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THE INFLUENCE OF PRINCIPAL AUTHENTICITY AND TEACHER
PARTICIPATION IN DECISION MAKING ON FACULTY TRUST

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THE INFLUENCE OF PRINCIPAL AUTHENTICITY AND TEACHER

PARTICIPATION IN DECISION MAKING ON FACULTY TRUST

By

Douglas Busman

A DISSERTATION

Submitted to
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ABSTRACT

THE INFLUENCE OF PRINCIPAL AUTHENTICITY AND TEACHER
PARTICIPATION IN DECISION MAKING ON FACULTY TRUST

By

Douglas Busman

The purpose of this study was to determine how principal authenticity (PA), structures for teacher participation in decision making (daily grade-level teaming [DGLT] and school-improvement programs), and perception of participation in decision making (PDM) influence the development of faculty trust.

Hypotheses proposed a positive relationship between the variables cited above and examined the influence of the independent variables (PDM, DGLT, school-improvement programs, and PA) on each of the dependent variables (colleague trust, organizational trust, and principal trust). PDM was then examined as a dependent variable with DGLT and school-improvement programs as independent variables. Finally, the effects of various demographic variables on aspects of faculty trust were examined.

Survey data were collected from 254 middle school teachers in Kent Intermediate School District, Michigan. Analysis of variance and Scheffé post hoc analysis were used to demonstrate that various aspects of faculty trust can be increased through an emphasis on PA,

Douglas Busman

PDM, and DGLT. In addition to other findings, this study indicated that:

1. Perceived levels of PA exercised different positive influences on all aspects of faculty trust. This effect was influenced by the presence of DGLT in the case of principal trust.

2. At a medium level of PA, the presence of DGLT enhanced principal trust. However, DGLT combined with low authenticity contributed an interaction effect toward decreased faculty trust in the principal. At high levels of PA, the presence or absence of DGLT had no effect.

3. High levels of PDM also resulted in a moderate positive increase in faculty trust in colleagues, with significant difference between groups reporting low and high PDM.

Dissertation chairman: Dr. Frederick Ignatovich

To Linda, whose love, patience, and understanding

I shall always appreciate.

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CHAPTER I

INTRODUCTION

Background

In a text entitled <u>Modern Organizations</u>, Etzioni (1964) provided a comprehensive overview of the continuing problem of modern organizations in how best to coordinate human efforts in the pursuit of organizational goals. He described three major "schools"--classical, human relations, and structuralist--which offer insights into this problem.

The classical school, also known as the scientific management school, holds that production tasks leading to organizational goals can be logically analyzed and broken down into parts. Human effort is then coordinated through training in the most efficient way to perform the parts of the task assigned and the worker rewarded through economic incentive. A second school, human relations, suggests that coordinating human efforts toward organizational goals can be more efficiently accomplished through participatory decision making (PDM). The structuralist school suggests that, because conflict between superior and subordinate is inherent in organizations, coordinating human efforts toward organizational goals can be facilitated by empowering the workers to a degree to make decisions. These three "schools" form a broad overview

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regarding approaches that might effectively coordinate human efforts toward organizational goals.

Because these three schools exist in theory only and the delineation between them is sometimes blurred, ideal examples of these schools do not exist. Yet, despite this limitation, perhaps this study can be better understood as primarily in the human relations school (because of its interest in the relationship of principal authenticity and PDM to trust) and secondarily in the structuralist school (because of its focus on efforts to reform structural aspects of the school to enable PDM to occur efficiently).

Although PDM has long been mentioned as a characteristic of effective organizations (Ouchi, 1981), it is only recently that PDM has been extended to schools and teachers. For example, in 1990 a law was enacted in Michigan that requires teachers to participate in building-level PDM through a stipulation that a school-improvement program (SIP), developed at the building level, shall involve teachers in the planning, development, implementation, and evaluation of the plan. Other structures for PDM found in schools would include daily grade-level teaming (DGLT) in middle schools, which Doda, George, and McEwin (1987) saw as essential to middle school staff consensus. Thus, whether by mandate, as in the case of Michigan's SIPs, or choice, as in the case of middle school DGLT, teacher PDM is increasingly being looked to as a way of improving teacher productivity (as measured by increased student scores on standardized tests) and job satisfaction for teachers. This notion

that PDM might lead to increased teacher satisfaction and productivity has its foundation in empirical studies in organizational literature (Locke & Schweiger, 1979; Miller & Monge, 1986). Miller and Monge (1986) offered three theories--cognitive, affective, and contingency--to explain the mechanism through which PDM affects satisfaction and productivity.

Cognitive theorists suggest that participation leads to increases in productivity through workers bringing high-quality information to decisions and having increased knowledge when implementing the decisions. Cognitive theorists see no direct effect of PDM on satisfaction. Affective theorists suggest that PDM will address higher-order needs of workers and that once these needs are met, workers will be more satisfied. Affective theorists see no direct link between participation and productivity. Finally, contingency theorists suggest that mechanisms through which PDM affects productivity and satisfaction are different for different workers and situations within the organization. They suggest that employees who value participation will be the most positively influenced by it, and these are likely to be higher-level employees or individuals working in research or service industries.

In summary, Miller and Monge (1986) found that PDM has an effect on both worker productivity and worker satisfaction and that the three models cited above explain this effect. Schlechty (1990) drew upon this research base when he stated that what leaders in American business are learning, and what educational leaders must

learn as well, is that involving employees in the decision-making structure increases productivity and employee satisfaction.

Several researchers (Clark, Fatchett, & Roberts, 1972; Riley, 1984; White & Lippitt, 1953) have suggested that effective involvement of teachers in PDM is influenced by such diverse factors as time commitment, extra work involved, or loss of individual classroom autonomy as might be the case, for example, in planning and coordinating curriculum throughout the school. Other researchers (Kunz & Hoy, 1976; Simon, 1965) have indicated that teachers prefer not to be involved in certain kinds of decisions regarding matters in which they are simply not interested. In this study, it was assumed that teachers want to become involved in PDM but that the extremely high level of trust necessary for effective problem-solving groups to function is not present in the organizational communication climate of most schools. Writers such as Alfonso and Goldsberry (1982) have suggested that, in spite of the availability and even mandate of structures for teacher PDM, directing the faculty to trust one another and the school organization cannot be done through generating formal rules and standardized procedures.

Statement of the Problem

The problem is that although a body of research related to trust is found in organizational communication literature, little of an empirical nature has been done within public schools and nothing that specifically examines middle schools and participatory decision

structures found in middle schools. Most recently, Kupersmith (1983) reported preliminary evidence of a relationship between the concept of principal authenticity and aspects of faculty trust in elementary schools. However, he did not probe the specifics of this relationship, nor did he consider the effects that participation in decision making might have on levels of faculty trust. In addition, Kupersmith stated an intention to look at the effects on trust of demographic variables such as age, experience, education, and gender. However, these results were not reported in the study.

Presumably, schools cannot implement effective participatory decision making without the presence of a high level of faculty trust. Yet, despite the lack of research regarding development of trust and its relationship to PDM, state legislatures, local school boards, and school administrators have jumped to PDM structures, such as school-improvement programs (SIPs), as a panacea for the educational ills that the media lay at the feet of public education in the United States. This move to SIPs is being done even though previous attempts to enact PDM structures without consideration to new norms of organizational trust appear to have resulted only in cosmetic reform. Purkey, Rutter, and Newman (1987-87) found that high schools with no SIP did not differ from schools with SIPs regarding the variable of PDM. In fact, they found that in over half of the schools where the principal said there was a SIP, more than half of the teachers did not perceive one. This finding suggests that the efforts of well-meaning school personnel to enact and foster PDM structures would benefit from a conceptual

understanding of the role of faculty trust necessary for these structures for PDM to work effectively. Planned change without regard to faculty trust suggests speculation that merely enacting PDM structures will lead to a climate of trust.

Statement of Purpose

In this study, the researcher sought to determine how principal authenticity (PA) and participation in decision making (PDM) influence the development of faculty trust. Kupersmith (1983) stated that as significant as the concept of trust appears to be, little has been done on inquiries of trust regarding public school teachers. Although claims have been made regarding the development of trust and its effect on communication in general (for example, Blumberg, 1978; Deutsch, 1958, 1960; Gibb, 1978; Kupersmith, 1983; Litwin & Stringer, 1966), these claims have not been tested specifically in the school setting.

The variables of interest in this study were suggested in the literature. Some writers (Eisenberg, Monge, & Miller, 1983; Walton, 1982) have implied that regular group problem-solving communication alone may lead to increased trust. If this is the case, then in conditions where teachers are placed in situations involving regular problem-solving communication (PDM), the level of trust toward colleagues and principal (as members of a problem-solving group) and the organization (positive affect toward the organization) should increase. Therefore, regular involvement in school-improvement

programs (SIPs) and daily grade-level teaming (DGLT) should influence the development of faculty trust.

Other writers have suggested that participation in a problem-solving group is not enough to generate trust. Abbott (1974) thought that, irrespective of other techniques employed, trust appeared to be related to authentic behavior on the part of the principal. In developing an authenticity measure, Hoy and Henderson (1982) suggested that if the principal is perceived as one who accepts responsibility for his/her actions, does not manipulate subordinates, and demonstrates an importance of self over role, then teachers seem less likely to use a "professional shield" to hide "what they are as human beings."

Kupersmith (1983) saw these characteristics as supportive of an open, genuine, and authentic organizational climate. On the other hand, he thought that if the principal blames others for his/her mistakes, manipulates subordinates, and hides behind the formal role of authority, the organizational climate would be artificial, protective, and defensive. Kupersmith demonstrated that principal authenticity (PA) had a positive relationship to three aspects of faculty trust--in colleagues (CT), in the principal (PT), and in the organization (OT). He did not, however, look at the relationship that various levels of PA might have to aspects of trust and whether there might be a relationship between PA and PDM and aspects of faculty trust.

Finally, this study was undertaken to replicate analyses regarding the relationship between principal authenticity and

aspects of faculty trust reported by Kupersmith (1983), and in doing so to retest the utility of the measurement scales for trust and authenticity developed by Kupersmith. In addition, the researcher investigated the relationship that age, gender, experience, and education have to aspects of faculty trust intended but not reported by Kupersmith.

