the
> kind of jobs and situation in which he finds satis-
> faction.

If it is true that a teacher who is growing professionally
is an effective teacher, then this process must provide for
him new and challenging opportunities for growth instead of
deadening and boring monotony. If it is true that no one indi-
vidual possesses all the characteristics and behaviors
necessary for any one learning situation, but that several
teachers collectively may possess them, then the assignment
patterns may involve several teachers for some learning
situations and groups of students, instead of one teacher
for one group of students. The answers to the issues raised
here are not evident now and little research is going on which
is likely to throw much light on them. The present confusion,
almost frustration, in attempting to define effective teaching
and identify effective teachers may stem from the fact that
what is known about the differences among teachers has not
been applied to the teaching process, and specifically to the
assignment of teachers.

The term "teaching" is still used to cover a multitude
of functions, all subsumed under one name. Recently there
have been efforts to describe the act of teaching in terms
of role theory. The fact that "role" may be defined

from several different standpoints sometimes hampers its implementation as a working tool. In definition, role may be described as the pattern or type of behavior an individual builds according to what others expect of him. Therefore, the role of the teacher may be in terms of a classroom lecture because he expects others to see him functioning in that manner. Or he acts as a judge and distributor of fines - translated as poor or failing grades because he expects that others see the teachers as a manipulator of destiny, as a punisher of behavior falling short of expectation and as an overall judge.

Role Concept

Murphy (69) used the concept of role in his theory of personality describing it as a more or less fixed way of behaving forced on the individual by his culture and emphasizing the importance of role interaction.

Kelly (51, p. 97) defined role in terms of his theory of personal constructs as, "... a psychological process based upon the role players construction of aspects of the construction systems of those with whom he attempts to join in a social enterprise..." A role is an on-going pattern of behavior that follows from a person's understanding of how the others who are associating with him in his task think. In other words, a role is a position that one can play on a

certain team without even waiting for the signals.

Buxton (13) defined the academic role as a composite picture of the functions a particular person fills in his department or institution. He suggested that roles need to be established and that there is evidently much specialization of functioning by certain staff members in division of labor and responsibility. Others describe role in different ways.

Symonds (89) saw the teaching role in terms of interaction with the adults in the community as well as with students. Adult relationship roles of the teacher were defined as those of the employee subordinate to the principal, advisory to superiors, follower and leader. Pupil relationship roles of the teacher, on the other hand, were mediator of learning, disciplinarian, parent-substitute, confidant, and leader of middle class morality. Problems arising when the teacher assumes the role or behavior pattern of the therapist were also reviewed by Symonds (89). He pointed out the coincidence of the two patterns.

Both teaching and therapy are expected to lead to change in behavior or condition. In therapy the ends may be defined only generally; the individualization process, complete integration, self-actualization. In education, teaching should lead to specific behavior changes predicated on the basis of dependable objectives. Problems also develop when

college instructors teaching remedial classes find they have

a role different from other instructors.

> To teach a remedial-developmental course does not
> identify remedial teachers with higher education,
> whereas teaching specialized and advanced courses
> affords instructor's personal and profession
> prestige. (75, p. 170)

The feeling that teaching low achievement students is

not actually college teaching implies that it is a separate

kind of a role.

Teacher Assessment

Even though much of the research in general, and on

Community Colleges in particular, has not been put to practi-

cal use, there are many potentially useful applications of

teacher assessment:

1. Selecting teachers for initial employment

2. Assigning teachers to differential roles

3. Helping teacher candidates select themselves

4. Assigning students to teachers on the basis of
   similarities or differences in cognitive style

5. Selecting teachers to be retrained or otherwise
   assigned to different positions

6. Helping to introduce innovations by choosing
   people most likely to accept them

7. Changing institutional structure and procedures

8. Counseling people into teaching

Stern, Stein and Bloom (87, p. 23) described the desire
to

>...increase the probability. that individuals being
>selected for participation in various kinds of
>institutional programs would do so with maximum
>efficiency and economy, both for themselves and for
>the institution in question.

A study by Hendrix (45, pp. 150-160) related personality measures of Community College teachers to the presence or absence of certain personnel policies and procedures - rank, title, policies for securing tenure and former evaluations. Another study by Hendrix found that independent variables of rank, tenure and evaluations were related to life - record data reported by faculty members. It was concluded that the institutional policies were operative in explaining the relationship of such variables as employment status, father and mother's education, father's birthplace, varsity athletics and debate participation.

Garrison (37, p. 15) in his study of community college instructors, believes that there is still a range of issues developing around the role of the faculty in the junior college. Garrison noted that

>...the impression, (indeed the conviction) deepened
>that the Junior College teacher is or may become a
>new breed of instructor in higher education, markedly
>different in significant ways from the usual situation
>of his 4-year colleagues are his conditions of instruc-
>tion, his aims, and his professional and philosophical
>attitudes toward his tasks, not simply a post-high
>school instructor of grades 13 and 14. He is in his
>own desire and view a colleague in a new kind of

collegiate effort, as yet ill-defined and in furious
flux. He is unsure of his status in the educational
spectrum for he fits few traditional categories. He
is aware that he is being asked to function pro-
fessionally in an unprecedented situation and he is
deeply concerned about this professionalism in the
best sense of that term. He is the servant of several
demanding masters and he is groping to bring such de-
mands into a compatibility, a coherence that will
command his loyalty and his long-range commitment.

Although the Garrison study represented considerable
effort over a wide territory, little attention is devoted to
the characteristics of the teachers. It was concerned
with situations of that which faculty works, the time they
put forth, professional requirements, but very little about
them as people.

Faculty members in a community college have been classi-
fied on the basis of a sociological orientation dealing with
subject matter versus disciplinarianism. Friedman (35,
p. 57) described the teacher recruited from a high school
position as a high schooler. Usually he had taught at the
high school 5 or more years, had a masters degree, was over
35 years of age. Besides being devoted to subject matter,
the high schooler generally belongs to two kinds of educa-
tional associations; teaching and academic fields societies.
The disciplinarian is different from the subject matterist
in terms of his orientation and beliefs. He usually holds a
Doctorate, and has worked in a 4-year college or university.

Cohen and Brawer (23) conducted a study in which they
attempted to relate problems of personality and its

interactions with the requirements of a teacher's occupational role. This study examined the types of candidates for junior college faculty positions and their ratings by supervisors, deans of instruction or college presidents. They hypothesized that the subjects identified as intuitive-feeling types would be rated higher as teachers than would subjects identified as sensation-think types, and that extroverted feeling subjects would be more likely to be hired for first time teacher positions than would intraverted thinking types.

The results of an examination given to each candidate of the Myers-Briggs type indicator failed to support the hypotheses; although, the correlations were in a predicted direction.

The Firo Theory

A theory has recently been developed which seems to be very appropriate for this study. First, it is concerned only with the behavior of people in which they consider each other. It does not include behavior of an individual when alone. It does not consider the feelings, attitudes or values of people. Therefore, the theory applies to a study of the behavior of a teacher as they teach.

Second, a phase of the theory is that behavior is relatively invariant with time. This seems related to findings mentioned previously that teacher behavior was relatively

unmodified by training and that each good teacher behaved
in ways consistent with his personality.

Third, a test has been developed which purports to measure
how an individual acts in interpersonal situations. Not only
is it convenient to have such a test, but of greater signifi-
cance is the fact that the theory states that behavior will
be quite constant in all similar situations. Thus, scores
from the test may enable one to predict how a particular
teacher will behave in the classroom.

This theory, called Fundamental Interpersonal Relations
Orientation, has been developed by Schutz and is described
in his book, F.I.R.O., A Three Dimensional Theory of Inter-
personal Behavior (83). In the development of the theory,
Schutz built on the work of Frued, Fromm, Horney, Bion and
others. He shows how the findings of these writers fit into
his scheme.

F.I.R.O. theory is based on the postulate that each
individual has three interpersonal need areas: inclusion,
control, and affection, which are sufficient for the predic-
tion and explanation of interpersonal behavior. Each of the
three need areas is defined in terms of one's perception of
other people, of the reactions desired from other people,
and of one's self concept. Each need area is also defined
at both the behavioral and feeling level, but the interest for
this study is only in the behavioral.

Each interpersonal need is defined behaviorally as the
need to establish and maintain a satisfactory relation with
people. The behavioral definition for the need for inclusion
is with respect to interaction and association; the need
for control is with respect to control and power; while love
and affection are in the affection area. These needs require
that...

> ...the organism establish a kind of equilibrium, in
> three different areas, between the self and other
> people. In order to be anxiety-free, a person must
> find a comfortable behavioral relation with others with
> regard to the exchange of interaction, power, and love.
> The need is not wholly satisfied by having others
> respond toward the self in a particular way; nor is
> it wholly satisfied by acting toward others in a
> particular fashion. A satisfactory balance must be
> established and maintained. (84, p. 20)

The drive to satisfy these needs results in behavior
of different types. Inclusion behavior deals with one's
desire to have attention, prominence and fame with identity,
commitment and participation. The person who joins clubs
would be filling a strong need in this area as contrasted
with the person who prefers to use his leisure time hunting
by himself. Some people make themselves prominent by talk-
ing a great deal. Those who talk very little, except in a
small circle of close friends, have stronger needs in the
affection area. Inclusion behavior is "unlike affection
in that it does not involve strong emotional attachments
to individual persons. It is unlike control in that the
preoccupation is with prominence, not dominance." (83, p. 20)

Control behavior refers to the decision-making process between people. Terms connoting positive control include authority, power, dominance and influence. Terms such as follower and submissive denote control behavior.

The movie star who is content to revel in her fame is expressing strong inclusion behavior as contrasted to the star who seeks a high political office. The latter is seeking responsibility, a central aspect of control. The office holder who is content to be a figure-head is seeking prominence, a quality of inclusion, while the "power behind the throne" is a man seeking dominance and influence, a quality of control.

