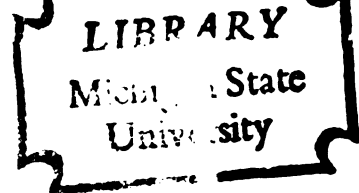
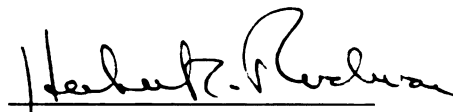


THE ROLE OF DOGMATISM  
IN TEACHER EVALUATION

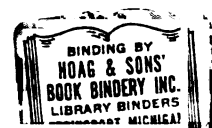
Thesis for the Degree of Ph. D.  
MICHIGAN STATE UNIVERSITY  
S. DAVIS SMITH  
1970



This is to certify that the  
thesis entitled  
The Role of Dogmatism  
in Teacher Evaluation  
presented by  
S. Davis Smith  
has been accepted towards fulfillment  
of the requirements for  
Ph. D. degree in Education  
Administration

  
Major professor

Date November 20, 1970



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## ABSTRACT

### THE ROLE OF DOGMATISM IN TEACHER EVALUATION

By

S. Davis Smith

This study was designed to investigate the relationship of teacher evaluation to dogmatism. The study was limited to beginning elementary teachers without previous experience and elementary principals who had at least one year of experience. The random selection of principals and teachers allowed generalizations to be made to elementary schools in the state of Michigan.

The literature indicated that each individual has his own set of cognitions which include all of his beliefs and attitudes. Perceptions are influenced by a person's belief system which may be open or closed. Central to the concept of dogmatism is the theory of anxiety. Through a structurally closed cognitive system of beliefs and disbeliefs a highly dogmatic person defends himself against anxiety by reliance on authority. The degree of dogmatism of a principal and a teacher may influence the evaluation of the teacher by the principal.



The Rokeach Dogmatism Scale, Short Form E, was used to obtain scores in dogmatism. The instrument was considered both reliable and valid because of its wide use in research. The Grand Rapids Evaluation of Teaching Performance was used to obtain evaluation scores. A jury of experts gave the instrument a reliability rating of .84. Another jury examined the instrument for validity. The weighted over-all average was 2.7 out of a possible 3.

In order to investigate the relationship of dogmatism to evaluation three hypotheses were examined.

The first hypothesis dealt with the relationship of the difference in dogmatism scores between principals and teachers with evaluation scores of the teacher by the principal. Simple correlations were performed on the data. No significant relationship was found.

The second hypothesis examined the relationship between open-mindedness of teachers to principals' evaluation when the absolute values in dogmatism are held constant. Partial correlations were performed on the data. No significant relationship was found.

The third hypothesis investigated the relationship between open-mindedness of principals and the principals' evaluation of the teacher when the absolute values in dogmatism scores are held constant. Partial correlations were performed on the data. No significant relationship was found.

In addition, dogmatism scores between principals and teachers were examined.

The conclusions of the study were:

1. Teacher dogmatism scores are not significantly related to the principal's evaluation of the teacher.
2. Principal dogmatism scores are not significantly related to the principal's evaluation of the teacher.
3. The degree to which the principal and teacher have absolute values in dogmatism scores is not significantly related to the principal's evaluation of the teacher.
4. There is no significant difference, on the average, between principal dogmatism scores and teacher dogmatism scores.

The conclusions of the study imply that dogmatism is not a factor in the evaluation process. Beginning teachers need not be concerned whether or not their own degree of dogmatism is compatible with that of their principal. Principals do not allow their degree of dogmatism to enter into the evaluation of their teachers. Principals also do not allow the degree of dogmatism of their teachers to enter into the evaluation process.

Evaluation in the state of Michigan is entering a new phase. The move, by the Department of Public Instruction for the state of Michigan, to demand classroom accountability, focuses increased attention on the evaluation

process. New instruments will have to be designed which are narrower in scope than the present evaluation instruments typically found in the public schools. These future instruments because of their specificity may reflect the bias of the rater. Future research should be directed to see what relationship exists between instruments, which specifically measure teacher performance, and dogmatism of the rater.

THE ROLE OF DOGMATISM  
IN TEACHER EVALUATION

By

S. Davis Smith

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Special thanks go to the superintendents, principals and teachers throughout the state of Michigan who participated in this study.

I would also like to express my thanks for the sabbatical leave granted me by the Port Huron Area School District.

The assistance of my wife, Catharine, and children, Scott, Grant, Sally and Price, which led to the completion of this study, will be remembered.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS . . . . .	iii
LIST OF TABLES . . . . .	vi
LIST OF APPENDICES . . . . .	viii
Chapter	
I. INTRODUCTION . . . . .	1
The Problem . . . . .	1
A Rationale . . . . .	2
Hypotheses . . . . .	4
Definition of Terms . . . . .	5
Assumptions . . . . .	9
Limitations of the Study . . . . .	9
Significance Level . . . . .	16
Overview . . . . .	17
II. REVIEW OF THE LITERATURE . . . . .	18
Theory of Dogmatism . . . . .	18
Empirical Studies . . . . .	24
Cognition . . . . .	24
Personality . . . . .	25
Anxiety . . . . .	28
Dissonance . . . . .	31
Values . . . . .	33
Adaptability . . . . .	35
Authority . . . . .	42
Perception . . . . .	48
Performance . . . . .	55
Summary . . . . .	64
III. DESIGN OF THE STUDY . . . . .	65
Identifying the Population . . . . .	65
Instrumentation . . . . .	76
Sample . . . . .	77



	Page
Initial Steps in Data Processing . . . . .	78
Statistical Hypotheses of the Study . . . . .	78
Statistical Tests . . . . .	80
Significance Level . . . . .	81
Summary . . . . .	81
IV. ANALYSIS OF THE DATA . . . . .	83
Introduction . . . . .	83
Examination of Dogmatism Scores . . . . .	85
Results Obtained From Testing the Hypotheses . . . . .	87
Summary . . . . .	94
V. SUMMARY AND CONCLUSIONS . . . . .	97
Overview of the Study . . . . .	97
Conclusions . . . . .	103
Implications . . . . .	104
Suggestions for Future Research . . . . .	106
APPENDICES . . . . .	110
BIBLIOGRAPHY . . . . .	161

## LIST OF TABLES

Table	Page
1.1 Reliability of the Teacher Evaluation Form As Rated By Jury . . . . .	12
1.2 Validity of the Teacher Evaluation Form as Rated by Jury . . . . .	14
3.1 Superintendent Permission Returns . . . . .	66
3.2 Requests to Superintendents . . . . .	66
3.3 Principal Returns . . . . .	69
3.4 Distribution of Response to the Mailed Request for Principal Participation in the Study . . . . .	69
3.5 Principal-Teacher Questionnaire Returns . . .	71
3.6 Principal-Teacher Paired Percentages for Sample and Mail Returns . . . . .	72
3.7 Mailing Schedule . . . . .	73
3.8 Postcard Follow-Up Response . . . . .	74
4.1 Difference of Means and Correlation Between Principal and Teacher Dogmatism Scores . . . . .	86
4.2 Scatter Diagram for Correlation of Dogmatism Scores Between Principal and Teacher . . . . .	87
4.3 Correlation Between the Absolute Values of the Difference in Principal-Teacher Dogmatism Scores and the Principal's Evaluation of the Teacher . . . . .	88

Table	Page
4.4 Scatter Diagram for the Correlation Between the Absolute Values of the Difference in Principal-Teacher Dogmatism Scores and the Principal's Evaluation of the Teacher . . . . .	89
4.5 Correlation Between Open-Mindedness of Teachers and Principal's Evaluation: Absolute Values of the Difference in Their Dogmatism Scores Held Constant . . . .	90
4.6 Correlations Between Open-Mindedness of Principals and Their Evaluation of Teachers: Absolute Values of the Difference in Dogmatism Scores Between Principal and Teacher Held Constant . . . . .	91
4.7 Correlations Between Cluster Evaluations and (A) Principal Dogmatism Scores (B) Teacher Dogmatism Scores and (C) Absolute Values of the Difference in Dogmatism Scores Between Principal and Teacher . . .	92
4.8 Correlations Between Open-Mindedness and Cluster Evaluations With Absolute Values of the Difference in Dogmatism Scores Between Principal and Teacher Partialed Out . . . . .	93

## LIST OF APPENDICES

Appendix	Page
A	Raw Scores of Jury to Establish Validity: Teacher Evaluation Form . . . . 112
	Reliability Ratings: Teacher Evaluation Form . . . . . 122
	Reliability Ratings for Clusters: Teacher Evaluation Form
	I. Personal Qualifications . . . . . 123
	II. Teacher-Pupil Relationships . . . . . 124
	III. Teaching Ability . . . . . 125
	IV. Professional Rights and Responsibilities . . . . . 126
B	Form Letters . . . . . 129
	Personal Opinion Questionnaire . . . . . 135
	Teacher Evaluation Form . . . . . 138
C	Scatter Diagrams . . . . . 153
D	Letter of Permission . . . . . 160

## CHAPTER I

### Introduction

#### The Problem

Teacher evaluation has been viewed by principals and teachers as a method to improve instruction.<sup>1</sup> The concern of educators for this responsibility is evident by the large number of articles which have been published about the measurement and prediction of teaching efficiency.<sup>2</sup> Critics of the principalship question the reliability of evaluation which they contend centers on subjectivity inherent in the evaluator.<sup>3</sup> This point of view was amplified by Kerlinger,<sup>4</sup> "One thing would seem clear. We cannot solve the effectiveness problem by ignoring the judge who judges the effectiveness of teachers".

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<sup>1</sup>"Evaluation of Classroom Teachers," Research Report, 1964-R14, Research Division - National Education Association.

<sup>2</sup>A. S. Barr, "The Measurement and Prediction of Teaching Efficiency: A Summary of Investigations," Journal of Experimental Education, XVI (June, 1948), p. 203.

<sup>3</sup>Merit Rating: Dangerous Mirage or Master Plan, Chicago, American Federation of Teachers, 1958, p. 16.

<sup>4</sup>Fred N. Kerlinger, "Educational Attitudes and Perceptions of Teachers: Suggestions for Teacher Effectiveness Research," The School Review, LXXI (Spring, 1963), p. 1.

The Association for Supervision and Curriculum Development<sup>5</sup> has taken a similar position to the problem of bias within the evaluator. "The point of view and concepts of the rater constitute the basis for determining the rating assigned." In other words, attitudes and cognition are some of the components which influence evaluation. But attitudes and cognition are not unique to the rater. The person being evaluated also has similar traits which may or may not have an effect on the perceived performance. The purpose of this research, then, is to investigate the relationship of teacher-principal attitudes and perceptions, equated in terms of dogmatism, to the principal's evaluation of the teacher.

#### A Rationale

If, indeed, teacher evaluation is influenced by attitudes and cognition, some discussion to this point is warranted. Lindesmith and Straus<sup>6</sup> have theorized that cognitions include beliefs and attitudes.

Each individual has his own set of cognitions which include all of his beliefs and attitudes concerning the nature of the world, his society, the group to which he belongs, other people and himself, and his own actions.

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<sup>5</sup>Robert R. Leeper, (ed.), Better Than Rating: New Approaches to Appraisal of Teaching Services (Washington, D.C.: Association for Supervision and Curriculum Development, 1950), p. 39.

<sup>6</sup>Alfred R. Lindesmith and Anselm Straus, Social Psychology (New York: Holt, Rinehart and Winston, 1968), p. 55.

The concept of the individual having a cognitive belief system was amplified by Rokeach<sup>7</sup> who investigated this area extensively. Rokeach considered that thought and belief are unified as one. The perceptions of principals as well as teachers, then, should be influenced by their belief system which may range from open to closed. The degree of open- and closed-mindedness can be equated in terms of dogmatism. Whether a person is low or high in dogmatism will profoundly influence the individual's attitudes and perceptions.<sup>8</sup>

Kirscht<sup>9</sup> has pointed out that anxiety is a central concept in the theory of dogmatism. "Dogmatism and anxiety are part of a single psychological factor." Through a structurally closed (cognitive) system of beliefs and disbeliefs, the highly dogmatic person defends himself against anxiety by reliance on authority. This infers that highly dogmatic people have high anxiety and assume dogmatic (cognitive) posture by reliance on authority as a defense against the perceived threat.<sup>10</sup> On the other hand, low dogmatic

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<sup>7</sup>Milton Rokeach, "On the Unity of Thought and Belief," Journal of Personality, XXV, 1956, pp. 224-250.

<sup>8</sup>Milton M. Rokeach, The Open and Closed Mind (New York: Basic Books, Inc., 1960), pp. 16-18.

<sup>9</sup>John P. Kirscht and Ronald C. Dillehay, Dimension of Authoritarianism: A Review of Research and Theory (Lexington: University of Kentucky Press, 1967), p. 49.

<sup>10</sup>Ibid., p. 46.

people have low anxiety and assume low dogmatic (cognitive) postures. They need to rely less on authority and are more receptive to new ideas.

Anxiety influences a person's perception which influences behavior. The implication toward the evaluation process becomes apparent. If the teacher is dogmatic and perceives the principal as a threat, her teaching behavior and resultant evaluation may be affected. Yet what relationship will a low dogmatic teacher have to a closed-minded principal? Will the principal perceive the teacher as a threat with a resultant low evaluation? Just what relationship does mind set or dogmatism play in the principal's evaluation of the teacher? It is to examine these questions that the thrust of this dissertation will be directed.

### Hypotheses

#### Hypothesis I

The greater the absolute values of the difference in dogmatism scores, as obtained from the Rokeach Dogmatism Scale, between principals and teachers, the lower the evaluation as rated by the principal using the Grand Rapids Evaluation of Teaching Performance instrument.

#### Hypothesis II

The effect of Hypothesis I will be further modified by the tendency of open-minded teachers to get higher evaluations than closed-minded teachers where absolute values of the difference in their dogmatism scores are held constant.



### Hypothesis III

The effect of Hypothesis I will be further modified by the tendency of open-minded principals to give higher evaluations to teachers than closed-minded principals where absolute values of the difference in their dogmatism scores are held constant.

### Definition of Terms

The following are definitions of terms used in this study:

Absolute values of the difference in dogmatism scores are the results obtained by the subtraction of the principal dogmatism scores from teacher dogmatism scores or by the subtraction of teacher dogmatism scores from principal dogmatism scores.

Anxiety is a central concept in the theory of dogmatism with highly dogmatic people more anxious or more vulnerable to anxiety. (Dogmatism and anxiety are part of a single psychological factor.)<sup>11</sup>

Attitudes are a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner.<sup>12</sup>

Belief-disbelief system is conceived as a psychological system to include all sets, expectancies, or hypotheses,

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<sup>11</sup>Kirscht and Dillehay, Authoritarianism, p. 49.

<sup>12</sup>Milton Rokeach, Beliefs, Attitudes and Values (San Francisco: Jossey-Bass, Inc.), p. 112.

conscious and unconscious, that a person may have built up about the world one lives in. All reality is funneled through this system.<sup>13</sup>

Relatively closed belief-disbelief systems are assumed as having a high degree of isolation of the various parts within and between belief and disbelief systems; a greater discrepancy in the degree of differentiation of the belief system as compared with any of the disbelief sub-systems; a relatively greater degree of differentiation of the various disbelief sub-systems with respect to each other; a relatively greater degree of communication between centrally-located beliefs perceived to emanate from such authority; a relatively lower degree of communication (greater isolation) among peripheral beliefs; and a relatively narrower time perspective.<sup>14</sup>

Building climate is the pressures, biases, and esprit de corps, built up over a period of time, exerted by the principal and staff which pervades the social and working conditions within the building.

Cluster scores refer to the sub-scores of the Grand Rapids Evaluation of Teaching Performance instrument. They

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<sup>13</sup>Milton Rokeach, The Open and Closed Mind, p. 33.

<sup>14</sup>Ibid., p. 50.

are specifically: I - Personal Qualifications, II - Teacher-Pupil Relationships, III - Teaching Ability, IV - Professional Relationships and Responsibilities.

Cognition is the organization of thought including the allied cognitive processes of perception and memory.<sup>15</sup>

Dogmatism is (a) a relatively closed cognitive or organization of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority, which, in turn, (c) provide a framework for patterns of intolerance and qualified tolerance toward others.<sup>16</sup>

Evaluation is that process by which one determines how well a given teacher is achieving recognized qualities or educational purposes.<sup>17</sup>

Open- and closed-mindedness is the extent to which a person can receive, evaluate, and act on relevant information received from the outside on its own merits, unencumbered by irrelevant factors in the situation arising from within the person or from the outside.

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<sup>15</sup>Rokeach, On the Unity of Thought and Belief, p. 225.

<sup>16</sup>Milton Rokeach, "Political and Religious Dogmatism: An Alternative to Authoritarian Personality," Psychological Monographs: General and Applied. LXX, No. 18, p. 425 (1956), p. 3.

<sup>17</sup>Richard P. Klahn, (ed.), Evaluation of Teacher Competency (Milwaukee: Franklin Publishers, Incorporated, 1965), p. 6.

The fundamental basis for a distinction between open and closed systems is predicated upon the cognitive functioning of the individual involving specifically his ability (or inability) to discriminate substantive information from information about the source and to assess the two separately.<sup>18</sup>

Perceptions can be defined as a unique and individual sensory construct or awareness of mind of a human being; i.e. (1) how an individual sees himself, (2) how he sees the situation in which he is involved and (3) the interrelation of these two."<sup>19</sup>

Personal Opinion Questionnaire is the name used for the Rokeach Dogmatism Scale, Short Form E, found in this study.

Principal is the administrator of an elementary school (grades K-8) who is responsible for the evaluation of teachers. He has had one full year administrative experience. His present school has a population of at least 200 pupils.

Teacher is a first year instructor of an elementary school (grades K-8) having no previous professional experience including full time substitution. The teacher must

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<sup>18</sup>Rokeach, The Open and Closed Mind, p. 57.

<sup>19</sup>Arthur W. Combs, The Professional Education of Teachers: A Perceptual View of Teacher Preparation (Boston: Allyn and Bacon, Incorporated, 1965), p. 12.

have taught for the same principal commencing work on or before the fourth Friday of September, 1969, until the time of evaluation.

Teacher Evaluation Form refers to the Grand Rapids Evaluation of Teaching Performance instrument.

#### Assumptions

In the consideration of the problem of reliability for a teacher rating instrument, the selection fell on the Grand Rapids Public Schools' Evaluation of Teaching Performance, hereafter called the Teacher Evaluation Form. To give further strength for this choice, this instrument was submitted to a jury, composed of one principal and two intern consultants, who evaluated four intern or beginning teachers. The evaluation was done on an individual basis ensuring independence. The inclusion of interns on the jury may lessen the strength of its findings inasmuch as the instrument in the study was used by principals only. However, it was felt that the makeup of the jury was reasonable because each evaluator knew of the work of the intern, and each had evaluation experience.

#### Limitations of the Study

This study addressed itself to finding the relationship of dogmatism to teacher evaluation as perceived by the principal. There are many other personality variables such as abasement, succorance, aggressiveness, and dominance which may affect the relationship of principal with teacher.

However, attention of this research focused on a generalized personality trait, namely, that of dogmatism. Therefore, this study was limited to the relationship of dogmatism scores of the principal and teacher to the evaluation of the teacher as perceived by the principal.

This study is limited to those individuals who wished to respond to mailed questionnaires. This fact, although listed as a limitation, enhances the study because of the voluntary participation of its respondents. It does not include teachers who had left teaching during the 1969-70 school year.

Generalizations from this study, because of the randomization techniques used, may be made to elementary public schools in the state of Michigan<sup>20</sup> with a population over 200 pupils, and specifically to principals with at least one full year of experience and first year teachers without previous full time experience.

It was felt that by limiting the population to beginning teachers, the effect of building climate would be reduced, resulting in more accurate teacher dogmatism scores. Although this is listed as a limitation, in reality it strengthens the study.

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<sup>20</sup>Michigan Education Directory and Buyer's Guide, 1968-69, Michigan Education Directory, Lansing, Michigan.

The sex and age of the population of principals and teachers have not been considered as variables in this study.

A further limitation was that the correlation statistics employed in the analysis of the data used in this study do not necessarily mean causation.

The raters were given the Teacher Evaluation Form and asked to record their responses by checking appropriate numerical values on a Likert Scale where Superior was assigned 4 points, Good - 3 points, Fair - 2 points, and Unsatisfactory - one point.

The scores were analyzed by analysis of variance technique.<sup>21</sup> The ratings in this study are based on individual assessment of performance rather than on group assessment. This allowed "between-rater variance" to be computed. The reliability of the ratings was found to be .84 as indicated by the following rating table. Thus it can be assumed that the Teacher Evaluation Form instrument used in this study has intra-rater reliability. (See Table 1.1)

The cluster areas of the Teacher Evaluation Form were further examined for reliability ratings. It was anticipated that scores of the sub-groups in some instances

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<sup>21</sup>William A. Mehrens and Robert L. Ebel, (eds.), Principles of Educational and Psychological Measurement (Chicago: Rand McNally and Company, 1967), pp. 120-21.

would be lower than the over-all reliability rating because of the smaller numbers of questions involved. The results from the analysis of the data indicated that the reliability coefficients for cluster I - Personal Qualifications - was .52; for cluster II - Teacher-Pupil Relationship - was .83; for cluster III - Teaching Ability - was .50; and for cluster IV - Professional Relationships and Responsibilities - was .40. (See Table 1.1)

The following table lists the reliability coefficients for each cluster as well as the complete instrument as developed from the ratings by the jury. The computations for the reliability coefficients are included in Appendix A, pages 121-26 together with an example of the Teacher Evaluation Form in Appendix B, pages 135-36.

