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ABSTRACT
                Cuyahoga Community College--Eastern Campus is
attempting to devise an organizational structure which facilitates an
open, creative environment, and to select faculty who have attitudes
consonant with openness and experimentalism. The purpose of this
study was to determine if there were relationships between (1)
dogmatism of faculty and their preference for interdisciplinary
cluster or discipline division organization, (2) academic preparation
and preference for clusters or divisions, and (3) dogmatism and
academic preparation. Twenty-five full-time faculty completed two
questionnaires: the Rokeach Dogmatism Scale and a questionnaire
listing administrative tasks to determine cluster or division
preference. Academic background and preparation data were also
solicited. No significant relationship was found to exist between
dogmatism of faculty, semester hours in education courses, semester
hours beyond the Master's, community college teaching experience,
secondary school teaching experience, or four-year school teaching
experience and faculty preference for clusters or divisions.
Dogmatism and educational or teaching background were also found to
have no relationship. Significant relationships were found in two
areas: (1) Academic disciplines and preference for clusters or
divisions; and (2) Dogmatism and hours beyond Master's Degree.
(Author/AH)

A STUDY OF THE RELATIONSHIP OF DOGMATISM AND ACADEMIC PREPARATION OF FACULTY TO ADMINISTRATIVE STRUCTURE PREFERENCE AT THE FACULTY ADMINISTRATIVE INTERFACE

by

Vernon K. Burger, M.A.

Cuyahoga Community College Eastern Campus

A PRACTICUM REPORT PRESENTED TO NOVA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY

APRIL 16, 1974

2

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter

LIST OF TABLES

LIST OF FIGURES

I. THE TITLE

A Study of the Relationship of Dogmatism and Academic Preparation

of Faculty to Administrative Structure Preference at the

Faculty-Administrative Interface.

II. THE STATEMENT OF THE PROBLEM

Main Problem: Is there a relationship between dogmatism and

academic preparation and preference of faculty to interdisciplinary

clusters of disciplinary divisions?

Subproblems:

A. Is there a significant difference between the mean Dogmatism

Scale (D-Scale) Score of faculty preferring inter-disciplinary

clusters and the mean Dogmatism Score of faculty preferring

discipline divisions?

B. Is there a significant relationship between faculty with

membership in four discipline divisions, i.e. Math-Science,

English-Humanities, Social Sciences, or Business-Technical

Programs, and faculty preference to cluster or division

organization?

C. Is there a significant relationship between faculty prepared

with more than fifteen semester hours in education courses

or less than fifteen hours in education courses and faculty

preference to cluster or division organization?

D. Is there a significant relationship between faculty prepared

with more than fifteen semester hours beyond the Masters Degree

or less than fifteen semester hours beyond the Masters Degree

and faculty preference to cluster or division organization?

6

E. Is there a significant relationship between faculty prepared with greater than three years community college teaching experience or less than three years community college teaching experience and faculty preference to cluster or division organization?

F. Is there a significant relationship between faculty prepared with secondary school teaching experience or no secondary school teaching experience and faculty preference to cluster or division organization?

G. Is there a significant relationship between faculty prepared with four year colleg-university teaching experience or no four-year college-university teaching experience and faculty preference to cluster or division organization?

Secondary Problems:

H. Is there a significant difference between the mean D-Scale score of faculty prepared with more than fifteen semester hours in education courses and the mean D-Scale score of faculty prepared with less than fifteen semester hours in education courses?

I. Is there a significant difference between the mean D-Scale score of faculty prepared with more than fifteen semester hours beyond the Masters Degree and the mean D-Scale score of faculty prepared with less than fifteen semester hours beyond the Masters Degree?

J. Is there a significant difference between the mean D-Scale score of faculty prepared with greater than three years community college teaching experience and the mean D-Scale

score of faculty prepared with less than three years
community college teaching experience?

K. Is there a significant difference between the mean D-Scale
score of faculty prepared with secondary school teaching
experience and the mean D-Scale score of faculty prepared
with no secondary school teaching experience?

L. Is there a significa` difference between the mean D-Scale
score of faculty pr... .ed with four year college-university
teaching experience and the mean D-Scale score of faculty
prepared with no four year college-university teaching
experience?

III. THE HYPOTHESIS

Main hypothesis: There is a relationship between dogmatism and
academic preparation and faculty preference to cluster or
division organization.

Supportive Hypotheses:

A. There is a significant difference between the mean D-Scale
score of faculty prefering cluster organization and the mean
D-Scale score of faculty preferring division organization.

B. There is a significant relationship between faculty with
membership in four discipline divisions, i.e. Math-Science
English-Humanities, Social Sciences, or Business-Technical
Programs and faculty preference to cluster or division
organization.

C. There is a significant relationship between faculty prepared
with more than fifteen semester hours in education courses

or less than fifteen semester hours in education courses and
faculty preference to cluster or division organization.

D. There is a significant relationship between faculty prepared
with more than fifteen semester hours beyond the Masters
Degree or less than fifteen semester hours beyond the Masters
Degree and faculty preference to cluster or division organization.

E. There is a significant relationship between faculty prepared
with greater than three years community college teaching
experience or less than three years community college teaching
experience and faculty preference to cluster or division
organization.

F. There is a significant relationship between faculty prepared
with secondary school teaching experience or no secondary
school teaching experience and faculty preference to cluster
or division organization.

G. There is a significant relationship between faculty prepared
with four year college-university teaching experience or no
four year college-university teaching experience and faculty
preference to cluster or division organization.