The instrument designed to measure the interpersonal behavior just described is called FIRO-B. It contains six scales designed to measure expressed inclusion behavior (I_e), wanted inclusion behavior (I_w), expressed control behavior (C_e), wanted control behavior (C_w), expressed affection behavior (A_e), and wanted affection behavior (A_w). The following table represents the scheme of these interpersonal behaviors:

Table 1. The scheme of interpersonal behaviors

			I initiate interaction with others	
			Low	High
INCLUSION	I want to be in- cluded	High	Undersocial Social-compliant	Oversocial Social-compliant
		Low	Undersocial Countersocial	Oversocial Countersocial

			I try to control others	
			Low	High
CONTROL	I want to be con- trolled	High	Abdicrat Submissive	Autocrat Submissive
		Low	Abdicrat Rebellious	Autocrat Rebellious

			I try to be close and personal	
			Low	High
AFFECTION	I want others to be close & personal with me	High	Underpersonal Personal-compliant	Overpersonal Personal-compliant
		Low	Underpersonal Counterpersonal	Overpersonal Counterpersonal

41

Each of the six scales was developed through the use of the Guttman scaling technique by giving it to 150 subjects who were mostly college students. The results were then cross validated with about 1,500 students from Harvard and other nearby colleges.

While content validity is a property of all Guttman scales, concurrent validity is another matter. With FIRO-B the testing of concurrent validity must rest on the theory that present interpersonal behavior is related to inter- personal behavior of the past and to interpersonal behavior in all situations. Thus, studies were conducted to deter- mine how well test scores on FIRO-B related to political attitudes, conformity, and occupations. Details of the re- sults are available in Schutz book (84, 69-76); in passing, it is enough to mention that they give strong evidence of con- current validity.

Other properties, including reproducibility and stability, were also measured and found to be entirely acceptable. The intercorrelations between the scales is shown in Table 2. Schutz reports that the

> ...correlation is small enough so that predictions
> about specific individuals would be somewhat hampered
> by reducing the number of scales. It is important to
> be aware of the fact that FIRO-B contains noninde-
> pendent scales... (84, p. 80)

Table 2. Intercorrelations among FIRO-B scales

	I_e	I_w	C_e	C_w	A_e	A_w
I_e		.62	.15	.12	.45	.31
I_w			.10	.13	.49	.48
C_e				.25	.17	.00
C_w					.02	-.15
A_e						.70	N=108
A_w						

Compatibility

Another of the postulates of the FIRO theory which is of interest to this study is one regarding compatibility. Compatibility is a function of the relationship between two or more persons, between an individual and a role, or between an individual and a task situation. The theory states, in effect that if an individual and the role he is playing are compatible, then less time will be spent in dealing with difficulties and more time will be devoted to the task. In other words, a person who is compatible with the role played will quite likely accomplish more than the person who is incompatible.

There are two main types of compatibility in the FIRO theory; interchange and originator, which are particularly useful in discussing the relationship between a person and the role he is to play. These concepts of compatibility may

be understood by referring to the diagram below. The high

interchange quadrant represents those who desire a great deal

of exchange of interaction power or love.

                   Desired Other to Self Behavior
                              (wanted)

         Receiver   High Interchange
          Only   Self to Other
                                               Behavior
                                               (expressed)

       Low Interchange   Originator
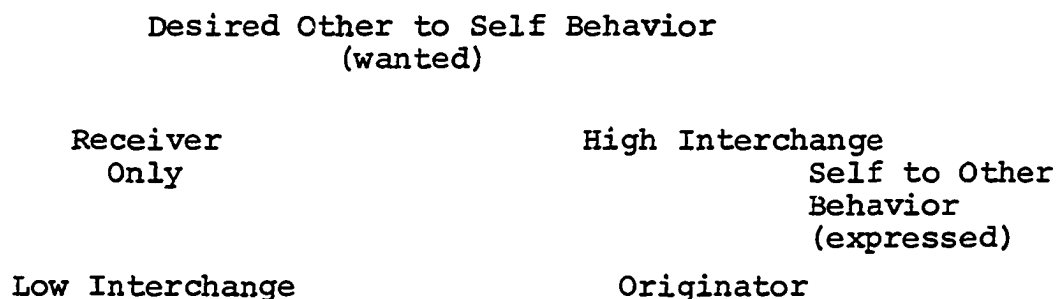
The low interchange quadrant includes those who do not

choose to initiate action nor to receive. For two persons

to be compatible, they should have similar scores on the

interchange diagonal.

Originator compatibility is represented by the second

diagonal. A person whose scores are in the lower right

quadrant is one who prefers to originate behavior in a par-

ticular interpersonal area, but not to receive such behavior.

The opposite end of this diagonal represents those people

who prefer to receive rather than originate behavior.

Schutz provides some examples to illustrate various

types of roles as defined in the FIRO system.

Table 3. Classification of roles

	INCLUSION AREA	
	HIGH EXPRESSED	LOW EXPRESSED
HIGH RECEIVED	Fraternity Rushing	Recruiter
LOW RECEIVED	Traveling Salesman	Convict
	CONTROL AREA	
HIGH RECEIVED	Military Officer	Follower
LOW RECEIVED	Autocrat	Quaker
	AFFECTION AREA	
HIGH RECEIVED	Spouse	Infant
LOW RECEIVED	Parent of Infant	Drill Instructor

To be more specific with some of the examples, fraternity rushing is a situation in which the members shower attention on the rushee who in turn is trying to impress so as to be invited to join. This cell also represents high interchange since both expressed and wanted behavior are high.

The convict is an example of low interchange since he is prohibited from associating with a group and to a lesser extent from being associated with, by the group members.

In the control area, the autocrat expects to control others and virtually prevents others from controlling him. High differentiation is represented here since the need of origination is high while the wish to receive is very low.

The infant is an example of high differentiation in which the infant receives but does not originate affection.

The theory of compatibility has also been tested through various experiments, which are reported in Schutz's book (84).

One of these measured the relationship between compatible and sociometric choices. Those who were the most compatible in the affection area tended to choose one another for room-mates, while the selection of traveling companion was related to control compatibility.

In a task situation, the compatibility of groups of four people was measured and each group was assigned a number of tasks to perform. Those groups whose members were most compatible produced more than those groups which were in-compatible. The same results were obtained when the experiment was repeated using different groups of men who performed problem-solving tasks.

The compatibility concept was used by Obradovic (72) in the investigation of how interpersonal factors operate in supervision. Compatibility of 79 pairs of teachers and supervisors was measured with FIRO-B and compared with changes in attitudes which occurred over a period of three months. The hypothesis that attitudes of compatible pairs of super-visors and teachers would change in the same direction was confirmed.

Hutchenson (48) studied relationships among teacher-pupil compatibility and other factors. Using FIRO-B as a measure, he tested the hypothesis that teacher-pupil compatibility was not related to such factors as sex of the pupil, socio-economic status of the pupil, or achievement test scores. The

hypothesis was confirmed for, of 96 relationships tested, only 11 were found to be significant.

Several persons have reviewed the FIRO theory and their remarks should be noted.

Borko (8) feels that FIRO lays all psychology on the bed of theory and forces a fit. He does accept the purpose of Schutz as completely unique. Few psychologists expect to predict overt behavior solely on the basis of test scores but there is an acknowledgment that the validation data is promising and the test interesting. Berko is of the opinion it deserves use. The test of the theory will be based on the quantity of research it stimulates.

Ackerman (1, p. 360) feels the work is ambitious, but precarious.

> It aspires toward a theory of behavior along a path that hopefully permits experimental verification. However, the undertaking is also a precarious one; some of its hazards are reflected in the report. The methodology is interesting. The conceptual formulation reveals some weaknesses, particularly in the areas of maintaining relations of part phenomena to the whole, and in the area of correlating the theory with clinical insights.

In general, the reviewers view the FIRO theory positively, each points to some areas regarded as weaknesses, but each agrees that the theory and the test deserve further use and exploration.

Summary

In summary of the review of literature and on-going experiments, individual characteristics about teachers may be examined from many points of view. While the development of personality assessment, into the field of education, brings interest in human behavior, such devices are as old as history itself. More recent efforts have been developed to appraise individuals and evaluate their effectiveness in prescribed situations.

Some of these methods of evaluation of the personalities of teachers have been primarily of a biographical nature, while others have been highly specific. More recently, investigators have moved from the specific study of the teaching act, and have turned their attention to the general traits or methods used by the teacher.

To this point, much of the research points to the fact that a good teacher is primarily a personality. He is first and foremost a person, and as such demonstrates a uniqueness and individuality that is a factor of itself.

The rationale for this investigation is based upon a two fold purpose: (1) that personality assessment of teachers in the community college will help provide an image of what the institution is like and that personality assessment will help community college arrange procedures for selection, recruitment and assignment of faculty. (2) If the community

college is to have a deliberate effect, we need to know

about its people as well as its administration, buildings,

and finances.

CHAPTER 3. METHODOLOGY

The sample for this investigation was drawn from the
instructors who were teaching in the fifteen Area colleges
of Iowa during the fall term of the 1970-1971 academic year.
Ten of the Area Schools are classified as community colleges
and five are classified as vocational technical colleges.

It was determined that there would be two main categories
of instructors studied, with two sub-groups within each of
the two main categories.

Group I would be those instructors who were judged as
effective instructors in the viewpoint of the chief academic
administrative offices of each area college in Iowa. Again,
as a means of explanation, an effective instructor was
defined as the instructor, in the viewpoint of the college
officials, who received high evaluations using the following
criteria:

1. Organizes and communicates information and skills

2. Creates a healthy relationship with students

3. Creates good relations with the community

4. Creates good relations with other teachers

5. Their personal evaluation ("Who would you take with
    you if you were moving to a new school?")

Group II would be composed of an equal group of instructors
who were new to Area College instruction as of the 1970-1971
academic year. The sub-groups within the main categories are

made up of Arts and Science instructors and Vocational

Technical instructors, within each of the main categories.