In summary, the researcher's purpose in this study was to determine the nature of the relationship between PA, PDM, and aspects of faculty trust—CT, OT, and PT. In looking at this relationship, the researcher sought to determine whether low, average, and high levels of PA and PDM influence each aspect of trust differently and whether interaction effects exist between PA and PDM regarding trust. In addition, the investigator sought to determine whether teachers perceive a difference in level of PDM based on the existence of either SIPs or DGLT in their school and whether the presence or absence of SIPs and DGLT influences aspects of trust. Finally, the writer assumed that development of faculty trust is an essential element in the organizational communication climate which will allow PDM and various structures for PDM to increase teacher satisfaction and productivity.

Theoretical Framework

Organizational Effectiveness

This study falls under the broad topic of organizational effectiveness, which Etzioni (1961) suggested has been studied throughout the twentieth century. Jablin (1979) suggested that how

superiors and subordinates interact and communicate to achieve organizational goals has been investigated by social scientists for most of the twentieth century. Jablin wrote:

> Much of the impetus for studying openness in superior-subordinate communication has been provided by management theorists who see it as an essential element for an effective organizational climate where employees are more satisfied with their jobs and openness is directly correlated with organizational performance. (p. 9)

The three main variables of interest in this study are described in the following section.

Trust, PDM, and Principal Authenticity

Zand (1972) provided a rationale for considering an organizational climate of trust as necessary for effective PDM. After defining trust as increased vulnerability to others whose behavior one cannot control, he went on to state that, without trust, members of a problem-solving group will conceal or distort relevant information and avoid stating facts, ideas, conclusions, or feelings that Zand believed will increase exposure to others. Thus, without trust, information will be low in accuracy and comprehensiveness and will render ineffective the joint problem-solving necessary for teacher PDM.

In a meta-analytic review of empirical data regarding participation in decision making, Miller and Monge (1986) indicated that, in general, PDM has a relatively high pure effect on worker satisfaction, with a small but significant effect on productivity. Miller and Monge described three PDM models (affective, contingency,

and cognitive) to account for the mechanisms through which participation has its effects on satisfaction and productivity. Mutually exclusive examples of these PDM models exist in theory only. In reality, the boundaries between the three models overlap. Yet, despite this limitation, this writer suggests that the cognitive model comes closest to the underlying rationale in the call for increased teacher participation in decision making through structures such as SIPs. Daily grade-level teaming, because of its relationship to teacher satisfaction, would be encompassed not only by the cognitive model, but by the affective one as well.

The final major variable in this study was principal authenticity. Hoy and Henderson (1982) delineated the three ingredients of accountability, salience of self over role, and nonmanipulation as leadership behaviors necessary for this concept to be present. Kupersmith (1983) found that the leadership behavioral characteristics cited above had a positive relationship to the development of trust. The next several sections present in greater depth the interrelationships that appear to exist between the variables of interest in this study.

The Relationship of PDM to Trust

Researchers (Friedlander, 1970; Golmebiewski & McConkie, 1975; Roberts & O'Reilly, 1974; Zand, 1972) have described trust as one of the basic building blocks on which most interaction is built. As a building block to interaction, trust is an important group problem-solving outcome. Trust delimits the openness and accuracy with

which problem-solving groups can function. The literature has supported the notion that problem-solving groups with high trust will exchange relevant ideas and feelings more openly, develop greater clarification of goals and problems, search more extensively for alternative courses of action, have greater influence on solutions, be more satisfied with their problem-solving efforts, have greater motivation to implement decisions, see themselves as closer and more of a team, and have less desire to leave their group to join another.

To be most successful, problem-solving groups involved in PDM are dependent on the presence of trust. In looking for influences in the development of trust, the literature has suggested that involvement in a problem-solving group (i.e., DGLT and SIPs) can generate trust. Deutsch (1958), for example, demonstrated that trust can be established in a problem-solving situation through cooperative orientation and nonexploitive behavior. However, other literature (Litwin & Stringer, 1966) has suggested that worker perception of leadership has an intervening effect on development of trust.

The Relationship of Principal Authenticity to Trust

Jablin (1979) asserted that interest in identifying the communicative behaviors of effective leaders probably has existed since the earliest days of civilization. In looking at the relationship of leadership to faculty trust, Kupersmith (1983) found that principal authenticity had a substantial positive relationship

to CT, OT, and PT within the school organization. Other researchers (Gibb, 1969; Halpin, 1966) have focused on the concept of principal authenticity as an indicator of trust in an effective leader. This trust in the leader (roughly corresponding to PT in this study) allows the leader to act as a facilitator, a resource, and the one who releases the energy and direction of the group.

Kupersmith (1983) suggested that knowledge about how the principal's actions relating to authenticity are perceived by the faculty can be useful in explaining and predicting the interpersonal behavior of teachers.

Summary of Theoretical Framework

The theoretical framework used in this study is built on the notion that trust is an essential outcome of PDM and principal authenticity. The model in Figure 1.1 illustrates this framework, with the arrows indicating the direction of influence regarding development of trust. The center box represents faculty trust as made up of three distinct aspects, CT, OT, and PT. Arrows depict the fact that PDM and PA influence the three aspects of trust. Additional arrows indicate that two structural forms, DGLT and SIPs, influence perception of PDM, as well as aspects of trust. The segmented arrows indicate that development of aspects of faculty trust influences teacher productivity and satisfaction. However, this relationship was not tested in the present study.

DGLT

PA

PDM

PT

CT OT

SIP

PRODUCTIVITY

SATISFACTION
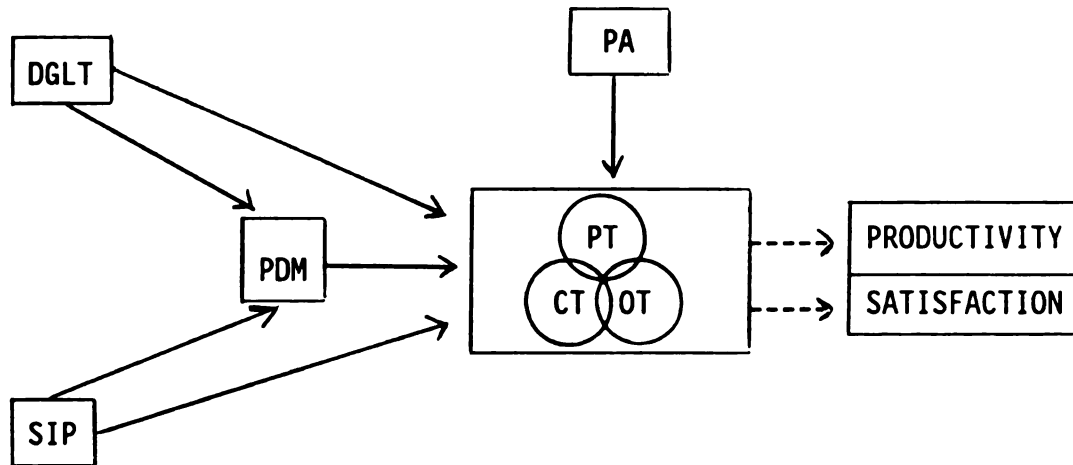
Figure 1.1:   Theoretical framework of the study.

Research Questions

The focus of this study is incorporated in the following major questions:

Question 1

Kupersmith (1983) developed instruments to measure three aspects of faculty trust. In using these instruments, he found a significant and positive interrelationship between principal authenticity and aspects of trust. Because these instruments have been used in only one study, validity can be added to Kupersmith's instruments and findings through replicating his findings in a different setting. In addition, a variable of interest to this research was added (PDM). Therefore, the question was asked:

1. Are principal authenticity, faculty trust in the principal, faculty trust in colleagues, faculty trust in the organization, and

teacher participation in decision making positively related to each other?

Questions 2, 3, and 4

Because researchers have indicated that participation in group PDM influences trust among members and researchers also have indicated that PA influences faculty trust, a series of questions were asked regarding what interaction effects might exist between PA and PDM (including structures for PDM, such as DGLT and SIPs) or main effects regarding same, and their influence on aspects of faculty trust (CT, OT, and PT).

Regarding Colleague Trust:

2a. Is the level of colleague trust dependent on an interaction between school-improvement programs and principal authenticity?

2b. Is there a difference in the level of colleague trust between teachers who report that their schools have school-improvement programs and teachers who report that their schools do not?

2c. Is there a difference in colleague trust between teachers who report high, average, and low levels of principal authenticity?

2d. Is the level of colleague trust dependent on an interaction between daily grade-level teaming and principal authenticity?

2e. Is there a difference in colleague trust between teachers who report that their schools use daily grade-level teaming and teachers who report that their schools do not?

2f. Is the level of colleague trust dependent on an interaction between participation in decision making and principal authenticity?

2g. Is there a difference in colleague trust between teachers who report high, average, and low levels of participation in decision making?

Regarding Organizational Trust:

3a. Is the level of organizational trust dependent on an interaction between school-improvement programs and principal authenticity?

3b. Is there a difference in organizational trust between teachers who report school-improvement programs and teachers who do not?

3c. Is there a difference in organizational trust between teachers who report high, average, and low levels of principal authenticity?

3d. Is the level of organizational trust dependent on an interaction between daily grade-level teaming and principal authenticity?

3e. Is there a difference in level of organizational trust between teachers who report daily grade-level teaming and teachers who do not?

3f. Is the level of organizational trust dependent on an interaction between participation in decision making and principal authenticity?

3g. Is there a difference in organizational trust between teachers who report high, average, and low levels of participation in decision making?

Regarding Principal Trust:

4a. Is the level of principal trust dependent on an interaction between school-improvement programs and principal authenticity?

4b. Is there a difference in principal trust between teachers who report school-improvement programs and teachers who do not?

4c. Is there a difference in principal trust between teachers who report high, average, and low levels of principal authenticity?

4d. Is the level of principal trust dependent on an interaction between daily grade-level teaming and principal authenticity?

4e. Is there a difference in principal trust between teachers who report daily grade-level teaming and teachers who do not?

4f. Is the level of principal trust dependent on an interaction between participation in decision making and principal authenticity?

4g. Is there a difference in principal trust between teachers who report high, average, and low levels of participation in decision making?