Secondary Hypotheses:

H. There is a significant difference between the mean D-Scale
score of faculty prepared with more than fifteen semester
hours in education courses and the mean D-Scale score of
faculty prepared with less than fifteen semester hours in
education courses.

I. There is a significant difference between the mean D-Scale score of faculty prepared with more than fifteen semester hours beyond the Masters Degree and the mean D-Scale score of faculty prepared with less than fifteen semester hours beyond the Masters Degree.

J. There is a significant difference between the mean D-Scale score of faculty prepared with greater than three years community college teaching experience and the mean D-Scale score of faculty prepared with less than three years community college teaching experience.

K. There is a significant difference between the mean D-Scale score of faculty prepared with secondary school teaching experience and the mean D-Scale score of faculty prepared with no secondary school teaching experience.

L. There is a significant difference between the mean D-Scale score of faculty prepared with four year college-university teaching experience and the mean D-Scale score of faculty prepared with no four year college-university teaching experience.

IV. BACKGROUND AND SIGNIFICANCE OF THE STUDY

Since the beginning of Eastern Campus there has been a verbal committment by the faculty and administration to creating an open and experimental learning environment. Implicit in this committment was and is an attempt to hire faculty who have the attitudes and practices that are consonant with openness and experimentalism. In an earlier Nova University Practicum Report,

Burger and Jelfo designed a governance-administrative structure
at the faculty-administrative interface that attempted "to
facilitate an open, creative, and experimental environment."
(4:20) The recommendations of this practicum were to create
two types of overlapping positions resulting in interdisciplinary
cluster housing leader with the majority of tasks and a discipline
division leader. If this structure is to facilitate openness,
it should attract and be preferred by existing faculty who are
open-minded and faculty being considered for employment should
be assessed and selected, at least in part, by the degree of
openness they demonstrate. If the results of this study show
there is a significant relationship between openness, i.e.
dogmatism score, and academic preparation, and preference to
either cluster or division organization, then these factors
should be used, at least in part, to select future faculty.
If the results of this study show a relationship between the
variables, then further analysis of the data to determine if
the relationships are either positive or negative will be needed.
Eastern Campus President Dr. Robert F. Shepack has approved of
this study and has agreed to use the factors that show a rela-
tionship in the selection of new faculty members.

Rokeach, who has done much research in to the nature of
beliefs and personality, defines the extent of being open or
closed as being the degree to which the person "can receive,
evaluate, and act on relevant information received from the
outside on its own intrinsic merits, unencumbered by irrelevant
factors in the situation arising from within the person or from

the outside." (11:57) The open-minded person is able to hold
his answers up to further questioning, testing, and possible
change; distinguish relevant and irrelevant information and react
appropriately and correctly; evaluate and act on information
according to requirements inside of the present situation; and
more strongly resist externally imposed rewards or punishments.
the closed-minded person, in addition to the opposite of the above,
opposes far more than he supports; is fiercely loyal to his
own side; tends to lump all beliefs together; and accepts and
respects ideas only from sources that he is in agreement or that
are approved by his authority figures. (3:33) Open and close-
mindedness is not so much a matter of what one believes but how
one believes.

A Dogmatism (D) Scale has been developed by Rokeach to
measure the structure of belief systems with emphasis on how
one believes. The D-Scale determines the degree of open and
close-mindedness.

This raises the question as to the relationship of the
sturcture of belief systems to content of beliefs. A study at
the University of Wisconsin showed a relatively low correlation
between beliefs and practices of experimentalism and dogmatism
with coefficients ranging from .26 to .36 but being significant
beyond the .01 level. The conclusion of the study indicated
only a "shirt-tail relationship" between the two variables.
(3:159)

Apez (1) studied staff members of the University of

Missouri (N=406) using the Rokeach D-Scale and found that while attitude change in general way vary from person to person, most people consistently react different ways to different changes. The relative importance each attaches to different aspects of the "goodness" or "badness" of each change is paramount.

Another question raised is that of the relationship of academic preparation and experience to attitudes towards innovation and change. Hamill (8) found that certain professors in community colleges with greater academic preparation were dissatisfied with their institutions and regarded the four-year colleges and universities as their reference group. Conversely, professors with five years of more experience in their fields, women, and professors in applied subjects adopted the community college concept. But the relationship between the two sets of attitudes was neither positive nor negative.

Evans and Leppman found that college instructors tend to shy away from innovation and change. (5:36) Cohen feels that while this study was at a senior institution it would seem community colleges would be no exception. Cohen states that the "question of which types of faculty members tend to accept change is rarely asked." (5:36) Shepack (14) did extensive testing of faculty attitudes toward experimentalism and dogmatism but did no statistical analysis resulting in any definite conclusions about faculty types and change.

Averill (2) studied farmers and classified them according to their tendency to adopt farm practice innovations. One way analysis of variance showed some relationship between openness

and age, formal schooling, and socioeconomic status. He suggested that educative behavior is important to maintaining an openness to new ideas.

Funk (7) found a slight positive relationship between dogmatism and age and a strong negative association between level of education and dogmatism. Shaver and Richards (13) found little evidence to support a relationship between dogmatism and age, college class, or sex. They also indicated that students in teacher education were not different in terms of dogmatism than university students in general. Long (9) found a negative relationship between dogmatism and tenure among forest service employees.