Table 1.1--Reliability of the Teacher Evaluation Form as Rated by Jury

Clusters	No. of Questions per Cluster	Coefficient
I. Personal Qualifications	9	.52
II. Teacher-Pupil Relationship	3	.83
III. Teaching Ability	8	.50
IV. Professional Relationships and Responsibilities	5	.40
Total Number of Questions	<u>25</u>	
Over-all Reliability		.84



Continuing to examine the appropriateness of the rating instrument, attention turned to validity. Does the instrument measure what it purports to measure? Again, the fact that the Grand Rapids School District had used the instrument for some years to evaluate teachers gave support to the assumption that the instrument was valid. Nevertheless, the instrument was submitted to a jury of experts to determine its validity. Questions were retained if two-thirds of the jury rated each item at least two out of a possible three on a Likert Scale.<sup>22</sup> The jury of sixteen was composed of:

- |                  |                       |
|------------------|-----------------------|
| (a) 4 teachers   | (c) 2 superintendents |
| (b) 8 principals | (d) 2 professors.     |

The jury was asked to judge the relevancy of each item using a Likert Scale with the following values:

Highly relevant 3; Somewhat relevant 2;

Irrelevant 1.

The findings of the jury may be found in Table 1.2. Raw scores and computations are found in Appendix A, page 115.

The jury found the over-all validity of the instrument to be 2.7 out of a possible 3 points. This, plus the fact that the instrument is used in the Grand Rapids School

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<sup>22</sup>H. H. Remmers, "Rating Methods in Research on Teaching," Handbook of Educational Research, N. L. Gage, Ed. (Chicago: Rand McNally and Company, 1963).

Table 1.2--Validity of the Teacher Evaluation Form as  
Rated by Jury

Clusters	No. of Questions per Cluster	Average* Rating
I. Personal Qualifications	9	2.7
II. Teacher-Pupil Relationship	3	2.8
III. Teaching Ability	8	2.6
IV. Professional Relationships and Responsibilities	5	2.6
Totals	<u>25</u>	<u>10.7</u>

Over-all Validity

$$\frac{9(2.7) + 3(2.8) + 8(2.6) + 5(2.6)}{25} = \frac{66.5}{25} = 2.7$$

---

\*Clusters which received 2 or better by two-thirds of the jury were included in the instrument.

District, lent support to the belief that the instrument was valid. The cluster ratings also were individually rated valid according to the decision, as suggested by Remmers,<sup>23</sup> to include clusters which received a rating of at least 2 by two-thirds of the jury.

Therefore, on the basis of its past use in the Grand Rapids School District, as well as on the judgment of the jury indicating the instrument had rater reliability and was valid, the Teacher Evaluation Form was deemed a satisfactory teacher rating instrument to be used by elementary principals in this study.

There is strong reason to believe that evaluation is a responsibility assumed generally by elementary school principals throughout the state of Michigan. It therefore seems reasonable to expect that the principals would be able to use the same expertise in the completion of the Evaluation Instrument.

It was assumed that principals who participated in the study were responsible for schools whose population was 200 or over.<sup>24</sup> This assumption precludes the inclusion of head teachers or senior teachers who may also evaluate.

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<sup>23</sup>Ibid.

<sup>24</sup>Michigan Education Directory and Buyer's Guide, 1968-69.

The result was to narrow the population of principals which in turn should permit clearer interpretation of the data.

The participation in the study was of a voluntary nature. It seems reasonable to assume that principals and teachers who returned completed questionnaires did so sincerely and truthfully and that repeated measurement would produce the same response.

The use of the Rokeach Dogmatism Scale is assumed to be an adequate general measure of dogmatism on the basis of its general use. Although the reliability coefficient established for the Short Form E, (.79)<sup>25</sup>, was for another population, it nevertheless gave added strength in the selection of an instrument to obtain measures of dogmatism from principals and teachers.

#### Significance Level

The level of significance for rejection of hypotheses for this study was chosen at the .05 level. If the probability was at or less than five times in one hundred that the observed difference, or greater, could have occurred by chance, then the hypothesis was rejected. If the probability of chance occurrence exceeded more than five times in one hundred, the null hypothesis of no relationship was accepted.

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<sup>25</sup>Verling C. Troidahl and Frederick A. Powell, "A Short Form Dogmatism Scale for Use in Field Studies," Social Forces, XLIV, No. 2 (December, 1965), pp. 211-14.

### Overview

In this study the relationship between dogmatism scores of teachers and principals and evaluation of teachers by principals has been explored. The results of this study may assist in the improvement of instruction.

In Chapter I a rationale is established. In Chapter II, the literature which is relevant to this study is reviewed. In Chapter III, the design is presented, including the sample, the instrumentation, and the analysis technique. The results of the analysis of the data are presented in Chapter IV, and the summary and conclusion of the study appear in Chapter V.

## CHAPTER II

### REVIEW OF THE LITERATURE

The review of the literature was divided into two parts. The first dealt with the theory of dogmatism which provided the general background for this study. The second section provided an overview of the research which has been conducted in the area of dogmatism. It dealt specifically with cognition, personality, anxiety, dissonance, values, adaptability, authority, perception and performance.

It was felt that while evaluation was certainly important to this study, the review of the literature should not be directed toward establishing its legitimacy. Rather evaluation should be considered within the framework of dogmatism. Although generalities can be drawn about dogmatism and its effect on evaluation within the literature in the second part of the review, specific reference is made in the last section under performance.

#### Theory of Dogmatism

The research in the area of mind-set gained impetus with the investigation by Adorno Frankel-Brunswick, Levinson

and Sanford<sup>1</sup> into anti-Semitism dramatized by the events in Nazi Germany which led to World War II. This study was enlarged to encompass ethnic centrism culminating in the design and use of the F-Scale, a test which focused on fascism in the authoritarian personality.

Rokeach<sup>2</sup> reasoned that the F-Scale dealing with personality measured authoritarianism but was limited to the right side of a continuum of general authoritarianism.

What is needed is therefore a deliberate turning away from a concern with the one or two kinds of authoritarianism that may happen to be predominant at a given time. Instead we should pursue a more theoretical analysis of the properties held in common by all forms of authoritarianism regardless of specific ideological, theological, philosophic or specific content.<sup>3</sup>

Rokeach theorized that in order to understand a person's general authoritarianism it would be necessary to understand what a person believes. The discrepancy between what is said and the way it is said is a discrepancy between content and structure. According to Rokeach, a belief system represents "all the beliefs, sets, expectancies or hypotheses, conscious and unconscious, that a person at a given time accepts as true of the world he lives in".<sup>4</sup>

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<sup>1</sup>T. W. Adorno, Else Frenkel-Brunswick, Daniel J. Levinson and R. Nevitt Sanford, The Authoritarian Personality (New York: Harper and Row, Incorporated, 1950).

<sup>2</sup>Milton Rokeach, The Open and Closed Mind (New York: Basic Books, Inc., 1960), p. 13.

<sup>3</sup>Ibid., p. 14.

<sup>4</sup>Ibid., p. 33.

This belief may be located on a point along a continuum that extends from closed to open. Whether or not a person is closed or open is defined as "the extent 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".<sup>5</sup> In other words, a person is closed-minded if he cannot distinguish what is being said from the person who is saying it.

The belief system of an individual is possible because of his cognitive structure. What one knows, one believes. Lindesmith and Straus explored this area.<sup>6</sup>

Each individual has his own set of cognitions which include all of his beliefs and attitudes concerning the nature of his world, his society, the group to which he belongs, other people and himself, and his own actions.

The perceptions of principals and teachers, then, should be influenced by their belief system which may be open or closed. Whether a person is low or high in dogmatism will profoundly influence the individual's attitudes, perceptions, and behavior.<sup>7</sup>

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<sup>5</sup>Ibid., p. 57.

<sup>6</sup>Alfred Lindesmith, and Anselm L. Straus, Social Psychology (New York: Holt, Rinehart and Winston, 1968), p. 55.

<sup>7</sup>William W. Lambert and Wallace E. Lambert, Social Psychology (Englewood Cliffs, New Jersey: Prentice-Hall Incorporated, 1964), p. 54.



Kirscht has pointed out that anxiety is a central concept in the theory of dogmatism. "Dogmatism and anxiety are part of a single psychological factor."<sup>8</sup> Through a structurally closed (cognitive) system of beliefs and disbeliefs, the highly dogmatic person defends himself against the perceived threat.<sup>9</sup> Whereas with a structurally open (cognitive) system of beliefs and disbeliefs, the person low in dogmatism is more open-minded, relies less on authority and is more receptive to new ideas.

Dogmatism, then, is a generalized personality trait. Its attributes include such characteristics as unwillingness to examine new evidence after an opinion is formed; resistance to suspending judgment until sufficient evidence is available; a tendency summarily to dismiss evidence or arguments in conflict with one's belief; a tendency to view controversial issues in terms of blacks and whites; a tendency to form strong beliefs, highly resistant to change, on the basis of equivocal evidence; a tendency to reject other persons because of their beliefs; a tendency to isolate contradictory beliefs in logic-tight compartments; and intolerance for ambiguity (a need for early, typically

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<sup>8</sup>John P. Kirscht and Ronald C. Dillehay, Dimension of Authoritarianism: A Review of Research and Theory (Lexington: University of Kentucky Press, 1967), p. 49.

<sup>9</sup>Ibid., p. 46.

premature, closure in reaching conclusions about complex issues).<sup>10</sup> It is not difficult to understand why these tendencies can impair ability to learn new ideas contrary to existing beliefs. A person who manifests them fails to learn such ideas adequately because he may not even be willing to read or listen to them carefully and attentively, because he makes little or no effort to understand or reconcile them with existing beliefs, or because he selectively misunderstands, distorts, discounts, or reverses their implications in accordance with his bias.

A highly dogmatic individual may appear open-minded when the information with which he is dealing is new, i.e. he appears open-minded when there is no pre-cognition relative to the area of learning. Thus a highly dogmatic person may readily learn, within the limitations of his intelligence, an entirely new field. However, once attitudes are formed within the newly acquired cognitive base, the highly dogmatic person tends to reject out-of-hand information which is contrary to his newly formed belief system.<sup>11</sup>

A number of questions arise when the theory of dogmatism is applied to a school situation. If a teacher is

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<sup>10</sup>David P. Ausubel and Amy G. Tenzer, "Components of an Neutralizing Factors in the Effects of Closed-Mindedness on the Learning of Controversial Material," American Educational Research Journal, VII, 2 (March, 1970), pp. 267-73.

<sup>11</sup>Rokeach, Open and Closed Mind, p. 242.

dogmatic and perceives the principal as a threat, will the subsequent anxiety be reflected in teaching performance? Further consideration of dogmatism and performance leads to an additional question concerning the principal. If the principal is dogmatic and perceives the teacher as a threat, will this perception have a bearing on his evaluation of her teaching?

These questions arise from the theoretical data of the several authors referred to above. A look at empirical studies may help to perceive more clearly the effect dogmatism has on the principal's evaluation of teacher performance. It has previously been noted that dogmatism is a generalized personality trait with anxiety as a part of a single psychological factor. Each individual operates through a structurally closed cognitive system of beliefs and disbeliefs which influence his attitudes, perceptions and behavior. The evaluation of a teacher may be influenced by these same personality traits, i.e., attitudes, perceptions and behavior, factors which themselves are influenced by the degree of dogmatism held by the individual. The purpose, then, of this review of literature will be to indicate the research on the relationship dogmatism has to a belief-disbelief system, the latter being partitioned into sub-classifications, i.e. (1) cognition, personality, anxiety (2) dissonance, values, adaptability, and (3) authority, perception and performance.

## Empirical Studies

### Cognition

The effect dogmatism has on cognition has interested a number of investigators. Relative to the current controversy over accountability in education as well as its effect on teaching performance in the classroom, it may be well to examine this basic area to education. Ehrlich<sup>12</sup> found in a study that highly dogmatic persons learn less in the classroom situation than the low dogmatic. He used the Rokeach Dogmatism Scale twice and achieved a correlation of .73. Replication five years later confirmed his original findings.

Kemp<sup>13</sup> also supported the concept that high dogmatists learn less. Students who were highly dogmatic had difficulty in critical thinking in mathematics and science. Kemp and Kohler<sup>14</sup> found significant differences in high and low dogmatic students in high school.

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<sup>12</sup>Howard J. Ehrlich and Dorothy Lee, "Dogmatism, Learning, and Resistance to Change: A Review and a New Paradigm," Psychological Bulletin, LXXI (April, 1969), pp. 249-60.

<sup>13</sup>C. Gratton Kemp, "Effect of Dogmatism on Critical Thinking," School, Science and Mathematics, LX (1960), pp. 314-19.

<sup>14</sup>C. Gratton Kemp and Edward W. Kohler, "Suitability of the Rokeach Dogmatism Scale for High School Students," Journal of Experimental Education, XXXIII (1965), 383-85.

The fact that highly dogmatic persons may learn less and have difficulty in critical thinking in mathematics and science may have a relationship to the evaluation process inasmuch as the evaluator may also perceive the individual having problems in the cognitive area.

### Personality

The leadership role an individual has with a group is dependent on his personality needs. A person, for instance, who has high needs in succorance, deference, and nurturance and low needs in exhibition, achievement, dominance and aggression, may well lack leadership qualities. An examination of some of the studies reported in the literature will help to understand the relationship personality plays in the principal's evaluation of the teacher.

Poland<sup>16</sup> administered the Rokeach Dogmatism Scale to 390 women students in a college introductory psychology course. The criterion determining the cutting scores for open- and closed-mindedness was scores at least one standard deviation above or below the mean of the total distribution. The significance of the difference between the correlation for the open and closed groups was determined by obtaining

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<sup>15</sup>William Poland, "An Exploration of the Relationships Between Self-Estimated and Measured Personality Characteristics in the Open and Closed Mind," (unpublished doctoral dissertation, Ohio State University, 1963), p. 70.

z scores through the use of the z transformation. Results revealed that the open-minded group scored significantly higher on Autonomy and Dominance Scales of the Edwards Personal Preference Schedule, while the closed-minded group scored significantly higher on succorance, abasement and nurturance. Guba and Jackson<sup>16</sup>, using a sample of 27 male and 196 female elementary school teachers, tested for personality needs. It was found that males were significantly lower in deference but higher in heterosexuality than were females.

In a study by Doyle<sup>17</sup> teachers were inclined to see themselves in harmony with the administrator. As the beliefs by the teacher were compared with the expectation they defined for the administrator, a value for r rank of .937 was secured. Plant, et al.,<sup>18</sup> compared high dogmatists

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<sup>16</sup>Egan G. Guba and Philip W. Jackson, "The Need Structure of In-Service Teachers, An Occupational Analysis," School Review, LXV (Summer, 1957), pp. 176-92.

<sup>17</sup>Louis Andrew Doyle, "A Study of the Expectancies Which Elementary Teachers, School Administrators, Board Members and Parents Have of the Elementary Teachers' Roles," (unpublished Ph.D. dissertation, University of Agriculture and Applied Science, East Lansing, 1956), p. 135.

<sup>18</sup>Walter T. Plant, Charles W. Telford, and Joseph A. Thomas, "Some Personality Differences Between Dogmatic and Non-Dogmatic Groups," Journal of Social Psychology, LXVII (1965), pp. 65-67.

and low dogmatists on the Allport, Vernon, Lindzey Study of Values and five scales of the California Psychological Inventory: Sociability, Self-Control, Achievement via Independence, Intellectual Efficiency, and Responsibility. Results were that high dogmatists were psychologically immature and characterized as being impulsive, defensive and stereotyped in their thinking, whereas the low dogmatists were described as being outgoing and enterprising, calm, mature and forceful, efficient and clear thinking, responsible and more likely to succeed in an academic setting. Johnson<sup>19</sup> found that personality of raters may be just as important in the measurement of success as that of the student teacher. In the final analysis, definitions of successful student teaching depended upon the student teacher, the supervisor and the situation.

An individual, then, has a degree of dogmatism which is related to personality variables which may affect those with whom he associates. Implications of this statement may have a relationship to the performance of principal and teacher.

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<sup>19</sup>James S. Johnson, "The Relationship of Open- and Closed-Mindedness to Success in Student Teaching," (unpublished Ph.D. dissertation, George Peabody College for Teachers, June, 1966), p. 28.

### Anxiety

Perhaps the most performance-limiting psychological variable operating on the individual is that of anxiety. The literature is replete with examples of the effect anxiety has on acuity of senses, achievement and general performance. It would then seem reasonable to include anxiety in the review of the literature as it may have a relationship to evaluation.

Kingsley<sup>20</sup> investigated commitment and open-mindedness in students entering a college of education. The subjects of the study were 225 students who entered a human learnings course in February, and a second group of 422 students who took the same course eleven months later. A questionnaire on prior experiences and demographic data plus scores from the Rokeach Dogmatism Scale were obtained from both groups. The first group responded to an additional questionnaire and the Rokeach Dogmatism Scale. The data of the study were derived from (1) analysis of covariance using groups classified by the degree of commitment, (2) analysis of the students' answers to the questionnaire by number and percent in commitment groups, and by the chi-square test and (3) interviews with 30 students

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<sup>20</sup>Ruth Wattie Kingsley, "Commitment to Teachers and Open-Mindedness of Teachers in Training," (unpublished Ph.D. dissertation, University of Arizona, 1966).



selected from the spring semester group. It was found, in part, that self-doubt and fear of not being able to cope with demands of teaching are serious problems of students in the course. Several studies have determined that high anxiety affects perception. Koplan and Singer<sup>21</sup> found that the varied behavioral patterns of dogmatism reduces the sensory acuity of high dogmatists which results in reduced self-awareness. Rokeach,<sup>22</sup> working with groups on the "Doodlebug Problem" obtained results indicating closed-minded groups perceived less than open-minded groups.

Chabassol and Thomas<sup>23</sup> examined the relationship between anxiety and academic ability, scholastic achievement and classroom teaching. Anxiety was measured by Taylor's Manifest Anxiety Scale. Academic ability was measured by the School and College Ability Test (SCAT). Academic achievement was measured by final grade point average (GPA), and teaching performance, by the final practice teaching grade. It was found that anxiety was negatively

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<sup>21</sup>Martin F. Koplan and Erwin Singer, "Dogmatism and Sensory Alienation: An Empirical Investigation," Journal of Consulting Psychology, XXVII (1964), pp. 486-91.

<sup>22</sup>Rokeach, The Open and Closed Mind, p. 205.

<sup>23</sup>David J. Chabassol and David C. Thomas, "Anxiety Aptitude, Achievement, and Performance in Male Elementary Teachers," Alberta Journal of Educational Research, XLV (December, 1968), pp. 233-37.

related to academic ability, academic achievement, and teaching performance. No statistical test was cited, however.

A number of investigators using the concept that anxiety was a network of psychoanalytic defense mechanisms found corroborating evidence. Long and Ziller<sup>24</sup> interpreted dogmatism as a defense mechanism which interferes with the processing of predecisional information. LoScuito and Hartley<sup>25</sup> reported that low dogmatists were more alert to religious symbols from other religions than high dogmatists in a binocular resolution task.

It becomes apparent that high anxiety can be a delimiting factor for an individual in perception ability, academic ability, scholastic achievement and classroom teaching. It can be conjectured, as well, that there may be a relationship between the manifestations anxiety produces and the way in which an evaluator would perceive the individual.

The review of literature to this point has dealt with the relationship of dogmatism to cognition, personality, and anxiety within the framework of evaluation. The

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<sup>24</sup>Barbara H. Long and R. C. Ziller, "Dogmatism and Pre-decisional Information Search," Journal of Applied Psychology, XXXIX (1965), pp. 376-78.

<sup>25</sup>Leonard A. LoScuito and Eugene L. Hartley, "Religious Affiliation and Open-Mindedness in Binocular Resolution," Perceptual and Motor Skills, XVII (1963), pp. 427-30.

review will continue with research pertinent to the areas of dissonance, values, and adaptability.

### Dissonance

The examination of some of the research related to dissonance substantiates Festinger's theory<sup>26</sup> that where dissonance is present an uncomfortable psychological state occurs resulting in pressures to reduce or eliminate this dissonance.

In order to determine if Hammond's cognitive conflict model was restricted to laboratory-induced cognitive differences, Rappaport<sup>27</sup> compared the performance of subject-pairs characterized by socially-induced cognitive differences and similarities with respect to a racial integration judgment task. Results indicate cognitive differences (a) generate conflict and (b) impede learning. Axelrod<sup>28</sup> in a game called "the Prisoner's Dilemma" confirmed the hypothesis that the greater the conflict of interest, the more likely conflictual behavior will follow.

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<sup>26</sup>Leon Festinger, A Theory of Cognitive Dissonance (Stanford: Stanford University Press, 1957), p. 286.

<sup>27</sup>Leon Rappaport, "Research Note: Cognitive Conflict As a Function of Socially-Induced Cognitive Differences," The Journal of Conflict Resolution, XIII (March, 1969), pp. 143-48.