Because of the difference in the size of the area

colleges, each college was requested to submit five names

of effective instructors.

Once the population was determined, each institution

was contacted and the names of those instructors judged

effective were requested. Upon receipt of this list, these

instructors were contacted and requested to participate in

the study. Of the seventy-five instructors contacted,

sixty-nine agreed to participate.

To develop a listing for Group II instructors, the

State Department of Public Instruction was contacted for

permission to utilize the results of the Iowa Professional

School Employees Data Sheet (IPSEDS (49), 1970). From this

list, it was possible to determine those instructors who

were new to community college instruction in the fall of

1970. From this list the instructors were chosen, and these

instructors were also contacted.

The final population was comprised of sixty-nine

experienced community college instructors, judged effective

by the chief administrative officer of their college, and

sixty-nine instructors new to community college instruction

in the fall of 1970, or a total population of 138 instructors.

In addition the groups also can be categorized by

program served with sixty-nine of the total being Arts and
Science instructors and sixty-nine Vocational Technical
instructors.

Table 4.   Category of instructors by teaching area

Group	Arts and Sciences	Vocational Technical	Total
Experienced	32	37	69
Inexperienced	37	32	69
Total	69	69	138

Within the effective group was found approximately the
same numbers of Arts and Science instructors and Vocational
Technical instructors. This was somewhat unusual for no
attempt was made to sub-divide the groups in this manner as
the colleges were asked only to list effective instructors.

When it was apparent that this was the case, the investi-
gator attempted in developing the sample of new instructors,
to arrive at approximately the same proportions in the group
new to community college instruction 1970-1971.

Collection of Data

All of the data used in this study were taken from the
results of the survey instrument FIRO-B, an instrument
designed specifically to measure the behavior of people in

interpersonal situations. In addition, a personal background information sheet was completed by each instructor.

Analysis of the Data

The raw data relevant to this study were placed on code sheets and then punched and verified in IBM cards. The facilities of the Iowa State University Computation Center were utilized to analyze all the data on the 360/40 IBM computer.

To test the 12 hypotheses as presented, analysis of variance was utilized to determine whether there were significant differences between the means of the different groups. For a description of the procedure applicable to the model used, see Chapter 9 in Popham (73).

The sums of squares were used to determine the mean squares from which the values were calculated which would indicate significant differences, if they were present. This statistic was selected as the technique that would best describe the comparison of the means between the effective and new instructors, and those who taught within the Arts and Science division and those who taught within the Vocational Technical division of the various area schools. All of the hypotheses tested in the study were tested at both the 0.05 and 0.01 levels of significance. The significance levels were determined by the values of F table in Popham (73, p.

399). In the analysis of variance technique the statement of no significant difference in form is essentially the statement of no appreciable difference between the means of the variables under investigation. If the tabular F value was lower than the calculated F value, the difference was considered to be significant or highly significant depending on the level, in which case, the null hypotheses of no significant difference was rejected and a significant difference was assumed.

CHAPTER 4. FINDINGS

The findings of this study are based on the results obtained by administering the FIRO-B to 138 instructors within the Iowa Area Colleges. These findings are discussed utilizing a number of methods. Frequency distributions, means, and standard deviations are used to describe the instructors being studied. In addition, analysis of variance used to test hypotheses and statistically evaluate the findings.

<div align="center">Analysis of FIRO-B Scores
(Types of Behavior)</div>

So that a better understanding of the analysis of FIRO-B scores can be obtained, included are definitions of the interpersonal needs of an individual in the areas of Inclusion, Control and Affection. These explanations are described in Schutz's book, "The Interpersonal Underworld" (84, pp. 21-33).

1. Inclusion behavior: that behavior directed towards one's general social orientation. It refers to association between people. Some terms that explain this association between people in a positive manner are: associate, mingle, communicate, belong, companion, member, join. Terms that are negative in the area of inclusion are: introvert, exclusion, isolate, outsider, lonely, withdrawn, ignored.

The need to be included manifests itself as wanting to be attended to, or to attract interest and attention. In groups, people often make themselves prominent by talking a

great deal; usually, they are not interested in power or
dominance, but simply prominence. The desire to belong to a
fraternal organization is by no means a liking for the members
or a desire for power; it is often for its prestige value.
It is in the hope that people will pay attention to the
person, know who he is and be able to distinguish him from
others that people join groups; he must be known as a
specific person with a particular identity, for he is not
thus known, he cannot be attended to or have interest paid
to him.

Inclusion then has to do with interacting with people,
with attention, acknowledgment, being known, prominence,
status, identity, anticipation. It does not involve strong
emotional attachments to individual persons and the pre-
occupation is with prominence, not dominance.

2. Control behavior: Behavior that refers to the
decision making process between people. Terms
that show positive control would be: power, control,
authority, dominance, influence, ruler, officer,
leader. Terms that show negative control would be:
rebellion, followers, submissive, henpecked.

The need for control manifests itself as the desire for
power, authority and control over others and, therefore, over
one's future. At the other end of the continuum is the need
to be controlled, to have responsibility taken away. A more
subtle form is the term influential. This is a person who
controls others through the power he has to influence their
behavior. The acquisition of money or political power is a

direct method of obtaining control over other persons. This

can often involve coercion rather than other methods of

influence like persuasion and example. In group behavior,

the struggles to achieve high office or make suggestions

that are adopted are manifestations of control behavior.

In an argument, it is possible to distinguish the inclusion

seeker from the control seeker in this way: the inclusion

seeker wants to be one of the participants in the argument,

while the control seeker wants to be the winner or on the

same side as the winner. Control behavior takes many forms

especially among more intellectual and polite people.

Intellectual superiority often leads to control over others,

so strong motivations to achieve this superiority is often

largely control behavior. It also demonstrates the real

capacity of the individual to be relied on for responsible

jobs, a central aspect of control. Further, to do a job

properly, or to rebel against the established authority

structure by not doing a job properly, is control behavior.

Doing a poor job is a way of going against the authority

structure and showing that no one will control you. Ex-

pressions of independence and also of rebellion exemplify

lack of willingness to be controlled, while compliance and

taking orders indicate various degrees of accepting the

control of others. However, there is no relation between an

individual's behavior toward controlling others, and his

behavior toward being controlled.

Control, then differs from inclusion in that it does not require prominence. The concept of the power behind the throne is an example of a role that would fill a high control need and low inclusion need.

3. Affection behavior refers to close personal emotional feelings between two people. While inclusion and control can occur between groups of individuals, affection can occur only between pairs of people at any one time. Terms that refer to affection that are positive would be: like, positive feelings, personal, love, friendship. Terms that show negative affection would be: dislike, cool, distant, hate.

The need for affection behavior is related to becoming emotionally close. This involves, in addition to emotional attachment, the confiding of anxieties, wishes and feelings. In groups, affection behavior is characterized by friendship and differentiation between members. A common way for avoiding a close tie with any one member is to be equally friendly with all members of the group; therefore, popularity may not be affection at all, but rather inclusion.

Types of Interpersonal Behavior

Inclusion types

UNDERSOCIAL: The individual tends to be introverted and withdrawn; he avoids association with others and doesn't like or accept invitations to join others. Consciously, he wants to maintain this distance between himself and others and

insists that he doesn't want to get enmeshed with people and lose his privacy. Actually, he wants others to pay attention to him, his fears are that people will ignore him and would just as soon leave him behind. This is exemplified by the person who, for one reason or another, is always late to meetings, has many conflicting engagements, or the person who precedes each visit with, "I'm sorry, but I can't stay long." His deepest anxiety, referring to the self concept, is that he is worthless.

OVERSOCIAL: The oversocial person tends toward extra-version; he seeks people incessantly and wants them to seek him out. (Like the undersocial person), he also is afraid they will ignore him, but his overt behavior is the opposite. He is the type who can't stand being alone, and all of his activities must be done in a group. His interpersonal behavior will be designed to focus attention on himself, to make people notice him, to be prominent, to be listened to. The direct method of this would be to force himself upon a group. The indirect method is to acquire status by name dropping, or asking startling questions. He may also try to acquire power (control) or try to be well liked (affection) but for the primary purpose of gaining attention.

SOCIAL: For this person, interaction with people presents no problem. He is comfortable with people and comfortable being alone. He can be a high or low participant

in a group or can take a moderate role without anxiety. He
is interested in others and feels that they will include him
in their activities and that they are interested in him.
He has an identity and an individuality. The result of
this is that he can see himself as an individual.

Control types

ABDICRAT: This is a person who tends toward submission
and abdication of power and responsibility in his inter-
personal behavior. He will gravitate toward the subordinate
position where he will not have to take responsibility for
making decisions and where someone else takes charge.
Consciously, he wants people to relieve him of his obliga-
tions because he does not want to control others, even when
he should. He fears others will not help him when he needs
help and that he will be given more responsibility than he
can handle. He may be a loyal lieutenant, but rarely the
person who takes the responsibility for making the final
decision. Subconsciously, he has the feeling that he is
incapable of decision or of responsible behavior and will
avoid situations in which he will feel helpless. He feels
that he is incompetent, irresponsible, and perhaps even
stupid. He is anxious, hostile and will use hesitance,
to go along, as a usual technique or resistance since actual
overt rebellion is too threatening.

AUTOCRAT: This is the person whose interpersonal behavior tends toward the dominating. He tries to dominate people and desires a power hierarchy with himself at the top, he is the power seeker, the competitor, concerned that people will not be influenced or controlled by him and that they will, in fact, dominate him. This need to control people can be displaced into other areas. Intellectual or athletic superiority allows for considerable control as does the gaining of political power. In many ways the autocrat is similar to the abdicrat; basically, he feels that he is not responsible or capable of leadership and that this fact is known to others. The result is that the autocrat will use every opportunity to disprove this feeling to others and to himself, but at the same time, there is a strong distrust that others may make decisions for him and the feeling that they don't trust him.