The effect of the social system appears not to necessarily change beliefs but to change behavior. Jamias and Troldahl (10) found a .40 correlation between dogmatism and innovation in a social system where the value for innovation was low. But in a social system where the value for innovation was high the correlation between dogmatism and innovation was only -.09. The conclusions were that highly dogmatic individuals living in a social system with a high value for innovativeness would adopt new recommendations more readily than highly dogmatic individuals in social systems having low value for innovativeness. Low dogmatic individuals had a relatively high adoption rate regardless of the social system. (10:146) Crespi suggests that attitudes may have predictable relationships to behavior in highly institutionalized situations and they may have little

predictive value in more loosely structured situations. (6:334)

It is the objective of this practicum to study the
relationship of dogmatism and academic preparation as it relates
to faculty preference of administrative organization. The
finding of a significant relationship of open-mindedness to
administrative organization could have impact as to the type of
faculty members selected. The finding of a significant
relationship of academic preparation characteristics to openness
and administrative organization could have major implications
for the selection process of potential faculty members.

V. DEFINITION OF TERMS

For the purpose of this study the following are the definitions
used:

Faculty: A full-time (12 hours per quarter) teaching faculty at
the Eastern Campus of Cuyahoga Community College.

Interdisciplinary Cluster: An administrative subdivision or
a physical area within the college with classrooms and
offices for twelve faculty of different disciplines, a
counselor, and a unit leader.

Discipline Division: An administrative subdivision within the
college grouping faculty into similar academic units, i.e.
Math-Science, English-Humanities, Social Sciences, and
Business-Career Programs.

Dogmatism: The degree to which a person "can receive, evaluate,
and act on relevant information received from the outside
on its own intrinsic merits, unencumbered by irrelevant
factors in the situation arising from within the person

or from outside." (11:57) Positiveness in assertion in
matters of opinion. The degree of open and close-mindedness.

Dogmatism Scale (D-Scale): An instrument to measure the structure
of belief systems with emphasis on how one believes.
Determines the degree of open and close-mindedness, i.e.
dogmatism.

Academic Preparation: The sum total of formal study and previous
teaching experience. Included are the following factors:
level of formal study, education courses, discipline of
major teaching responsibility, and previous teaching
experience on community college, secondary, and four-year
college-university levels.

Faculty-Administrative Interface: The boundary between the
teaching faculty and administration. Administrative
position at this level could also include teaching
responsibilities and is traditionally referred to as a
department or division chairman.

VI. LIMITATIONS OF THE STUDY

(1) The size of the sample population may prevent generalization
of the findings.

(2) The findings may only be important to the Cuyahoga Community
College's Eastern Campus.

(3) The effect of having personal and social friends within the
sample population. Bias toward the experimenter. Social
Stimulus value. Experimenter bias.

(4) Correlating responses from two test instruments.

(5) Highly dogmatic individuals may respond in favor of clusters because of the existing atmosphere encouraging innovation.

(6) Study shows only if a relationship exists and not whether positive or negative.

VII. BASIC ASSUMPTIONS

For the purpose of this study the following are assumptions:

(1) Dogmatism-Scale score is a valid measure of the flexibility (openness) and rigidity (closeness) of belief systems.

(2) The Faculty Preference Questionnaire is a valid measure of preference to interdisciplinary clusters or academic divisions.

(3) Background of academic preparation and experience were honestly transmitted by the faculty.

VIII. PROCEDURES FOR COLLECTING DATA

(1) Through the administration of the Dogmatism-Scale to faculty to determine Dogmatism-Scale scores.

(2) Through the administration of a Faculty Preference Questionnaire to faculty to determine academic background and administrative organization preference.

(3) All questionnaires were anonymous with a separate sheet filled out by each faculty indicating that they have completed and returned it.

(4) All questionnaires were administered or delivered to faculty by the experimenter.

(5) Free response was asked for from the sample population in reference to additional limitations of the study.

IX. PROCEDURES FOR TREATING DATA

The data produced by this study was in three forms as described
below.

A. D-Scale scores: D-Scale Questionnaires were hand-scored
and interpreted producing a numerical score. For each test
different meand were calculated for each group.

B. Administrative Preference Questionnaire was hand-scored
with ten points assigned to a cluster preference and zero
points to a division preference. If both were indicated a
score of five points was assigned. Questionnaires were then
ranked in order of increasing score and divided into two
groups at the median. The upper half was designed as
preferring clusters and the lower half designated as
preferring divisions.

C. Academic preparation from questionnaire was hand-scored.
Since this study is dealing with relationships between different
types of data for each hypothesis type, different tests were
required.

For a study of the difference between the mean D-Scale score
and faculty preference, a t-test is called for. The sample size
was 25, D-Scale scores are on an interval scale, and faculty
preference to cluster or division produces a dichotomy on a
nominal scale. A two-tailed test is used for only a difference
is sought.

For a study of the relationship between academic preparation
and organizational preference, a Chi Square test is required.

All data is categorized on a nominal scale producing a 2 x 2 table for all but one test which will require a 2 x 4 table.

For a study of the difference between the mean D-Scale scores and academic preparation, again a t-test is required. Sample size is less than 30, (N=25), D-Scale scores are interval, and academic preparation is nominal. A two-tailed test is used for only a difference is sought.

All tests were calculated by a calculator and verified by computer.

Prodedures

Supportive Hypothesis A:

1. (H_o) : There is no difference between the mean D-Scale score of faculty preferring cluster organization and the mean D-Scale score of faculty preferring division organization.

    $H_o : P_1 = P_2$

2. (H_a) : There is a significant difference between the mean D-Scale score of faculty preferring clusters and the mean D-Scale score of faculty preferring divisions.