<sup>28</sup>Robert Axelrod, "Conflict of Interest: An Axiomatic Approach," The Journal of Conflict Resolution, XL (March, 1967), pp. 87-99.

An interesting study in a non-educational setting was conducted by Argyris.<sup>29</sup> It was found that (1) actual behavior of executives is at variances with their expressed ideals (2) dissonance creates barriers to effective interpersonal relations (3) barriers are most destructive in important decision making meetings, and (4) barriers can be broken by feedback on behavior when certain other conditions exist. Rosenman<sup>30</sup> reported that high dogmatists are more resistant to change with changing stimulus conditions. In a study involving both children and adults, Hamacheck<sup>31</sup> demonstrated that people tend to select groups, reading matter, television programs and other influences which agree with their own opinions. On the other hand, they tend to break contact with contradictory views. Kleck and Wheaton<sup>32</sup> found that high dogmatists reveal less recall of inconsistent information and a greater tendency to evaluate consistent information more positively.

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<sup>29</sup>Chris Argyris, "Interpersonal Barriers to Decision Making," Harvard Business Review, XXXLV (March-April, 1966), pp. 84-97.

<sup>30</sup>Martin F. Rosenman, "Dogmatism and the Movie 'Dr. Strangelove'," Psychological Reports, XX (1967), p. 942.

<sup>31</sup>Donald E. Manacheck (ed.,) Human Dynamics in Psychology and Education: Selected Readings, (Boston: Allyn and Bacon, Incorporated, 1968), p. 8.

<sup>32</sup>R. E. Kleck and J. Wheaton, "Dogmatism and Responses to Opinion-Consistent and Opinion-Inconsistent Information", Journal of Personality and Social Psychology, V (1967), pp. 249-52.

If a teacher perceives herself to be at odds with her principal, the resulting dissonance may influence her teaching which may be evaluated as a delimiting factor by her principal. Behavior, then, is affected if the highly dogmatic person sees a situation as one of dissonance. He will move to lessen the dissonance.

### Values

In investigating values, Hickner<sup>33</sup> used a sample of 98 supervisors and 373 student teachers of home economics from three mid-western universities. Data were analyzed using a one-way analysis of variance and sets of orthogonal comparisons. Non-authoritarian supervisors were found to hold statistically significant higher theoretical values than authoritarian supervisors when authoritarianism was measured by the Autonomy Scale and the Inventory of Beliefs. Authoritarian supervisors hold statistically significant higher economic values when the F-Scale and Inventory of Beliefs were used to measure authoritarianism. However, more important to this study than the above mentioned points, is the fact that Hickner found no significant difference between values upheld by supervising teachers and their

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<sup>33</sup>Marybelle R. Hickner, "Authoritarianism in Personality Organization of Supervising Teachers as Related to Values and Accuracy of Judgment of Student Teachers," (unpublished Ph.D. dissertation, University of Minnesota, 1968).

accuracy of judgment of student teachers. This finding does not support the hypotheses of this study which posits a relationship between bias and evaluation.

Another contradictory research by Levy<sup>34</sup>, in the later sub-section under "Perception", indicates dimensions of dis-engagement, hindrance, esprit, intimacy, aloofness and consideration as perceived by principals, were not affected by the open-and closed-mindedness of principals. A similar study by Coffey<sup>35</sup>, also reported under "Perception", indicated no relationship between dogmatism and professional relationships between principal and teacher. Clearly a discrepancy exists in the literature relative to the relationship of dogmatism values.

A study reported by Hart<sup>36</sup> attempted to determine whether teacher personality variables can be used to predict accuracy of teachers' judgment of their students' value profile. Participation in the study was limited to 75 home economic student teachers who were asked to judge the strength of values held by a class of their secondary

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<sup>34</sup>Maurice Levy, "The Relationship of Dogmatism and Opinionation of Principals to the Organizational Climate of Elementary Schools," (unpublished Ed.D. dissertation, University of Georgia, 1968).

<sup>35</sup>Thomas A. Coffey, "Dogmatism as a Means of Predicting the Leadership Effectiveness of Secondary Principals," (unpublished Ed.D. dissertation, University of South Dakota, 1968).

<sup>36</sup>Sister M. Maxine Hart, "Dogmatism as Related to Accuracy of Student Teachers' Judgment of Students," (unpublished Ph.D. dissertation, University of Minnesota, 1966).

school students. The number of students taking part was 1,267. It was found, in general, that teachers with low dogmatism were able to judge more students who were non-similar to the teacher in value profile than teachers high in dogmatism. Teachers high in dogmatism judged accurately more students who were similar to themselves in value profile than the teachers low in dogmatism. This study by Hart generally supports the hypotheses of this study and stands in contradiction to the previously reported study by Hickner<sup>37</sup> who found no relationship between values upheld by supervising teachers and their accuracy of judgment of student teachers and Levy who made a similar finding. It is apparent that there are some doubts about whether dogmatism is related to values.

### Adaptability

Dogmatism plays an important role in the adaptability of an individual. Many researchers find that the greater the dogmatism, the less adaptable one is to a new situation. Kingsley<sup>38</sup> concluded that while students change but little in dogmatism in one semester in the college of education, the dogmatic student tends to become more dogmatic.

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<sup>37</sup>Hickner, "Supervising Teachers' Judgment of Student Teachers."

<sup>38</sup>Ruth Wattie Kingsley, "Commitment to Teaching and Open-Mindedness of Teachers in Training," (unpublished Ph.D. dissertation, University of Arizona, 1966).

Maryo<sup>39</sup> found in a study involving secular groups that the rejection scores of the high dogmatists were larger than the rejection scores of low dogmatists indicating a tendency for high dogmatists to be more rejecting of other denominations than low dogmatists.

Costin<sup>40</sup> used two measures of classroom performance, a test of psychological principals and a test of conventional misconceptions about human behavior, to test the hypotheses that dogmatism would be correlated positively with students' retention of psychological misconceptions, but would not be related to their acquisition of basic psychological principles. The hypotheses were confirmed with and without controls for School and College Ability Test and for pre-course test performance. The zero-order correlation and the retention of misconceptions was .35 ( $p < .01$ ), while for dogmatism and the learning of basic principles, it was  $-.004$ . Partial correlations reduced the coefficients slightly to .32 and  $-.001$ . The significance of the study

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<sup>39</sup>Joann Stiles Maryo, "Factors Related to Similarity Rejection and Religious Affiliation," (unpublished master's thesis, Michigan State University of Agriculture and Applied Science, 1958).

<sup>40</sup>Frank Costin, "Dogmatism and the Retention of Psychological Misconceptions," Educational and Psychological Measurement, XXVIII (1968), pp. 529-34.



demonstrates that closed-minded subjects may be more resistant to the change of old beliefs than to the acquisition of new beliefs.

Rokeach<sup>41</sup> and his associates in working with the "Doodlebug Problem" concluded that those individuals having an open system took less time to solve the problem than those possessing a closed system because open-minded individuals readily integrated new beliefs into a new system. Druckman<sup>42</sup> compared the performance of high and low dogmatism subjects in playing the roles of union and management in a simulated bargaining game. He found that regardless of role, high dogmatism subjects resolved fewer issues, were more resistant to compromise, and were more likely to view compromises as defeat.

One of Kemp's early studies<sup>43</sup> dealt with differences in learning in high school students. It was found that there were significant differences in learning in high and low dogmatic students. Those students high in dogmatism

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<sup>41</sup>Milton M. Rokeach, Warren C. McGovney and M. Ray Denny, "A Distinction Between Dogmatic and Rigid Thinking," Journal of Abnormal and Social Psychology, (1955), LXI, pp. 87-93.

<sup>42</sup>D. Druckman, "Dogmatism, Prenegotiation Experience, and Simulated Group Representation as Determinants of Dyadic Behavior in a Bargaining Situation," Journal of Personality and Social Psychology (1967), VI, pp. 279-90.

<sup>43</sup>Kemp, "Rokeach Dogmatism Scale for High School Students," pp. 383-85.

were less adaptable and learned less, while students low in dogmatism were more adaptable and learned more.

Kemp<sup>44</sup> hypothesized that college students who were open-minded would have fewer personal problems than those who were closed-minded, and that the open-minded subjects would respond more favorably in counseling than the closed-minded. His findings indicated that low dogmatists do have fewer personal problems prior to counseling and that the sequence of one college quarter and four counseling interviews reduces significantly the number of problems of the open-minded but not of the closed-minded. The fact that the dogmatic students changed little as a result of counseling sessions lends support to the idea that closed-minded individuals have negative attitudes toward therapy and under natural conditions would not seek assistance in solving their personal problems.

Continuing his investigation of college subjects, Kemp<sup>45</sup> found a positive and significant relationship between sound mental health and open-mindedness. Further support

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<sup>44</sup>C. Gratton Kemp, "Influence of Dogmatism on Counseling," Personnel Guidance Journal, XXX (1961), pp. 662-65.

<sup>45</sup>C. Gratton Kemp, "The Open Mind and Mental Health," Journal of Human Relations, IX (1961), pp. 429-39.

for this contention was offered by Cohen<sup>46</sup> who reported his investigation showed evidence that persons of low esteem felt threatened by the environment.

A study by Smith<sup>47</sup> sought to investigate the relationships between two personality characteristics, self-actualizing and open-mindedness, and the teachers' perceptions of their use of teaching behaviors related to the development of student self-directed learning. Data were collected from 164 persons graduating from a home economics teacher education program during a ten-year period, 1957-1966. Results in part indicated that when teachers are highly self-actualizing, they will be significantly more open-minded than the less self-actualizing teachers, independent of the respective years since graduation and years of teaching experience of the two groups.

Bridges and Reynolds<sup>48</sup> using a sample of 262 elementary teachers from 15 urban, suburban and rural school systems, tested for teacher receptivity to change. The major

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<sup>46</sup>A. R. Cohen, "Some Implications of Self-Esteem for Social Influence," C. J. Hovland and I. L. Janis, eds., Personality and Persuasability (New Haven: Yale University Press, 1959).

<sup>47</sup>Miriam Louise Hogue Smith, "Facilitation of Student Self-Directed Learning as Perceived by Teachers with High and Low Levels of Self-Actualization and Dogmatism," (unpublished Ed.D. dissertation, The Pennsylvania State University, 1968).

<sup>48</sup>Edwin M. Bridges and Larry B. Reynolds, "Teacher Receptivity to Change," Administrator's Handbook (February, 1968).

hypothesis that elementary teachers with open belief systems would be more receptive or adaptable to the trial of innovation than elementary teachers with closed belief systems was confirmed by a t-test. An unexpected finding indicated that the more experienced teachers in the study were not significantly less receptive to change than the less experienced teachers. This may explain why Smith<sup>49</sup> found self-actualizing teachers to be more open-minded than less self-actualizing teachers, irrespective of years since graduation and teaching experience.

Pyron<sup>50</sup> examined the art preferences of 48 students, comparing their evaluations of three media -- music, painting and literature -- and three esthetics within each medium -- popular, classical, and avant garde. Results indicated that across media, high-dogmatism subjects liked popular art significantly more than classical art, and classical art significantly more than avant-garde art. Low-dogmatism subjects appeared to like all esthetics equally well.

Consistent research has been cited to indicate that dogmatism has a relationship to adaptability, than an

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<sup>49</sup>Smith, "Self-Actualization and Dogmatism."

<sup>50</sup>Bernard Pyron, "Rejection of Avant-garde Art and the Need for Simple Order," Journal of Psychology, LXIII (1966), pp. 159-78.

open-minded person appears to be more adaptable than a closed-minded person. One could reasonably conjecture that an evaluator may perceive dogmatism to be manifested in an individual's adaptability which would tend to influence his evaluation.

Similarly, consistent research was offered to indicate a relationship between dogmatism and dissonance. Again, it would seem reasonable to posit a relationship between dogmatism and evaluation, i.e. the evaluation would reflect the evaluator's perception that performance was affected.

However, no consistent studies have been cited to show a relationship between dogmatism and values. The lack of consistency in the research presented would indicate some doubts as to whether or not a relationship in fact does exist. This confusion in the literature gives further reason to conduct a study designed to determine if there is a relationship between dogmatism and evaluation.

The review of the literature to this point has been limited to citing research in the areas of (1) cognition, personality and anxiety and (2) dissonance, values and adaptability. The last part of the review will deal with authority, perception, and performance relative to the relationship with dogmatism within the parameters of evaluation. A summary will be offered at the conclusion of the review of the literature.

### Authority

Rokeach<sup>51</sup> has conceptualized beliefs along a central-peripheral dimension. Intermediate to central and peripheral beliefs are the "beliefs a person has in and about the nature of authority and the people who line up with authority, on whom he depends to help him form a picture of the world he lives in". Authority figures provide the individual both with the source of information and the means for validating information received. Authority figures, moreover, may be positive or negative: the former dispensing information concerning what is true, and the latter, what is false, about the world. Dependence on authority ranges from rational and tentative, for the open-minded, to arbitrary and absolute, for the closed-minded. The more open a person's belief system, the more his learning and problem solving behavior should be directed by the requirements of the situation rather than by the demands of authority. Open-minded persons should be more able to distinguish the source of information from the quality of information. Authority, then, should be a less effective determinant of the behavior of the open-minded. Conversely, the greater the closed-mindedness, the greater should be the dependence on authority and the more difficult should be the dependence

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<sup>51</sup>Rokeach, The Open and Closed Mind, pp. 39-53.

on authority and the more difficult should it be for closed-minded persons to distinguish between the source of information and the quality of the information received. Similarly, information about the source should be less distinguishable from information about the world for the closed-minded group.

However, Rokeach further delineated the concept of authority by hypothesizing that some closed-minded individuals may be creative inasmuch as they use themselves as a referent to authority.

We cannot assume that an open-minded person is necessarily broad, or that a closed-minded person is necessarily narrow. We can think of some persons we have known who have struck us as extremely erudite as far as breadth is concerned but closed-minded about what they know. Despite this, some of them have struck us as highly creative in their own fields and we tentatively hypothesize from this that closed-minded persons may be creative providing their belief systems are broad and providing that they are their own authority, and thus not dependent upon external authority.<sup>52</sup>

Empirical research seems to validate Rokeach's hypothesis about authority. Using high and low status confederates in autokinetic situation, Vidulich and Kaiman<sup>53</sup> attempted one of the first direct tests of the

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<sup>52</sup>Ibid., p. 409.

<sup>53</sup>Robert N. Vidulich and Ivan P. Kaiman, "The Effect of Information Source Status and Dogmatism on Conformity Behavior," Journal of Abnormal Sociology, Psychology, LXIII (1961), pp. 639-42.

authority hypotheses. Thirty female high- and low-dogmatism subjects, selected from a pool of 307 introductory psychology students, were individually exposed to a light stimulus. In the first condition of 30 exposures, each subject and the male confederate were asked to record privately on paper their judgment of the direction of apparent movement, left or right. In the second condition of 30 additional exposures, judgments were presented verbally with the confederate speaking first and selecting, by pre-arrangement, a response pattern opposite to what subjects had reported in the prior condition. The status manipulations, which subdivided the high and low groups, entailed introducing the confederate as either a college professor or a high school student. Two performance criteria were used as an indicator of subjects' conformity: the difference in performance in the two conditions and the number of times subjects agreed with the confederate in the second condition. Although the two criteria yielded slightly different results, the data were consistent with theoretical expectations. There was a significant interaction between source status and dogmatism, and high dogmatism subjects conformed significantly more with the high-status than with the low-status confederate.

The fact that high dogmatism subjects are influenced by high-status individuals is contrary to the research by



Hickner<sup>54</sup> previously stated wherein no significant difference was found between values upheld by supervising teachers and their accuracy of judgment of student teachers.

Powell<sup>55</sup> presented, to 76 adult subjects, 14 semantic differential scales measuring their judgments of the two major presidential candidates in 1960. On the same scales, subjects were also asked to judge three statements of domestic and foreign policy made by each candidate during the campaign. The distance in judgment between source and source statement was taken as the criterion measure. Distance scores for the open-minded subjects were found to be significantly greater than those of closed-minded subjects. The open-minded subjects were thus better able to evaluate and distinguish between the source and the content of a message. Mikol's data<sup>56</sup> also confirmed the source-message identity for closed-minded persons. Not only did the high-dogmatism subjects reject the unconventional music, but in their check-list responses they displayed a greater rejection of the composers as well.

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<sup>54</sup>Hickner, "Supervising Teachers' Judgment of Student Teachers."

<sup>55</sup>Frederick A. Powell, "Open and Closed-Mindedness and the Ability to Differentiate Source and Message," Journal of Abnormal and Social Psychology, LXV (1962), pp. 61-64.

<sup>56</sup>Bernard Mikol, "The Enjoyment of New Musical Systems, in Milton M. Rokeach, The Open and Closed Mind. (New York: Basic Books, 1960), p. 270-84.

Further studies of various content are cited to present consistent evidence relative to the influence of authority on the response to change by high and low dogmatic persons. Norris<sup>57</sup> in an attitude change design found that closed-minded subjects changed significantly more than open-minded subjects when exposed to a set of persuasive communications emanating from a presumably positive authority. However, there was no control for negative authority. Kemp<sup>58</sup> presented related but unsystematic evidence to suggest that closed-minded counselor trainees changed their behavior (as a result of a special training procedure) only when their behavior could be directly observed by the instructor. Long's study<sup>59</sup> of the relationship between confirming judgment and employee rank indicated that when dogmatism scores were similar, conformity differed significantly with supervisors, subordinates and peers and according to a subject's own rank. Employees tend to conform to superiors' opinions but to show great independence in the presence of

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<sup>57</sup>Eleanor L. Norris, "Attitude Change as a Function of Open- or Closed-Mindedness," Journalism Quarterly, XLII (1965), pp. 571-75.

<sup>58</sup>C. Gratton Kemp, "Influence of Dogmatism on the Training of Counselors," Journal of Counseling Psychology, IX (1962), pp. 155-57.

<sup>59</sup>Huey Billy Long, "Relationships Between Conforming Judgment and Rank and Between Conforming Judgment and Dogmatism in an Employment Group," (unpublished Ph.D. dissertation, Florida State University, 1966).

subordinates. Dogmatism was not significantly related to age, or frequency of conformity, and conformity was not related to years of service. McCarthy and Johnson<sup>60</sup> showed that high- as compared to low-dogmatism persons were more likely to accept the interpretations of political events provided by legitimate authority. Wagman<sup>61</sup> attempted to find if an individual with an authoritarian personality structure would modify under pressure from persons occupying positions of high potential. A sample of 106 students in three classes of introductory psychology were given an attitude test. Subsequent instruction was designed to produce attitudinal change. A post test indicated that for relatively authoritarian personalities, attitudes of racial prejudice seem most modifiable in either an accentuated or diminished direction under an authoritarian suggestion method. A non-authoritarian information method, while effective for non-authoritarian subjects, tends to be ineffective for relatively authoritarian subjects. DiRenzo<sup>62</sup> provided data

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<sup>60</sup>John McCarthy and Ronald C. Johnson, "Interpretation of the 'City Hall Riots' as a Function of General Dogmatism," Psychological Reports, XI (1962), pp. 243-45.

<sup>61</sup>Morton Wagman, "Attitude Change and Authoritarian Personality," Journal of Psychology, XL (1955), pp. 3-24.

<sup>62</sup>Gordon J. DiRenzo, "Dogmatism and Orientations Toward Liturgical Change," Journal for the Scientific Study of Religion, VII (1967), p. 278.

to indicate that closed-minded Catholics resist liturgical change to a greater degree than the open-minded.

Except for the work done by Hickner, evidence has been cited which tends to corroborate the conjecture that a relationship exists between dogmatism and authority. It would seem reasonable to hypothesize that evaluation would reflect this relationship in situations where the principal is perceived as an authoritarian figure by teachers who have varying degrees of dogmatism. An additional relationship may exist between a principal who is perceived as a non-authoritarian figure and teachers with varying degrees of dogmatism.

### Perception

As well might be expected from the previous discussion relative to authority and dogmatism, the perceptions of an individual may be influenced by his degree of dogmatism. The literature revealed a number of interesting studies which lend support to this thesis. The last three references gave contrary evidence.

In an attempt to assess the effect dogmatism plays in psychiatric hospitalization, Ehrlich and Bauer<sup>63</sup> administered the dogmatism scale to patients on entry and exit.

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<sup>63</sup>H. J. Ehrlich and M. L. Bauer, "The Correlates of Dogmatism and Flexibility in Psychiatric Hospitalization", Journal of Consulting Psychology, XXX (1966), pp. 283-92.

While 51 percent of low-dogmatism-quartile patients were discharged in under three weeks, only 27 percent of the high-dogmatism-quartile patients were discharged during this time. High scorers were retained for periods greater than seven weeks or twice as often as low scorers.

Mikol<sup>64</sup> found open-minded subjects learned to appreciate modern music while closed-minded subjects did not. The investigator concluded that open-minded individuals are more open to new experiences and knowledge than closed-minded individuals.