Question 5

An example of a designated structure that might account for an increased use of participatory decision making would be found in the buildings that have a school-improvement program (SIP). Clark and McCarthy (1983) described a successful SIP as involving all members of the school in some fashion in the planning and implementation of the SIP. Because SIPs necessitate PDM, the question was asked:

5. Is teacher participation in decision making greater in buildings that have school-improvement programs?

Question 6

Another example of a designated structure is the teaming concept found in middle schools. Merenbloom (1982) listed interdisciplinary and/or disciplinary teams as one of the six characteristics of an effective middle school. Therefore, the question was asked:

6. Is teacher participation in decision making greater in middle schools that have institutionalized a regular time for grade-level teams to meet?

Question 7

Kupersmith (1983) reported his intention to consider teacher variables including age, experience, gender, and level of education and their effect on trust. However, the results of this analysis were not reported. Therefore, the question was asked:

7. Do age, experience, gender, and/or level of education influence CT, OT, and PT?

Overview of Methodology

The research design of this study was ex post facto--that is, research in which it is not possible to manipulate the independent variables. Three research instruments were carefully identified to measure the major variables of interest in the study. Each instrument was tested for reliability and then combined into one survey. Superintendents and principals in participating districts were then contacted to insure their support and invited to an additional meeting to explain the study. A representative procedure was then employed to generate a sample of middle school teachers in Kent Intermediate School District (KISD). Surveys were mailed and a follow-up postcard sent one week later. Data were collected and transcribed onto a computer data file. The representativeness of the return was reviewed. Statistical procedures of scatter plots, chi-square, correlation, analysis of variance (ANOVA), and Scheffé post-hoc analysis were used to test the hypotheses.

Limitations of the Study

The following limitations to the study apply:

1. The accuracy of the study was limited to the degree of truthfulness of the respondents.

2. The study measured the perceptions of the respondents at one time, and their perceptions might have been strongly influenced by a recent experience.

3. The interpretations and data of this study were limited to the middle schools surveyed in Kent Intermediate School District in Michigan.

4. The researcher did not differentiate between qualitative and quantitative PDM.

5. Kerlinger (1979) indicated that in ex post facto research, the independent variables have already exercised their effects, if any. He emphasized that inferences drawn from ex post facto research are empirically not as strong as those in experimental research.

Contributions of the Study

This study provides information useful in implementing the new norms of cooperation in decision making necessary to move beyond cosmetic reform to informed, structural change. This change will be based on a conceptual understanding regarding the development of the high level of trust necessary for PDM structures to operate most effectively.

This researcher sought to determine how principal authenticity and participation in decision making play out in regard to the development of trust, as well as which claims regarding the development of trust in general also hold true in schools. In doing so, the researcher retested and extended the conclusions regarding the relationship between principal authenticity and aspects of faculty trust reported by Kupersmith (1983) and the utility of the measurement scales for trust and authenticity developed by

Kupersmith. Further, the writer attempted to determine whether regular problem-solving communication (PDM) influences development of high levels of trust toward colleagues, principal (as members of a problem-solving group), and organization (positive affect toward the organization).

In terms of contribution to the literature, several authors writing about organizational climate have indicated a need for this type of study. Falcione and Kaplan (1982) suggested that researchers might consider investigating communication behavioral correlates as predictors of organizational climate and that communication scholars can make significant contributions by determining the relationship between communication practices and the development of organizational climate. Aside from the contribution to the literature related to organizational climate in schools, the study has a practical application to the practicing administrator.

This study is important to the school administrator because an understanding of the concepts of principal authenticity, aspects of faculty trust, and teacher PDM may provide a basis for developing skills to use when planning for teacher participation in decision making and the trust necessary to allow the process to work effectively. The literature has indicated that development of authenticity is feasible. Argyris (1973) stated that it is possible to learn the skills to function in a milieu that sanctions and rewards the expression of feelings, the helping of others, the taking of risks, and the norms of trust, concern, and individuality.

Definition of Terms

For the purpose of clarification, the following terms used in this study are defined:

Daily grade-level teaming. Based on MacIver (1990), a team of teachers meet daily, who teach different subjects but share the same students.

Faculty trust in colleagues. According to Hoy and Kupersmith (1984), the faculty can depend on each other even in difficult situations; teachers can rely on the integrity of their colleagues.

Faculty trust in the organization. According to Hoy and Kupersmith (1984), the faculty can rely on the school district to act in its best interest and can count on the administration to be fair.

Faculty trust in the principal. According to Hoy and Kupersmith (1984), the faculty have confidence that the principal will keep his/her word and will act with the best interest of the teachers in mind.

Organizational climate. This study took a "perceptual measurement-individual attribute approach" (James & Jones, 1974). Falcione and Kaplan (1982) defined climate from this perspective as an individual's summary perceptions of his/her encounters with the organization.

Organizational communication. According to Conrad (1985), studies of organizational communication range from information exchange to analyses of symbolic forms and political processes.

<u>Participation in decision making (PDM)</u>. According to Miller and Monge (1986), this is a general participative process that excludes participation through delegation.

<u>Principal authenticity</u>. Henderson and Hoy (1982) suggested that principal authenticity is composed of three aspects: nonmanipulation of subordinates, salience of self over role, and accountability.

<u>School-improvement program (SIP)</u>. Purkey et al. (1984) stated that SIPs are a school-based attempt to increase the academic performance of all children in a specific school. The common elements of an SIP are: Effective schools research informs or entirely directs the project; the locus of reform is the school building, and building committees consisting of teachers and the principal are created to develop improvement plans, guide implementation, and evaluate outcomes.

<u>Superior-subordinate communication</u>. According to Jablin (1979), such communication involves exchanges of information and influence between organizational members, at least one of whom has formal authority to direct and evaluate the activities of other organizational members.

Overview

This dissertation is organized in five chapters. The introductory chapter provided the background, the research problem, the theoretical framework, the limitations, and the anticipated contributions of the investigation. The second chapter is concerned

with the review of related literature. In the third chapter, overall considerations of the statistical methodology used for testing the hypotheses and a brief description of the study population and data-collection procedures are presented. In the fourth chapter, the findings are analyzed. Finally, the fifth chapter contains a summary of the findings and conclusions of the study, recommendations for further research, and reflections of the researcher regarding the study.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The review of literature is presented in several parts. After a review of the major variables of interest in this study, literature regarding participation in decision making (PDM) in organizations in general is reviewed, followed by research on PDM in schools. The chapter concludes with a review of literature regarding principal authenticity (PA) and the relationship of PA to aspects of trust.

Overview

Trust, a facet of organizational climate, has been found to have a positive effect on both employee satisfaction and productivity (Driscoll, 1974). This researcher looked at principal authenticity (PA) and teacher participation in decision making (PDM) as variables that might influence aspects of trust: colleague trust (CT), organizational trust (OT), and principal trust (PT). PDM was operationalized in the context of teachers' perception of their own involvement and in the context of schools, which offer a variety of options regarding teacher participation in decision making, including (a) no structure for teacher participation in decision making, (b) schools that provide a structure in the form of daily

grade-level teaming (DGLT), and (c) schools that provide a structure in the form of school-improvement programs (SIPs).

Participatory Decision Making

In a meta-analytic review of empirical data regarding participation in decision making, Miller and Monge (1986) described three participatory decision-making models--cognitive, affective, and contingency--which propose mechanisms through which participation has its effects on worker satisfaction and productivity. These models are not mutually exclusive.

Cognitive theorists (Anthony, 1978; Frost, Wakely, & Ruh, 1974) have proposed that workers have more complete knowledge of their work than does management. If employees participate in decision making, they will know more about implementing work procedures after the decision has been made. According to cognitive theorists, satisfaction is a by-product.

Affective theorists (Blake & Mouton, 1964; Likert, 1967; McGregor, 1960) have thought that the most crucial link is that between participation and worker satisfaction. They have believed that participation will lead to greater attainment of higher-order needs such as self-expression, respect, independence, and equality, which in turn will increase morale and satisfaction. Ritchie and Miles (1970) thought that as long as subordinates believe they are participating, their ego needs will be satisfied and they will be more cooperative. Affective theorists (French, Israel, & As, 1960) have suggested that participation fulfills workers' needs, fulfilled

needs lead to satisfaction, satisfaction strengthens motivation, and increased motivation improves workers' productivity.

Contingency theorists (Singer, 1974; Tannenbaum & Schmidt, 1958; Vroom, 1960) have suggested that it is not possible to develop models of participative effects that will hold across a wide variety of individuals and situations. Rather, they have suggested that participation will affect satisfaction and productivity differently for different people and situations. However, they have predicted that employees who value participation will be the most positively influenced by it, and these are likely to be higher-level employees, or individuals working in research or service industries.

Participatory Decision Making in Schools

School-Improvement Programs (SIPs)

School-improvement programs fall under the broad umbrella of school-based management in that both school-based management and SIPs share a schoolwide orientation to improvement and a mechanism for shared decision making. David (1989) indicated that in the 1960s and 1970s certain forms of school-based management, usually called school-site budgeting and decentralization, had a wave of popularity. These were adopted to give political power to local communities, increase administrative efficiency, or offset state authority, not to bring about significant change in educational practice.

Edmonds (1982) summarized a sequence of circumstances beginning with the Coleman Report in 1966 that have contributed to the

implementation of SIPs as a means to bring about significant change in educational practice. Results from Coleman's Educational Opportunity Survey were published in 1966, citing family background as the principal determinant of pupil acquisition of basic skills. Since 1966, another group of social scientists led by Brookover, Lezotte, Rutter, and Edmonds have developed a body of research to support the notion that the school is the major determinant of achievement.

Edmonds (1982) reported that, since 1978, many and varied SIPs have been initiated. The literature (Clark & McCarthy, 1983; McCormack-Larkin, 1982) has reported that the earliest major SIPs were begun in New York City in 1979 and Milwaukee in 1982. From these beginnings, writers (Purkey et al., 1986-87) have suggested that the extent of SIPs has grown to 3,960 in high schools alone and have implied that a similar growth pattern is occurring at the elementary and middle school levels.