    $H_a : P_1 \neq P_2$

3. Desired level of significance: $= .05$

4. t-test

5. $df = 23$ and two-tailed test with a critical t of ± 2.069.

Supportive Hypotheses B, C, D, E, F, G:

B. 1. (H_o) : There is no relationship between faculty

membership in discipline and preference to clusters or divisions.

$$H_o : P_1 = P_2$$

2. (H_a) : There is a relationship between faculty membership and preference.

$$H_a : P_1 \neq P_2$$

3. Desired level of significance: $= .05$

4. Chi Square Test is used.

5. $df = 3$ with Chi Square value of 7.815.

C. 1. (H_o) : There is no relationship between faculty with either more or less than fifteen semester hours in education and faculty preference to clusters or division.

$$H_o: P_1 = P_2$$

2. (H_a) : There is a relationship between faculty with either fifteen semester hours in education and preference.

$$H_a : P_1 \neq P_2$$

3. Desired level of significance for supportive hypotheses C, D, E, F, G: $= .05$

4. Chi Square test is used for supportive hypotheses C, D, E, F, G.

5. $df = 1$ with Chi Square value of 3.84.

D. 1. (H_o) : There is no relationship between faculty with either more or less than fifteen semester hours beyond Masters degree and preference.

$$H_o : P_1 = P_2$$

2. (H$_a$) : There is a relationship between faculty with either more or less than fifteen semester hours beyond Masters Degree and preference.

H$_a$: P$_1$ $\neq$ P$_2$

E. 1. (H$_o$) : There is no relationship between faculty with either more or less than three years community college teaching experience and preference.

H$_o$: P$_1$ = P$_2$

2. (H$_a$) : There is a relationship between faculty with either more or less than three years community college teaching experience and preference.

H$_a$: P$_1$ $\neq$ P$_2$

F. 1. (H$_o$) : There is no relationship between faculty with or without secondary school teaching experience and preference.

H$_o$: P$_1$ = P$_2$

2. (H$_a$) : There is a relationship between faculty with or without secondary teaching experience and preference.

H$_a$: P$_1$ $\neq$ P$_2$

G. 1. (H$_o$) : There is no relationship between faculty with or without four year college-university teaching experience and preference.

H$_o$: P$_1$ = P$_2$

2. (H$_a$) : There is a relationship between faculty with

or without four year college-university

teaching experience and preference.

$$H_a : P_1 \not< P_2$$

Secondary Hypotheses H, I, J, K, L

H. 1. (H_o) : There is no difference between the mean

D-Scale scores of faculty with more and less

than fifteen semester hours of education

courses.

$$H_o : P_1 = P_2$$

2. (H_a) : There is a difference between the mean

D-Scale scores of faculty with more and less

than fifteen semester hours of education

courses.

$$H_a : P_1 \not< P_2$$

3. Desired level of significance for secondary

hypotheses H, I, J, K, L: = .05

4. t-test

5. df = 23 and two-tailed with a critical t of 2.069

I. 1. (H_o) : There is no difference between the mean

D-Scale scores of faculty with more and less

than fifteen semester hours beyond the

Masters Degree.

$$H_o : P_1 = P_2$$

2. (H_a) : There is a difference between the mean D-Scale

scores of faculty with more and less than

fifteen semester hours beyond the Masters Degree.

$$H_a : P_1 \neq P_2$$

J. 1. (H_o) : There is no difference between the mean
D-Scale scores of faculty with more and less
than three years community college teaching
experience.

$H_o : P_1 = P_2$

2. (H_a) : There is a difference between the mean D-Scale
scores of faculty with more and less than
three years community college teaching
experience.

$H_a : P_1 \neq P_2$

K. 1. (H_o) : There is no difference between the mean D-Scale
scores of faculty with and without secondary
school teaching experience.

$H_o : P_1 = P_2$

2. (H_a) : There is a difference between the mean D-Scale
scores of faculty with and without secondary
school teaching experience.

$H_a : P_1 \neq P_2$

L. 1. (H_o) : There is no difference between the mean D-Scale
scores of faculty with and without four year
college teaching experience.

$H_o : P_1 = P_2$

2. (H_a) : There is a difference between the mean D-Scale
scores of faculty with and without four year
college teaching experience.

$H_a : P_1 \neq P_2$

23

X. PRESENTATION AND ANALYSIS OF DATA

The results from the two questionnaires and the faculty
academic background inventory were grouped and entered on a
summary sheet to permit ready access. The scores of the D-Scale
questionnaire were ranked in order from high to low as shown in
Table 1 and Figure 1. The scores of the division-cluster
preference questionnaire were ranked from high to low and
separated into two groups at the median (256) resulting in
thirteen faculty being classified as preferring clusters and
twelve faculty classified as preferring divisions. Table 2 and
Figure 2 show the distribution of scores for this questionnaire.