Hart<sup>65</sup> tested groups of teachers and found that the non-dogmatic were consistently more accurate in their judgments than the dogmatic teachers. In using the Omnibus Personality Inventory, the Autonomy Scale was used to differentiate between low and high dogmatism groups. Again non-dogmatic teachers were shown to be more accurate in their judgments than the dogmatic teachers. In testing further it was found that teachers low in dogmatism were better able to judge students who were non-similar in value profile than teachers high in dogmatism. On the other hand, the teachers high in dogmatism judged accurately more students who were similar to themselves in value profile than the teachers low in dogmatism.

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<sup>64</sup>Mikol, The Open and Closed Mind, p. 276.

<sup>65</sup>Hart, "Dogmatism as Related to Accuracy of Student Teachers' Judgment of Students."

In a study by Doyle<sup>66</sup> teachers were inclined to see themselves in harmony with the administrators. As the beliefs held by the teacher were compared with the expectations they defined for the administrators, a value for  $r$  rank of .937 was secured.

Kingsley<sup>67</sup> reported that commitment to teaching is not significantly related (.05 level) to change in dogmatism. However, the committed students tend to change in the direction of less dogmatism while the ambivalent and not committed change in the direction of greater dogmatism.

Hollenbeck<sup>68</sup> determined that the less dogmatic a blind person, the more depression he showed in relation to his disability. The more dogmatic a blind person, the more he denied his disability and its effects.

An interesting study conducted by Levy<sup>69</sup> explored the relationship of dogmatism to the organizational climate of elementary schools. Data were obtained from Halpin and

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<sup>66</sup>Louis Andrew Doyle, "A Study of the Expectancies Which Elementary Teachers, School Administrators, Board Members and Parents Have of the Elementary Teachers' Roles," (unpublished Ph.D. doctoral dissertation, Michigan State University of Agriculture and Applied Science, 1956), p. 155.

<sup>67</sup>Kingsley, "Teachers in Training."

<sup>68</sup>Phyllis N. Hollenbeck, "A Study of the Effects of Dogmatism on Aspects of Adjustment to Severe Disability," (unpublished Ph.D. dissertation, Western Reserve University, 1964).

<sup>69</sup>Levy, "Dogmatism, Opinionation, Organizational Climate."

Croft's Organizational Climate Description Questionnaire and Rokeach's Dogmatism and Opinionation Scales. The sample consisted of 68 principals and 1,454 teachers in 68 elementary schools in suburban communities of northern Illinois. The researcher personally visited all schools in the sample and administered the OCDQ to all principals and teachers. However, the Dogmatism and Opinionation Scales were administered to principals only.

The statistical analysis was calculated according to the following plan. Chi-square was used to determine whether a significant relationship exists between dogmatism and opinionation of principals and teachers and teachers' and principals' perceptions of the organizational climate of elementary schools. Rank-order correlations were used to determine whether a significant relationship exists between dogmatism and opinionation of principals and the dimensions of organizational climate of elementary schools as perceived by principals and teachers.

From the findings of the study, the following conclusions were drawn:

1. The open- or closed-mindedness of principals was not a significant determinant of the organizational climate of elementary schools as perceived by principals and teachers.

2. The ability or inability of principals to tolerate individuals with beliefs different from their own

was not a significant determinant of the organizational climate of elementary schools as perceived by principals and teachers.

3. None of the dimensions of organizational climate as perceived by teachers was significantly affected by the open- or closed-mindedness of principals. The dimensions of disengagement, hindrance, esprit, intimacy, aloofness, and consideration as perceived by principals were also not significantly affected by the open- and closed-mindedness of principals.

4. The ability or inability of principals to tolerate individuals with beliefs different from their own did not significantly affect the dimensions of organizational climate as viewed by principals or teachers.

5. The open- and closed-mindedness of principals was a significant factor in the principals' perception of production emphasis and thrust. The data indicates that task-oriented, close supervision of subordinates was indicative of closed-minded (authoritarian) leadership, while the motivation of subordinates by personal example was a reflection of open-minded (democratic) leadership.

Another study dealing with schools was conducted by Coffey<sup>70</sup> who investigated whether or not dogmatism

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<sup>70</sup>Coffey, "Predicting Leadership Effectiveness."



could be used to predict leadership effectiveness of secondary school principals. Twenty secondary school principals from public secondary schools in the state of South Dakota were used in the study. Ten teachers were asked to rate each principal on two leader dimensions, namely, consideration and initiating structure as defined by the Ohio Personnel Research Board. The Rokeach Dogmatism Scale was administered to each of the principals and to each of the teachers. The raw data in this study consisted of the dogmatism scores of the 20 principals and the 200 participating teachers. The data obtained for the teachers' ratings of their principals were the 400 scores yielded from the two dimensions of the Ohio State Leader Behavior Description Questionnaire.

The raw data from the study were compiled for interpretation in a Lindquist Type I design, and the analysis of variance was run by computer. The two dimensions of consideration and initiating structure were treated separately as two distinct problems. The .05 level of confidence was used in all tests of statistical significance.

1. The teachers' perceptions of the principals' level of dogmatism do not seem to affect the friendship, mutual trust, respect or warmth which exists between the principal and his staff.

2. Dogmatism does not have a direct relationship to the way a teacher will rate his principal as far as his perception of their interpersonal relationship is concerned.

3. On the leader dimension of consideration there is no indication that teachers will feel measurably attracted to or alienated from a principal who possesses a level of dogmatism similar to or different from their own.

4. The dogmatism level of the principal did not measurably affect the manner in which the teachers perceived that he defines patterns of organization, initiates and handles channels of communication, or in the methods and procedures he uses to conduct the professional relationship between himself and his work-group.

5. The principal's behavior in delineating a relationship between himself and his work-group is not perceived any differently by high dogmatic members of the work-group than it is by low dogmatic members of the work-group.

6. The level of dogmatism of teacher and principal is not significant in the professional relationship of the principal with his work-group.

The research cited is sufficiently inconsistent as to indicate doubt whether or not a relationship exists between dogmatism and perception. As in the case of the research cited under values, the inconsistency of the findings in the literature reviewed gives further strength to the purpose of this study which is to investigate the relationship of dogmatism to evaluation.

### Performance

Perhaps the most significant research reported is the effect dogmatism has on performance. Adams and Vidulich<sup>71</sup> in attempting to test the relationship of open- and closed-mindedness to the learning of belief-congruent and incongruent materials compared the performance of the 18 highest and lowest subjects on dogmatism from a pool of 300 introductory psychology students. The subjects were given a paired-associate learning task consisting of two word lists. The learning criterion was three errorless trials, and the unit of analysis was the total number of errors made prior to criterion performance. Their two major findings were: first, that high-dogmatism subjects made significantly more errors on the incongruent as compared with congruent associations, and, secondly and unexpectedly, that the high dogmatists also made significantly more errors than did low-dogmatism subjects in learning the congruent associations.

Pyron and Lambert<sup>72</sup> in a study of change achieved a correlation of  $-.43$  between a measure of acceptance of change and dogmatism scores. They concluded the greater the closed-mindedness, the greater the rejection of change.

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<sup>71</sup>Henry E. Adams and Robert N. Vidulich, "Dogmatism and Belief Congruence in Paired-Associate Learning," Psychological Reports, X (1962), pp. 91-94.

<sup>72</sup>Bernard Pyron and Philip Lambert, "The Generality of Simplicity-Complexity of Social Perception in a High School Population," Journal of Psychology, LXVI (1967), pp. 265-73.

In a study to identify and develop creative personnel, Mackinaw<sup>73</sup> determined that creative persons were found to be independent in thought and action. Also, superiors who support creative people in their tentativeness and openness to career possibilities are helpful in releasing creativity. However, Chabassol and Thomas<sup>74</sup>, in a study previously reported, found academic ability, academic achievement and teaching performance were limited to the degree of manifest anxiety.

Rosner<sup>75</sup> in his study may explain the reason for the lack of innovation found within organizations. Using a sample of 24 short-term, voluntary, non-teaching hospitals, ranging from 216 to 393 beds, Rosner attempted to determine the degree of innovation by the promptness and frequency of trial of new drugs. Regression coefficients were obtained and found significant at the .05 and .08 levels. Although the regressions exhibited unexplained variance due to factors other than those under the study, the findings generally supported the hypothesis that the greater the

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<sup>73</sup>Don W. Mackinaw, "The Identification and Development of Creative Personnel," Personnel Administration, XXI (January - February, 1968), pp. 8-17.

<sup>74</sup>Chabassol and Thomas, "Anxiety, Aptitude, Achievement and Performance in Male Elementary Teachers."

<sup>75</sup>Martin M. Rosner, "Administrative Controls and Innovation," Behavioral Science, XIII (January, 1968), pp. 36-44.

control over medical staff activities, the less prompt the trials of new drugs.

Musella<sup>76</sup>, in his study of dogmatism as it relates to the ratings of teachers, gives further insight as to the administrative effect. Principals, on the basis of the Dogmatism Scale, were classified open- or closed-minded. Using 90 elementary school principals, selected randomly from school districts in New York State, two sub-groups were selected. Those scoring in the upper 22.7 percent of the total range of dogmatism scores were identified as closed-minded principals, and those scoring in the lower 22.7 percent, as open-minded principals. These same principals were asked to select their most and least effective teachers using the Teacher Characteristic Scale. The Rokeach Dogmatism Scale was then administered to all teachers under these principals. Results indicated a tendency for closed-minded principals to select closed-minded teachers as most effective. However, no trend existed in the selections made by open-minded principals. A difference existed between open- and closed-minded principals' ratings and descriptions of effective teachers. The arbitrary choice of upper and

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<sup>76</sup>Donald Musella, "Open-Closed Mindedness as Related to the Ratings of Teachers by Elementary School Principals," Journal of Experimental Education, XXXV (Spring, 1967), pp. 75-79.

lower limits to determine closed- and open-minded sub-groups casts serious doubts about the findings of this study inasmuch as nearly half the total range is dropped from the analysis of the data.

In a comprehensive study by Lewis<sup>77</sup>, 112 teachers assigned to junior and senior high schools, grades seven through twelve, were administered the Rokeach Dogmatism Scale. These scores were compared with ratings of perceived effectiveness as revealed by teachers' self ratings, and ratings of principals and supervisors using the Purdue Rating Scale for Instruction. It was concluded that:

(1) Teachers who rate themselves high in effectiveness may be either high or low in authoritarianism indicating no prediction.

(2) Principals and supervisors tend to give higher ratings of teacher effectiveness to more authoritarian teachers.

(3) Teachers' authoritarianism during the first three years and after the fifteenth year of tenure appeared not to influence ratings of teacher effectiveness.

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<sup>77</sup>Franklin Garner Lewis, "The Relationship of Authoritarianism as Revealed by the Rokeach Dogmatism Scale and Perceived Effectiveness of Teaching as Indicated by Teachers' Self-Ratings, Principals' Ratings and Supervisors' Ratings," (unpublished Ed. D. dissertation, North State Texas University, 1968).

(4) Teachers' authoritarianism influences principals' ratings of teacher effectiveness at grade levels seven and twelve, and supervisors' ratings of effectiveness at grade levels seven, nine and twelve.

(5) In identifying effectiveness of teachers, authoritarianism has limited usefulness.

In a study by McNamara and Enns<sup>78</sup>, 32 elementary principals completed the Least Preferred Co-Worker instrument and the Group Atmosphere instrument and made global ratings of their staff's professional commitment. Teachers completed a questionnaire in which they identified supervisory behavior characteristics of the principal, and indicated their own professional orientation and attitudes toward principals and schools. School system officials rated the effectiveness of participating schools. Principals' scores on the directive-permissive continuum (Least Preferred Co-Worker) and on the warmth of staff attitudes toward the principal as leader (Group Atmosphere) did not correlate with effectiveness ratings of the school officials. When schools were partitioned by acceptance or rejection of the principals' (Group Atmosphere), Least Preferred Co-Worker

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<sup>78</sup>V. D. McNamara, and Frederick Enns, "Directive Leadership and Staff Acceptance of the Principal," The Canadian Administrator, VI (November, 1966), pp. 5-8.

scores correlated with effectiveness ratings. It was concluded that staff acceptance moderates leadership effectiveness. Also, Directive Leadership is least helpful in an unfavorable staff climate as is lack of leadership in a favorable staff climate.

Using data from 568 teachers in 52 elementary schools, classified as to administrative behavior, Haralick<sup>79</sup> investigated the teacher acceptance of administrative behavior. She concluded that principal compliance with specific work-related norms held by the teacher is more important to teacher satisfaction than is the degree of democratic behavior which he exhibits.

A somewhat similar but less sophisticated study was conducted by Anderson and Brown<sup>80</sup> who analyzed leadership behavior. Leadership categories were grouped into ideographic, nomothetic and transactional leadership behaviors. Results, in part, indicated that while situational matters are not generally determinants of leadership behavior, greater frequency of leader behavior is positively associated

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<sup>79</sup>Joy Gold Haralick, "Teacher Acceptance of Administrative Action," Journal of Experimental Education, XXXVII (Winter, 1968), pp. 39-47.

<sup>80</sup>Barry D. Anderson and Alan F. Brown, "Who's a Good Principal?", The Canadian Administrator, VI (December, 1966), pp. 9-12.



with staff ratings of job satisfaction, over-all school performance, and confidence in the principal's effectiveness.

A theoretical argument presented by Jones<sup>81</sup> points out that present models of organization and leadership are outmoded. The author discusses effective team collaboration, involvement and meaningful roles for young recruits while creating a climate of mutual trust. The author believes that the authoritarian, secretive, and manipulative leader is no longer effective. The new leader is aware of rapid change. He does not allow rigidity to seep into the organization. He allows and enters into group discussions of problems. He focuses on people's strengths and accepts disagreement as assets.

Dogmatism has an effect on the performance of teachers as the study by Wodtke and Wallen<sup>82</sup> has indicated. It was found that the differences in grades two and three lacked significance (5 comparisons favored low-control teachers, and 5 favored high-control teachers); in grade four, the differences favored low-control teachers in verbal flexibility (significant at .05 level), total verbal creativity (significant at .05 level) and verbal fluency

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<sup>81</sup>John Paul Jones, "Changing Patterns of Leadership," Personnel, XLIV (March-April, 1967), pp. 8-15.

<sup>82</sup>Kenneth H. Wodtke and Norman E. Wallen, "The Effects of Teacher Control in the Classroom on Pupils' Creativity - Test Gains," American Educational Research Journal, II (March, 1965), pp. 75-82.

(significant at .10 level); in grade five no differences were significant except for non-verbal elaboration, which favored the high-control teachers. It was felt that the results offer some support for the hypothesis that a high degree of controlling behavior by the classroom teacher has a detrimental effect on verbal creativity, as measured by the Torrance Tests in the fourth grade.

In a well designed study by Piele<sup>83</sup> an investigation was made into the relationship of teacher open- and closed-mindedness to classroom verbal behavior under actual teaching conditions. Seventy teachers from elementary and junior high schools in eastern Oregon, eastern Washington, and Idaho were administered the Rokeach Dogmatism Scale, Form E. Seventeen high scorers and 17 low scorers were selected as subjects for this study. All 34 subjects were in the upper or lower quartiles of Dogmatism Scale scores. None of the subjects had any previous training in interaction analysis.

Each subject tape recorded six 20-minute segments of regular class lessons. Observers trained in the use of the Flanders System of Interaction Analysis listened to the tape recorded lessons and recorded the verbal behavior

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<sup>83</sup>Philip Kerne Piele, "The Relationship of Open- and Closed-Mindedness to Verbal Behavior," (unpublished Ph.D. dissertation, University of Oregon, 1968).

on tally sheets. The verbal data recorded were plotted and the appropriate column and cell totals and percentages computed by means of a specially prepared computer matrix plotting program. A mean percent or ratio score for each of the selected verbal behaviors described in the hypotheses was calculated. An F-test and t-test were used to test the hypotheses.

The significant findings of this study were that open- and closed-minded teachers appear to differ (a) in their use of a variety of verbal behaviors and (b) in their monopolization of talk in the classroom, and that the students of said teachers appear to differ (a) in their use of extended responsive talk, (b) in their use of student to student interaction, and (c) in their use of student to student interaction with silence or confusion.

Closed-minded teachers are more concerned about classroom control than open-minded teachers under actual teaching conditions and tend to discourage student talk by monopolizing classroom talk through the use of a wide variety of verbal behaviors.

Except for the study by Lewiss who indicated "identifying effectiveness of teachers, authoritarianism has limited usefulness", the research in the area of performance related to dogmatism has been fairly consistent. A number of studies have been cited which gives strength to the hypothesis that performance evaluation may be influenced by dogmatism.

### Summary

In summary, the review of literature on dogmatism revealed that closed-minded individuals defend themselves against perceived threats and are less open to new ideas, whereas open-minded persons rely less on authority and are more receptive to new ideas.

Research studies were cited in the areas of (1) cognition, personality, anxiety, (2) dissonance, values, adaptability, and (3) authority, perception and performance. Evidence was offered to show a general impairment in the areas cited above for those individuals who were classified closed-minded or highly dogmatic. For those individuals who were open-minded or low dogmatic, research studies generally indicated improved performance over highly dogmatic individuals.

Under the Perception section, contradictory evidence was cited which indicated dogmatism was not a significant factor in organizational climate or teacher perception of the principal's role.

The inconsistency of the literature is sufficiently strong as to cast doubt as to whether or not a relationship between dogmatism and evaluation exists. This doubt helps strengthen the purpose of this study which is to determine if, in fact, a relationship does exist.

## CHAPTER III

### DESIGN OF THE STUDY

#### Identifying the Population

The population of interest in this study was the public school districts of Michigan. A sample of 350 school districts out of a possible total of 535 was drawn from districts as listed in a commercially prepared school directory.<sup>1</sup> A randomization technique was employed in the selection of the sample. The school districts, listed in alphabetical order, were individually assigned numbers in an arithmetic progression, the first district listed receiving the number 1, and the last listed receiving the number 535. This same arithmetic progression of numbers, 1 - 535, was individually prepared on cards of uniform size, each number representing a school district. The numbers were placed in a domestic clothes dryer which was rotated to randomly disburse the numbers. Three hundred fifty school districts were then selected.

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<sup>1</sup>Michigan Education Directory and Buyer's Guide,  
Michigan Education Directory, Lansing, Michigan, 1969-70.

Each superintendent within the sample received a letter asking permission to conduct a research project. (See Appendix B, page 129). A partial return of 283 letters was received seven days after the mailing. A further request for permission was conducted by sending 67 follow-up letters to the superintendents. (See Appendix B, page 130.)

Table 3.1--Superintendent Permission Returns

Description	Number	Percent
Total Returns	326	93
Total No Reply	<u>24</u>	<u>7</u>
Total Mailing	350	100

The final tabulation indicated that 326 superintendents or 93 percent of the possible returns replied to the request for permission to contact one principal and one teacher. Although 326 superintendents replied, permission was received from 297 or 85 percent. Permission was denied by 29 superintendents, or 8 percent of the total replying, with 24 superintendents or 7 percent failing to respond. (See Table 3.2).

Table 3.2--Requests to Superintendents

Description	Number	Percent
Permission Received	297	85
Permission Denied	29	8
No Answer	<u>24</u>	<u>7</u>
Total Mailing	350	100

Failure to receive superintendents' permission to conduct research in their school districts was attributed to the following reasons:

- (a) Failure to receive returns
- (b) Against district policy
- (c) Too much research being conducted within district
- (d) Too busy.

Principals were selected from those school districts where written permission was received from the superintendent. A two-year old directory was used to ensure that principals would have at least one full year of administrative experience.<sup>2</sup> The selection process involved further randomization. Elementary principals, from co-operating school districts, were assigned numbers which, in each case, was an arithmetic progression beginning with the number one. A table of random numbers<sup>3</sup> was used to determine the name of the principal for volunteer participation in the study; one principal per school district.

Letters were sent to 297 principals in the school districts where permission had been received from the superintendent to conduct this research. (See Appendix B, pages

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<sup>2</sup>Michigan Education Directory and Buyer's Guide, Michigan Education Directory, Lansing, Michigan, 1968-69.

<sup>3</sup>Wilfrid J. Dixon and Frank J. Massey, Jr., Introduction to Statistical Analysis, 3rd ed. (New York: McGraw-Hill Book Company, 1969), pp. 446-50.

131-32). The contents of the letter explained the research project, solicited co-operation of the principal as well as asking for a list of beginning teachers with the following limitation.

- (a) No previous full time experience.
- (b) Have been teaching for the principal since the fall of 1969, but not starting after the fourth Friday in September.

After allowing a seven day interval, follow-up letters were sent to 64 principals requesting a reply to the initial letter. A second follow-up letter was sent to 30 principals who had not replied. (See Appendix B, page 133). Final tabulation of results indicated that of the 297 principals contacted by letter requesting their co-operation in the study, 278 replied. (See Table 3.3).

The replies from the principals indicated that 77 principals had no teachers who fit the limitations of the study. These 77 principals were subsequently dropped from the sample. Six principals did not wish to participate, and 19 did not reply. (See Table 3.4 for numbers and percentages).