DEMOCRAT: For this person, power and control present no problems. He feels comfortable in giving or not giving orders or in taking or not taking orders. He feels, unconsciously that he is a capable, responsible person and that he does not need to retreat from responsibility or to prove his competencies. He feels that other people respect his competence and will trust him with decision making.

Affection types

UNDERPERSONAL: This type of person will avoid close personal ties with others, maintaining his relations on a distant level, and he is more comfortable when others do the same to him. Consciously, he wishes to maintain this emotional distance and frequently states a desire not to get emotionally involved; unconsciously, he seeks a satisfactory affectional relation. His fear is that no one loves him and that he won't be liked. He distrusts other's feelings toward him and has difficulty in liking people. His technique for maintaining emotional distance is to reject and avoid people even to the point of being antagonistic. The subtle technique is to appear superficially friendly to everyone which acts as a safeguard against getting close to, or personal with, any one person.

His anxiety is that he is unlovable, that people won't like him because he doesn't deserve their like or love. Basically, he feels that if people get to know him well they will discover the traits that make him so unlovable.

OVERPERSONAL: This person will attempt to become extremely close to others. Being liked is extremely important to him in his attempt to relieve his anxiety about being rejected and unlovable. The direct technique is an open attempt to gain approval, be extremely personal, intimate and confiding. The subtle technique is more manipulative, to

devour friends and subtly punish any attempts by them to establish other friendships. Again, this is much the same type of individual as the underpersonal. Both are motivated by a strong need for affection; both are accompanied by strong anxiety about ever being loved and about being unlovable and both have considerable hostility stemming from the anticipation of rejection.

PERSONAL: For this individual, close emotional relations with another person present no problem. He is comfortable in such a relationship and can also relate comfortably in a situation requiring emotional distance. It is important for him to be liked, but he can accept the fact that if he is disliked, the relationship is between himself and one other person. It does not mean to him that he is an unlovable person. He is capable of giving genuine affection and feels that he is a lovable person even to people who know him well.

General Aspects of Interpretation

Some general suggestions for interpretation of FIRO-B scores are discussed in the material that follows. These suggestions are taken from Ryans' Clinical Interpretation of the FIRO-B, and are included to assist the reader in examining the scores received by the Iowa Area School Instruction.

1. Scores range from 0 to 9 and the closer the score
    is to the extremes the more applicable are the
    following behavioral descriptions for high and
    low scores:

    a. A low expressed inclusion score indicates a
        person is uncomfortable around people and will
        move away from them. A high expressed in-
        clusion score indicates a person is comfortable
        in contact with people and will tend to move
        toward people. A low wanted inclusion score
        means the person is selective with whom he
        associates, while a high wanted inclusion score
        means he has a strong need to belong and he
        accepted.

    b. A low expressed control score indicates the
        person avoids making decisions and responsibility.
        A high expressed control score indicates he can
        and does take responsibilities of leadership.
        A low wanted control score suggests the person
        does not want others to control him or make
        decisions for him. A high wanted control score
        indicates a reluctance to make decisions and
        is reflective of depending needs.

    c. A low expressed affection score indicates a
        person who is cautious about initiating close

personal relationships. <u>A high expressed</u>
<u>affection score</u> suggests the person can easily
become emotionally involved. <u>A low wanted</u>
<u>affection score</u> indicates a person who is very
selective about those with whom he will form
deep relationships. <u>A high wanted affection</u>
<u>score</u> describes a person who wants others to
form close relationships with him.

2. Note the score within the 0-9 range:

0 - 1 extremely low - the person's behavior will
    have a compulsive quality

2 -3 low scores - the behavior will be noticeably
    characteristic

4 - 5 borderline scores - person may reveal a tendency
    toward the behavior described for high or low
    according to rest of his scores

6 - 7 high - again the behavior will be noticeably
    characteristic

8 - 9 extremely high and as with 0 - 1 will be com-
    pulsive

3. Consider the general orientation within each area.
The person's orientation within each area is revealed
by the interaction of his expressed and wanted be-
havior. If the scores are similar in intensity the
probability is the person behaves in ways compatible

with his needs. The greater the difference between the two scores, the greater the probability of conflict and frustration.

4. Note the interaction among the areas. The way in which a person orients himself in one area may help or hinder the interpersonal stance he assumes in other areas.

Analysis of the Hypotheses

Twelve hypotheses were to be tested as set forth in Chapter 1 under the statement of the problem. Three questions were also to be considered. The questions, which call for conclusions, will be discussed in the final chapter. Information relevant to these questions has been obtained through the examination of the statistical findings and the judgements of the writer.

The experiment was to compare two groups of Iowa area school faculty members; one group judged effective and the other group new to community college instruction.

The data were presented by each FIRO-B variable. The six variables and the order in which they were tabled are: inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, and affection wanted. One table for each variable was reported, the remainder of the tables for each of the four sub-groups: effective arts

and science, effective vocational technical, new arts and science, and new vocational technical appear in the tables in the appendices.

Inclusion expressed

As presented in Table 5, when the means, standard deviations, and frequency distributions for effective and new instructors are compared, very little difference in the means and standard deviations are evident.

In comparing frequency distributions, for the groups, some changes become evident.

If scores of 0-3 are considered as low, it is noted that twenty-five effective instructors received this score while twenty new instructors fit in the distribution of 0-3.

If a score of 6-9 is considered high, twenty effective instructors received this score, while twenty-seven new instructors scored in the 6-9 range of the distribution.

Inclusion wanted

Table 6 presents an interesting response in the frequency distribution. Again, there is very little difference in the means and standard deviations. When a comparison of the 0-3 scores is made, it is evident that forty-six effective instructors received scores in this frequency. New instructors had forty-five instructors in this range.

Table 5. FIRO-B expressed behavior of area college instructors in the area of inclusion (I_e)

Scale	Frequency	Percentage	Summed Percentage
Composite of Effective Instructors			
9	1	1.4	100.00
8	1	1.4	98.6
7	8	11.6	97.1
6	10	14.5	85.5
5	10	14.5	71.0
4	14	20.3	56.5
3	16	23.2	36.2
2	1	1.4	13.0
1	3	4.3	11.6
0	5	7.2	7.2
N 69	Mean 4.231	Standard Deviation 2.036	
Composite of New Instructors			
9	2	2.9	100.00
8	1	1.4	97.1
7	10	14.5	95.7
6	14	20.3	81.2
5	14	20.3	60.9
4	8	11.6	40.6
3	5	7.2	29.0
2	8	11.6	21.7
1	4	5.8	10.1
0	3	4.3	4.3
N 59	Mean 4.594	Standard Deviation 2.162	

Table 6. FIRO-B scales of wanted behavior of area college instructors in the area of inclusion (I_w)

Scale	Frequency	Percentage	Summed Percentage

Composite of Effective Instructors

Scale	Frequency	Percentage	Summed Percentage
9	3	4.3	100.00
8	1	1.4	95.7
7	9	13.0	94.2
6	0	0.0	81.2
5	4	5.8	81.2
4	6	8.7	75.1
3	4	5.8	66.7
2	3	4.3	60.9
1	10	14.5	56.5
0	29	42.0	42.0

N 69   Mean 2.463   Standard Deviation 2.907

Composite of New Instructors

Scale	Frequency	Percentage	Summed Percentage
9	3	4.3	100.00
8	4	5.8	95.7
7	3	4.3	89.9
6	6	8.7	85.5
5	4	5.8	76.8
4	4	5.8	71.0
3	4	5.8	65.2
2	6	8.7	59.4
1	8	11.6	50.7
0	27	39.1	39.1

N 69   Mean 2.666   Standard Deviation 2.957

Considering the 6-9 range, twelve effective instructors and sixteen new instructors were within this definition.

Control expressed

Illustrated in Table 7 are the frequency counts for new and effective instructors in the area of control expressed.

Table 7. FIRO-B scales of expressed behavior of area college instructors in the area of control (C_e)

Scale	Frequency	Percentage	Summed Percentage
Composite of Effective Instructors			
9	5	7.2	100.00
8	3	4.3	92.8
7	4	5.8	88.4
6	1	1.4	82.6
5	12	17.4	81.2
4	9	13.0	63.8
3	15	21.7	50.7
2	5	7.2	29.0
1	5	7.2	21.7
0	10	14.5	14.5

N 69　　Mean 3.753　　Standard Deviation 2.584

Scale	Frequency	Percentage	Summed Percentage
Composite of New Instructors			
9	4	5.8	100.00
8	4	5.8	94.2
7	2	2.9	88.4
6	6	8.7	85.5
5	8	11.6	76.8
4	11	15.9	65.2
3	10	14.5	49.3
2	8	11.6	34.8
1	6	8.7	23.2
0	10	14.5	14.5

N 69　　Mean 3.681　　Standard Deviation 2.590

An examination of the table reveals little difference in means and standard deviations.

The 0-3 range contains thirty-five effective instructors, while thirty-four new instructors received scores in the low area of control expressed.

When considering the high range of 6-9, thirteen effective and sixteen new instructors portrayed this trait.

Control wanted

Indicated in Table 8 are the means and standard deviations, as well as the frequency counts for new and effective faculty members in the area of control wanted.

Analysis of the table reveals twenty-eight effective and thirty-six new instructors in the low range of 0-3. Within the 6-9 category are sixteen effective and twelve new instructors.

Affection expressed

As frequency counts in Table 9 show, forty-nine effective and forty-five new instructors fit in the characteristics as found in the 0-3 classification. In the 6-9 range, twelve instructors in both the effective and new range received this score.

Affection wanted

An analysis of Table 10 again shows that means and standard deviations have little difference between the two categories of effective and new instructors.

As portrayed, the 0-3 range contains sixteen effective and eighteen new instructors, while the 6-9 classification contains seventeen effective and eighteen new instructors.