Researchers (Clark & McCarthy, 1983; Lezotte, 1987; Mackenzie, 1983; McCormack-Larkin, 1982) have consistently reported that teacher participation in decision making and cooperative problem solving is an integral part of the SIPs advocated in effective schools research. However, in spite of the widespread use of SIPs, researchers (David, 1989; Edmonds, 1982; Purkey et al., 1986-87) have suggested that surprisingly little empirical research has been done on the topic of SIPs.

Daily Grade-Level Teaming (DGLT)

DGLT is an organizational component of middle-level education. Middle-level education has been described in the literature (Arth, 1986; Cawelti, 1988) as a uniquely American innovation that took root in the early 1960s as an alternative to an earlier innovation, the junior high school. As a result of the work of early leaders such as Alexander, Eichhorn, and Lounsbury, the middle school movement began to grow in the 1960s and is now the predominant form of school organization through which students aged 10 to 14 enter high school. Grade-level teaming is one of the key characteristics that distinguishes the middle school from its junior high predecessor. Various writers and researchers (Alexander & George, 1981; Carnegie Task Force, 1989; Cawelti, 1988; Cohen, 1989; Eichhorn, 1966; MacIver, 1990; Merenbloom, 1982; Romano, Georgiady, & Heald, 1973) have recommended that teachers of the middle grades should be organized as members of a grade-level team responsible for making decisions regarding the delivery of the instructional program to the students.

While pockets of schools have been experimenting with teaming since the 1970s, the movement has enjoyed a surge of interest in recent years, with increasing numbers of schools using interdisciplinary teaming. Epstein (1990) reported results of a nationwide survey, indicating that an increase of 10% or more is expected in common planning time for interdisciplinary teams of teachers in the next several years. This 10% is best understood in the context that currently, although approximately 40% of middle

school principals report teaming, only 10% of middle schools provide adequate common planning time. Cawelti (1988) stated that interdisciplinary teams that are given time to plan instruction can overcome large ranges of differences among individual students but that if teachers are not given sufficient planning time in common, they cannot do the collaborative work that makes teams successful.

In a study of middle school principals and teachers (Binko & Lawler, 1986), considerable agreement was found on teaming as a practice necessary to effective middle schools, but, of 24 such necessary practices, teaming was one of the five least evident. Interestingly enough, teachers see less use of teaming than do administrators, which may reflect the difficulty in implementing practices that call for involvement of the faculty in decision making. In independent findings, researchers (Binko & Lawler, 1986; Lounsbury, 1984) have agreed that they have failed to see evidence of the active and cooperative teaming deemed essential to the functioning of a good middle school. Cohen (1989) reported that when changes are driven by the desire to look different, what appears to be change is merely cosmetic.

Barriers to PDM in Schools

Despite the presence of structures such as those cited above which enable PDM, the literature also has suggested that there are institutionalized barriers to successful implementation of PDM in schools. These barriers can be a formalized part of the school's rules or informal, but equally rigid, behavioral expectations

regarding roles within the organization. What follows are some examples of these barriers as found in the literature.

Researchers (Glickman, 1984/85; Goodlad, 1984; Lortie, 1975) have found that teachers have little control over their working lives, which are often bureaucratic and restricted. Schedules are set, and teachers are told what they will teach and when they will teach it. Teachers' opportunities to be involved in decision making are further restricted by minimum competencies, mandated curriculums, and externally developed policies. Goodlad (1984) stated that the professional talk among teachers which can find its way into this bureaucratic and restricted system typically lasts about two minutes per day, and supervisors rarely engage teachers in mutual problem solving regarding schoolwide decisions.

Brandt (1989) advanced an additional factor that might impede teacher involvement in decision making when he played "devil's advocate" in raising the issue that teachers might not want to be involved in building-level decision making because they are primarily involved with their own classrooms. On the other hand, assuming that teachers desire to participate in decision making, when the committee is given only marginal authority (e.g., a small discretionary budget) and limited information on which to base decisions, teachers perceive more of the same old top-down management (David, 1989). Kantner (1983) found that asking people to participate in decisions about which they have no information is frustrating and not empowering, and that participating in planning

committees, in contrast to action committees with specific agendas, increases alienation because it uses up time and energy with no visible results. Lieberman (1988) suggested that effective teacher participation will not occur until the organization focuses on the development of attitudes that will allow teachers and administrators to work together.

Glickman (1984/85) stated that the challenge for supervisors is to reshape the climate for teachers into one that encourages dialogue and problem-solving collaboration among staff members given power to act on their decisions.

Organizational Climate and PDM

The ideal organizational communicational climate alluded to by Glickman has been characterized in the literature (Muchinsky, 1977; Redding, 1972; Roberts & O'Reilly, 1974) as one of supportiveness, trust, confidence, credibility, and openness and candor. The organizational-communication dimension of trust has been found to be significantly related to all or most of the climate dimensions and thus is a key organizational-climate variable that facilitates effective PDM.

Trust

Trust was first investigated experimentally in a laboratory setting by Deutsch (1958, 1961). In defining the parameters of his experiments, Deutsch indicated that being responsible to the trust of another will produce the behavior expected of him/her by the trusting individual even if producing behavior that violates the

trust is more immediately advantageous to him/her. In an extension of his own work, Deutsch (1961) added to the understanding of trust by concluding that individuals bring to a situation involving trust an internalized system of interrelations between oneself and the other individual, including the norms that prescribe both what to expect from the other participant and how to act toward the other participant. Other writers (Bennis & Nanus, 1985; Culbert & McDonough, 1985) have defined trust as the ability to predict outcomes with a high probability of success.

This research was based on the work of Hoy and Kupersmith (1984), who viewed the concept of faculty trust as comprising three aspects: faculty trust in the principal (PT), faculty trust in colleagues (CT), and faculty trust in the organization (OT). Hoy and Kupersmith relied on the work of other researchers (Golembiewski & McConkie, 1975; Rotter, 1967) to define trust as a belief that the words of another individual, group, or organization can be relied upon.

Trust and PDM

To be successful, PDM depends on effective cooperative problem-solving communication. Mellinger (1956) believed that lack of trust precluded effective communication. He stated that a primary goal of communication with a distrusted person becomes the reduction of one's own anxiety, rather than the accurate transmission of ideas. In that respect, Mellinger extended Horney's (1945) typology of defense reactions (withdrawal, compliance, and aggression) into the

field of communication theory. Mellinger suggested that distrust may have any of three possible consequences in distorting communication, including being vague or evasive (withdrawal), putting oneself in a more favorable light by minimizing actual disagreement (compliance), or expressing resentment by exaggerating disagreement (aggression).

Other researchers (Culbert & McDonough, 1985; Gibb, 1978; Roberts & O'Reilly, 1974; Rotter, 1967; Zand, 1972) have been consistent regarding the effect of trust on communication. Between individuals, low levels of trust result in communication distortion (as might be the case in a daily grade-level teaming with low colleague trust). Where a superior and subordinate are involved, the untrusting subordinate has little desire for interaction with his/her superior (as would be the case with a SIP with low principal trust). Problem-solving groups (such as DGLT and SIPs) operate with partial efficiency due to inadequate data flow, which consequently reduces performance to the extent that the survival of the group depends on the presence or absence of trust. Without trust, the best-conceived plans fail and misunderstandings become betrayals. Gibb (1978) pointed out that high trust is the key factor in organizational problem-solving effectiveness, whereas lack of trust within an organization (as might be the case with low organizational trust) contributes to a fear-distrust cycle when management perceives undisciplined behavior and attempts to control such behavior by increasing coercive, manipulative, and persuasive

procedures. These procedures lead to lower trust and higher fear and a self-fulfilling prophecy of continued undisciplined behavior.

In summary, an organization without trust is one in which risk taking, innovation, and creativity all suffer as individuals no longer take chances for fear of making a mistake (as might be the case for a school with low OT). Too often, decisions focus on short-term tangible results, with the danger being that in efforts to justify the performance of today, actions are lost which might invest in the potential of the future. With the importance of trust in a problem-solving collegial relationship (CT and PT) and in an organization (OT) documented in the literature, the question turns to how trust is generated. Some writers have suggested that participation in a problem-solving situation will itself lead to an increase in trust.

The Influence of PDM on Trust

Deutsch (1958) demonstrated that trust can be established through exposure to nonexploitative behavior and positive feelings. This establishment of trust would be facilitated by a cooperative orientation which includes prior expression of intention, expectations, planned reaction to violation of one's expectations, and a method of restoring cooperation after a violation of one's expectations has occurred. Hence, it can be inferred that if the cooperative orientation cited above was established and followed in implementing PDM, implementation of PDM should influence the development of trust among the participants. Conversely, a

competitive orientation lacking the above conditions would result in suspicious and untrustworthy behavior.

Walton (1982) referred to Deutsch's results as he talked about the trust that forms as parties within a group begin to get to know each other. For example, it is only after members of a problem-solving group begin to develop some trust in each other that they can begin to examine a situation to find integrative aspects. Walton explained the difference between integrative and distributive behavior as follows:

> The serious poker game is an example of a distributive social situation in that what one person wins the other must lose. Several persons working together on a parlor jig-saw puzzle is an example of an integrative situation with persons integrating their resources toward a common task. (p. 62)

Walton went on to describe the key role played by trust in the process:

> Note the key role of attitudinal change as a factor permitting integrative behavior to substitute for distributive. The important thing is that the parties begin to get to know each other and have some trust in each other. Then they begin to examine the situation to find its integrative aspects. (p. 62)

Thus, the fact that individuals are engaged in group problem solving seems to contribute to the development of trust necessary for PDM to be successful. Specifically in literature regarding schools, it has been suggested that involvement of teachers in PDM does lead to development of trust (Blumberg & Greenfield, 1980; Kupersmith, 1983). However, writers have also suggested other influences on development of trust. One of these influences involves perceptions of leadership behavior.

Trust and Leadership Behavior

Bennis and Nanus (1985) saw accumulation of trust as the measure of the legitimacy of leadership. They characterized trust as a kind of emotional glue that binds followers and leaders behind a clear, attractive, and attainable vision for the organization.