In order to select one teacher from the list of beginning teachers received from the principals, a randomization technique was employed which was identical to that used in the selection of the principal. Those teachers whose names were returned by the principals and who fit the criteria mentioned previously were assigned individual



Table 3.3--Principal Returns

Description	Number	Percent
Total Returns	278	94
Total No Reply	<u>19</u>	<u>6</u>
Total Mailing	297	100

Table 3.4--Distribution of Response to the Mailed Request  
for Principal Participation in the Study

Description	Number	Percent
Willing to Participate	195	66
No First Year Teachers	77	26
Did Not Wish to Participate	6	2
Did Not Reply	<u>19</u>	<u>6</u>
Total Mailing	297	100

numbers. A table of random numbers<sup>4</sup> was used to make the selections. An initial letter was mailed to teachers whose names were received from the principal. The letter explained the purpose and need of the study including the information that a questionnaire would follow within a short time. (See Appendix B, page 145).

Accordingly, 195 questionnaires\* were sent to principals and teachers. This figure, obtained from Table 3.4, represented the total number of principals and teachers who could be contacted less the attrition caused by superintendents' denial of permission to conduct the study, no first year teachers, principals who did not wish to participate in the study, and principals who did not reply.

The original sample of 350 school districts experienced attrition due to the following reasons:

- 53 were lost due to non-cooperative superintendents
- 25 were lost due to non-cooperative principals
- 44 were lost due to non-cooperative principals or teachers making a total of 122 school districts

From the original sample of 350 school districts, the size was reduced to the true sample of 272 because 78 of the original 350 school districts did not meet the criteria for inclusion, i.e. no first year teachers.

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<sup>4</sup>Ibid.

\*Examples of the questionnaires and answer sheets for principals and teachers can be found as follows: Principals, pages 135-42; Teachers, pages 147-49.

Sixty-three follow-up letters were sent to principals and 58 follow-up letters were sent to teachers. (See Appendix B, pages 143 and 150). Returns indicated that 172 principals or 88 percent of the mailing replied with both the Teacher Evaluation Form and the Personal Opinion Questionnaire, while 23 principals failed to respond. Also, 166 teachers or 85 percent of the mailing replied with the Personal Opinion Questionnaire, while 29 failed to respond.

Table 3.5--Principal-Teacher Questionnaire Returns

Description	Number	Percent
Principal	172	88
No Return	<u>23</u>	<u>12</u>
TOTAL	<u>195</u>	<u>100</u>
Teacher	166	85
No Return	<u>29</u>	<u>15</u>
TOTAL	<u>195</u>	<u>100</u>

Table 3.6 is presented to illustrate numbers and percentages for both the sample size and the returns from the mailed questionnaires. It will be noted that the mailed returns reflect higher percentages than the sample size because the sample size includes (1) previous attrition, due to superintendents and principals not wishing to

participate in the study, and (2) superintendents and principals failing to reply to the request for permission to conduct the study. The table shows that within the sample parameters the "principal-teacher" returns were 151 or 55 percent; the "no returns", which includes "non-paired returns", were 44 or 17 percent, and the "attrition" was 77 or 28 percent making a total of 272 or 100 percent.

Table 3.6 also illustrates numbers and percentages for the returns from the mailed questionnaire. "Principal-teacher" returns were 151 or 77 percent. The "no returns" were 44 or 23 percent bringing the total to 195 or 100 percent.

Table 3.6--Principal-Teacher Paired Percentages For the Sample and Mail Returns

Description	Sample		Mail Returns	
	Number	Percent	Number	Percent
Principal-Teacher	151	55	151	77
No Return and/or Non-Paired Returns	44	17	44	23
Previous Attrition	<u>77</u>	<u>28</u>	<u>--</u>	<u>--</u>
Total	272	100	195	100

The data collection was conducted solely by the use of the United States mails. Accordingly, a mailing schedule was followed which called for sending follow-up letters approximately ten days after each initial mailing. Table

3.7 describes to whom letters were sent, whether the contact was an initial or follow-up letter, as well as the dates of each mailing. A description of each mailing, including the letters and the instruments, may be found in Appendix B, pages 129-51.

Table 3.7--Mailing Schedule

Description	Date
Initial Contact of Superintendents	March 25
Follow-up Letters	April 11
Termination	May 5
Initial Contact of Principals	April 11
Follow-up Letters	May 5, 18
Termination	May 25
Initial Mailing of Instruments to Principals	April 29
Mailing of Instrument to Teachers	April 29
Follow-up Letters	May 15
Termination	June 6
Non-Reply Questionnaire to Teachers and Principals	June 6

It was felt that the study could be further strengthened by attempting to determine the reasons for non-reply. Accordingly, 56 postcards\* were sent to the principals and teachers who failed to reply to the questionnaires used in the study. Recipients were asked to check appropriate

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\*For an example of the postcard, see Appendix B, page 151.

boxes and to return the lower half of the stamped, self-addressed postcard. The choices were as follows:

1. Too busy.
2. Lost the questionnaire.
3. Could not see the relevance.
4. The answers to the questionnaire  
were none of your business.
5. (Principal) (Teacher) discouraged me.
6. Forgot.
7. Other (Example)

After allowing a period of ten days for collection the postcard follow-up was terminated. Out of a total of 56 cards sent in the United States mail, 19 were returned. During this time three additional mark sense sheets were received, too late for inclusion in the computer analysis of the data. The following chart illustrates the distribution of response:

Table 3.8--Postcard Follow-Up Response

	Number	Percent
Too busy	6	10
Could not see the relevance	2	4
Teacher discouraged me	1	1
Forgot	2	4
Other	8	15
Return Total	19	34
No Reply	37	66
TOTAL	56	100

The number and percentages listed in the above table indicated that reasons for non-response were varied. In addition to the choices available on the postcard follow-up additional remarks were written in. They were as follows:

"I did your crazy survey once, and if you are not organized enough to keep track, that's not my problem!"

"I sent one copy to you. I'd suggest you drop me from your sample."

"I did but late."

"I mailed my copy."

"Return date did not allow time after receipt of the questionnaire."

"Many of the statements were too opinionated, ambiguous, and too ridiculous to comment on."

"Felt an explanation should go along with questionnaire and did not get my letter completed so did not mail questionnaire."

Although the remarks from the postcard follow-up are included in the study, there was an insufficient response to obtain a clear understanding of the reasons for the failure of principals and teachers to reply to the original questionnaire, the follow-up and the postcard follow-up.

In several instances questionnaires were returned after the follow-up postcard was sent. This fact suggests an answer to the first few comments which criticize the record keeping involved in the collection of the data.

### Instrumentation

Two instruments\* were employed to gather data pertinent to this study: The Personal Opinion Questionnaire (Rokeach Dogmatism Scale) and the Teacher Evaluation Form (Grand Rapids Evaluation of Teaching Performance). The responses for each questionnaire were recorded on mark sense sheets adapted for ease in completion. All questionnaires were sent and returned by mail. Each letter included the following items:

#### Principals' Mailing:

1. Cover letter explaining the purpose of the questionnaire with brief directions.
2. Personal Opinion Questionnaire.
3. Mark sense answer sheet for Personal Opinion Questionnaire.
4. Teacher Evaluation Form.
5. Mark sense sheet for Teacher Evaluation Form.
6. A self-addressed, stamped envelope, #10.
7. A cover envelope, #11.

#### Teachers' Mailing:

1. Cover letter explaining the purpose of the questionnaire with brief directions.
2. Personal Opinion Questionnaire.
3. Mark sense answer sheet for Personal Opinion Questionnaire.
4. A self-addressed, stamped envelope, #10.
5. A cover envelope, #11.

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\*Examples of the Personal Opinion Questionnaire and Teacher Evaluation Form may be found in Appendix B on pages 135 and 138 respectively.



### Sample

It was assumed that the sample of this study was representative of the population found within the state of Michigan due to the randomization techniques employed. Therefore, the population of interest was (1) beginning teachers in an elementary public school who have had no previous full time experience and who have been employed in the same school on or before the fourth Friday of September, 1969, and (2) elementary principals who have had one full year of administrative experience, who have supervised the beginning teacher throughout the 1969-70 school year<sup>5</sup> and who were responsible for a school whose minimum size is 200 pupils.

The choice of limiting the study to beginning teachers was based on the premise that the influences of building climate on personality would be held to a minimum. Also, the fact that the principal would have to give close attention to the evaluation process, because of tenure requirements for beginning teachers, was considered to increase the validity of the results of the study.

The limitation placed on the population of principals was that they must be experienced in the evaluation process.

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<sup>5</sup>Op. cit., Michigan Education Directory and Buyer's Guide.

## Initial Steps in Data Processing

Teachers and principals responded to the questionnaire by marking a mark sense sheet for each instrument they received. For each school district finally used in the sample, both data sheets from the principal's Personal Opinion Questionnaire and Teacher Evaluation Form were paired with the Personal Opinion data sheet of the teacher. Data sheets which did not meet this requirement were not used.

The answer sheets were machine processed to obtain a frequency count by item and by major categories. Data were translated directly from the mark sense sheets to computer cards. A verification was made at this point to determine if the computer cards corresponded with answers on the answer sheets. Data were collated so that teacher-principal responses were together. These paired responses were submitted to the computer to produce simple Pearson Product Moment Correlations.

### Statistical Hypotheses of the Study

The following hypotheses were used in this study where:

X denotes principal dogmatism  
Y denotes teacher dogmatism  
 $Z = |X - Y|$  denotes absolute difference between  
dogmatism scores of principal and  
teacher  
W denotes principal evaluation of teacher  
 $\rho$  denotes correlation.

## Hypothesis I

There is no relationship between the absolute values of the difference in dogmatism scores as obtained from the Rokeach Dogmatism Scale, Short Form E, between principals and teachers and the variable evaluation as rated by the principal using the Grand Rapids Evaluation of Teaching Performance.

Symbolically:  $HO_1: \rho_{ZW} = 0$

## Alternate Hypothesis I

The greater the absolute values of the difference in dogmatism scores, as obtained from the Rokeach Dogmatism Scale, between principals and teachers, the lower the evaluation as rated by the principal using the Grand Rapids Evaluation of Teaching Performance.

Symbolically:  $HA_1: \rho_{ZW} < 0$

## Hypothesis II

There is no relationship between open-mindedness of teachers and principal's evaluation of teachers when the absolute values of the difference in dogmatism scores between principals and teachers are held constant.

Symbolically:  $HO_2: \rho_{WY} = 0$

### Alternate Hypothesis II

The effect of Hypothesis I will be further modified by the tendency of open-minded teachers to get higher evaluations than closed-minded teachers when the absolute values of the difference in dogmatism scores between principals and teachers are held constant.

Symbolically:  $HA_2: \rho_{WY} \neq 0$

### Hypothesis III

There is no relationship between open-mindedness of principals and principal's evaluation of teachers when the absolute values of the difference in the dogmatism scores between principals and teachers are held constant.

Symbolically:  $H_{O3}: \rho_{WX} = 0$

### Alternate Hypothesis III

The effect of Hypothesis I will be further modified by the tendency of open-minded principals to give higher evaluations to teachers than closed-minded principals when the absolute values of the difference in the dogmatism scores between principals and teachers are held constant.

Symbolically:  $HA_3: \rho_{WX} \neq 0$

### Statistical Tests

To test Hypothesis I, the absolute values of the difference in dogmatism scores were found between principals and teachers. A simple correlation was performed between these absolute values and principal evaluation scores of the teachers.

To test Hypothesis II, a partial correlation<sup>6</sup> was carried out between teacher open-mindedness and principal evaluation scores when the absolute values of the difference in their dogmatism scores were held constant.

To test Hypothesis III, a partial correlation was performed between principal open-mindedness and principal evaluation scores when the absolute values of the differences in the dogmatism scores of principals and teachers were held constant.

#### Significance Level

A level of significance for rejection for this study was chosen at the .05 level. If the probability was at or less than five times in one hundred that the observed relationships, or one greater could have occurred by chance, then the hypothesis was rejected. If the probability of chance occurrence exceeded more than five times in one hundred, the null hypothesis of no relationship was accepted.

#### Summary

Chapter III described the design of the study for this investigation into the relationship of teacher-principal dogmatism with the principal's evaluation of the teacher.

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<sup>6</sup>Quinn McNemar, Psychological Statistics, 3rd ed., (New York: John Wiley and Sons, Inc., 1962), pp. 67-69.

The procedure for determining the school districts which participated in the study was outlined. A description was given of the selection process for principals and teachers who completed and returned the questionnaires. The mailing schedule was included to indicate the time period required for the data collection. The final follow-up postcard mailing was described. Reference was made to the instrumentation, population, initial steps in data processing, as well as the statement of the statistical hypotheses. The chapter concluded with the choice of the significance level.

Chapter IV will deal with the data and its interpretation. The several hypotheses of the study will be examined relative to the implications of the statistical treatment of the data.

## CHAPTER IV

### ANALYSIS OF THE DATA

#### Introduction

This chapter presents the results of the examination of the relationship between the variables of the study, namely: (a) dogmatism of the principal, (b) dogmatism of the teacher, (c) the absolute values of the difference in dogmatism scores between the principal and teacher and (d) evaluation. The research presented here was directed toward increasing the understanding of these relationships. Specifically, three questions were investigated: (1) Is evaluation of the teacher related to the absolute values of the difference in dogmatism scores between principal and teacher? (2) Do open-minded teachers tend to get higher evaluations than closed-minded teachers when the absolute values of the difference in dogmatism scores between the principal and teacher are held constant? (3) Do open-minded principals tend to give higher evaluations than closed-minded principals when the absolute values of the difference in dogmatism scores between the principal and teacher are held constant?

A restatement of each hypothesis, as presented in Chapter III, is followed by the presentation and analysis of the related data.

Paired scores of the responses from the principal and teacher were obtained from the mark sense sheets using the Optical Scanner. The four scores: the principal's dogmatism, teacher's dogmatism, the principal's evaluation of the teacher, and the absolute differences in their dogmatism scores were placed on one computer card for each principal-teacher pair. In addition cluster evaluation scores were recorded for further analysis of their relationship to the absolute values of the difference in dogmatism scores between principals and teachers. The collated data were submitted to the 3600 computer for analysis.

A paired t-test was performed on the dogmatism scores of principals and teachers to determine what mean difference existed.

Simple correlations were performed to determine the strength of relationship between:

- (a) principal dogmatism scores and teacher dogmatism scores
- (b) the absolute values of the difference in dogmatism scores of principals and teachers and evaluation scores of teachers.

Partial correlations were performed to test the relationship between:



- (a) evaluation scores of teachers and teacher dogmatism scores when the absolute values of the difference in teacher-principal dogmatism scores were held constant
- (b) evaluation scores of teachers and principal dogmatism scores when the absolute values of the difference in teacher-principal dogmatism scores were held constant
- (c) cluster evaluation scores of teachers and teacher dogmatism scores when the absolute values of the difference in teacher-principal dogmatism scores were held constant.

Scatter diagrams were generated and presented in standard score form. The variables were:

- (a) principal dogmatism scores and teacher dogmatism scores
- (b) absolute values of the difference in principal-teacher dogmatism scores and cluster evaluation scores of teachers.

The level of significance was chosen to be .05 meaning that relationships found between variables would occur in five out of 100 repetitions of this study by chance alone. This a priori decision nullifies investigator's bias which might occur when the level of significance is not fixed before examination of the data. "The research worker should consistently use whichever form he selects."<sup>1</sup>

#### Examination of the Dogmatism Scores

The data were examined between principal and teacher dogmatism scores to determine if the difference in

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<sup>1</sup>Walter R. Borg, Educational Research: An Introduction (New York: David McKay Company, Inc., 1963), p. 137.

means was statistically different. A paired t-test was performed on the data. Results at the .05 level indicated that there was no difference. (See Table 4.1).

Table 4.1--Difference of Means and Correlation Between Principal and Teacher Dogmatism Scores

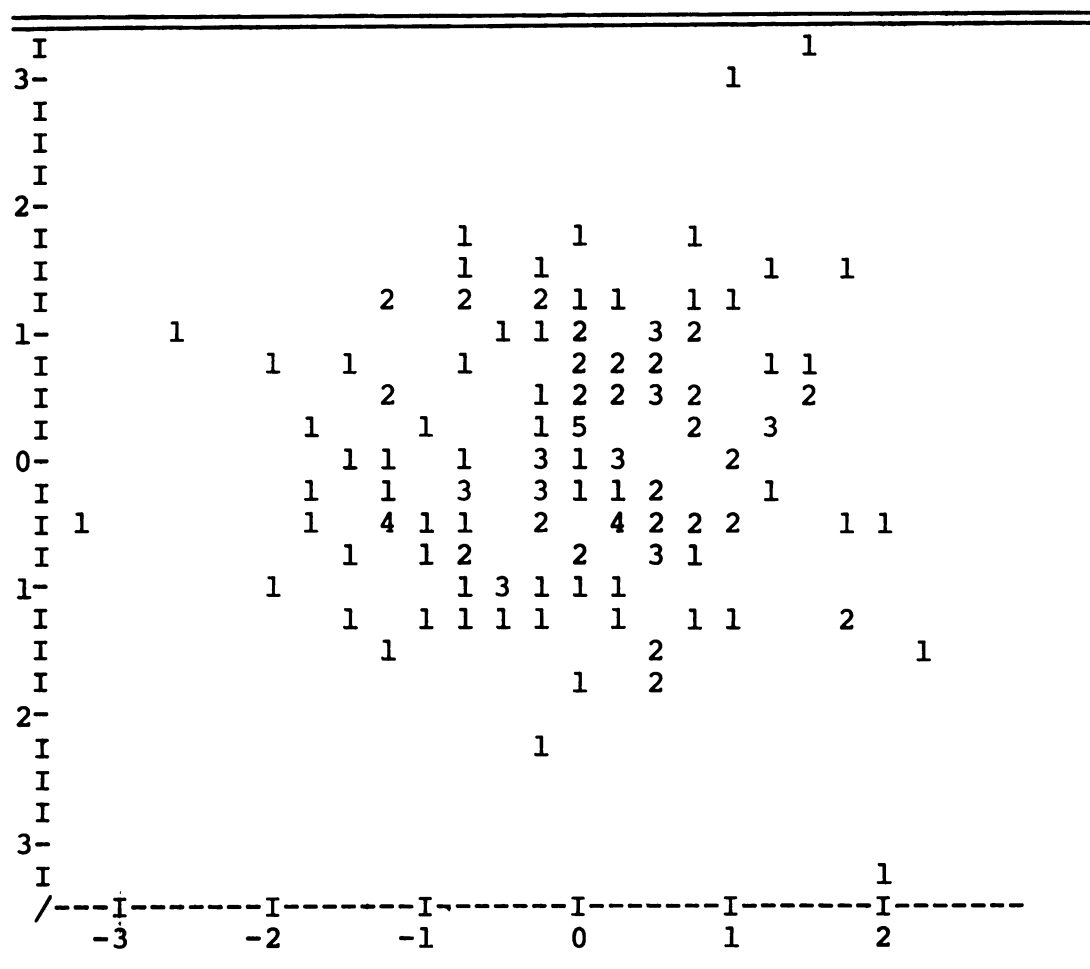
Sample	Mean	Standard Deviation	t-test	Correlation
Principal Dogmatism Scores	53.56	13.72	.04*	.15*
Teacher Dogmatism Scores	52.49	11.35		

\*No significant difference found at the .05 level.

Dogmatism was further examined by correlating the scores of the principal and teacher. A correlation of .164 or above was necessary at the .05 level for rejecting the hypothesis of no correlation. A correlation of .15 was found for the total sample. This coefficient, as indicated in Table 4.1, was not large enough to be significant.

A scatter diagram for the total sample was generated from the data to ascertain whether a curvilinear pattern of relationships might be found. Inspection of the display in Table 4.2 failed to reveal such a relationship between principal and teacher dogmatism. There also appeared to be no other systematic pattern of relationship as measured by the Rokeach Dogmatism Scale, Short Form E.

Table 4.2--Scatter Diagram for Correlation of Dogmatism Scores Between Principal and Teacher



Results Obtained from Testing  
The Hypothesis

Hypothesis I

There is no relationship between the absolute values of the difference in dogmatism scores as obtained from the Rokeach Dogmatism Scale, Short Form E, between principals and teachers and evaluation scores as rated by the principal using the Grand Rapids Evaluation of Teaching Performance.

The Rokeach Dogmatism Scale, Short Form E, was used to obtain dogmatism scores from the principal and one of his teachers. Also, the Grand Rapids Evaluation of Teaching Performance was used to obtain scores from the principal's evaluation of his teacher. Scores obtained from the absolute values of the difference in dogmatism between principal and teacher were correlated with scores from the principal's evaluation of the teacher. The obtained correlation is reported in Table 4.3.

Table 4.3--Correlation Between the Absolute Values of the Difference in Principal-Teacher Dogmatism Scores and the Principal's Evaluation of the Teacher

Measure	Mean	Standard Deviation	Correlation
Absolute Values of the Difference in Dogmatism	12.44	16.42	.03*
Principal's Evaluation of the Teacher	76.85	14.49	

\*No significant relationship at the .05 level.

The null hypothesis that there is no relationship between the absolute values of the difference in principal-teacher dogmatism scores and principal evaluation of the teacher has failed to be rejected at the .05 level of significance. A scatter diagram, as presented in Table 4.4,

[illegible]

Table 4.4 indicates no significant curvilinear relationship between absolute values of the difference in dogmatism scores and evaluation scores.

### Hypothesis II

There is no relationship between open-mindedness of teachers and principal's evaluation of teachers when absolute values in dogmatism scores between principal and teacher are held constant.