Table 8. FIRO-B scales of wanted behavior of area college instructors in the area of control (C_w)

Scale	Frequency	Percentage	Summed Percentage
Composite of Effective Instructors			
9	3	4.3	100.00
8	2	2.9	95.7
7	5	7.2	92.8
6	6	8.7	85.5
5	9	13.0	76.8
4	16	23.2	63.8
3	9	13.0	40.6
2	10	14.5	27.5
1	8	11.6	13.0
0	1	1.4	1.4

N 69   Mean 4.029   Standard Deviation 2.160

Scale	Frequency	Percentage	Summed Percentage
Composite of New Instructors			
9	2	2.9	100.00
8	4	5.8	97.1
7	3	4.3	91.3
6	3	4.3	87.0
5	15	21.7	82.6
4	6	8.7	60.9
3	17	24.6	52.2
2	9	13.0	27.5
1	7	10.1	14.5
0	3	4.3	4.3

N 69   Mean 3.826   Standard Deviation 2.186

Table 9. FIRO-B scales of expressed behavior of area college instructors in the area of affection (A_e)

Scale	Frequency	Percentage	Summed Percentage
Composite of Effective Instructors			
9	2	2.9	100.0
8	4	5.8	97.1
7	3	4.3	91.3
6	3	4.3	87.0
5	1	1.4	82.6
4	7	10.1	81.2
3	36	52.2	71.0
2	5	7.2	18.8
1	8	11.6	11.6
0	0	0.0	0.0

N 69   Mean 3.594   Standard Deviation 1.980

Scale	Frequency	Percentage	Summed Percentage
Composite of New Instructors			
9	2	2.9	100.0
8	5	7.2	97.1
7	2	2.9	89.9
6	3	4.3	87.0
5	4	5.8	82.6
4	8	11.6	76.8
3	29	42.0	65.2
2	9	13.0	23.2
1	7	10.1	10.1
0	0	0.0	0.0

N 69   Mean 3.681   Standard Deviation 2.032

Table 10. FIRO-B scales of wanted behavior of area college
instructors in the area of affection (A_w)

Scale	Frequency	Percentage	Summed Percentage
Composite of Effective Instructors			
9	4	5.8	100.0
8	6	8.7	94.2
7	1	1.4	85.5
6	6	8.7	84.1
5	27	39.1	75.4
4	9	13.0	36.2
3	6	8.7	23.2
2	2	2.9	14.5
1	5	7.2	11.6
0	3	4.3	4.3

N 69   Mean 4.710   Standard Deviation 2.180

Scale	Frequency	Percentage	Summed Percentage
Composite of New Instructors			
9	4	5.8	100.0
8	4	5.8	94.2
7	3	4.3	88.4
6	7	10.1	84.1
5	27	39.1	73.9
4	6	8.7	34.8
3	7	10.1	26.1
2	3	4.3	15.9
1	5	7.2	11.6
0	3	4.3	4.3

N 69   Mean 4.666   Standard Deviation 2.170

In summary, characteristics as found in the tables show
that the lowest scores achieved by both of the groups within
the 0-3 range were in the category of inclusion wanted. In
this category forty-six effective instructors and forty-five
new instructors received what is considered as low scores.

In affection expressed, forty-nine effective instructors and forty-five new instructors also received low scores.

Table 11. Means and standard deviations of area college instructors

	I_e	I_w	C_e	C_w	A_e	A_w
Table of means						
All Instructors	4.413	2.565	3.717	3.927	3.637	4.688
Effective Instructors	4.231	2.463	3.753	4.028	3.594	4.710
New Instructors	4.594	2.666	3.681	3.826	3.681	4.666
Effective Arts and Science	4.218	2.062	3.250	4.687	3.687	4.468
New Arts and Science	4.297	3.654	3.864	3.540	4.027	4.837
Effective Vocational Technical	4.243	2.810	4.189	3.459	3.513	4.918
New Vocational Technical	4.937	2.218	3.468	4.156	3.281	4.468
Table of Standard Deviations						
All Instructors	2.108	2.933	2.587	2.175	2.007	2.179
Effective Instructors	2.036	2.907	2.584	2.160	1.980	2.180
New Instructors	2.162	2.957	2.590	2.186	2.032	2.178
Effective Arts and Science	2.057	2.838	2.783	2.364	1.911	1.999
New Arts and Science	1.929	2.976	2.732	2.188	2.199	2.520
Effective Vocational Technical	2.018	2.920	2.311	1.779	2.035	2.306
New Vocational Technical	2.357	2.869	2.397	2.137	1.736	1.676

High scores achieved within the range of 6-9 were in the categories of inclusion expressed where twenty effective and twenty-seven new instructors received high scores. Also, in the high range were seventeen effective and eighteen new instructors in the interpersonal area of affection wanted.

Initial differences between the two main groups were determined to be non-significant by "t" tests, so analysis of variance was next utilized.

To insure that all variances would be examined, each category of FIRO-B was tested utilizing all one hundred thirty-eight scores. These scores were sub-divided into effective arts and science instructors, effective vocational technical instructors, new arts and science instructors and new vocational technical instructors. The sum of squares were used to determine the mean squares from which the "F" values were calculated, which would indicate significant differences, if they were present. Demonstrated in Table 11 is a summary of the "F" values determined by the analysis of variance. The complete analysis of variance can be found in the Appendix.

In testing the hypotheses that were presented, the book "F" will always be the same. The degrees of freedom in all variables will be one, and one hundred thirty-four. This allows a theoretical "F" value of 3.91 at the .05 level and 6.83 at the .01 level.

The null hypotheses tested were:

1. There is no significant difference in the inter
personal behavior patterns of effective community college
instructors when categorized with major teaching assignments
of arts and science and vocational technical education in
relationship to control (e) expressed. <u>The null hypothesis</u>
<u>was not rejected</u>. The calculated "F" was 2.238.

2. There is no significant difference in the inter-
personal behavior patterns of effective community college
instructors when categorized with major teaching assignments
of arts and sciences and vocational technical education in
relationship to control (w) wanted.

<u>The null hypothesis was rejected</u>

The theoretical "F" value for one, and one hundred
thirty-four degrees of freedom are: at the .05 level 3.91
and at the .01 level 6.83. The calculated "F" value for
control wanted was 5.597. Upon further study it is noted,
that there is also a significant "F" level for interaction
in the variable of control wanted. When Table 13 is con-
sulted, the reader should take note that the mean of effective
vocational technical instructors was 4.1. When an examination
of the arts and science instructors is made, it becomes
immediately apparent that a switch has occurred in the mean
of this group when compared to the mean of vocational technical
instructors. For in the arts and science instructors, the

mean of effective instructors is 4.7, while the mean of new instructors is 3.5. This switch in the means is apparently what has caused the interaction to be significant, and should serve as notice to the reader that this in turn could have had an effect on determining the null hypothesis to be significant.

3. There is no significant difference in the inter-personal behavior patterns of effective community college instructors when categorized with major teaching assignments of arts and sciences and vocational technical education in relationship to inclusion (e) expressed. The null hypothesis was not rejected. The calculated "F" value was 0.002.

4. There is no significant difference in the inter-personal behavior patterns of effective community college instructors when categorized with major teaching assignments of arts and science and vocational technical education in relationship to inclusion (w) wanted. The null hypothesis was not rejected. The calculated "F" value was 1.105.

5. There is no significant difference in the inter-personal behavior patterns of effective community college instructors when categorized with major teaching assign-ments of arts and science and vocational technical education in relationship to affection (e) expressed. The null hypothesis was not rejected. The calculated "F" value was 0.127.

6. There is no significant difference in the inter-
personal behavior patterns of effective community college
instructors when categorized with major teaching assignments
of arts and science and vocational technical education in
relationship to affection (w) wanted. <u>The null hypothesis was</u>
<u>not rejected</u>. The calculated "F" value was 0.717.

7. There is no significant difference in the inter-
personal behavior patterns of effective community college
instructors when categorized with major teaching assignments
of arts and science and vocational technical education in
relationship to affection (e) expressed. <u>The null hypothesis</u>
<u>was not rejected</u>. The calculated "F" value was 0.959.

8. There is no significant difference in the inter-
personal behavior patterns of effective community college
instructors when compared to the interpersonal relationships
of beginning community college instructors in relationship
to control (w) wanted. <u>The null hypothesis was rejected</u>.
The calculated "F" value was 4.882.

Again the reader is cautioned to examine Table 13. It
is noted that there is a significant "F" level for inter-
action in the variable for control wanted. As is noted in
Table 13, the mean for effective vocational technical
instructors is 3.5 while the mean for new vocational technical
instructors is 4.1. In contrast, the mean for effective arts
and science instructors is 4.7 and the mean for new arts and

science instructors is 3.5. The apparent switch that has occurred in the means of these four groups has probably allowed for the interaction and the reader should be cautious when considering this hypothesis.

9. There is no significant difference in the interpersonal behavior patterns of effective community college instructors when compared to the interpersonal relationships of beginning community college instructors in relationship to inclusion (e) expressed. The null hypothesis was not rejected. The calculated "F" value was 0.023.

10. There is no significant difference in the interpersonal behavior patterns of effective community college instructors when compared to the interpersonal relationships of beginning community college instructors in relationship to inclusion (w) wanted. The null hypothesis was not rejected. The calculated "F" value was 1.940.

11. There is no significant difference in the interpersonal behavior patterns of effective community college instructors when compared to the interpersonal relationships of beginning community college instructors in relationship to affection (e) expressed. The null hypothesis was not rejected. The calculated "F" value was 0.845.

12. There is no significant difference in the interpersonal behavior patterns of effective community college instructors when compared to the interpersonal relationships

of beginning community college instructors in relationship
to affection (w) wanted. <u>The null hypothesis was not
rejected</u>. The calculated "F" value was 0.482.