Argyris (1973) discussed the problems inherent in fostering the kind of superior-subordinate communication that may be necessary to develop this "emotional glue":

> Man tends to create in his everyday working life an interpersonal world . . . in which expression of feelings, experimenting, taking risks, helping others to own up to their ideas and feelings, being open, and norms of trust or concern for feelings are rarely observed. In this world there is a tendency for individuals to be less . . . effective in understanding the behavior of others, thus to feel a general tendency of ambiguity and lack of clarity about things. Since it would require the taking of risks and the expression of feelings to bring these issues out in the open, they are rarely discussed. Instead . . . individuals exist . . . in a world in which a degree of mistrust and suspicion may pervade their life. The result is for individuals to withhold or distort information about important or difficult issues. (p. 49)

Researchers (Roberts & O'Reilly, 1974) have confirmed that low trust in one's superior is negatively related to accuracy of upward communication. Beck and Hillman (1986) stated that the most important thing that a manager can do is to create an open process and environment in which there is trust to express the issues and concerns that need to be clarified. Beck and Hillman recognized that, in developing trust, it might be hard for some managers to share power, listen, and receive feedback. They advised that managers who wish to change should look at their own identities and attitudes toward themselves.

Principal Authenticity

Attitude toward one's self is fundamental to the concept of principal authenticity, which Kupersmith and Hoy (1984) reported is characterized by a willingness to admit mistakes, not manipulate teachers, and behave as a real person instead of as a bureaucrat.

The general concept of authenticity has been referenced throughout history and in different cultures. For example, Nussbaum (1989) reported:

> Aristotle's directive is always to think of yourself as though you're improvising. Aristotle compares this idea to what a good navigator will do. The navigator has studied the navigation manual, but when he goes out there in the boat, he's going to look at the scene before him and go not just by the rule book, but by what's actually there at hand. You bring to the situation your ability to perceive it for what it is. You also bring your emotional resources, and your ability to respond to human beings in human situations. If you do all that, ethical change takes place more appropriately, because when you see a real live human being, it's much harder to maintain discriminatory judgements. (p. 457)

Sartre (1948), the French existentialist, referred to the concept when he suggested that authenticity is made up of being conscious of a situation and then assuming any responsibilities or risks involved in the situation.

In a 1966 study of the organizational climate of schools, Halpin (1966) related the following, which indicates his surprise in discovering a "fundamental idea" during the course of an organizational-climate study:

> When we started, the word "authenticity" was not part of our professional vocabulary. But the more we worked with the Climate data, the more we scrutinized the behavior that differentiated Open from Closed climates. The more that we sought for explanations to account for the differences that we

found, the more, too, did we find ourselves forced to contend with the concept of authenticity. . . .

>   We were struck by the vivid impression that what was going on in some schools was for real, while in other schools, the characters seemed to have learned their parts by rote, without really understanding the meaning of their roles. . . . Something in the first situation made it possible for the . . . professional roles of the individuals to remain secondary to what the individuals, themselves were as human beings. . . . Within the opposite climate the roles seemed over specified. . . . The role itself and the individual's status . . . as a principal appeared to constitute his essential sense of identity. Furthermore, in these instances the individual used his role ritualistically, so that it became a device which kept the others at a distance. (p. 204)

Halpin (1966) referred to Argyris in stating that the concept of authenticity might be described as reality-centered leadership characterized by principals who were open in letting teachers know what the principal stood for and who made choices rather than following a predetermined set of role-expected behaviors.

Halpin (1966) realized that authenticity is a tricky concept that does not lend itself readily to operational definition, but the strength of his commitment to address the concept is reflected in the following remarks:

>   We know that when we start speaking in terms of an absolute standard of authenticity, many scientists will promptly bristle. . . . Yet in spite of the resistance which our suggestion may produce, we believe that future research efforts should be directed to the development of criteria for identifying authentic behavior. (pp. 208-209)

An attempt to develop criteria to measure the concept of authentic behavior appears when Seeman (1966) proposed a direct measure of inauthenticity in research focused on superintendents and principals. Seeman suggested that inauthenticity might be applied to the leader who allows the stereotypes he/she holds with regard to

his/her high-status position to affect his/her decision making to the point where a decision is based on the perception of what the role should do rather than what the leader as a person thinks is the best decision.

The instrument used to measure perceived principal authenticity in this study was developed by Henderson and Hoy (1982). The instrument measures authenticity as composed of three aspects: manipulation, salience of self over role, and accountability. The three aspects are defined as follows:

Nonmanipulation of subordinates reflects the perception of subordinates that their leader avoids strategies designed to exploit or use them as objects. The authentic leader is viewed as one who treats subordinates with respect and demonstrates a consistency of expressions and actions, while the inauthentic leader is perceived as dealing with subordinates as if they were things.

Salience of self over role refers to a leader's tendency to behave in a genuine manner rather than being drawn into unwanted but expected behaviors. When the individual is able to break through the barriers of role stereotyping and align his/her behavior to meet the needs of a situation, that person's behavior is deemed authentic.

Accountability is the aspect of leader authenticity that describes the leader's accepting responsibility and admitting mistakes. The authentic leader accepts responsibility for his/her own actions and the actions of those in the organization, and admits

to mistakes when they are made. The inauthentic leader is viewed as one who "passes the buck" and blames others or circumstances for errors.

Researchers using this instrument (Hoy & Henderson, 1982; Hoy & Kupersmith, 1984; Kupersmith, 1983) have found that if the principal is perceived by the faculty as accepting responsibility for his/her actions, as not manipulative of subordinates, and as demonstrating an ability to place self above role, teachers will be less likely to use their own professional role as a mask to hide their personal identities. Consequently, trust among teachers and between teachers and the principal will develop.

Conclusion

The review of literature was intended to shed light on the purpose of this study, which was to determine how principal authenticity and teacher participation in decision making influence development of faculty trust. The review considered the major variables of interest in the study: PDM, trust, and principal authenticity.

Writers have suggested that there are three PDM models. The cognitive model states that PDM leads to greater knowledge of the work to be done and thus increases productivity. This model suggests that worker satisfaction is a by-product. The affective model represents PDM as leading to increased worker satisfaction, which leads to motivation, which in turn leads to increased worker productivity. The last model, contingency, illustrates that PDM

affects workers differently but that worker productivity is likely to increase among those in the service industry.

With a foundation in the above-mentioned organizational research, two major models exist that seek to translate PDM into the public schools: SIPs and DGLT. The contingency model cited above suggests that, as service industries, schools might benefit from PDM. Like the cognitive model, SIPs seek to increase teacher and student productivity through involving teachers in building-level decision making with the purpose of increasing student scores on standardized tests. More like the affective model, DGLT is an integral part of the middle school program, whose purpose is to ease the transition for children between elementary school and high school.

In spite of widespread interest in PDM in schools, little attention has been given to development of faculty trust in schools. This is the case even though trust has been operationally defined and tested since the late 1950s. Numerous reports regarding trust have claimed that, without a high level of trust, communication in a group problem-solving situation is distorted and organizations operate at a lower level of effectiveness.

In support of the purpose of this study, some evidence has been presented that development of trust is positively influenced by regular participation in a problem-solving group as well as by principal authenticity.

CHAPTER III

METHODS AND PROCEDURE

<u>Overview</u>

The purpose of this chapter is to discuss in detail the research design of the study. The population, the sample, and the representativeness of the sample are described in the first section. The next section contains an explanation of the instrumentation used. The last section deals with the statistical treatment of data and how each of the hypotheses was tested.

The researcher used an approach to organizational climate termed the "perceptual measurement-individual attribute approach" by James and Jones (1974), which is an individual, psychological approach to organizational climate. Schneider (1975a) suggested that, "when the decision has been made to use climate as an index of each person's 'psychology of the organization' then it is appropriate to develop measures in which individuals are the unit of analysis" (p. 470).

The research design of this study was ex post facto--that is, research in which it is not possible to manipulate the independent variables. Kerlinger (1979) indicated that, in ex post facto research, the independent variables have already exercised their effects, if any. He emphasized that conclusions drawn from ex post

facto research are empirically not as strong as those from experimental research. In addition, in ex post facto research, the researcher cannot control to ensure that only the independent variables of interest in the study have affected the dependent variables.

The Population and Selection of the Sample

To test the hypotheses of this study, it was necessary to collect data from faculty members representing the population of 828 middle school teachers in Kent Intermediate School District (KISD). The choice of Kent Intermediate School District middle school teachers for analysis was based on the following considerations:

1. A KISD middle school focus limited the scope and enhanced the practicality of the project.

2. The KISD sample contained a cross-section of middle schools, including urban, suburban, and small town/rural.

3. Middle schools that incorporated daily grade-level team planning were available in this sample.

4. The KISD sample contained schools with school-improvement programs (SIPs) needed for the study.

The first step in selecting the sample was to secure a list from KISD entitled <u>Register of Professional Personnel</u>, which listed all public school teachers in the district. These teachers worked in school systems that included communities of diverse sizes, growth rates, and socioeconomic statuses. Teachers who worked in schools of various sizes and three school-district types were included in

the study. The district types were identified and defined as (a) urban--have a population of approximately 30,000 or more, are economically diverse, and are independent of surrounding communities; (b) suburban--are primarily residential, have little or no economic independence, and are near an urban center; and (c) small town/rural, defined as having a somewhat larger geographic area and fewer people than groups 1 and 2 (Kleine & Spring, 1989). One school district with 5 middle schools fit category 1, 10 districts with 14 middle schools fit category 2, and 7 districts with 7 middle schools fit category 3.

Next, a systematic procedure was employed to identify the teachers targeted to participate in the study. To do this, a random number was generated as a starting point and a skip interval determined by dividing the total number of middle school teachers in Kent County (828) by the number of middle school teachers needed (250). The resulting 3.31 was rounded to 3. Beginning at the starting point, every third teacher was targeted from the Register of Professional Personnel. Four hundred thirty-seven teachers were selected through this procedure.

The procedure for enlisting the cooperation of the teachers began with a phone call to the president of the Kent County Superintendent's Association. Based on his advice, a countywide electronic bulletin board was used to inform superintendents of the upcoming study and to request their permission to conduct the study. Several superintendents requested additional information, but no one withheld permission to conduct the study. Having the

superintendent's approval to conduct the study, the researcher then sent a letter to each middle school principal to explain the study and request their permission to administer the questionnaire to the teachers. In addition, the researcher hosted a breakfast for the middle school principals to explain further the details of the study. To avoid the possibility of influencing teacher responses, the researcher did not survey teachers in the small town/rural district in which he was employed. Thus, the researcher did not allow either teacher knowledge of him personally or his position to influence answers and perhaps skew the results.