The evaluation scores of the teacher by the principal were correlated with open-mindedness of teachers with the relation of the absolute values of the difference in dogmatism scores partialled out. The obtained partial correlation is displayed in Table 4.5.

Table 4.5--Correlation Between Open-Mindedness of Teachers and Principal's Evaluation: Absolute Values of the Difference in Their Dogmatism Scores Held Constant

Measure	Mean	Standard Deviation	Correlation
Teacher Dogmatism Scores	52.49	11.35	.10*
Principal's Evaluation of the Teacher	76.85	14.49	

\*No significant relationship found at the .05 level.

The null hypothesis that there is no relationship between open-mindedness of teachers' and principals' ratings when absolute values of the difference in dogmatism are partialled out has failed to be rejected.

### Hypothesis III

There is no relationship between open-mindedness of principals and principal's evaluation of teachers when the absolute values of the difference in dogmatism between principal and teacher are held constant.

The ratings of the teacher by the principal were correlated with the open-mindedness of the principal with the influence of the absolute values of the difference in dogmatism partialled out. Table 4.6 exhibits the partial correlation.

Table 4.6--Correlations Between Open-Mindedness of Principals and Their Evaluations of Teachers: Absolute Values of the Difference in Dogmatism Scores Between Principal and Teacher Held Constant

Measure	Mean	Standard Deviation	Correlation
Principal Dogmatism	53.56	13.72	
Principal's Evaluation of the Teacher	76.85	14.49	.13*

\*No significant relationship at the .05 level.

The null hypothesis that there is no relationship between open-mindedness of principals and their evaluation of teachers when the absolute values of the difference in dogmatism between principal and teacher are held constant has failed to be rejected.

The clusters of the Evaluation variable were examined to determine what degree of relationship existed with (a) principal dogmatism scores (b) teacher dogmatism scores and (c) absolute values in dogmatism.

Table 4.7--Correlations Between Cluster Evaluations and (A) Principal Dogmatism Scores, (B) Teacher Dogmatism Scores and (C) Absolute Values of the Difference in Dogmatism Scores Between Principal and Teacher

Description	Correlations		
Cluster Evaluations			
Personal Qualifications-I	.15*	.12*	.02*
Teacher-Pupil Relationship-II	.02*	.06*	.06*
Teacher Ability-III	.12*	.07*	.02*
Professional Relationships and Responsibilities-IV	.09*	.09*	.07*
Absolute Values of the Difference in Dogmatism Scores Between Principal and Teacher	.03*	.008*	1.0
	Principal Dogmatism Scores	Teacher Dogmatism Scores	Absolute Values of the Difference in Dogmatism Scores Between Principal & Teacher

\*No significant relationship found at the .05 level.



None of the correlations, as found in Table 4.7, show significance at the .05 level. No relationship was found between (a) cluster evaluations and principal dogmatism scores (b) cluster evaluations and teacher dogmatism scores (c) cluster evaluations and absolute values of the difference in dogmatism between principal and teacher.

Scatter diagrams are presented in Appendix C for further investigation for possible curvilinear relationships of the cluster evaluations with dogmatism scores, as well as the relationship of cluster evaluations with absolute values of the difference in dogmatism scores between principal and teacher. In every instance, no relationship was found.

The cluster evaluation variables were also examined for relationship to open-mindedness with the absolute values of the difference in dogmatism partialled out. Table 4.8 displays these partial correlations.

Table 4.8--Correlations Between Open-Mindedness and Cluster Evaluations With Absolute Values of the Difference in Dogmatism Scores Between Principal and Teacher Partialled Out

Variable	Correlations	
Evaluation	.13*	.10*
Evaluation Clusters		
Personal Qualifications-I	.16*	.12*
Teacher-Pupil Relationships-II	.02*	.06*
Teacher Ability-III	.12*	.06*
Professional Relationship and Responsibilities-IV	.09*	.08*
	Principal Dog-	Teacher Dog-
	matism Scores	matism Scores

\*No significant relationship found at the .05 level.

The correlations between dogmatism and cluster evaluations where absolute values of the difference in dogmatism between principal and teacher were partialled out has failed to show significant relationships.

### Summary

#### Hypotheses

1. There is no relationship between the absolute values of the difference in dogmatism scores as obtained from the Rokeach Dogmatism Scale, Short Form E, between principals and teachers and evaluation as rated by the principal using the Grand Rapids Evaluation of Teaching Performance.
2. There is no relationship between open-mindedness of teachers and principal's evaluation of teachers when absolute values of the difference in dogmatism scores between principal and teacher are held constant.
3. There is no relationship between open-mindedness of principals and principal's evaluation when the absolute values of the difference in dogmatism scores between principals and teachers are held constant.

#### Results

Failed to reject. Correlation not significant at the .05 level of significance.

Failed to reject. Correlation not significant at the .05 level of significance.

Failed to reject. Correlation not significant at the .05 level of significance.

#### Dogmatism Scores

There is no difference in means of dogmatism scores between principals and teachers.

Failed to reject.

SUMMARY (Cont'd.)Cluster Rating Scores

There is no relationship between:

- |   |   |
|---|---|
| (a) the variables of absolute values of the difference in dogmatism scores between principals and teachers and cluster evaluation scores  | Failed to reject. Correlation not significant at the .05 level of significance. |
| (b) open-mindedness of teachers and cluster evaluation scores when the absolute values of the difference in dogmatism scores between principals and teachers are held constant    | Failed to reject. Correlation not significant at the .05 level of significance. |
| (c) open-mindedness of principals and cluster evaluation scores when the absolute values of the difference in dogmatism scores between principals and teachers are held constant. | Failed to reject. Correlation not significant at the .05 level of significance. |

There is no relationship between cluster evaluations and open-mindedness when dogmatism is partialled out.	Failed to reject. Correlation not significant at the .05 level of significance.
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The results of this study indicate that no relationship was found between:

- (a) dogmatism of principals and teachers
- (b) the absolute values of the difference in dogmatism scores between principal and teacher and evaluation of the teacher by the principal
- (c) the open-mindedness of teachers and the principal's evaluation of the teacher when the absolute values of the difference in dogmatism scores between the principal and teacher are held constant

- (d) the open-mindedness of principals and the principal's evaluation of the teacher when the absolute values of the difference in dogmatism scores between the principal and teacher are held constant.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

Chapter V is organized into four sections. The first section is an overview of the study. Conclusions of the study are presented in the second section. The third section of the chapter details implications of the study. Suggestions for future research appear in the last and final section of the study.

#### Overview of the Study

The validity of evaluation of teachers has been examined closely for some time. Many studies have pointed out that the rater is biased by his subjectivity and that his attitudes affect perceived performance. Rokeach's work on dogmatism indicates that a person's belief system influences his perceptions which may be open or closed. It was Kirscht who pointed out that anxiety is a central concept in the theory of dogmatism. Highly dogmatic individuals rely on authority as a defense against anxiety caused by perceived threats. Low dogmatic individuals have low anxiety, rely less on authority, and are more receptive to new ideas. Research in the field of

dogmatism is quite extensive and indicates that a high degree of dogmatism generally impairs performance, perception, adaptability and personality.

It seemed reasonable, then, to hypothesize a relationship between dogmatism of principals and evaluation of teachers by principals. In considering this concept further, it was assumed that not only would there be a relationship between principal's dogmatism and evaluation of teachers, but also that the dogmatism of the teacher would be related to rating. It was felt that highly dogmatic teachers would be anxious in a teaching situation where the principal was low in dogmatism. The reasoning was that the open-minded principal would not satisfy the need of the closed-minded teachers for rules and regulations resulting in the teacher being threatened, highly anxious and demonstrating low performance. The more discrepant the dogmatism scores between principal and teacher, the more likely the evaluation would be lower. To determine if a relationship existed, the absolute values of the difference in dogmatism scores between principals and teachers were correlated with evaluation of the teacher by the principal.

Yet, it was felt that open-minded teachers would be able to handle performance well whether or not the principal was closed- or open-minded. This was based on

the premise that an open-minded teacher would not be threatened whether or not the rules were clearly defined.

Accordingly three questions were posed for investigation:

- (1) Is performance of the teacher related to the absolute values of the difference in dogmatism scores between principal and teacher?
- (2) Do open-minded teachers tend to get higher ratings than closed-minded teachers when the absolute values of the difference in dogmatism between principal and teacher are held constant?
- (3) Do open-minded principals tend to give higher ratings than closed-minded principals when the absolute values of the difference in dogmatism scores between principal and teacher are held constant?

In order to test the hypotheses, beginning teachers and their principals in the state of Michigan were chosen to be the population of interest. The sample size was 151 paired returns, representing 55 percent of the total possible from the randomly selected sample.

Dogmatism scores were obtained by questionnaire from beginning teachers, and dogmatism scores and rating scores were obtained from principals using the Rokeach Dogmatism Scale, Short Form E, and the Grand Rapids Evaluation of Teaching Performance instrument. All data were collected on mark sense sheets and analyzed by the 3600 computer at the Computer Center, Michigan State University.

The null form of Hypothesis I indicated no relationship between the variables of absolute values of the

difference in dogmatism scores between principals and teachers and the variable evaluation. The null hypothesis was not rejected.

Hypothesis II, stated in the null form, indicated no relationship between open-mindedness of teachers and evaluation when the absolute values of the difference in dogmatism scores between principal and teacher were held constant. The null hypothesis was not rejected.

Hypothesis III, also stated in the null form, posited no relationship between the dogmatism of the principal and evaluation when the absolute values of the difference in dogmatism scores between principal and teacher were held constant. The null hypothesis was not rejected.

The study was designed and conducted to determine the relationship of dogmatism of principals and teachers to the evaluation of the teacher by the principal in the state of Michigan. No relationship was found. Although the literature was divided on whether or not a relationship existed, a relationship may, in fact, exist. Rokeach's<sup>1</sup> work on dogmatism indicated a person's belief system influences his perceptions. Kirscht<sup>2</sup> pointed out that

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<sup>1</sup>Milton Rokeach, The Open and Closed Mind: Investigations into the Nature of Belief and Personality Systems (New York: Basic Books, 1960), p. 50.

<sup>2</sup>John P. Kirscht and Ronald C. Dillehay, Dimension of Authoritarianism: A Review of Research and Theory (Lexington: University of Kentucky Press, 1967), p. 49.



anxiety is a central concept in the theory of dogmatism. Highly dogmatic individuals rely on authority as a defense against anxiety. Lewis<sup>3</sup> reported that teachers' authoritarianism influenced principals' ratings of teacher effectiveness at grade levels seven and twelve, and supervisors' ratings of effectiveness at grade levels seven, nine and twelve. Johnson<sup>4</sup> found a significant positive relationship between closed-mindedness of student teacher and ratings of success in student teaching as determined by co-operating school supervisory teachers. Musella<sup>5</sup> indicated real differences were discerned between predominantly open- and closed-minded principals in their rating of teacher effectiveness by the similarity or the dissimilarity of belief-disbelief structure.

Attention was redirected to the design of the study. Were the instruments valid and reliable? The

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<sup>3</sup>Franklin Garner Lewis, "The Relationship of Authoritarianism as Revealed by the Rokeach Dogmatism Scale and Perceived Effectiveness of Teaching as Indicated by Teachers' Self-Ratings, Principals' Self-Ratings, Principals' Ratings and Supervisors' Ratings" (unpublished Ed.D. dissertation, North State Texas University, 1968).

<sup>4</sup>James S. Johnson, "The Relationship of Open- and Closed-Mindedness to Success in Student Teaching" (unpublished Ph.D. dissertation, George Peabody College for Teachers, June, 1966), p. 28.

<sup>5</sup>Donald Musella, "Open-Closed Mindedness as Related to the Ratings of Teachers by Elementary School Principals," Journal of Experimental Education, XXXV (Spring, 1967), pp. 75-79.

Rokeach Dogmatism Scale, Short Form E, used to obtain dogmatism scores from principals and teachers, has been field tested and is considered reliable. The long form, from which the Short Form E was derived, has been extensively used in research and is considered valid. The Grand Rapids Evaluation of Teaching Performance instrument has been used by the Grand Rapids Public School system for several years. The instrument was critically examined in Chapter I for validity and reliability. Findings from the several juries would indicate the instrument both valid and reliable. In view of the statements above, the Rokeach Dogmatism Scale, Short Form E, and the Grand Rapids Evaluation of Teaching Performance were considered to measure what they purport to measure, e.g. dogmatism and evaluation of teaching performance.

Care was exercised in the choice of the population of interest. The participating school districts were chosen by randomization. Similarly, the principals and teachers were selected by randomization. Questionnaires were returned by 88 percent of the principals and 85 percent of the teachers which resulted in 77 percent paired responses. Attrition, due to superintendent's denial of permission to conduct the study, and failure to reply by superintendents, principals and teachers, resulted in 55 percent paired response to the total sample size. The sample can be considered representative of the population of interest.

Care was also exercised in the handling of the data. Respondents to the questionnaire recorded their answers directly. The use of a computer to analyze the data further reduced the possibility of error.

In considering the instrumentation used in this study, the selection of the population of interest, the large number of paired principal-teacher responses, and the procedures used to analyze the data, it was felt that the design was carefully contrived and executed.

### Conclusions

The following conclusions dealing with dogmatism scores as measured by the Rokeach Dogmatism Scale, Short Form E, and rating as measured by the Grand Rapids Evaluation of Teaching Performance instrument seem warranted by the data in this study.

(1) There is no difference, on the average, between principal dogmatism scores and teacher dogmatism scores.

(2) Teacher dogmatism scores are not related to the principal's evaluation of the teacher.

(3) Principal dogmatism scores are not related to the principal's evaluation of the teacher.

(4) The degree to which the principal and teacher have absolute values in the difference of their dogmatism scores is not related to the principal's evaluation of the teacher.

(5) Open-mindedness of teachers has no relationship to the principal's evaluation of the teacher when the absolute values of the difference in dogmatism scores are held constant.

(6) Open-mindedness of principals has no relationship to the principal's evaluation of the teacher when the absolute values of the difference in dogmatism scores are held constant.

(7) Absolute values of the difference in dogmatism scores between principals and their teachers have no relationship to the evaluation of beginning teachers when that evaluation is partitioned into sub-groups, e.g. Personal Qualifications, Teacher-Pupil Relationships, Teaching Ability, and Professional Relationships and Responsibilities.

### Implications

The investigation of this study focused on the degree of relationship dogmatism of the principal has with his evaluation of the teacher, as well as the degree of relationship dogmatism of the teacher has with his evaluation. The findings of this study suggest no relationship between evaluation and dogmatism. The degree of dogmatism of a principal does not appear to influence his evaluation of his beginning teacher. This finding should arrest the fears of teachers, just starting their teaching career,

who are concerned with whether or not they are compatible with the principal's degree of dogmatism. The expression, "I couldn't work for him. He's too dogmatic!", may not be reasonable in the light of the findings of this study, i.e., there is no relationship between evaluation and dogmatism. Placement officials and teacher union officials, with the goal of tenure in mind for the beginning teacher, need not be concerned. Principals are more objective in evaluation than previously considered by social scientists such as Kerlinger, Barr, and Leeper. Principals who have been personally apprehensive about the relationship of their own bias to their evaluation of the teacher should feel less concern. They do not allow their own degree of dogmatism to influence their evaluation. Teachers who are open-minded do not influence the principal's evaluation, nor does the degree to which the level of dogmatism is discrepant between teacher and principal have a relationship to the principal's evaluation of the teacher. It may be concluded that there is no relationship between the dogmatism of the principal and teacher and the evaluation of the teacher by the principal. This fact, the fact of no relationship, becomes the strength of the study.

Evaluation will become increasingly important because of the current move in the state of Michigan as well as the United States to consider accountability in teaching. Principals will want to know how effective a teacher

is relative to the areas for which the teacher is held accountable. Evaluation may well turn from its present concept of over-all appraisal of the teacher to a more delineating measure of her teaching performance in the classroom.

### Suggestions for Future Research

The following suggestions are made for future research into the relationship of bias to teacher evaluation.

(1) A study designed to show cause and effect by having a pre-test and a post-test, with known levels of dogmatism, may indicate dogmatism affects evaluation. The study would be strengthened if the evaluation were limited to classroom performance.

In a situation where interning teachers are placed in schools to complete degree requirements, dogmatism scores could be obtained not only from the teacher but also from the principal prior to placement. The design would call for arbitrary pairing of the following dogmatism levels:

<u>Principal</u>	<u>Teacher</u>
Open-Minded	Open-Minded
Closed-Minded	Closed-Minded
Open-Minded	Closed-Minded
Closed-Minded	Open-Minded

It is conjectured that high performance would result in the combinations, "Principal Open-Minded and

Teacher Open-Minded," as well as the "Principal Closed-Minded and Teacher Closed-Minded." It is further conjectured that performance would be less with the combinations, "Principal Open-Minded and Teacher Closed-Minded," as well as "Principal Closed-Minded and Teacher Open-Minded."

The suggested future research is different from this study inasmuch as the proposed research deals with manipulating the pairing of principals and teachers whose dogmatism scores would be known prior to placement. The approach in this study was to measure the levels of dogmatism scores from a randomly selected population after placement.

(2) An explanatory study could be made of personality variables other than dogmatism to see what relationship exists to principal's evaluation of teachers.

(3) An investigation could be carried out to see what relationship exists between evaluation of teachers by the principal and building climate.

(4) Further investigation could be carried out to see what relationship exists between evaluation of the teacher by the principal with variables such as religion, age, sex, race, socio-economic class, as well as pressures brought to bear on the principal from sources such as the PTA, the Central Office and the community.

(5) A replication of this study could be made by concentrating on the variable "classroom performance" rather

than "evaluation." Classroom performance is a narrower variable than evaluation and as such would lend itself to a stronger statistical manipulation. A study could be conducted to determine what relationship exists between:

- (a) dogmatism of the principal and the evaluation of classroom performance by the principal
- (b) dogmatism of the teacher and the evaluation of classroom performance by the principal
- (c) personality variables other than dogmatism of the principal and the evaluation of classroom performance by the principal
- (d) personality variables other than dogmatism of the teacher and the evaluation of classroom performance by the principal.

The opening sentence of this study referred to the improvement of instruction through teacher evaluation by the principal. Since the inception of Sputnik, public education has received tremendous increases in financial support. Accompanying this has been an effort to determine if achievement levels have improved. Preliminary reports indicate that not only have achievement levels failed to improve but that they have, in fact, declined. The pressure for accountability is being applied to and felt by administrators across the land. Infusion of teaching aids, changed syllabi and new texts have failed to dent the problem of increased effectiveness in teaching. The solution possibly may lie in a renewed interest in supervision and evaluation of the teacher. What she does or does not do in the classroom may be the most important criterion



for effectiveness. The evaluation of classroom performance then becomes paramount to the school principal. Continued research to improve the evaluation process is necessary to help principals to help teachers improve classroom instruction. To this end researchers would do well to direct their attention.

## APPENDICES

## APPENDIX A

### VALIDITY: TEACHER EVALUATION FORM

1. FORM LETTER SECURING JUDGMENT OF JURORS TO ESTABLISH VALIDITY
2. FORM FOR JURY TO RECORD CHOICES TO ESTABLISH VALIDITY
3. TABLE 1: RAW SCORES OF JURY TO ESTABLISH VALIDITY

### RELIABILITY: TEACHER EVALUATION FORM

1. FORM LETTER SECURING JUDGMENT OF JURORS TO ESTABLISH RELIABILITY
2. FORM FOR JURY TO RECORD CHOICES TO ESTABLISH RELIABILITY
3. TABLE 2: RAW SCORES OF THE JURY TO ESTABLISH RELIABILITY
4. TABLE 3: RELIABILITY RATINGS--OVERALL
5. TABLE 4: RELIABILITY RATING, PERSONAL QUALIFICATIONS--CLUSTER SCORE
6. TABLE 5: RELIABILITY RATING, TEACHER PUPIL RELATIONSHIPS--CLUSTER SCORE
7. TABLE 6: RELIABILITY RATING, TEACHING ABILITY--CLUSTER SCORE
8. TABLE 7: RELIABILITY RATING, PROFESSIONAL RIGHTS AND RESPONSIBILITIES--CLUSTER SCORE

March 19, 1970

S. Davis Smith  
301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan

Dear

I am doing some work on campus at Michigan State University. Part of my work will be the use of an instrument in a study of principals evaluating first year teachers.

The purpose of this letter is to obtain your judgment as to the relevance of each item on the instrument.

Would you please take a few minutes and rate the items on the Teacher Evaluation Form on their relevance to measuring teacher performance by the principal. Write a number before each item to indicate your choice according to the following scale.

3 corresponds to highly relevant  
2 corresponds to somewhat relevant  
1 corresponds to irrelevant

I am enclosing a self addressed envelope to help meet my deadline (and also for your convenience).

Thank you for your help.