TABLE 1

FREQUENCY DISTRIBUTION OF 25 D-SCALE SCORES

Interval	Frequency
198-208	3
187-197	0
176-186	1
165-175	8
154-164	9
143-153	3
132-142	0
121-131	1
Total	25
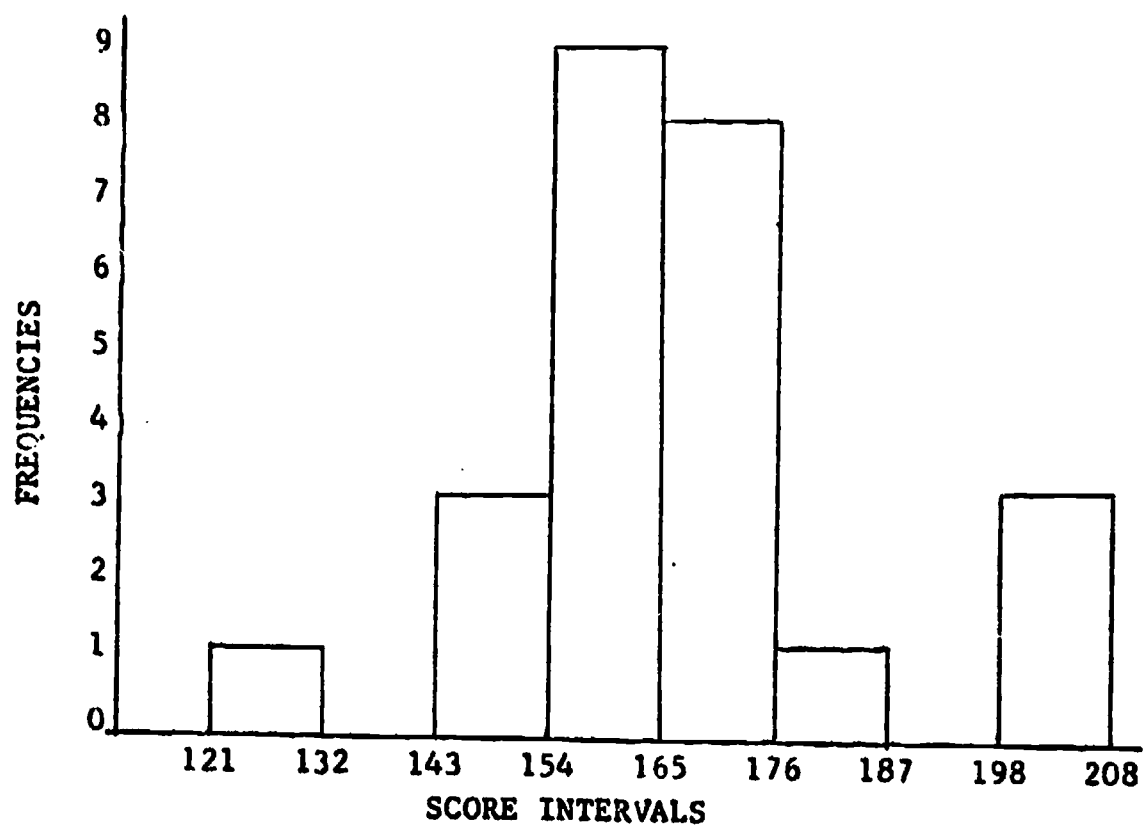
$\bar{X} = 166.64$ S.D. $= 17.67$

Figure 1.   Histogram of 25 D-Scale Scores

TABLE 2

FREQUENCY DISTRIBUTION OF 25 DIVISION-CLUSTER PREFERENCE SCORES

Interval	Frequency.
385-440	3
330-384	4
275-329	3
220-274	6
165-219	6
110-164	1
55-109	2
0-54	1
Total	25
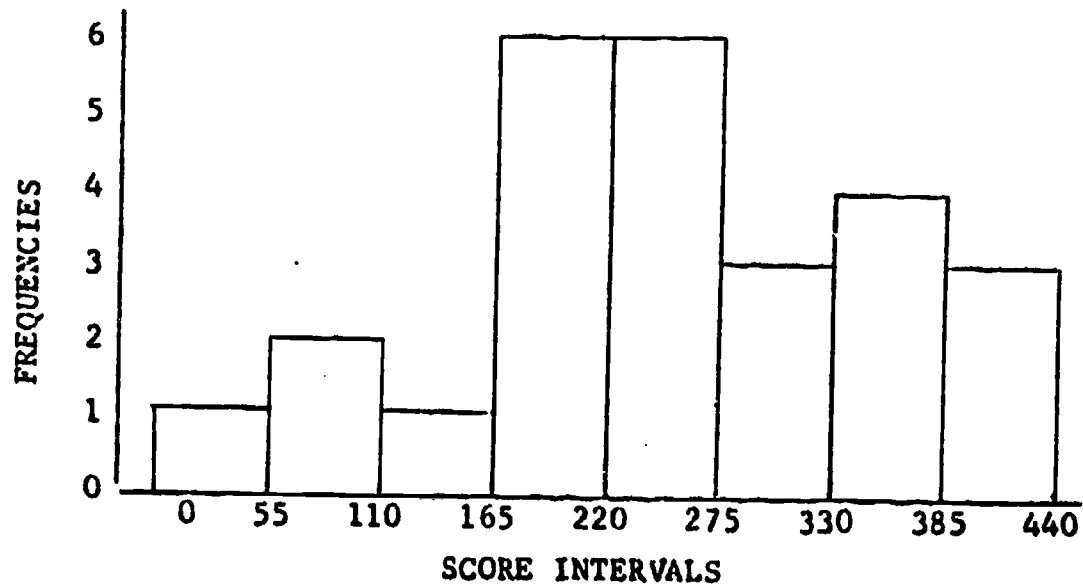
$\bar{X} = 243.8$ Median = 250   S.D. = 101.2

Figure 2.   Histogram of Cluster-Division
Preference Scores

For the relationship of D-Scale score and faculty preference
to clusters or divisions, a null hypothesis of $P_1 = P_2$ was
postulated. As shown in Table 3, a t-ratio of .85 was obtained
and found to be nonsignificant. In view of this finding, the
above null hypothesis was accepted. Therefore, it was concluded
that there is no significant difference between the mean D-Scale
score of faculty preferring cluster organization and the mean
D-Scale score of faculty preferring division organization.