To ensure that the survey and analysis posed no threat to those asked to respond, the proposal was reviewed and approved by the University Committee on Research Involving Human Subjects (UCRIHS) at Michigan State University.

Characteristics of the Teacher Sample

At 95% certainty, a sample of 250 teachers was needed to represent the 828 middle school teachers in Kent County. To increase the likelihood of 250 responses, several steps were taken. First, surveys were sent to a sample of 437 teachers, which exceeded the 250 needed. Second, a cover letter indicated that the survey was supported by the Michigan Association of Middle School Educators and that confidentiality of respondents was protected by the fact that a respondent's name would never be placed on the survey. Third, the materials were number coded to enable follow-up if

necessary. Fourth, the envelopes and the letter explaining the project were addressed by name to the teachers involved.

The survey instrument with a letter of explanation and prepaid return envelope was mailed on December 2, 1989, directly to the teachers selected. The teachers completed and returned the test instruments directly to Research Services, a company employed to collect and process the data. The researcher sent a follow-up postcard requesting return of the completed survey instrument one week after the initial mailing on December 9, 1989.

Instrumentation

The survey instrument used in this study consisted of a compilation of three existing scales selected following a substantial review of existing measures in comparable research. Reliability, validity, and feasibility were important criteria in the selection of these instruments. Because the researcher wanted to determine the effects of daily grade-level teaming (DGLT) and school-improvement programs (SIPs), the following questions were also included:

Do you meet daily with a grade-level team?   yes   no

This question on DGLT was added because the researcher was aware of the existence of middle school programs in Kent County that used daily teaming and had successfully advocated the implementation of such a program in his own district. The researcher suspected that participation in daily teaming would positively affect faculty

trust, and he wanted to determine whether these suspicions were correct. Note that this question specifically asked whether the teacher responding met with a grade-level team. The following question did not ask whether the respondent was a member of the school-improvement committee:

>   **Does your school have a building committee estab-**
>   **lished to develop a School-Improvement Plan?** yes no

This question was asked to determine whether the presence or absence of SIPs contributed to faculty trust. To determine the effects of the extent of a SIP, the following question was asked:

>   **If you answered "yes" to the above, please answer the following**
>   **question.**
>
>   **Please circle the letter that best describes your School-**
>   **Improvement Plan:**
>
>   **A.** **The principal is aware of the School Improvement Plan, and**
>   **50% of the faculty concur.**
>
>   **B.** **The principal is aware of the School Improvement Plan, and**
>   **the following conditions are present:**
>
>   >   **1.** **The plan is written.**
>   >   **2.** **The plan has been distributed.**
>   >   **3.** **A committee monitors the plan.**
>   >   **4.** **At least one teacher is on the committee.**
>
>   **C.** **The principal is aware of the School-Improvement Plan, 50%**
>   **of the faculty concur, but not all of the characteristics**
>   **in B are present.**

The questions regarding SIPs were based on the High School Supplemental Survey of Principals and Teachers as interpreted by Purkey et al. (1987-87). However, in writing the actual survey, the question regarding extent of the SIP was negated when the researcher

inadvertently left out the words "less than" (50% of the faculty concur) in response option A, and "more than" (50% of the faculty concur) in response option C. Thus, the opportunity had passed to determine whether the extent of SIPs influenced aspects of faculty trust.

Questions regarding gender, age, experience, and level of education were added, as was an open-ended question that asked teachers whether there was anything else they would like to mention about teacher participation in decision making. The demographic questions were based on the Kupersmith (1983) survey and intended to determine the existence of additional relationships that might relate to aspects of faculty trust. Finally, the open-ended question was added in the hope that responses might provide insights that would aid in interpretation of the data collected.

The three scales and additional questions were then compiled into one instrument consisting of 64 questions. Four suburban rural teachers, four suburban school principals, one suburban superintendent, two suburban-rural superintendents, and one suburban school assistant superintendent reviewed the survey in a field test before it was sent out in its final form. Two of the suburban principals who later withdrew from the study and the four teachers who reviewed the survey commented that the questions as initially ordered reflected a negative bias. One of the suburban rural superintendents and one of the suburban principals commented that the original ordering of the survey was fine. The rest did not comment. Based on this information, the researcher reordered the

questions to balance positive questions with negative ones throughout the survey.

Authenticity Measure

After consulting with Wayne Hoy, developer of the Leader Authenticity Scale (LAS), the researcher included a 17-item authenticity measure on which respondents indicated the extent of their agreement along a six-point Likert scale. The original LAS was developed in a comprehensive factor-analytic study of the behavior of elementary principals (grades K-8). Items measuring the subsets of authenticity included accountability, nonmanipulation of subordinates, and salience of self over role loaded highly on a single bipolar authenticity factor (Henderson & Hoy, 1983). Examples of items on the scale are the following:

The principal is willing to admit mistakes when they are made.

The principal manipulates the teachers.

The principal is a person first and an administrator second.

Reliability for the original LAS was supported with an alpha coefficient of .96 (Henderson & Hoy, 1983). The short version of the LAS correlated highly (.96) with the longer version (Kupersmith, 1983).

Trust Measure

The Trust Scale (TS), the faculty trust instrument, was developed by Kupersmith (1983) and contains three subscales

measuring aspects of trust, which include trust in principal, trust in colleagues, and trust in organization. Each scale consists of seven Likert-type items with responses ranging along a six-point scale from strongly agree to strongly disagree. Sample items for the trust in principal scale are:

> **The teachers in this school have confidence in the fairness of the principal.**
>
> **The principal in this school can be counted on to keep his/her word.**

Trust in colleagues was measured by such items as:

> **Teachers in this school have faith in the integrity of their colleagues.**
>
> **Teachers in this school believe in each other.**

Examples of trust in school organization items are:

> **In this school district the administration is fair.**
>
> **Teachers in this school district see no need for job actions.**

The TS reliability and objectivity coefficients were high (.97, .97, and .83) for the respective scales (Kupersmith, 1983).

Teacher Participation in Decision Making

The building-level portion of the Critical Decision Inventory (CDI) was used to measure actual teacher involvement in decision making. It consists of the following types of teacher participation in decision making:

Teacher selection, teaching assignments, school schedule, course offerings, student class placement, extra-duty assignment, developing innovative programs, faculty meeting agendas, selection of building principal, and teacher evaluation criteria.

Teachers could choose a type of involvement that included no participation, provide information, recommend decision, influence decision, and make decision.

To ensure that the survey was reliable, the original developer (Riley, 1984) subjected it to a reliability test for actual level of participation. Pearson's correlation coefficient formula for use with raw data was used. The result was .81 for actual level of participation.

Open-Ended Comments

Teachers were asked for their comments regarding teacher participation in decision making. These comments were grouped by schools and reviewed.

Data Processing

The researcher used the services of Research Services to collect and process the returned surveys. Responses to the operational measures were scored, entered, and verified. Analyses were conducted using Statistical Package for the Social Sciences (SPSS) software. The researcher reviewed each of the surveys for responses to the open-ended questions. These responses can be found in Appendix I.

Testing of Hypotheses

Before testing the hypotheses, scatter plots were developed and reviewed as to whether the assumption of linearity was supported. A frequency table was also developed and examined for breaks regarding PDM and PA. Both PDM and PA were broken into approximately three equal groups representing low, average, and high. The choice of thirds was made to avoid unequal group sizes and because division into three groups gives a finer distinction than either dividing into groups of two or testing using two groups representing the high third and the low third.

Regarding Overall Relationships:

<u>Hypothesis 1</u>: Principal authenticity, faculty trust in the principal, faculty trust in colleagues, faculty trust in the organization, and teacher participation in decision making are positively related to each other.

Pearson product-moment correlations were computed to test for the hypothesized interrelationships.

Standard Procedure Used in Two-Way Analyses of Variance Using Aspects of Trust as the Dependent Variable

The flow chart in Figure 3.1 illustrates the standard procedure used to test hypotheses that examine the influence of the independent variables (PDM, DGLT, SIPs, and PA) on each of the dependent variables (CT, OT, and PT).

1. Each hypothesis was stated in its null form beginning with the hypothesis that there was no interaction effect between the independent variables.

2. If the null hypothesis was rejected, the nature of the interaction was reported.

3. If the null hypothesis regarding interaction effects was retained, null hypotheses regarding main effects were examined.

4. Where the null hypothesis regarding either or both main effects was retained, the process ended.

5. If the null hypothesis regarding either or both of the main effects was rejected, post-hoc analysis was employed and the nature of the differences was explained.

```
                    Reject ——→ Explain Nature
                  ↗                of Interaction
                /
Interaction                                    Post-Hoc
Effect Stated                    Reject ——→ Analysis
    as H_0                          ↑              ↘
        \                          /             Explain
         ↘                        /              Nature of
          Retain ——→ Main Effects               Main Effects
                     Stated as H_0
                              ↘
                             Retain
```
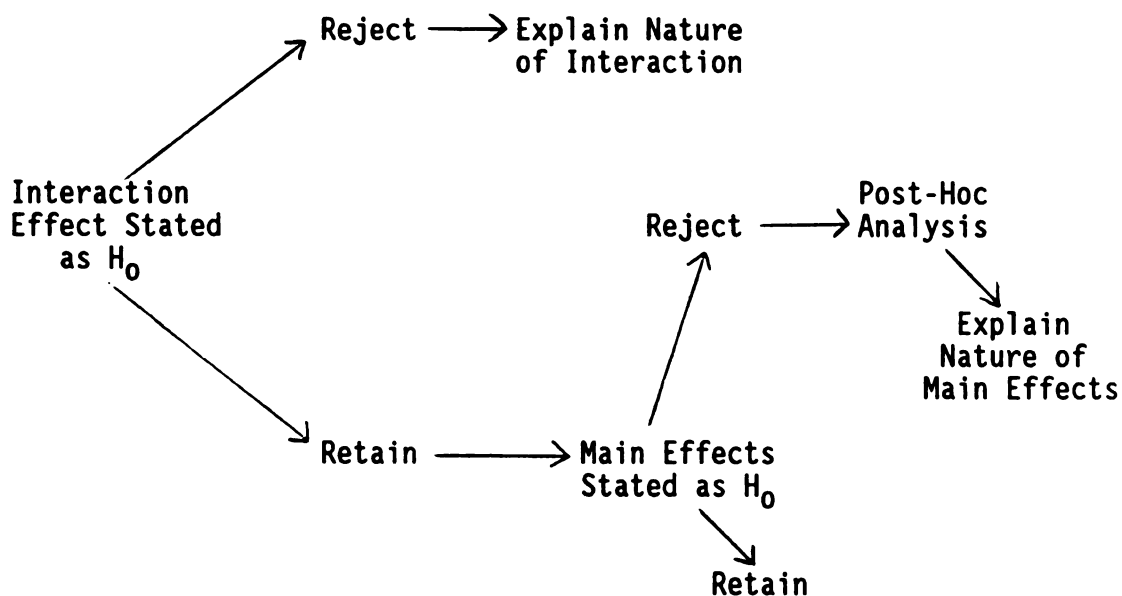
Figure 3.1: Hypothesis-testing process regarding aspects
             of trust.