Yours very truly,

*S. Davis Smith*  
S. Davis Smith

TEACHER EVALUATION FORM\*

\*For Evaluation Jury

Highly Relevant 3	Somewhat Relevant 2	Irrelevant 1	
			I. PERSONAL QUALIFICATIONS
			1. APPEARANCE - (well groomed, appropriately dressed; makes good impression)
			2. ATTITUDE - (optimistic, cheerful, enthusiastic, sense of humor)
			3. PHYSICAL HEALTH - (has vitality and stamina to meet work load)
			4. USE OF ENGLISH - (uses good English, expresses thoughts easily, agreeable voice)
			5. POISE - (emotionally balanced, calm, even tempered)
			6. RELATIONSHIP TO OTHERS - (friendly, sincere, tactful, shows concern)
			7. DEPENDABILITY - (works well with others and carries share of responsibility, reliable, completes work)
			8. GROWTH AND COMPETENCE - (willingness to seek and accept help in professional growth)
			9. JUDGMENT - (usually makes reliable decisions)
			OVERALL EVALUATION OF PERSONAL CHARACTERISTICS LISTED ABOVE
			II. TEACHER-PUPIL RELATIONSHIPS
			1. CLASSROOM - (evidence of mutual respect, co-operation and courtesy; a feeling of friendliness prevails)
			2. PERSONAL RELATIONSHIPS - (sensitivity to students' needs and problems; respects students as individuals)
			3. PUPIL FREEDOM AND CONTROL - (students permitted freedom of action in proportion to demonstrated ability to use freedom wisely)

Highly Relevant	Somewhat Relevant	Irrelevant	
			OVERALL EVALUATION OF PERSONAL CHARACTERISTICS LISTED ABOVE
			III. TEACHING ABILITY
			1. CONTENT - (based on sound functional know- ledge and based upon broad cultural experience and professional train- ing)
			2. PLANNING AND PREPARATION - (content carefully selected with definite objective in mind; methods and materials adapted to needs of the class)
			3. PRESENTATION AND DEVELOPMENT - (pupils' interest used as motivat- ing force to direct effort; pupils encouraged to participate and ex- press themselves without embarrass- ment from the teacher; assignments are definite, clear, interest arousing and related to pupil's ability)
			4. EVALUATION AND RECORDS - (skillful in evaluating pupils; pupils are encouraged to view per- sonal accomplishments in relation to their own capacities; adequate records are kept)
			5. SPECIAL NEEDS - (alert for signs of disease, mal- nutrition, emotional problems, etc.; teaching procedures adjusted to limitations of handicapped pupils; referrals are made to other staff members for special attention)
			6. ADMINISTRATIVE DETAILS - (routine matters handled efficient- ly)

Highly 3 Relevant	Somewhat 2 Relevant	1 Irrelevant	
			7. PHYSICAL ENVIRONMENT - (concern for adequate ventilation, lighting and good housekeeping; functional information displays evident)
			8. ASSISTANCE - (willingness to give additional help to pupils who have subject matter and personal needs)
			IV. PROFESSIONAL RELATIONSHIPS AND RESPONSIBILITIES
			1. TOTAL SCHOOL PROGRAM - (sees his work and subject fairly in relation to the total school program; assists in school sponsored activities; willing to serve on committees)
			2. FELLOW TEACHERS - (works co-operatively with the staff; friendly and courteous; willing to help teachers; keeps the personal apart from the professional; is accepted by teachers and other school personnel)
			3. PARENTS AND COMMUNITY - (does what he can to build community understanding and good will; treats visiting parents courteously; helps them to understand school program; stresses accomplishments, not failures of pupils)
			4. TEACHING AS A PROFESSION - (has a deep and enthusiastic interest in teaching; belief in the worthwhileness of his work; encourages others to enter the profession)
			5. TEACHER ADMINISTRATION - (complies with adopted policies and procedures) RELATIONSHIP
			OVERALL EVALUATION OF PROFESSIONAL RELATIONSHIP LISTED ABOVE

TABLE 1

### RAW SCORES OF THE JURY TO ESTABLISH VALIDITY

## TEACHER EVALUATION FORM

I. PERSONAL QUALIFICATIONS																	Sum	Average
1. Appearance	2	2	3	3	3	3	2	3	2	3	3	3	3	1	3	3	42	2.6
2. Attendance	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	47	2.9
3. Phy. Health	2	3	3	2	2	3	2	3	3	3	3	2	3	3	3	3	43	2.7
4. English	2	3	3	3	2	3	2	3	2	3	3	3	3	3	3	3	44	2.7
5. Poise	2	3	3	2	2	3	3	2	3	3	3	3	3	2	3	3	45	2.8
6. Relat.	2	2	3	3	2	3	3	3	3	2	3	3	3	2	3	3	42	2.6
7. Depend.	2	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	45	2.8
8. Growth	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	46	2.8
9. Judgment	2	3	3	3	2	3	3	3	2	3	3	2	3	3	3	3	44	2.7
Cluster Average	$\frac{2.6+2.9+2.7+2.7+2.8+2.6+2.8+2.8+2.7}{9} = \frac{24.6}{9} = 2.7$																	

## II. TEACHER-PUPIL RELATIONSHIPS

11. Classroom	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	47	2.9
12. Personal	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	48	2.9
13. Pupil Cont.	2	3	3	2	2	3	3	3	3	3	3	3	2	3	2	2	2	42	2.6
Cluster Average	$\frac{2.9 + 2.9 + 2.6}{3} = \frac{84}{3} = 2.8$																		

### III. TEACHING ABILITY

15. Content	3	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3	46	2.8
16. Planning	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	48	2.9
17. Presentat.	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	47	2.9
18. Evaluation	2	3	3	3	2	3	2	3	3	3	3	3	3	3	3	2	45	2.8
19. Special	2	2	3	2	1	3	3	3	3	3	3	3	3	3	3	3	43	2.7
20. Admin.	1	2	2	2	1	3	2	2	2	2	3	3	3	2	2	2	33	2.0
21. Phy. Env.	2	2	3	2	2	3	2	3	2	2	3	2	3	2	2	2	37	2.3
22. Assist.	2	2	3	3	2	3	3	3	3	3	3	3	3	3	3	3	45	2.8
Cluster Average	$\frac{2.8+2.9+2.9+2.8+2.7+2.0+2.3+2.8}{8} = \frac{21.2}{8} = 2.6$																	

#### IV. PROFESSIONAL RELATIONSHIPS AND RESPONSIBILITIES

24. Total Schl.	2	2	2	3	2	3	2	3	3	2	3	3	2	3	3	41	2.5	
25. Fellow Tch.	2	2	3	3	2	3	3	3	3	3	2	3	3	3	3	44	2.7	
26. Par. & Comm.	2	2	3	3	2	3	3	3	3	3	3	3	2	3	2	43	2.7	
27. Teaching	2	3	3	3	2	3	3	3	3	3	3	3	2	3	2	44	2.7	
28. Teach. Adm.	2	3	2	3	2	3	2	3	3	3	3	2	2	2	3	41	2.5	
																<u>1,092</u>		
Cluster Average	<u>2.5 + 2.7 + 2.7 + 2.7 + 2.5</u>															=	<u>131</u>	= 2.6
	5																5	

## VALIDITY OF INSTRUMENT

$$\frac{9(2.7) + 3(2.8) + 8(2.6) + 5(2.6)}{25} = \frac{66.5}{25} = 2.7$$



301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

March 19, 1970

Dear

The role of the school principal in his evaluation capacity may be influenced by bias. This concept is one in which I am interested. As part of a research project in the area of bias, I need to determine the reliability of an instrument which will be used to evaluate teachers.

In order to obtain a rating of reliability, would you kindly take a few minutes to check the appropriate box opposite each item of the enclosed Teacher Evaluation Form. The boxes from left to right with values are:

<u>Classification</u>	<u>Value</u>
Superior	4
Good	3
Fair	2
Unsatisfactory	1

I am enclosing a stamped, self-addressed envelope for your convenience.

Thank you for your help.

Yours very truly,

*S. Davis Smith*

S. Davis Smith

Encls. (2)

TEACHER EVALUATION FORM\*\*

x(For Reliability Jury)

Teacher's Name#Principal's NameSchoolSchool District

Abstract of results requested. Yes         
 No       

#(No reference will be made to  
 specific schools, teachers or  
 Principals.)

**DIRECTIONS:**

Please check where appropriate including  
 "Overall Evaluation." (✓)

	4 Superior	3 Good	2 Fair	1 Unsatisfactory
<b>I. PERSONAL QUALIFICATIONS</b>				
1. APPEARANCE - (well groomed, appropriately dressed; makes good impression)				
2. ATTITUDE - (optimistic, cheerful, enthusiastic, sense of humor)				
3. PHYSICAL HEALTH - (has vitality and stamina to meet work load)				
4. USE OF ENGLISH - (uses good English, expresses thoughts easily; agreeable voice)				
5. POISE - (emotionally balanced, calm, even tempered)				
6. RELATIONSHIP TO OTHERS - (friendly, sincere, tactful, shows concern)				
7. DEPENDABILITY - (works well with others and carries share of responsibility, reliable, completes work)				
8. GROWTH AND COMPETENCE - (willingness to seek and accept help in professional growth)				
9. JUDGMENT - (usually makes reliable decisions)				
<b>OVERALL EVALUATION OF PERSONAL CHARACTERISTICS LISTED ABOVE</b>				

\*as modified from the Grand Rapids form

		4 Superior	3 Good	2 Fair	1 Unsatisfactory
II. TEACHER-PUPIL RELATIONSHIPS					
1. CLASSROOM ATMOSPHERE	- (evidence of mutual respect, cooperation and courtesy; a feeling of friendliness prevails.				
2. PERSONAL RELATION- SHIPS	- (sensitivity to students' needs and problems; respects students as individuals)				
3. PUPIL FREEDOM AND CONTROL	- (students permitted freedom of action in proportions to demonstrated ability to use freedom wisely)				
OVERALL EVALUATION OF TEACHER-PUPIL RELATIONSHIPS LISTED ABOVE					
III. TEACHING ABILITY					
1. CONTENT	- (based on sound functional knowledge and based upon broad cultural experience and professional training)				
2. PLANNING AND PRE- PARATION	- (content carefully selected with definite objective in mind; methods and materials adapted to needs of the class				
3. PRESENTA- TION AND DEVELOPMENT	- (pupils' interest used as motivating force to direct effort; pupils encouraged to participate and express themselves without embarrassment from the teacher; assignments are definite, clear, interest arousing and related to pupil's ability)				

		4 Superior	3 Good	2 Fair	1 Unsatisfactory
4. EVALUATION AND RECORDS	- (skillful in evaluating pupils: pupils are encouraged to view personal accomplishments in relation to his own capacities; adequate records are kept)				
5. SPECIAL NEEDS	- (alert for signs of disease, malnutrition, emotional problems, etc.; teaching procedures adjusted to limitations of handicapped pupils; referrals are made to other staff members for special attention)				
6. ADMINISTRATIVE DETAILS	- (routine matters handled efficiently)				
7. PHYSICAL ENVIRONMENT	- (concern for adequate ventilation, lighting and good housekeeping; functional information displays evident)				
8. ASSISTANCE TO PUPILS	- (willingness to give additional help to pupils who have subject matter and personal needs)				
OVERALL EVALUATION OF TEACHING ABILITY LISTED ABOVE					
IV. PROFESSIONAL RELATIONSHIPS AND RESPONSIBILITIES					
1. TOTAL SCHOOL PROGRAM	(sees his work and subject fairly in relation to the total school program; assists in school sponsored activities; willing to serve on committees)				

		4 Superior	3 Good	2 Fair	1 Unsatisfactory
2. FELLOW TEACHERS	- (works co-operatively with the staff; friendly and courteous; willing to help new teachers; keeps the personal apart from the professional; is accepted by teachers and other school personnel)				
3. PARENTS AND COMMUNITY	(does what he can to build - community understanding and good will; treats visiting parents courteously; helps them to understand school program; stresses accomplishments; not failures of pupils)				
4. TEACHING AS A PROFESSION	(has a deep and enthusiastic - interest in teaching; belief in the worthwhileness of his work; encourages others to enter the profession)				
5. TEACHER ADMINIS- TRATION RELATIONSHIP	(complies with adopted - policies and procedures)				
OVERALL EVALUATION OF PROFESSIONAL RELATIONSHIPS LISTED ABOVE					

TABLE 2

CLUSTER AND OVERALL RELIABILITY RATINGS\*TEACHER EVALUATION FORM

		Teacher I			Teacher II			Teacher III			Teacher IV		
		R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
I.	1.	4	3	3	3	3	3	4	4	4	3	3	4
	2.	4	4	4	4	3	3	4	4	3	3	3	3
	3.	3	3	3	4	3	3	4	4	3	3	3	3
	4.	3	3	4	3	3	3	4	3	3	3	4	4
	5.	4	4	4	4	3	3	4	3	4	3	3	4
	6.	3	3	4	3	3	3	3	4	3	3	4	4
	7.	4	4	4	2	3	3	4	4	4	3	4	4
	8.	4	4	4	1	3	3	4	4	4	4	4	4
	9.	4	4	4	3	3	3	4	4	4	3	4	4
Sub-Total		33	32	34	27	27	27	35	34	32	28	32	34
II.	1.	4	4	4	3	3	3	4	4	4	3	4	4
	2.	4	4	4	3	3	3	4	4	4	3	4	4
	3.	4	4	4	4	3	3	4	4	4	4	4	3
Sub-Total		12	12	12	12	9	8	12	12	12	10	12	11
III.	1.	4	3	4	2	3	3	3	3	3	3	4	4
	2.	4	4	4	2	3	3	4	4	4	3	4	4
	3.	4	4	4	3	3	3	4	4	4	3	4	3
	4.	3	4	4	3	3	3	4	4	4	3	3	4
	5.	4	3	4	2	3	3	4	4	3	3	4	4
	6.	4	3	4	3	3	2	4	3	3	3	3	4
	7.	4	4	4	2	3	3	4	3	3	3	4	4
	8.	4	4	4	3	3	2	4	4	4	4	3	4
Sub-Total		31	29	32	20	24	20	31	29	28	25	29	31
IV.	1.	4	4	4	3	2	2	4	4	4	3	3	4
	2.	3	4	4	4	2	2	3	4	3	4	3	4
	3.	3	4	4	3	2	3	4	4	3	3	4	3
	4.	4	4	4	3	2	2	4	3	4	3	3	4
	5.	4	4	4	3	2	3	4	4	4	3	4	4
Sub-Total		18	20	20	16	10	12	19	19	18	16	17	19
TOTAL		94	93	98	73	70	70	97	94	90	79	90	95

\*Raw Scores

TABLE 3

RELIABILITY RATING--OVERALL  
TEACHER EVALUATION FORM

	Rater 1	Rater 2	Rater 3	Sum	Sum <sup>2</sup>
Teacher 1	94	93	98	283	81,225
2	73	70	70	213	45,369
3	97	94	90	281	78,961
4	89	90	95	274	75,076
Sum	353	347	353	1,053	280,631
Sum of Squared Ratings				=	93,609
Product of Sum and Means		$1,053 \times \frac{1,053}{12}$		=	92,400.75
Sum of Squares					
For Raters		$\frac{1,053}{4} - 92,400.75$		=	-0-
For Teachers		$\frac{280,631}{3} - 92,400.75$		=	1,142.91
For Total		$93,609 - 92,400.75$		=	1,208.25
For Error		$1,208.25 - 1,142.91$		=	65.34
Mean Square					
For Teachers		$\frac{1,142.91}{3}$		=	380.97
For Error		$\frac{65.34}{3}$		=	21.78
Reliability of Ratings		$\frac{380.97 - 21.78}{380.97 + 2(21.78)}$		=	$\frac{359.19}{424.53} = .84$

TABLE 4

RELIABILITY RATING  
TEACHER EVALUATION FORM

I. Personal Qualifications

	Rater 1	Rater 2	Rater 3	Sum	Sum <sup>2</sup>
Teacher 1	33	32	34	99	9,801
2	27	27	27	81	6,561
3	35	34	32	101	10,201
4	28	32	34	94	8,836
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Sum	123	125	127	375	35,399
Sum of Squared Ratings					11,825
Product of Sums and Means			$\frac{375}{12} \times 375$	=	11,718.75
Sums of Squares					
For Raters		$\frac{375}{4} - 11,718.75$	=		-0-
For Teachers		$\frac{35,399}{3} - 11,718.75$	=		80.85
For Total		$11,825 - 11,718.75$	=		106.25
For Error		$106.25 - 80.85$	=		15.90
Mean Square					
For Teachers		$\frac{80.85}{3}$	=		26.95
For Error		$\frac{15.90}{3}$	=		5.30
Reliability of Ratings		$\frac{26.95 - 5.30}{26.95 + 2(5.30)}$	=		.52



TABLE 5

RELIABILITY RATING  
TEACHER EVALUATION FORM

II. TEACHER-PUPIL RELATIONSHIPS

	Rater 1	Rater 2	Rater 3	Sum	Sum <sup>2</sup>
Teacher 1	12	12	12	36	1,296
2	10	9	8	27	729
3	12	12	12	36	1,296
4	<u>10</u>	<u>12</u>	<u>11</u>	<u>33</u>	<u>1,089</u>
Sum	44	45	43	132	4,420
Sum of Squared Ratings					1,474
Product of Sums and Means	132 x $\frac{132}{12}$			=	1,452
Sums of Squares					
For Raters	$\frac{132}{4}$	- 1,452	=	-0-	
For Teachers	$\frac{4,420}{3}$	- 1,452	=	21.3	
For Total	1,474	- 1,452	=	22	
For Error	22	- 21.3	=	.7	
Mean Square					
For Teachers	$\frac{21.3}{3}$		=	7.1	
For Error	$\frac{.7}{3}$		=	.23	
Reliability of Ratings	$\frac{7.1 - .23}{7.8 + 2(.23)}$			= $\frac{6.87}{8.26}$	= .83

TABLE 6

RELIABILITY RATING  
TEACHER EVALUATION FORM

III. TEACHING ABILITY

	Rater 1	Rater 2	Rater 3	Sum	Sum <sup>2</sup>
Teacher 1	31	29	32	92	8,464
2	20	24	20	64	4,096
3	31	29	28	88	7,744
4	25	29	31	85	7,225
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Sum	107	111	111	329	27,529
Sum of Squared Ratings				=	9,215
Product of Sum and Means		329 x $\frac{329}{12}$		=	9,017.89
Sum of Squares					
For Raters		$\frac{329}{4} - 9,017.89$		=	-0-
For Teachers		$\frac{27,529}{3} - 9,017.89$		=	158.41
For Total		9,215 - 9,017.89		=	197.11
For Error		197.11 - 158.41		=	38.70
Mean Square					
For Teachers		$\frac{158.41}{3}$		=	52.80
For Error		$\frac{38.70}{3}$		=	12.90
Reliability of Ratings		$\frac{52.80 - 12.90}{52.80 + 2(12.90)}$		=	$\frac{39.90}{78.60} = .50$

TABLE 7

RELIABILITY RATING  
TEACHER EVALUATION FORM

## IV. PROFESSIONAL RIGHTS AND RESPONSIBILITIES

	Rater 1	Rater 2	Rater 3	Sum	Sum <sup>2</sup>
Teacher 1	18	20	20	58	3,364
2	16	10	12	38	1,444
3	19	19	18	56	3,136
4	16	17	19	52	2,704
	—	—	—	—	—
Sum	69	66	69	204	10,648
Sum of Squared Ratings				=	3,576
Product of Sum and Means	$\frac{204}{12} \times 204$			=	3,468
Sums of Squares					
For Raters	$\frac{204}{4} - 3,468$			=	-0-
For Teachers	$\frac{10,648}{3} - 3,468$			=	81.3
For Total	3,576 - 3.468			=	108
For Error	108 - 81.3			=	26.7
Mean Square					
For Teachers	$\frac{81.3}{3}$			=	27.1
For Error	$\frac{26.7}{3}$			=	8.9
Reliability of Ratings	$\frac{27.1 - 8.9}{27.1 + 2(8.9)} = \frac{18.2}{44.9} = .40$				

## APPENDIX B

### LETTERS TO SUPERINTENDENTS

1. LETTER REQUESTING PERMISSION TO CONTACT ONE PRINCIPAL AND ONE TEACHER TO PARTICIPATE IN THE RESEARCH
2. FOLLOW-UP LETTER

### LETTERS TO PRINCIPALS

1. LETTER REQUESTING CO-OPERATION IN THE RESEARCH
2. RETURN FORM WITH BLANKS FOR NAMES OF TEACHERS
3. FOLLOW-UP LETTER
4. DIRECTION LETTER ON THE COMPLETION OF THE OPINION QUESTIONNAIRE AND THE TEACHER EVALUATION ANSWER SHEET
5. PERSONAL OPINION QUESTIONNAIRE
6. PERSONAL OPINION QUESTIONNAIRE ANSWER SHEET
7. TEACHER EVALUATION FORM
8. TEACHER EVALUATION ANSWER SHEET
9. FOLLOW-UP LETTERS
10. POSTCARD FOLLOW-UP

### LETTERS TO TEACHERS

1. INTRODUCTORY LETTER
2. DIRECTION LETTER ON THE COMPLETION OF THE PERSONAL OPINION QUESTIONNAIRE
3. PERSONAL OPINION QUESTIONNAIRE

Appendix B (Continued)

4. PERSONAL OPINION QUESTIONNAIRE ANSWER SHEET
5. FOLLOW-UP LETTER
6. POSTCARD FOLLOW-UP

301-C Erickson Hall  
Michigan State University  
East Lansing, Mich. 48823

March 25, 1970

Dear Sir:

The purpose of this letter is to obtain your permission to contact one elementary principal and one beginning teacher in your school district as part of a research project.