For the relationship of faculty disciplines and cluster or
division preference, a null hypothesis of $P_1 = P_2$ was postulated.
As shown in Table 4, a Chi Square of 11.22 was obtained and
found to be significant at the .02 level of significance. In
view of this finding, the above null hypothesis was rejected.
Therefore, it was concluded that there is a significant
relationship between faculty membership in academic disciplines
and preference to cluster or division organization.

TABLE 3

CALCULATION OF t-RATIO FOR MEAN D-SCALE SCORES
OF FACULTY WITH PREFERENCE FOR
CLUSTER OR DIVISION

	Cluster Preference	Division Preference
n	13	12
Mean	169.54	163.50
S.D.	16.99	18.60
$\bar{X}_1 - \bar{X}_2$	6.04	
t-ratio		.85

For the relationship of faculty with more or less than
fifteen semester hours in education courses and preference to
cluster or divisions, a null hypothesis of $P_1 = P_2$ was postulated.
As shown in Table 5, a Chi Square of .0712 was obtained and
found to be nonsignificant. In view of this finding, the above
null hypothesis was accepted. Therefore, it was concluded that
there is no significant relationship between faculty prepared
with more or less than fifteen semester hours in education
courses and faculty preference to cluster or division organization.

For the relationship of faculty with more or less than
fifteen semester hours beyond the Masters and preference, a
null hypothesis of $P_1 = P_2$ was postulated. As shown in Table 6,
a Chi Square of .3369 was obtained and found to be nonsignificant.
In view of this finding, the above null hypothesis was accepted.

TABLE 4

CALCULATION OF CHI SQUARE FOR CLUSTER AND DIVISION PREFERENCE OF FACULTY WITH MEMBERSHIP IN FOUR DISCIPLINE DIVISIONS

Cell	Observed f_o	Expected f_e	(f_e-f_o)	$(f_e-f_o)^2$	$\dfrac{(f_e-f_o)^2}{f_e}$
Cluster Preference- Math-Science	5	3.12	1.82	3.31	1.06
Division Preference- Math-Science	1	2.88	-1.88	3.53	1.23
Cluster Preference- Social Science	3	2.08	.92	.85	.41
Division Preference- Soci.1 Science	1	1.92	-.92	.85	.44
Cluster Preference- English-Humanities	5	4.16	1.16	1.35	.32
Division Preference- English-Humanities	3	3.84	-.84	.71	.32
Cluster Preference- Business-Career Programs	0	3.64	-3.64	13.25	3.64
Division Preference- Business-Career Programs	7	3.36	3.64	13.25	3.94

$$X^2 = 11.22^*$$

*Significant at the .02 level

TABLE 5

CALCULATION OF CHI SQUARE FOR CLUSTER AND DIVISION PREFERENCE
OF FACULTY WITH MORE OR LESS THAN 15 SEMESTER HOURS
IN EDUCATION COURSES

Cell	Observed f_o	Expected f_e	$f_o - f_e$	$(f_e - f_o)^2$	$\dfrac{(f_e - f_o)^2}{f_e}$
Cluster Preference- Less than 15 hours	5	4.68	.32	.1024	.0219
Cluster Preference- More than 15 hours	8	8.32	-.32	.1024	.0123
Division Preference- Less than 15 hours	4	4.32	-.32	.1024	.0237
Division Preference- More than 15 hours	8	7.68	.32	.1024	.0133

$$x^2 = .0712$$

TABLE 6

CALCULATION OF CHI SQUARE FOR CLUSTER AND DIVISION PREFERENCE
OF FACULTY WITH MORE OR LESS THAN 15 SEMESTER HOURS
BEYOND THE MASTERS

Cell	Observed f_o	Expected f_e	$f_o - f_e$	$(f_o - f_e)^2$	$\dfrac{(f_o - f_e)^2}{f_e}$
Cluster Preference- More than 15 hours	8	7.28	.72	.518	.0712
Cluster-Preference- Less than 15 hours	5	5.72	-.72	.518	.0906
Division Preference- More than 15 hours	6	6.72	-.72	.518	.0771
Division Preference- Less than 15 hours	6	5.28	.72	.518	.0981

$$x^2 = .3369$$

Therefore, it was concluded there is no significant relationship between faculty prepared with more or less than fifteen semester hours beyond the Masters Degree and faculty preference to cluster or division organization.

For the relationship of faculty with more or less than three years of community college teaching and preference, a null hypothesis of $P_1 = P_2$ was postulated. As shown in Table 7, a Chi Square of .3708 was obtained and found to be nonsignificant. In view of this finding, the above null hypothesis was accepted. There fore, it was concluded there is no significant relationship between faculty prepared with more or less than three years community college teaching experience and faculty preference to cluster of division organization.

For the relationship of faculty with or without secondary school teaching and preference, a null hypothesis of $P_1 = P_2$ was postulated. As shown in Table 8, a Chi Square of .6617 was obtained and found to be nonsignificant. In view of this finding, the above null hypothesis was accepted. Therefore, it was concluded there is no significant relationship between faculty prepared with or without secondary school teaching experience and faculty preference to cluster or division organization.