The procedure used to test hypotheses that examined the influence of each independent variable (PDM, DGLT, SIPs, and PA) on each of the dependent variables (CT, OT, and PT) used two-way

analysis of variance and follow-up post-hoc analysis with the Scheffe procedure. Significance was determined at the alpha = .05 level.

Regarding Colleague Trust:

<u>Hypothesis 2a</u>: The level of colleague trust is not dependent on an interaction between school-improvement programs and principal authenticity.

<u>Hypothesis 2b</u>: There is no difference in the level of colleague trust between teachers who report that their schools have school-improvement programs and teachers who report that their schools do not.

<u>Hypothesis 2c</u>: There is no difference in colleague trust among teachers who report high, average, and low levels of principal authenticity.

<u>Hypothesis 2d</u>: The level of colleague trust is not dependent on an interaction between daily grade-level teaming and principal authenticity.

<u>Hypothesis 2e</u>: There is no difference in colleague trust between teachers who report that their schools use daily grade-level teaming and teachers who report that their schools do not.

<u>Hypothesis 2f</u>: The level of colleague trust is not dependent on an interaction between participation in decision making and principal authenticity.

<u>Hypothesis 2g</u>: There is no difference in colleague trust among teachers who report high, average, and low levels of participation in decision making.

Regarding Organizational Trust:

<u>Hypothesis 3a</u>: The level of organizational trust is not dependent on an interaction between school-improvement programs and principal authenticity.

<u>Hypothesis 3b</u>: There is no difference in organizational trust between teachers who report school-improvement programs and teachers who do not.

<u>Hypothesis 3c</u>: There is no difference in organizational trust among teachers who report high, average, and low levels of principal authenticity.

<u>Hypothesis 3d</u>: The level of organizational trust is not dependent on an interaction between daily grade-level teaming and principal authenticity.

<u>Hypothesis 3e</u>: There is no difference in level of organizational trust between teachers who report daily grade-level teaming and teachers who do not.

<u>Hypothesis 3f</u>: The level of organizational trust is not dependent on an interaction between participation in decision making and principal authenticity.

<u>Hypothesis 3g</u>: There is no difference in organizational trust among teachers who report high, average, and low levels of participation in decision making.

Regarding Principal Trust:

<u>Hypothesis 4a</u>: The level of principal trust is not dependent on an interaction between school-improvement programs and principal authenticity.

<u>Hypothesis 4b</u>: There is no difference in principal trust between teachers who report school-improvement programs and teachers who do not.

<u>Hypothesis 4c</u>: There is no difference in principal trust among teachers who report high, average, and low levels of principal authenticity.

<u>Hypothesis 4d</u>: The level of principal trust is not dependent on an interaction between daily grade-level teaming and principal authenticity.

<u>Hypothesis 4e</u>: There is no difference in principal trust between teachers who report daily grade-level teaming and teachers who do not.

<u>Hypothesis 4f</u>: The level of principal trust is not dependent on an interaction between participation in decision making and principal authenticity.

<u>Hypothesis 4g</u>: There is no difference in principal trust among teachers who report high, average, and low levels of participation in decision making.

**Regarding Participation in Decision Making
as the Dependent Variable:**

To test Hypotheses 5a and 5b, a one-way analysis of variance was conducted using school-improvement programs and daily grade-level teaming as the independent variables, respectively, and participation in decision making as the dependent variable. Significance was determined at the alpha = .05 level.

> Hypothesis 5a: There is no difference in teacher participation in decision making between teachers who report a school-improvement program and teachers who do not.

> Hypothesis 5b: There is no difference between teachers who report daily grade-level teaming and teachers who do not.

**Regarding Various Demographic Variables as Independent
Variables and Aspects of Faculty Trust as the
Dependent Variables:**

Kupersmith (1983) reported his intention to consider teacher variables including age, experience, gender, and level of education and their effect on trust. However, the results of that analysis were not reported. To examine other relationships that might be discovered with respect to the dependent variables of CT, OT, and PT, a number of demographic and school characteristics were analyzed (including experience, gender, age, and level of education); a series of one-way analyses of variance was conducted, with significance determined at the alpha = .05 level.

> Hypothesis 6a: There is no difference in level of colleague trust based on gender.

> Hypothesis 6b: There is no difference in level of organization trust based on gender.

<u>Hypothesis 6c</u>: There is no difference in level of principal trust based on gender.

<u>Hypothesis 6d</u>: There is no difference in level of colleague trust based on age group.

<u>Hypothesis 6e</u>: There is no difference in level of organization trust based on age group.

<u>Hypothesis 6f</u>: There is no difference in level of principal trust based on age group.

<u>Hypothesis 6g</u>: There is no difference in level of colleague trust based on level of experience.

<u>Hypothesis 6h</u>: There is no difference in level of organization trust based on level of experience.

<u>Hypothesis 6i</u>: There is no difference in level of principal trust based on level of experience.

<u>Hypothesis 6j</u>: There is no difference in level of colleague trust based on level of education.

<u>Hypothesis 6k</u>: There is no difference in level of organization trust based on level of education.

<u>Hypothesis 6l</u>: There is no difference in level of principal trust based on level of education.

<u>Summary</u>

This chapter contained a description of the population, the sample, and the representativeness of the sample of interest in this study. In addition, the instrumentation used in the study and the statistical treatment of data used in testing each hypothesis were described. In Chapter IV, the findings of the study are reported.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Overview

This chapter contains a report of the findings after employing the methods described in Chapter III. By way of brief review of Chapter III, the survey employed to collect data for the purpose of testing the hypotheses of this study was administered to middle school teachers in 20 of the 24 middle schools in the Kent Intermediate School District (KISD). To test the hypotheses, scores representing principal authenticity (PA) and participation in decision making (PDM) were rank ordered and divided into three levels representing low, average, and high designations. The researcher used statistical procedures that included scatter plots, Pearson product-moment correlations, frequency tables, one- and two-way analysis of variance, and Scheffé post-hoc analysis.

In this chapter, the reliability of the scales used is determined, and the sample is examined regarding its representativeness of the population. Then, means and standard deviations for all the major variables of the study are reported and discussed. The focus of the chapter then turns to a report of testing regarding the hypothesized relationships between the independent variables (PA, PDM, daily grade-level teaming [DGLT],

and school-improvement programs [SIPs]) and the dependent variables (colleague trust [CT], organizational trust [OT], and principal trust [PT]). Then the relationships between structures that institutionalize decision making (DGLT and SIPs) and perceived PDM are reported. Finally, the demographic variables are examined in a search for possible effects on aspects of faculty trust.

Reliability of the Survey

The trust and authenticity variables were measured by multiple items employing a six-point Likert scale, and the teacher participation in decision making variable was measured with multiple items employing a five-point Likert scale. With each of the major variables, the higher the score, the greater the described behavior on that scale. In Table 4.1, the reliability scores for each of the scales incorporated into the survey are reported.

Table 4.1.--Scale reliability (Cronbach's alpha).

Name of Scale	No. of Items	Alpha	Alpha
			(Kupersmith, 1983)
Leader's Authenticity Scale	17	.94	.96
Trust in Principal Scale	9	.94	.97
Trust in Colleague Scale	9	.92	.97
Trust in Organization Scale	12	.84	.83
			(Riley, 1984)
PDM Scale (Critical Decision Inventory)	10	.80	.81

Note: N for this study was between 232 and 243.

The combination of moderately high to high values, and the consistency between the studies represented in Table 4.1, support the reliability of the scales used in this study.

Representativeness of Return

In all, 436 surveys were sent and 254 teachers responded, for a return rate of 58%. The results of the chi-square procedure used to determine whether the return was significantly different from the sample are shown in Tables 4.2 and 4.3. Analysis was based on gender and district membership. Referencing the tables reveals the probability that the return and the sample were not significantly different at the .05 level. The results provide support that the study findings can be generalized as representative of the population of middle school teachers in KISD in Michigan.

Table 4.2.--Comparison between sample and return, by gender.

Responded	Male		Female		Total	
	n	%	n	%	n	%
Yes	120	48	132	52	252	57
No	100	55	83	45	183	42
Total	220	51	215	49	435	

Chi-square = 2.08   df = 1   p > .05

Note: The difference between groups was not significant.

Table 4.3.--Comparison between sample and return, by district type.

Responded	Urban		Suburban		Rural		Total	
	n	%	n	%	n	%	n	%
Yes	58	24	118	49	63	26	239	55
No	61	31	78	40	58	29	197	45
Total	119	27	196	45	121	28	436	

Chi-square = 4.44   df = 2   p > .05

Note: The difference between groups was not significant.

Descriptive Statistics

Comparison of Means

The data reported in Table 4.4 indicate that the Kupersmith findings were similar to data obtained from middle school teachers in KISD in Michigan. It is interesting to note this consistency in results.

Table 4.4.--Means and standard deviations for major variables in the sample.

Variable	Mean		Standard Deviation	
	Busman	Kupersmith	Busman	Kupersmith
PT	4.19	4.17	1.25	.83
CT	4.68	4.42	.88	.59
OT	3.40	3.17	.88	.59
PA	4.46	4.22	1.14	.68

Note: Busman N ranged from 232 to 243.
       Kupersmith N = 46 middle schools/944 teachers.