Table 12. Summary of analyses of variance "F" values on
FIRO-B of area school instructors

	I_e	I_w	C_e	C_w	A_e	A_w
Effective and new	0.023	1.940	0.959	4.822*	0.845	0.482
Arts and Science and Vocational-Technical	0.002	1.105	2.238	5.597*	0.127	0.717
Interaction	0.724	2.475	2.262	6.309*	0.689	1.187
Error	0.858	0.882	0.887	2.437	0.845	0.404

*Book $F_{1,134}$

Level	"F" Value
.05	6.83
.01	3.91

The theoretical "F" values for one and one-hundred-
thirty-four degrees of freedom are: at the .05 level, 3.91,
and at the .01 level, 6.83. Table 12 indicates the FIRO-B
level for control wanted, when comparing effective and new
Area School instructors, is 4.88 which shows a significant
difference. In this experiment there is a significantly
different behavior pattern in control wanted.

Table 12 also indicates the FIRO-B level for control
wanted, when comparing Arts and Science and Vocational-

Technical instructors, is 5.59 which shows a significant difference. The experiment again suggests a significantly different behavior pattern in control wanted.

In addition, Table 12 shows a significant interaction in the FIRO-B patterns in the area of control wanted. Table 12 indicates that the "F" value for interaction is 6.30 which shows a significant difference.

As is noted in Table 13, it cannot be stated that any of the four sub-groups will have either the highest or lowest mean score in the area of control wanted.

Inspection of the table shows that the lines are not of the same relative rank; therefore, instead of being parallel, they cross over one another.

Table 13. Mean scores received by effective arts and science, effective vocational-technical, new arts and science and new vocational-technical instructors in control wanted

Vocational-Technical	4.1	4.7
Arts and Science	3.5	3.5
	New	Effective

The effective arts and science instructors have the highest mean, while the new arts and science instructors received the lowest mean score.

Therefore, it cannot be stated that the new instructors

will receive either the highest or the lowest score, nor can this statement be made about effective instructors.

The result of this finding is that not much weight can be placed on the hypothesis concerning control wanted, because of this interaction.

CHAPTER 5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The problem of this investigation was to determine if the interpersonal behavior patterns of effective area school instructors in Iowa differed from the interpersonal behavior patterns of instructors new to teaching in the area schools of Iowa during the 1970-1971 academic year.

Data concerning the interpersonal profile of the instructors was obtained by administering the FIRO-B to one-hundred-thirty-eight instructurs actively teaching in the Iowa area schools in the fall of 1970. Sixty-nine instructors in the group were judged effective instructors and sixty-nine were new to area school teaching.

When the scores of the one hundred thirty-eight instructors were received, the data were statistically treated to determine if there were any significant differences between the two groups in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed and affection wanted.

The statistical technique, analysis of variance, was selected as the technique that best describes the comparison of the mean of the variables of the FIRO-B in relationship to the four sub-groups of instructors studied. These sub-groups were; effective arts and science instructors, effective

vocational technical instructors, new arts and science
instructors and new vocational technical instructors. These
scores were to be analyzed in relation to the null hypotheses.

The findings concerning these hypotheses are as follows:

1. There is no significant difference between effective
arts and science instructors and effective vocational technical
instructors in relationship to control (e) expressed.

2. There is a significant difference between effective
arts and science instructors and effective vocational technical
instructors in relationship to control (w) wanted. As was
noted in Table 13, there was also a significant interaction
in this statistical analysis. The mean for effective vocation-
al technical instructors is 3.5, while the mean for new
vocational technical instructors is 4.1. In contrast, the
mean of effective arts and science instructors is 4.7, while
the mean for new arts and science instructors is 3.5. Not
much weight can be placed on this hypothesis because of
the interaction.

3. There is no significant difference between effective
arts and science instructors and effective vocational technical
instructors in relationship to inclusion (e) expressed.

4. There is no significant difference between effective
arts and science instructors and effective vocational technical
instructors in relationship to inclusion (w) wanted.

5. There is no significant difference between effective
arts and science instructors and effective vocational technical

instructors in relationship to affection (e) expressed.

6. <u>There is no significant difference</u> between effective arts and science instructors and effective vocational technical instructors in relationship to affection (w) wanted.

7. <u>There is no significant difference</u> between effective instructors and new instructors in their relationship to control (e) expressed.

8. <u>There is a significant difference</u> between effective and new instructors in relationship to control (w) wanted. As was noted in Table 13, there was also a significant inter- action in relationship to this hypothesis. The mean for new vocational technical instructors is 4.1, while the mean for effective vocational technical instructors is 3.5. In contrast, the mean for new arts and science instructors is 3.5 and the mean for effective arts and science instructors is 4.7. This apparently allowed for the interaction and the reader should be cautious when considering this finding.

9. <u>There is no significant difference</u> between instructors and new instructors in relationship to inclusion (e) expressed.

10. <u>There is no significant difference</u> between effective instructors and new instructors in relationship to inclusion (w) wanted.

11. <u>There is no significant difference</u> between effective instructors and new instructors in relationship to affection

(e) expressed.

12. <u>There is no significant difference</u> between effective instructors and new instructors in relationship to affection (w) wanted.

Limitations

This study was limited to one-hundred-thirty-eight instructors from the fifteen area colleges of Iowa during the fall of 1970. Sixty-nine of these instructors were adjudged, by the chief academic officers of their institutions, to be effective instructors and sixty-nine were new to area school teaching. Therefore, any conclusions drawn from this study must be limited to like groups.

The experimental portion was limited to the response of the instructors to the FIRO-B in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, and affection wanted. No conclusions can be drawn for any other personality areas.

This study was also limited by the fact that all the information gathered was provided by the individual instructors and their responses to FIRO-B. This would always allow an instructor to give more acceptable answers in areas where he felt some concern and, as a result, could hinder complete accuracy.

The statistical technique utilized was analysis of

variance. This technique does not provide a cause and effect relationship where significant difference occurred.

Conclusions

The following conclusions have been organized around the questions which were posed as the problem and the hypotheses which evolved from the questions which were tested. The hypotheses which were tested were stated in the null or no difference form.

In analysis of variance, the statement of no difference in hypothesis form is basically the statement of no difference between the means of the variables being considered. If the calculated "F" exceeds the tabular "F" value, the difference was considered to be significant, in which case the null hypothesis of no difference was rejected and a significant difference was assumed.

The first question asked was: <u>What are the interpersonal behavior patterns of effective community college instructors in the various area colleges of Iowa?</u>

With the results reported, it is possible to describe the interpersonal behavior of the effective area college instructors. However to achieve a perspective for such a description, a comparison between the teacher population of this study and another population will be made. Data chosen for this comparison are shown in Table 14. The data for the

Table 14. Mean scores of two groups on FIRO-B scales

FIRO-B	School Administrators	Iowa Effective Teachers
Inclusion expressed	5.9	4.2
Inclusion wanted	4.6	2.4
Control expressed	4.7	3.7
Control wanted	5.5	4.0
Affection expressed	4.4	4.0
Affection wanted	5.1	4.7

group of school administrators which are presented are from the work of Schutz (84). While other populations were available for comparative purposes, school administrators were chosen for the following reasons. Of the available populations, only two of the groups were related to teaching. These two groups were educational administrators and teachers.

Teachers were not chosen, since they were primarily elementary and some secondary instructors. Therefore, the educational background of educational administrators and Iowa teachers would more likely be similar as each group would generally hold a master's degree or have completed work beyond the master's.

Additionally, most school administrators are men, and
since most Iowa area school instructors are men, this
was a factor in choosing school administrators in the
comparative group rather than elementary and secondary
who would be a higher proportion of women.

When compared to that of Schutz's group of school
administrators, the effective area school instructors are
considerably lower on both of the inclusion scales. The
mean of inclusion wanted is especially low. This indicates
that the effective area school instructors have very little
desire to be near people and will move away from people.
Also, the area school instructors are very selective with
whom they associate.

In the areas of control, again the means of the area
school instructors are low. In the FIRO-B theory, this
represents somewhat of a conflict in the personalities of
these instructors. As their control expressed scores
suggest, they will avoid making decisions and accepting
responsibility, yet their control wanted scores indicate
that they do not want others to control them or make decisions
for them.

In examining the data on affection, the area school
instructors are selective and cautious about forming close
personal relationships with others.

In viewing these data it is important to remember that

the FIRO-B theory states that the interpersonal behavior is relatively invariant with time. Therefore, any age difference between the groups should not make a difference in their interpersonal stance.

The second question was: Are the interpersonal behavior patterns of effective community college instructors different when categorized with the major academic assignments of individual instructors? The major academic assignments were arts and science and vocational technical.

This question was sub-divided into the following questions:

a. Are the interpersonal behavior patterns of effective community college instructors different when categorized as to relationship to control (e) expressed? The results of the analysis of variance showed that there was no difference when comparing effective arts and science and effective vocational technical instructors in the area of control (e) expressed.

b. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to control (w) wanted? The statistical results showed a significant difference between the two categories of instructors. As has been mentioned, there was also a significant interaction in this statistical comparison of the means of the groups. Therefore, not much weight can be placed

on this hypothesis because of the interaction.

c. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to inclusion (e) expressed? A study of the tables again shows that there is no difference in the two groups of instructors.

d. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to inclusion (w) wanted? When considering the relationship of inclusion wanted between effective arts and science and effective vocational technical instructors no difference could be determined.

e. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to affection (e) expressed? Once again the analysis of variance showed that no difference exists between effective arts and science instructors and effective vocational technical instructors.

f. Are the interpersonal behavior patterns of effective community college instructors different when categorized in relationship to affection (w) wanted? No difference could be discovered when comparing the interpersonal behavior patterns of these groups in the areas of affection wanted. Question number three was: Are the interpersonal behavior patterns of effective community college instructors different

when compared with beginning community college instructors?
This question was sub-divided into the following:

a. Are the interpersonal behavior patterns of effective
community college instructors different when compared with
beginning community college instructors in relationship to
control (e) expressed? The "F" value in this question was such
as to show no difference between the two groups of instructors
in relationship to affection (e) expressed.

b. Are the interpersonal behavior patterns of effective
community college instructors different when compared with
beginning community college instructors in relationship to
control (w) wanted? In this comparison a difference between
the two groups of instructors was evident. Statistically
there was a significant difference between effective and new
instructors. As was mentioned before, there was also a
significant interaction in this statistical comparison of
the means of the groups; therefore, not much weight can be
placed on this comparison because of the interaction.

c. Are the interpersonal behavior patterns of effective
community college instructors different when compared with
beginning community college instructors in relationship to
inclusion (e) expressed? No difference was found when
comparing effective and new instructors in the area of in-
clusion (e) expressed.

d. Are the interpersonal behavior patterns of effective

community college instructors different when compared with
beginning community college instructors in relationship to
inclusion (w) wanted? No difference was found when comparing
the means of these two groups.

e. Are the interpersonal behavior patterns of effective
community college instructors different when compared with
beginning community college instructors in relationship to
affection (e) expressed? Again, no difference was found
between the two groups.

f. Are the interpersonal behavior patterns of effective
community college instructors different when compared with
beginning community college instructors in relationship to
affection (w) wanted? No statistical difference was found
between the two groups in this area.