I am an elementary school principal on leave doing research under Dr. Herbert C. Rudman, Michigan State University. As an administrator you perhaps have shared my concern as to the objectivity of the evaluation process. Is rating influenced by the bias of the principal? Or, to turn the question around, is the teacher's performance influenced by her bias?

My study deals with evaluation, using as a population of interest the elementary schools in the state of Michigan. Your district has been selected, for sampling purposes, through randomization. Generalizations which result from the analysis of the data must be made to schools on the state level rather than to a specific school, principal or teacher.

Data collection procedures are simple and brief and will be done through the U.S. mail assuring individual and confidential returns. (Stamped self-addressed envelopes are included for return of data.)

Your permission to contact one principal and one of his teachers to participate in this research will be appreciated.

Your prompt reply will help me meet my time limits.

Yours very truly,

*S. Davis Smith*  
S. Davis Smith

☐

Permission granted

☐

Permission denied

---

Signature

301-C Erickson Hall  
Michigan State University  
East Lansing, Mich. 48823

April 11, 1970

Dear Sir:

This is a follow-up letter to my initial request dated March 25, 1970, for permission to contact one principal and one teacher in your school district for purposes of a research study.

The area under investigation is the mind set of both principal and teacher and its implication to the evaluation of teacher performance.

Knowing of your busy schedule I have enclosed another permission form.

Thank you in advance for your co-operation.

Yours very truly,

A handwritten signature in cursive script that reads "S. Davis Smith".

S. Davis Smith

Encl.

301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

April 11, 1970

Dear Sir:

The purpose of this letter is to gain your co-operation for the inclusion of one of your teachers and yourself in a research project. (Permission to contact you has been received from your superintendent.)

I am an elementary principal on leave doing research on the doctoral level under Dr. Herbert C. Rudman, Michigan State University. As a principal I have been concerned, as I know you have, with how objective the principal's evaluation of teachers really is. Is the rating influenced by principal bias? Or, to turn the question around, is the teacher's performance influenced by her bias? As a researcher I hope to cast some light on this problem.

My study deals with elementary schools in the state of Michigan. Your name has been selected by chance through randomization requiring generalization of results to the state level rather than to school district, school principal or teacher.

Completion of the research will require the names of your beginning teachers, if any, from which one will be selected randomly. The questions (15 minutes) asked of both you and your teacher will be by mail assuring individual and confidential returns.

Enclosed is a form for your convenience.

Yours very truly,

*S. Davis Smith*

S. Davis Smith

Encl.



Mr. S. Davis Smith  
 301-C Erickson Hall  
 Michigan State University  
 East Lansing, Michigan 48823

Dear Mr. Smith:

Here are the names of the beginning teachers in my building according to the following limitations:

- (a) No previous full time professional experience.
- (b) Have been teaching for me since the fall of 1969, but not starting after the fourth Friday in September.

I understand you will be contacting only one teacher from this list and that all questions will be by mail ensuring individual and confidential returns.

Very truly yours,

\_\_\_\_\_  
 Signature of Principal

\_\_\_\_\_  
 School District

\_\_\_\_\_  
 Post Office Address

☐ I have no teachers who match the limitations set forth by your study.

☐ Please send me an abstract of the results of your study.

(Mr. Mrs. or Miss)	Name of Teacher	School Building	School District	School Address
--------------------	-----------------	-----------------	-----------------	----------------

301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

May 5, 1970

Dear

This is a follow-up to my initial letter dated April 15th requesting your assistance with a research project relative to exploring the effect of bias on the evaluation of teachers.

In review, the help I need is in two parts:

- (1) A list of beginning teachers as indicated by the information on the enclosed form. (One teacher will be randomly selected to be contacted to fill out a short questionnaire.)
- (2) Completion of a short questionnaire and evaluation instrument which you will receive in a later mailing. (Estimated completion time 10-15 minutes.)

Your prompt reply to this request will be appreciated so that I can include your school district in my sample. Would you please fill out the enclosure and mail it to me today?

Yours very truly,

*S. Davis Smith*

S. Davis Smith

Enclosure

301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

April 29, 1970

Dear

Thank you for sending me a list of your beginning teachers to assist me in my research relative to bias in the evaluation of teachers. I have enough returns from principals across Michigan to proceed with the investigation.

Enclosed please find two instruments which will be used to help focus on this issue. Although the mailing looks bulky, the questions may be quickly answered. The instruments are:

1. Opinion Questionnaire  
with Mark Sensing Sheet
2. Teacher evaluation Instrument  
with Mark Sensing Sheet

In the case of the Opinion Questionnaire it is essential that no discussion with others take place. Try to complete the questionnaire in one sitting. First impressions are considered more accurate in the case of this instrument.

Please return the answer sheets only (to help avoid problems with the Optical Scanner try to follow the previous folds or creases).

Thank you for your help and prompt reply.

Very truly yours,



S. Davis Smith

Enclosure

## PERSONAL OPINION QUESTIONNAIRE\*

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement in this inventory is your personal opinion. An attempt has been made to cover many different and opposing points of view. You may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you disagree with any statement or not, you can be sure that many people feel the same as you do.

Directions for answering the Questionnaire may be found on the enclosed scoring sheet.

\*Your name was selected by chance through randomization. Generalizations from the study will be made on a state level. No reference will ever be made to individuals, their school or district. However, your name which has been coded on the scoring sheet is important to the researcher to ensure complete data collection.

1. The automobile manufacturers have made an effort in the 1970 models to control for air pollution.
2. In this complicated world of ours, the only way we can know what is going on is to rely on leaders or experts who can be trusted.
3. Publishers of school text books are reluctant to include racial minorities for fear of white boycott of their materials.
4. My blood boils whenever a person stubbornly refuses to admit he's wrong.
5. The current financial difficulty in which schools find themselves is due to a taxpayers' revolt.
6. There are two kinds of people in this world: those who are for the truth and those who are against the truth.
7. Most people just don't know what's good for them.
8. Of all the different philosophies which exist in this world, there is probably only one which is correct.

9. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
10. The main thing in life is for a person to want to do something important.
11. I'd like it if I could find someone who would tell me how to solve my personal problems.
12. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
13. Man on his own is a helpless and miserable creature.
14. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
15. Most people just don't give a "damn" for others.
16. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
17. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.
18. The present is all too often full of unhappiness. It is only the future that counts.
19. The United States and Russia have just about nothing in common.
20. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
21. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.
22. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
23. It is better to be a dead hero than to be a live coward.

Principal's Name (please print)

Teacher's Name

PERSONAL OPINION QUESTIONNAIRE  
ANSWER SHEET

**DIRECTIONS:** Please record your responses by using a mark sense or soft lead pencil. (Fill in between the small, horizontal marks.) The statements for your reaction may be found on the enclosed Personal Opinion Questionnaire. It is essential, to gain statistical independence, to obtain your initial reaction to the questions without discussion of the items with others. Your answer sheet has been coded for identification purposes.

	I disagree very much	I disagree on the whole	I disagree a little	I agree a little	I agree on the whole	I agree very much
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

PLEASE DISREGARD									
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

PLEASE DISREGARD									
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

## TEACHER EVALUATION FORM\*

## DIRECTIONS:

Please record your responses on the enclosed answer sheet by using a soft or mark sense lead pencil (fill-in between the small horizontal hash marks).

\*No reference will ever be made to a specific school district, school, teacher or principal.

## I. PERSONAL QUALIFICATIONS

1. APPEARANCE	- (well groomed, appropriately dressed; makes good impression)
2. ATTITUDE	- (optimisitic, cheerful, enthusiastic, sense of humor)
3. PHYSICAL HEALTH	- (has vitality and stamina to meet work laod)
4. USE OF ENGLISH	- (uses good English, expresses thoughts easily; agreeable voice)
5. POISE	- (emotionally balanced, calm, even tempered)
6. RELATIONSHIP TO OTHERS	- (friendly, sincere, tactful, shows concern)
7. DEPENDABILITY	- (works well with others and carries share of responsibility, reliable, completes work)
8. GROWTH AND COMPETENCE	- (willingness to seek and accept help in professional growth)

\*as modified from the Grand Rapids form

9. JUDGMENT - (usually makes reliable decisions)

10. OVERALL EVALUATION OF PERSONAL CHARACTERISTICS LISTED ABOVE

II. TEACHER-PUPIL RELATIONSHIPS

11. CLASSROOM ATMOSPHERE - (evidence of mutual respect, co-operation and courtesy; a feeling of friendliness prevails)

12. PERSONAL RELATIONSHIPS - (sensitivity to students' needs and problems; respects students as individuals)

13. PUPIL FREEDOM AND - (students permitted freedom of action in proportion to demonstrated ability to use freedom wisely)

14. OVERALL EVALUATION OF TEACHER-PUPIL RELATIONSHIPS LISTED ABOVE

III. TEACHING ABILITY

15. CONTENT - (based on sound functional knowledge and based upon broad cultural experience and professional training)

16. PLANNING AND PREPARATION - (content carefully selected with definite objective in mind; methods and materials adapted to needs of the class)

17. PRESENTATION AND DEVELOPMENT - (pupils' interest used as motivating force to direct effort; pupils encouraged to participate and express themselves without embarrassment from the teacher; assignments are definite, clear, interest arousing and related to pupil's ability)



18.	EVALUATION AND RECORDS	- (skillful in evaluating pupils; pupils are encouraged to view per- sonal accomplishments in relation to his own capacities; adequate records are kept)
19.	SPECIAL NEEDS	- (alert for signs of disease, mal- nutrition, emotional problems, etc.; teaching procedures adjusted to limitations of handicapped pupils; referrals are made to other staff members for special attention)
20.	ADMINIS- TRATIVE DETAILS	- (routine matters handled efficient- ly)
21.	PHYSICAL ENVIRON- MENT	- (concern for adequate ventilation, lighting and good housekeeping; functional information displays evident)
22.	ASSIS- TANT TO PUPILS	- (willingness to give additional help to pupils who have subject matter and personal needs)

23. OVERALL EVALUATION OF TEACHING ABILITY LISTED  
ABOVE

IV. PROFESSIONAL RELATIONSHIPS AND RESPONSIBILITIES		
24.	TOTAL SCHOOL PROGRAM	- (sees his work and subject fairly in relation to the total school ac- tivities; willing to serve on committees)
25.	FELLOW TEACHERS	- (works co-operatively with the staff; friendly and courteous; willing to help new teachers; keeps the personal apart from the pro- fessional; is accepted by teachers and other school personnel)
26.	PARENTS AND COMMUNITY	- (does what he can to build community understanding and good will; treats visiting parents courteously; helps them to understand school program; stresses accomplishments; not fail- ures of pupils)

27.	TEACHING AS A PROFESSION	- (has a deep and enthusiastic interest in teaching; belief in the worthwhileness of his work; encourages others to enter the profession)
-----	--------------------------------	---

28.	TEACHER ADMINIS- TRATION RELATIONSHIP	- (complies with adopted policies; and procedures)
-----	--	--

29.	OVERALL EVALUATION OF PROFESSIONAL RELATIONSHIPS LISTED ABOVE.	
-----	--	--

PRINTED IN U.S.A.

Principal's Name

Teacher's Name

**TEACHER EVALUATION ANSWER SHEET****DIRECTIONS:**

Please record your responses to the Teacher Evaluation Form on this answer sheet. Responses may be recorded by using a mark sense or soft lead pencil. (Fill in between the small horizontal marks.)

	Superior	Good	Fair	Unsatisfactory
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

PLEASE DISREGARD									
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

PLEASE DISREGARD									
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

Dear Principal:

Returns are nearly complete. The data relative to the research on bias and its effect on evaluation are nearly all in. According to my records I have not received yours as yet. The instruments are the "Personal Opinion Questionnaire" and the "Teacher Evaluation."

Would you take a few minutes and complete these instruments? The statistical treatment used to analyse the data requires nearly 100 per cent return. I would certainly like to have your responses included in the analysis. May I hear from you this week?

I am enclosing additional forms in case you have misplaced the others received earlier.

Thank you in advance for your help. I look forward to receiving your responses to the questions asked in the instruments.

(If you have just recently returned the forms, please disregard this letter.)

Yours very truly,

A handwritten signature in cursive script that reads "S. Davis Smith".

S. Davis Smith

Encls.

301-C Erickson Hall  
Michigan State University  
East Lansing, Mich. 48823

June 6, 1970

Dear Educator:

The collection of data is terminated for the study of bias in teacher evaluation.

I'm sorry I didn't hear from you. Would you please return the other half of the card with your reason for not participating. (Even non-respondents must be considered in research studies.)

Thanks,

S. Davis Smith  
(Detach)

S. Davis Smith  
301-C Erickson Hall  
Michigan State University  
EAST LANSING, Michigan 48823

S. Davis Smith  
301-C Erickson Hall  
Michigan State University  
East Lansing, Mich. 48823

Check

1. Too busy
2. Lost the questionnaire
3. Couldn't see the relevance
4. The answers to the questions were none of your business
5. (Principal) (Teacher) discouraged me
6. Forgot
7. Other (Example?)

MAIL ME TODAY PLEASE

301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

April 23, 1970

Dear

The problem of evaluation of teachers has been a big concern in education for years. Some say the principal evaluates from his own set of biases rather than objectively. Others say that the biases of the teacher cause her to perform in a certain way and that the evaluation reflects this. As an elementary principal on leave I would like to shed some light on this subject.

Your name along with others throughout the state of Michigan has been chosen by chance through a randomization technique. I would like to send you a short opinion questionnaire which is estimated to take ten minutes to complete. At no time will results reveal names, schools or school districts. (The randomization technique used in this study requires generalizations to be made on the state level only.)

Please be looking for the questionnaire which will follow this letter in a few days.

Thank you in advance for your co-operation and time.

Yours very truly,

A handwritten signature in cursive script that reads "S. Davis Smith".

S. Davis Smith

301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

Dear

A short while ago I wrote that you would be receiving a questionnaire about your opinion. As you recall, the study is about biases in teacher evaluation.

You and many other teachers throughout the upper and lower peninsula are taking part in this important research. May I encourage you to fill out the questionnaire as soon as you can? Try to do it in one sitting. Your first impression is what is important. (Discussing the questions ahead of time with others may give invalid results.)

Thank you again for your co-operation.

Yours very truly,

*S. Davis Smith*

S. Davis Smith

Enclosures:

Personal Opinion Questionnaire  
Stamped, Self-Addressed Envelope

## PERSONAL OPINION QUESTIONNAIRE \*

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement in this inventory is your personal opinion. An attempt has been made to cover many different and opposing points of view. You may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you disagree with any statement or not, you can be sure that many people feel the same as you do.

Directions for answering the Questionnaire may be found on the enclosed scoring sheet.

\*Your name was selected by chance through randomization. Generalizations from the study will be made on a state level. No reference will ever be made to individuals, their school or district. However, your name which has been coded on the scoring sheet is important to the researcher to ensure complete data collection.

1. The automobile manufacturers have made an effort in the 1970 models to control for air pollution.
2. In this complicated world of ours, the only way we can know what is going on is to rely on leaders or experts who can be trusted.
3. Publishers of school text books are reluctant to include racial minorities for fear of white boycott of their materials.
4. My blood boils whenever a person stubbornly refuses to admit he's wrong.
5. The current financial difficulty in which schools find themselves is due to a taxpayers' revolt.
6. There are two kinds of people in this world: those who are for the truth and those who are against the truth.
7. Most people just don't know what's good for them.
8. Of all the different philosophies which exist in this world, there is probably only one which is correct.



9. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
10. The main thing in life is for a person to want to do something important.
11. I'd like it if I could find someone who would tell me how to solve my personal problems.
12. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
13. Man on his own is a helpless and miserable creature.
14. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
15. Most people just don't give a "damn" for others.
16. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
17. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.
18. The present is all too often full of unhappiness. It is only the future that counts.
19. The United States and Russia have just about nothing in common.
20. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
21. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.
22. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
23. It is better to be a dead hero than to be a live coward.

Principal's Name (please print)

Teacher's Name

## PERSONAL OPINION QUESTIONNAIRE

## ANSWER SHEET

**DIRECTIONS:** Please record your responses by using a mark sense or soft lead pencil. (Fill in between the small, horizontal marks.) The statements for your reaction may be found on the enclosed Personal Opinion Questionnaire. It is essential, to gain statistical independence, to obtain your initial reaction to the questions without discussion of the items with others. Your answer sheet has been coded for identification purposes.

	I disagree very much										I disagree on the whole										I disagree a little										I agree a little										I agree on the whole										I agree very much									
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PLEASE DISREGARD										PLEASE DISREGARD									
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9

301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

Dear

This is a follow-up letter requesting return of the Personal Opinion Questionnaire which you recently received. As you may recall from my previous letter, the Personal Opinion Questionnaire is part of data which will be used to explore bias in teacher evaluation.

Could I ask you to complete this questionnaire and return it to me in the enclosed envelope? (I have enclosed additional forms in case the first one has been misplaced.) Be sure to indicate on the questionnaire form whether or not you would like a summary of the results.

Hoping to hear from you soon.

Yours very truly,

A handwritten signature in cursive script that reads "S. Davis Smith".

S. Davis Smith

Encls.

301-C Erickson Hall  
Michigan State University  
East Lansing, Mich. 48823

June 6, 1970

Dear Educator:

The collection of data is terminated for the study of bias in teacher evaluation.

I'm sorry I didn't hear from you.

Would you please return the other half of the card with your reason for not participating. (Even non-respondents must be considered in research studies.)

Thanks,

S. Davis Smith

(Detach)

S. Davis Smith  
301-C Erickson Hall  
Michigan State University  
EAST LANSING, Michigan 48823

S. Davis Smith  
301-C Erickson Hall  
Michigan State University  
East Lansing, Mich. 48823

Check

1. Too busy
2. Lost the questionnaire
3. Couldn't see the relevance
4. The answers to the questions
5. swer none of your business (Principal) (Teacher) discouraged me
6. Forgot
7. Other (Example?)

MAIL ME TODAY PLEASE

## APPENDIX C

### SCATTER DIAGRAMS FOR CORRELATIONS BETWEEN

- (a) CLUSTER RATINGS AND DOGMATISM DISCREPANCY
- (b) CLUSTER RATINGS AND TEACHER DOGMATISM SCORES
- (c) CLUSTER RATINGS AND PRINCIPAL DOGMATISM SCORES





APPENDIX C (Cont.)

TABLE 3

CORRELATION BETWEEN TEACHING ABILITY AND  
DOGMATISM DISCREPANCY

I	5	2	3	2	1				
I	1	1	2	2	1	2	1	1	1
-1	1	2	2	1	2				
I	1	1	1	1	1	1	1	1	1
I	3	2	4	4	2	1	1	1	3
I	2	4	2	3	2	1	2	1	2
0-	1	3	5	1	4	1	3	1	2
I	1	1	1	1	2	1	1	1	2
I	2	3	1	2	1	2	1	1	1
I	2	1	1	6	4	2	3	1	1
-1-	1	1	2	1	1	1	1	1	1
I	1	1							
I									
I	1								1
-2-	1								1
I	1	1							
I									
-3-									
I	2								
/	-3	-2	-1	0	1	1	2	2	

TABLE 4

CORRELATION BETWEEN PROFESSIONAL RELA-  
TIONSIPS AND RESPONSIBILITIES AND  
DOGMATISM DISCREPANCY

I	4	3	4	1	2	1	1	2	1
1-	2	1	3	1	1	2		1	1
I	5	2	2	1	1	1	2	1	
I									
I	1	4	1	3	1	2	2	2	1
0-	2	5	4	2	1	1	2	3	2
I	3	3	3	6	3	4	1	1	1
I	2	2	1	4	1				
I	1	2	3		1			1	1
-1-	1	2	1	1	1	1			
I	1	2	1	1	1	1			
I									
I	1								1
-2-	1								
I									
I	1	2							
-3-									
I	2								
/	-3	-2	-1	0	1	1	2	2	



TABLE 6

# CORRELATION BETWEEN TEACHER-PUPIL RELATIONSHIPS AND TEACHER DOGMATISM

[illegible]

TABLE 8

# CORRELATION BETWEEN PROFESSIONAL RELATIONSHIPS AND RESPONSIBILITIES

[illegible]
$$\begin{array}{ccccccc} & \text{---I---} & \text{---I---} & \text{---I---} & \text{---I---} & \text{---I---} & \text{---I---} \\ / & -3 & -2 & -1 & 0 & 1 & 2 \end{array}$$



TABLE 12

# CORRELATION BETWEEN PROFESSIONAL RELATIONSHIPS AND RESPONSIBILITIES AND PRINCIPAL DOGMATISM

[illegible]

APPENDIX D

LETTER OF PERMISSION

THE GRAND RAPIDS BOARD OF EDUCATION  
143 Bostwick Avenue, N.E.  
Grand Rapids, Michigan 49502

Office of  
The Superintendent

May 12, 1970

Mr. S. Davis Smith  
301-C Erickson Hall  
Michigan State University  
East Lansing, Michigan 48823

Dear Mr. Smith:

I am in receipt of your letter requesting permission to use the Grand Rapids evaluation form in your research.

This is to inform you that you have my permission to use the form or excerpts from it in any way that would best suit your needs.

Best wishes for a successful research project.

Sincerely,

Elmer H. Vruggink  
Assistant Superintendent for Instruction

EHV:klb



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