For the relationship of faculty with or without four-year college-university teaching and preference, a null hypothesis of $P_1 = P_2$ was postulated. As shown in Table 9, A Chi Square of .3216 was obtained and found to be nonsignificant. In view of this finding, the above null hypothesis was accepted. Therefore,

TABLE 7

CALCULATION OF CHI SQUARE FOR CLUSTER AND DIVISION PREFERENCE
OF FACULTY WITH MORE OR LESS THAN 3 YEARS
COMMUNITY COLLEGE TEACHING EXPERIENCE

Cell	Observed f_o	Expected f_e	$f_o - f_e$	$(f_o - f_e)^2$	$\dfrac{(f_o - f_e)^2}{f_e}$
Cluster Preference- More than 3 years	6	6.76	-.76	.5776	.0854
Cluster Preference- Less than 3 years	7	6.24	.76	.5776	.0926
Division Preference- More than 3 years	7	6.24	.76	.5776	.0926
Division Preference- Less than 3 years	5	5.76	-.76	.5776	.1003

$$X^2 = .3708$$

32

TABLE 8

CALCULATION OF CHI SQUARE FOR CLUSTER AND DIVISION PREFERENCE OF FACULTY WITH OR WITHOUT SECONDARY SCHOOL TEACHING EXPERIENCE

Cell	Observed f_o	Expected f_e	$f_o - f_e$	$(f_o - f_e)^2$	$\dfrac{(f_o-f_e)^2}{f_e}$
Cluster Preference- With Experience	8	7.28	.72	.5184	.0712
Cluster Preference- Without Experience	5	6.24	-1.24	1.5376	.2464
Division Preference- With Experience	6	6.72	-.72	.5184	.0771
Division Preference- Without Experience	7	5.76	1.24	1.5376	.2669

$$X^2 = .6617$$

33

TABLE 9

CALCULATION OF CHI SQUARE FOR CLUSTER AND DIVISION PREFERENCE
OF FACULTY WITH OR WITHOUT 4 YEAR COLLEGE-UNIVERSITY TEACHING EXPERIENCE

Cell	Observed f_o	Expected f_e	$f_o - f_e$	$(f_o - f_e)^2$	$\dfrac{(f_o - f_e)^2}{f_e}$
Cluster Preference- With Experience	9	8.32	.68	.4624	.0556
Cluster Preference- Without Experience	4	4.68	-.68	.4624	.0988
Division Preference- With Experience	7	7.68	-.68	.4624	.0602
Division Preference- Without Experience	5	4.32	.68	.4624	.1070
				$X^2 = $	.3216

it was concluded there is no significant relationship between faculty prepared with or without four-year college-university teaching experience and preference to cluster or division organization.

For the relationship of mean D-Scale score and education courses, a null hypothesis of $P_1 = P_2$ was postulated. As shown in Table 10, a t-ratio of -.15 was obtained and found to be nonsignificant. In view of this finding the above null hypothesis was accepted. Therefore, it was concluded there is no significant difference between the mean D-Scale score of faculty prepared with more than fifteen semester hours in education courses and the mean D-Scale score of faculty with less than fifteen semester hours in education courses.

TABLE 10

CALCULATION OF t-RATION FOR MEAN D-SCALE SCORES
OF FACULTY WITH MORE OR LESS THAN 15 SEMESTER HOURS
IN EDUCATION COURSES

	More than 15 hours	Less than 15 hours	
n	16	9	
Mean	166.25	167.33	
S.D.	18.33	17.50	
$\bar{X}_1 - \bar{X}_2$	-1.08		
t-ratio			-.15

For the relationship of mean D-Scale score and training

beyond the Masters, a null hypothesis of $P_1 = P_2$ was postulated. As shown in Table 11, a t-ratio of -2.073 was obtained and found to be significant at the .05 level of significance. In view of this finding the above null hypothesis was rejected. Therefore, it was concluded there is a significant difference between the mean D-Scale score of faculty prepared with more than fifteen semester hours beyond the Master's Degree and the mean D-Scale score of faculty prepared with less than fifteen semester hours beyond the Master's Degree.

TABLE 11

CALCULATION OF t-RATIO FOR MEAN D-SCALE SCORES
OF FACULTY WITH MORE OR LESS THAN 15 SEMESTER HOURS
BEYOND MASTERS

	More than 15 hours	Less than 15 hours	
n	14	11	
Mean	160.29	174.74	
S.D.	13.01	20.03	
$\bar{X}_1 - \bar{X}_2$	-14.44		
t-ratio			-2.073*

*significance at .05 level

For the relationship of mean D-Scale score and community college teaching, a null hypothesis of $P_1 = P_2$ was postulated. As shown in Table 12, a t-ratio of .31 was obtained and found to be nonsignificant. In view of this finding, the above null

hypothesis was accepted. Therefore, it was concluded there

is no significant difference between the mean D-Scale score of

faculty prepared with greater than three years community college

teaching experience and the mean D-Scale score of faculty

prepared with less than three years community college teaching

experience.

TABLE 12

CALCULATION OF t-RATIO FOR MEAN D-SCALE SCORES
OF FALCULTY WITH MORE OR LESS THAN 3 YEARS
COMMUNITY COLLEGE TEACHING EXPERIENCE

	More than 3 years	Less than 3 years	
n	13	12	
Mean	167.69	165.50	
S.D.	20.53	14.80	
$\bar{X}_1 - \bar{X}_2$		2.19	
t-ratio			.31

For the relationship of mean D-Scale score and secondary

school teaching, a null-hypothesis of $P_1 = P_2$ was postulated.

As shown in Table 13, a t-ratio of 1.31 was obtained and found

to be nonsignificant. In view of this finding, the above null

hypothesis was accepted. Therefore, it was concluded there is

no significant difference between the mean D-Scale score of

faculty with secondary school teaching experience and the mean

D-Scale score of faculty without secondary school teaching.