Discussion

This study has demonstrated that the interpersonal
behavior patterns of effective and new community college
instructors in the area schools of Iowa are essentially the
same. The interpersonal patterns as developed in this study
were determined by the self reports of the instructors on
the FIRO-B scale, which is based on the theories of W. C.
Schutz.

It must be emphasized that a "good-bad" connotation should
not be attached to the classifications of interpersonal

behavior used in this study. In fact, it is suspected that both effective and ineffective instructors would be found at the very extremes of either end of the continuum of FIRO-B. However, these beliefs involve value judgements and may well be rejected by another observer.

There would be some danger involved in concluding that the FIRO-B scales would alone be a sufficient instrument for the selection of instructors for a particular position. To be sure, if it were felt that one type of teacher was always the best, regardless of other factors, the instrument would have value. However, it must be pointed out that there is no conclusive evidence that one type of teacher is always good or another type always bad. Certainly the instrument could be used to select from a group of teachers a sub-group of instructors whose degree of inclusion, control, or affection would more nearly approach a selected standard.

Since the research suggests that different kinds of personalities are suited to play different roles in the framework of teaching, then FIRO-B could be used to select instructors to fit these special roles.

Rather than employ people with ability in a particular subject matter, or on the basis of a certificate permitting instruction in a specific area, it might be better to select instructors who fit specialized roles. Such roles could be lecturer or test specialist. Since teachers differ in

interests, abilities, motivations and personal approaches, this could be worthwhile. Some instructors are most effective in large group instruction, others in small groups or in work with individuals, while others depend upon lecture, reading assignments and instructional media. By careful use of the FIRO-B and categorizing instructors into their teaching specialties, it would appear that an effective organizational structure could be developed that would have as its main purpose the development of new approaches to educational competence.

Institutions, on the basis of FIRO-B, should take the lead in suggesting that instructors take courses in human relations so that they become sensitized to their own needs, the needs of other instructors, and of their students. Sensitivity training workshops, group interactions and individual counseling sessions might improve the quality of teaching and also help the instructor better relate to himself. All of these approaches and innovations should be carefully evaluated in terms of the degree in which they enhance or decrease the potential for human growth. Such emphasis might produce people who are more self-actualizing and as a result more effective people.

While the FIRO-B can be one more tool to be utilized in the selection of instructors, the institution must also carefully define its philosophy and goals. It is only when a

faculty can objectively define itself that the institution
can build programs and select instructors who can accept
the goals of the institution, rather than adapt to them.
If teachers can readily accept the objectives of the insti-
tution and if the goals are consistent with the instructors
personality patterns then these instructors would be in a
satisfactory interpersonal position to better instruct
students.

One may reject the idea that interpersonal behavior is
necessarily invariant with time and hypothesize that it can
be changed. In this event there are implications for teacher
training, pre-service and in-service. Therefore, if change
in the climate of the classroom is wanted, it becomes necessary
to deal with the teacher in ways which will cause change in
the interpersonal relationships of the teacher. Such
recommendations must be based on the decisions regarding
quality teaching.

There are many practical and potentially useful applica-
tions of teacher assessment, that could have a beneficial
effect upon the students who attend area colleges. These
applications could have implications in the following areas:

1. Groups of teachers, with pre-determined personality
traits could be selected from larger groups of instructors.

For example, team teaching may be a way of encouraging
instructors to further develop their personalities, fulfill

their own needs and bring about change in the students through instruction. To accomplish these ends it may be best to select instructors who complement the interpersonal needs of the other team members. The use of the FIRO-B would be an excellent method of determining the needs of the team members and also of selecting other members who would be compatible to the team.

2. Helping to introduce innovations by selecting people most likely to accept these new methods.

3. Assigning students to teachers on the basis of similarities or differences in interpersonal needs.

4. Selecting instructors to be retrained or otherwise assigned to positions of leadership within the colleges.

5. Helping students entering college make choices of possible educational or vocational goals.

Recommendations for Further Research

This experiment could be replicated in an attempt to validate the findings. However, the writer believes that the following changes in the experiment would make it more significant and of greater research value:

1. Increase the scope of the experiment to include community colleges from outside the state of Iowa. Since all of the area schools of Iowa are relatively young, it would be possible to examine the interpersonal behavior patterns of

instructors in colleges that have been in existence for a
longer period of time and perhaps have made adjustments in
the type of person being selected for employment in the
colleges.

2. Include in the investigation, a personal interview
with selected members of faculties who have taken the FIRO-B,
to question them about their feelings concerning the FIRO-B.

3. Include additional groups into the study, in
particular, faculty members from private community colleges
and junior colleges, and faculty from senior institutions,
in particular those members of senior institutions who
instruct students in the first two years of their collegiate
education.

4. Broaden the scope of the investigation to include
those high schools that are following a more innovative
curriculum. This would allow a study to determine if these
types of institutions are selecting for their faculties,
people with different interpersonal stances than community
colleges.

5. Utilize both a pre-test and post-test of the FIRO-B
to determine if the interpersonal behavior patterns of
faculty participating in human relations workshops, do indeed
change as a result of the workshops.

6. Utilize the FIRO-B to determine the significance of
the FIRO-B with some of the global characteristics that have

been identified with successful or effective teachers.
Examples of these comparisons might be; First born; parti-
cipation in volunteer teaching, prior to entering professional
teaching, Rural background, one of the parents teaching and
activity in competitive athletics.

7.   Develop a longitudinal study where a population of
entering community college instructors are tested with FIRO-B.
Then at a specified period of time check the FIRO scores
with those people who have been judged as effective instructors
with those instructors who have left the ranks of instruction
and have been judged failures. This would give a base from
which to study the interpersonal behavior patterns of those
instructors who are judged effective, and those who are
judged failures.

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APPENDIX

Table 15 (Continued)

Scale	Frequency	Percentage	Summed Percentage

New Arts and Science Instructors

Scale	Frequency	Percentage	Summed Percentage
9	0	0.0	100.0
8	0	0.0	100.0
7	5	13.5	100.0
6	6	16.2	86.5
5	9	24.3	70.3
4	5	13.5	45.9
3	4	10.8	32.4
2	4	10.8	21.6
1	3	8.1	10.8
0	1	2.7	2.7

N 37   Mean 4.297   Standard Deviation 1.929

New Vocational Technical Instructors

Scale	Frequency	Percentage	Summed Percentage
9	2	6.3	100.0
8	1	3.1	93.8
7	5	15.6	90.6
6	8	25.0	75.0
5	5	15.6	50.0
4	3	9.4	34.4
3	1	3.1	25.0
2	4	12.5	21.9
1	1	3.1	9.4
0	2	6.3	6.3

N 32   Mean 4.937   Standard Deviation 2.357

Table 16. FIRO-B scales - wanted behavior of area college instructors in the area of inclusion (I_w)

Scale	Frequency	Percentage	Summed Percentage

Effective Arts and Science Instructors

Scale	Frequency	Percentage	Summed Percentage
9	2	6.3	100.0
8	0	0.0	93.8
7	3	9.4	93.8
6	0	0.0	84.4
5	1	3.1	84.4
4	2	6.3	81.3
3	2	6.3	75.0
2	1	3.1	68.8
1	6	18.8	65.6
0	15	46.9	46.9

N 32   Mean 2.062   Standard Deviation 2.838

Effective Vocational Technical Instructors

Scale	Frequency	Percentage	Summed Percentage
9	1	2.7	100.0
8	1	2.7	97.3
7	6	16.2	94.6
6	0	0.0	78.4
5	3	8.1	78.4
4	4	10.8	70.3
3	2	5.4	59.5
2	2	5.4	54.1
1	4	10.8	48.6
0	14	37.8	37.8

N 37   Mean 2.810   Standard Deviation 2.920

Table 16 (Continued)

Scale	Frequency	Percentage	Summed Percentage

New Arts and Science Instructors

Scale	Frequency	Percentage	Summed Percentage
9	1	2.7	100.0
8	3	8.1	97.3
7	2	5.4	89.2
6	5	13.5	83.8
5	2	5.4	70.3
4	2	5.4	64.9
3	3	8.1	59.5
2	2	5.4	51.4
1	5	13.5	45.9
0	12	32.4	32.4

N 37   Mean 3.054   Standard Deviation 2.976

New Vocational Technical Instructors

Scale	Frequency	Percentage	Summed Percentage
9	2	6.3	100.0
8	1	3.1	93.8
7	1	3.1	90.6
6	1	3.1	87.5
5	2	6.3	84.4
4	2	6.3	78.1
3	1	3.1	71.9
2	4	12.5	68.8
1	3	9.4	56.3
0	15	46.9	46.9

N 32   Mean 2.218   Standard Deviation 2.869

Table 17. FIRO-B scales - expressed behavior of area college
instructors in the area of control (C_e)

Scale	Frequency	Percentage	Summed Percentage
Effective Vocational Technical Instructors			
9	2	5.4	100.0
8	2	5.4	94.6
7	3	8.1	89.2
6	0	0.0	81.1
5	9	24.3	81.1
4	6	16.2	56.8
3	9	24.3	40.5
2	2	5.4	16.2
1	0	0.0	10.8
0	4	10.8	10.8