TABLE 13

CALCULATION OF t-RATIO FOR MEAN D-SCALE SCORES
OF FACULTY WITH AND WITHOUT
SECONDARY SCHOOL TEACHING EXPERIENCE

	With Experience	Without Experience
n	13	12
Mean	171.08	161.83
S.D.	15.16	19.55
$\bar{X}_1 - \bar{X}_2$	9.25	
t-ratio		1.31

For the relationship of mean D-Scale score and college
teaching, a null hypothesis of $P_1 = P_2$ was postulated. As
shown in Table 14, a t-ratio of -1.48 was obtained and found
to be nonsignificant. In view of this finding, the above
null hypothesis was accepted. Therefore, it was concluded
there is no significant difference between the mean D-Scale
score of faculty prepared with four-year college-university
teaching experience and the mean D-Scale score of faculty prepared
with no four-year college-university teaching experience.

TABLE 14

CALCULATION OF t-RATIO FOR MEAN D-SCALE SCORES
OF FACULTY WITH AND WITHOUT
FOUR YEAR COLLEGE-UNIVERSITY EXPERIENCE

	With Experience	Without Experience
n	16	9
Mean	162.75	173.56
S.D.	16.83	17.93
$\bar{X}_1 - \bar{X}_2$	-10.81	
t-ratio		-1.48

XI. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to determine if there was a
relationship between (1) D-Scale scores and faculty preference to
administrative structure, (2) academic preparation and preference
to administrative structure, and (3) D-Scale scores and academic
preparation.

The twenty-five subjects of this study were all full-time
teaching faculty of the Eastern Campus of Cuyahoga Community
College.

No significant relationship was found to exist between the
mean D-Scale scores of faculty and their preference to cluster or
division organization. No significant relationship was found to
exist between hours in education courses, hours beyond Master's,
community college teaching experience, secondary school teaching

experience, or four-year college-university teaching experience and preference to either cluster or division structure. However, a significant difference was found to exist between faculty of different disciplines and their preference to either cluster or division structure.

No significant relationship was found to exist between the mean D-Scale scores of faculty and hours in education courses or teaching experience in secondary schools, community colleges, and four-year colleges-universities. A significant difference was found to exist between the mean D-Scale scores of faculty with more than fifteen hours and the mean D-Scale score of faculty with less than fifteen hours beyond Master's Degree.

With two exceptions, the results of the study permit the conclusion that there are no relationships between dogmatism and structure preference, academic preparation and preference, and dogmatism and academic preparation. The two notable exceptions are that a relationship exists between (1) dogmatism and hours beyond the Master's, and (2) academic discipline and preference.

In view of the findings it is recommended that such factors types of teaching experience and hours in educational preparation are not valid as criteria for selecting new faculty where the characteristics of open-mindedness and preference to clusters or divisions are desired.

The relationship of faculty of different disciplines to preference to either clusters or divisions should be studied further to determine which discipline areas prefer which type of structure for future organization patterns.

The relationship of dogmatism to hours beyond the Master's should be studied further to determine the direction of the difference. Once this is determined, this relationship could be used as a criterion for selection of faculty who display a higher degree of openness.

BIBLIOGRAPHY

1. Apez, John D., "Prediction of Adult Educators' Attitudes Toward Institutional Changes. Final Report." ERIC Educational Documents Abstracts, 1968, ED 012881, p. 112.

2. Averill, Thomas B., "Educational Participation and Innovativeness," ERIC Educational Documents Abstracts, 1968, ED 015394, p. 648.

3. Brown, Bob Burton, The Experimental Mind in Education, Harper and Row, New York, 1968.

4. Burger, Vernon K., and Donald T. Jelfo, "Design and Implemenatation of a Governance Structure at the Faculty Administrative Interface," unpublished Nova University Practicum Report, 1973.

5. Cohen, Arthur M., A Constant Variable, Jossey-Bass, Inc., San Francisco, 1971.

6. Crespi, Irving, "What Kinds Of Attitude Measures are Predictive of Behavior?" Public Opinion Quarterly, Vol. 35, No. 3, Fall 1971, pp. 327-334.

7. Funk, C. Dennis, "The Relationship Between Dogmatism and Performance as Measures of Problem Solving Ability Among Professional Adult Educators," ERIC Educationl Documents Abstracts, 1968, ED 017850, P. 1160.

8. Hamill, Robert Eugene, "The Effects of Teachers in Four Year Colleges and Universities as Reference Groups for Teachers in Community Colleges," ERIC Educational Documents Abstracts, 1968, ED 017260, p. 1036.

9. Long, Huey Billy, "Relationships Between Conforming Judgement and Employee Rank and Dogmatism in an Employee Group," ERIC Educational Documents Abstracts, 1969, ED 027489, p. 907.

10. Rokeach, Milton, Beliefs, Attitudes, and Values, Jossey-Bass, Inc., San Francisco, 1968.

11. Rokeach, Milton, The Open and Closed Mind, Basic Books, Inc., New York, 1960.

12. Rosenberg, Milton J., and Carl I. Hovland, Attitude Organization and Change, Yale University Press, New Haven, 1960.

13. Shaver, James and Hyrum E. Richards, "Open-Closed Mindedness of College Students in Teacher Education. Final Report," ERIC Educational Documents Abstracts, 1969, ED 026303, p. 739.

14. Shepack, Robert E. "Some Commonalities of Faculty Selection and In-Service Development Techniques as Related to Faculty Operating Behavior," unpublished Dissertation, University of Florida, 1969.