N 37   Mean 4.189   Standard Deviation 2.311

Scale	Frequency	Percentage	Summed Percentage
Effective Arts and Science Instructors			
9	3	9.4	100.0
8	1	3.1	90.6
7	1	3.1	87.5
6	1	3.1	84.4
5	3	9.4	81.3
4	3	9.4	71.9
3	6	18.8	62.5
2	3	9.4	43.8
1	5	15.6	34.4
0	6	18.8	8.8

N 32   Mean 3.250   Standard Deviation 2.783

Table 17 (Continued)

Scale	Frequency	Percentage	Summed Percentage

New Arts and Science Instructors

Scale	Frequency	Percentage	Summed Percentage
9	3	8.1	100.0
8	2	5.4	91.9
7	1	2.7	86.5
6	5	13.5	83.8
5	3	8.1	70.3
4	6	16.2	62.2
3	4	10.8	45.9
2	5	13.5	35.1
1	2	5.4	21.6
0	6	16.2	16.2

N 37   Mean 3.864   Standard Deviation

New Vocational Technical Instructors

Scale	Frequency	Percentage	Summed Percentage
9	1	3.1	100.0
8	2	6.3	96.9
7	1	3.1	90.6
6	1	3.1	87.5
5	5	15.6	84.4
4	5	15.6	68.8
3	6	18.8	53.1
2	3	9.4	34.4
1	4	12.5	25.0
0	4	12.5	12.5

N 32   Mean 3.468   Standard Deviation

Table 18. FIRO-B scales - wanted behavior of area college instructors in the area of control (C_w)

Scale	Frequency	Percentage	Summed Percentage
Effective Arts and Science Instructors			
9	3	9.4	100.0
8	2	6.3	90.6
7	2	6.3	84.4
6	5	15.6	78.1
5	5	15.6	62.5
4	2	6.3	46.9
3	6	18.8	40.6
2	5	15.6	21.9
1	2	6.3	6.3
0	0	0.0	0.0

N 32   Mean 4.687   Standard Deviation 2.364

Scale	Frequency	Percentage	Summed Percentage
Effective Vocational Technical Instructors			
9	0	0.0	100.0
8	0	0.0	100.0
7	3	8.1	100.0
6	1	2.7	91.9
5	4	10.8	89.2
4	13	37.8	78.4
3	3	8.1	40.5
2	5	13.5	32.4
1	6	16.2	18.9
0	1	2.7	2.7

N 37   Mean 3.459   Standard Deviation 1.779

Table 18 (Continued)

Scale	Frequency	Percentage	Summed Percentage

New Arts and Science Instructors

Scale	Frequency	Percentage	Summed Percentage
9	1	2.7	100.0
8	2	5.4	97.3
7	1	2.7	91.9
6	1	2.7	89.2
5	8	21.6	86.5
4	2	5.4	64.9
3	10	27.0	59.5
2	5	13.5	32.4
1	5	13.5	18.9
0	2	5.4	5.4

N 37   Mean 3.540   Standard Deviation 2.188

New Vocational Technical Instructors

Scale	Frequency	Percentage	Summed Percentage
9	1	3.1	100.0
8	2	6.3	96.9
7	2	6.3	90.6
6	2	6.3	84.4
5	7	21.9	78.1
4	4	12.5	56.3
3	7	21.9	43.8
2	4	12.5	21.9
1	2	6.3	9.4
0	1	3.1	3.1

N 32   Mean 4.156   Standard Deviation 2.137

Table 19. FIRO-B scales - expressed behavior of area college
instructors in the area of affection (A_e)

Scale	Frequency	Percentage	Summed Percentage
Effective Arts and Science Instructors			
9	0	0.0	100.0
8	3	9.4	100.0
7	1	3.1	90.6
6	2	6.3	87.5
5	1	3.1	81.3
4	4	12.5	78.1
3	15	46.9	65.5
2	3	9.4	18.8
1	3	9.4	9.4
0	0	0.0	0.0

N 32   Mean 3.687   Standard Deviation 1.911

Scale	Frequency	Percentage	Summed Percentage
Effective Vocational Technical Instructors			
9	2	5.4	100.0
8	1	2.7	94.6
7	2	5.4	91.9
6	1	2.7	86.5
5	0	0.0	83.8
4	3	8.1	83.8
3	21	56.8	75.7
2	2	5.4	18.9
1	5	13.5	13.5
0	0	0.0	0.0

N 37   Mean 3.513   Standard Deviation 2.035

Table 19 (Continued)

Scale	Frequency	Percentage	Summed Percentage

New Arts and Science Instructors

Scale	Frequency	Percentage	Summed Percentage
9	2	5.4	100.0
8	3	8.1	94.6
7	2	5.4	86.5
6	1	2.7	81.1
5	2	5.4	78.4
4	6	16.2	73.0
3	14	37.8	56.8
2	4	10.8	18.9
1	3	8.1	8.1
0	0	0.0	0.0

N 37   Mean 4.027   Standard Deviation 2.199

New Vocational Technical Instructors

Scale	Frequency	Percentage	Summed Percentage
9	0	0.0	100.0
8	2	6.3	100.0
7	0	0.0	93.8
6	2	6.3	93.8
5	2	6.3	87.5
4	2	6.3	81.3
3	15	46.9	75.0
2	5	15.6	28.1
1	4	12.5	12.5
0	0	0.0	0.0

N 32   Mean 3.281   Standard Deviation 1.736

Table 20. FIRO-B scales - wanted behavior of area college instructors in the area of affection (A_w)

Scale	Frequency	Percentage	Summed Percentage
Vocational Technical Instructors			
9	4	10.8	100.0
8	3	8.1	89.2
7	0	0.0	81.1
6	3	8.1	81.1
5	15	40.5	73.0
4	4	10.8	32.4
3	2	5.4	21.6
2	2	5.4	16.2
1	3	8.1	10.8
0	1	2.7	2.7

N 37   Mean 4.918   Standard Dviation 2.306

Scale	Frequency	Percentage	Summed Percentage
Arts and Science Instructors			
9	0	0.0	100.0
8	3	9.4	100.0
7	1	3.1	90.6
6	3	9.4	87.5
5	12	37.5	78.1
4	5	15.6	40.6
3	4	12.5	25.0
2	0	0.0	12.5
1	2	6.3	12.5
0	2	6.3	6.3

N 32   Mean 4.468   Standard Deviation 1.999

Table 20 (Continued)

Scale	Frequency	Percentage	Summed Percentage

New Arts and Science Instructors

Scale	Frequency	Percentage	Summed Percentage
9	3	8.1	100.0
8	4	10.8	91.9
7	2	5.4	81.1
6	4	10.8	75.7
5	12	32.4	64.9
4	1	2.7	32.4
3	4	10.8	29.7
2	1	2.7	18.9
1	4	10.8	16.2
0	2	5.4	5.4

N 37   Mean 4.837   Standard Deviation 2.320

New Vocational Technical Instructors

Scale	Frequency	Percentage	Summed Percentage
9	1	3.1	100.0
8	0	0.0	96.9
7	1	3.1	96.9
6	3	9.4	93.8
5	15	46.9	84.4
4	5	15.6	37.5
3	3	9.4	21.9
2	2	6.3	12.5
1	1	3.1	6.3
0	1	3.1	3.1

N 32   Mean 4.468   Standard Deviation 1.676

Table 21. Analysis of variance, inclusion expressed (effective and new, arts and science and vocational technical)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	"F" Value*
Effective New	1	0.105	0.105	0.023
Arts and Science Vocational Technical	1	0.010	0.010	0.002
Interaction	1	3.252	3.252	0.724
Error	134	601.884	4.491	0.858
Total				

*Book $F_{1,134}$

Level	"F" Value
.05	6.83
.01	3.91

Table 22. Analysis of variance, inclusion expressed (effective and new, arts and science and vocational technical)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	"F" Value*
Effective New	1	16.870	16.870	1.940
Arts and Science Vocational Technical	1	9.608	9.608	1.105
Interaction	1	21.516	21.516	2.475
Error	134	1164.911	8.693	0.882
Total				

*Book $F_{1,134}$

Level	"F" Value
.05	6.83
.01	3.91

124

Table 23. Analysis of variance, control expressed (effective
and new, arts and science and vocational technical)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	"F" Value*
Effective New	1	6.487	6.487	0.959
Arts and Science Vocational Technical	1	15.135	15.135	2.238
Interaction	1	15.297	15.297	2.262
Error	134	905.968	6.760	0.887
Total				

*Book $F_{1,134}$

Level	"F" Value
.05	6.83
.01	3.91

Table 24. Analysis of variance, control wanted (effective
and new, arts and science and vocational technical)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	"F" Value*
Effective New	1	22.573	22.573	4.882*
Arts and Science Vocational Technical	1	25.877	25.877	5.597*
Interaction	1	29.165	29.165	6.308*
Error	134	619.472	4.622	2.437
Total				

*Book $F_{1,134}$

Level	"F" Value
.05	6.83
.01	3.91

125

Table 25. Analysis of variance, affection expressed (effective and new, arts and science and vocational technical)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	"F" Value*
Effective New	1	1.978	1.978	0.845
Arts and Science Vocational Technical	1	0.519	0.519	0.127
Interaction	1	2.805	2.805	0.689
Error	134	545.559	4.071	0.845
Total				

*Book $F_{1,134}$

Level	"F" Value
.05	6.83
.01	3.91

Table 26. Analysis of variance, affection wanted (effective and new, arts and science and vocational technical)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	"F" Value*
Effective New	1	2.337	2.337	0.482
Arts and Science Vocational Technical	1	3.477	3.477	0.717
Interaction	1	5.758	5.758	1.187
Error	134	649.721	4.848	0.404
Total				

*Book $F_{1,134}$

Level	"F" Value
.05	6.83
.01	3.91