Regarding trust as a dependent variable, interpretation of the data in Table 4.4 indicates that teachers in the 21 middle schools reported more trust in their colleagues (mean = 4.68) than in their principal (mean = 4.19) or in the organization (mean = 3.40). On the survey scale of one to six, the mean scores were near or above the midpoint. Using the descriptors from the survey as a reference for interpretation, teachers slightly disagreed/slightly agreed regarding the presence of trust in the organization; they slightly/somewhat agreed regarding trust in the principal and trust in colleagues. Again, using descriptors from the survey itself, interpretation of the data in Table 4.4 regarding principal authenticity indicates that teachers slightly to somewhat agreed that their principals demonstrated characteristics of authentic behavior.

Actual Participation in Decision Making

The average PDM score was 2.10. This is consistent with Riley's (1984) study, in which teacher PDM was found at the provide-information level. Using the original survey scale as a point of reference, this mean score fell below the midpoint on a scale of one to five. Table 4.5 shows the mean item scores and standard deviations for facets of PDM, rank ordered from highest to lowest.

Table 4.5.--Means and standard deviations for facets of participation in decision making.

Type of PDM	Mean	S.D.	N
Developing innovative programs	3.01	1.22	243
Extra-duty assignment	2.48	1.48	248
Faculty meeting agenda	2.36	1.17	248
Student class placement	2.35	1.30	248
Course offerings	2.27	1.19	247
School schedule	2.01	1.11	248
Teaching assignment	1.92	1.06	247
Teacher-evaluation criteria	1.62	1.06	247
Selection of building principal	1.54	1.04	248
Teacher selection	1.45	.93	249

Examining Table 4.5 reveals that the specific opportunities for decision making in this study can be roughly categorized using descriptors from the actual survey. As indicated in the table, the mean level of participation in developing innovative programs was at the recommend-decision level and, based on the standard deviation, could vary as high as the influence-decision level. Mean levels of participation for extra-duty assignment, faculty meeting agenda, student class placement, and course offerings were near the midpoint of the survey, indicating provide information/recommend decision and, based on the standard deviations, could vary as high as influence decision. The mean levels of participation regarding school schedule, teaching assignment, teacher-evaluation criteria, and selection of building principal, although at the provide-information level, could vary as high as recommending decisions. The table shows that the least involvement in PDM was in teacher

selection. The mean for participation in decision making was barely at the provide-information level and, considering the standard deviation, approached the recommend-decision level.

Formation of PDM and PA Groups

Tables 4.6 and 4.7 show the frequencies of responses regarding the means for PDM and PA. Because the study was concerned with the effect of different levels of PDM and PA, the tables were used to divide the aforementioned variables into three groups (low, medium, and high) of approximately equal sizes.

Table 4.8 illustrates the division of PDM and PA into three approximately equal groups. In reference to the original six-point scale, the mean for PA Level I teachers was about at the scale midpoint, Level II teachers were above the scale midpoint, and Level III teachers was near the top of the scale, with little variance in their responses. Regarding PDM, Level I teachers were near the bottom of the scale with slight variance in their responses, Level II teachers were still below the midpoint with slight variance in their responses, and Level III teachers were slightly above the midpoint with moderate variance in their responses.

Table 4.6.--Frequency table showing means for PA.

Value	Frequency	Percent	Valid Percent	Cumulative Percent
1.12	1	.4	.4	.4
1.35	1	.4	.4	.8
1.71	2	.8	.8	1.7
1.82	1	.4	.4	2.1
1.94	1	.4	.4	2.5
2.00	1	.4	.4	3.0
2.18	2	.8	.8	3.8
2.24	1	.4	.4	4.2
2.41	3	1.2	1.3	5.5
2.47	1	.4	.4	5.9
2.53	2	.8	.8	6.8
2.59	4	1.6	1.7	8.5
2.65	3	1.2	1.3	9.7
2.71	3	1.2	1.3	11.0
2.76	1	.4	.4	11.4
2.82	1	.4	.4	11.9
2.88	1	.4	.4	12.3
2.94	1	.4	.4	12.7
3.00	3	1.2	1.3	14.0
3.06	3	1.2	1.3	15.3
3.12	2	.8	.8	16.1
3.18	1	.4	.4	16.5
3.24	1	.4	.4	16.9
3.29	3	1.2	1.3	18.2
3.35	3	1.2	1.3	19.5
3.41	2	.8	.8	20.3
3.47	2	.8	.8	21.2
3.53	4	1.6	1.7	22.9
3.59	3	1.2	1.3	24.2
3.65	2	.8	.8	25.0
3.71	4	1.6	1.7	26.7
3.76	2	.8	.8	27.5
3.82	5	2.0	2.1	29.7
3.88	1	.4	.4	30.1
3.94	3	1.2	1.3	31.4
4.00	5	2.0	2.1	33.5
4.06	2	.8	.8	34.3
4.12	1	.4	.4	34.7
4.18	7	2.8	3.0	37.7
4.24	5	2.0	2.1	39.8

Table 4.6.--Continued.

Value	Frequency	Percent	Valid Percent	Cumulative Percent
4.29	3	1.2	1.3	41.1
4.41	1	.4	.4	41.5
4.47	4	1.6	1.7	43.2
4.53	4	1.6	1.7	44.9
4.59	5	2.0	2.1	47.0
4.65	4	1.6	1.7	48.7
4.71	3	1.2	1.3	50.0
4.76	5	2.0	2.1	52.1
4.82	4	1.6	1.7	53.8
4.88	5	2.0	2.1	55.9
4.94	4	1.6	1.7	57.6
5.00	3	1.2	1.3	58.9
5.06	8	3.2	3.4	52.3
5.12	4	1.6	1.7	64.0
5.18	2	.8	.8	64.8
5.24	5	2.0	2.1	66.9
5.29	7	2.8	3.0	69.9
5.35	10	4.0	4.2	74.2
5.41	5	2.0	2.1	76.3
5.47	9	3.6	3.8	80.1
5.53	4	1.6	1.7	81.8
5.59	8	3.2	3.4	85.2
5.65	8	3.2	3.4	88.6
5.71	4	1.6	1.7	90.3
5.76	3	1.2	1.3	91.5
5.82	6	2.4	2.5	94.1
5.88	7	2.8	3.0	97.0
5.94	2	.8	.8	97.9
6.00	5	2.0	2.1	100.0
MISSING	16	6.3		
Total	252	100.0	100.0	

Table 4.7.--Frequency table showing means for PDM.

Value	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	5	2.0	2.1	2.1
1.10	9	3.6	3.8	5.8
1.20	13	5.2	5.4	11.3
1.30	5	2.0	2.1	13.3
1.40	12	4.8	5.0	18.3
1.50	10	4.0	4.2	22.5
1.60	10	4.0	4.2	26.7
1.70	11	4.4	4.6	31.3
1.80	17	6.7	7.1	38.8
1.90	17	6.7	7.1	45.4
2.00	18	7.1	7.5	52.9
2.10	9	3.6	3.8	56.7
2.20	16	6.3	6.7	63.3
2.30	16	6.3	6.7	70.0
2.40	12	4.8	5.0	75.0
2.50	10	4.0	4.2	79.2
2.60	7	2.8	2.9	82.1
2.70	9	3.6	3.8	85.8
2.80	5	2.0	2.1	87.9
2.90	4	1.6	1.7	89.6
3.00	4	1.6	1.7	91.3
3.10	3	1.2	1.3	92.5
3.20	1	.4	.4	92.9
3.30	1	.4	.4	93.3
3.40	5	2.0	2.1	95.4
3.50	1	.4	.4	95.8
3.60	2	.8	.8	96.7
3.70	1	.4	.4	97.1
3.80	2	.8	.8	97.9
3.90	2	.8	.8	98.8
4.00	1	.4	.4	99.2
4.10	1	.4	.4	99.6
5.00	1	.4	.4	100.0
MISSING	12	4.8		
Total	252	100.0	100.0	

Table 4.8.--Division of PA and PDM into three levels.

Level	Mean	S.D.	n
Level I (Low)			
PA	3.09	.68	79
PDM	1.38	.22	75
Level II (Middle)			
PA	4.70	.35	79
PDM	2.04	.17	93
Level III (High)			
PA	5.60	.22	78
PDM	2.90	.53	72

Summary of Descriptive Statistics

In summary, the descriptive statistics revealed that principal authenticity was relatively high, as were aspects of trust. PDM scores were lower than the scale midpoint for almost all items, and the responses were positively skewed. An examination of the standard deviations of several of the mean scores leads to speculation that PDM was greater than the midpoint for some teachers regarding specific opportunities for decision making.

All scores had a degree of variability and satisfied the assumption of variance needed for the analyses used in this study. A frequency table was used to analyze a rank listing of individual teacher means for PDM and PA and to divide the responses into three approximately equal groups in order to examine the influence of low, medium, and high levels of PDM and PA on aspects of faculty trust.

Testing the Hypotheses

Regarding Overall Relationships:

<u>Hypothesis 1</u>: Principal authenticity, faculty trust in the principal, faculty trust in colleagues, faculty trust in the organization, and teacher participation in decision making are positively related to each other.

Pearson product-moment correlations indicated that the relationships were all positive and significant. Therefore, Hypothesis 1 was accepted. The actual results indicating correlations varying from high to modest can be found in Table 4.9.

Table 4.9.--Pearson correlation matrix for aspects of trust, principal authenticity, and participation in decision making (N = 205).

	OT	CT	PT	PA	PDM
CT	.51**				
PT	.56**	.25**			
PA	.50**	.20*	.91**		
PDM	.32**	.20*	.29**	.32**	

*Significant at the .01 level.

**Significant at the .001 level.

As shown in Table 4.9, the correlation between PA and PT was exceptionally high. This implies that either the two concepts measured different things but were highly related or that the two concepts were auto-correlated. PA was moderately correlated to OT and only weakly correlated to CT. Based on these findings, one would suspect that PA exercised some influence regarding OT but that

CT tended to be independent of principal behavior. Regarding this independence, the correlation between CT and PT was also weak. The weak relationship between CT and PT also leads to speculation that trust in the principal and trust in colleagues are really different kinds of trust, which seem to exist independently of one another. Also, regarding trust, the moderate correlations between PT and OT and between OT and CT support the notion that mutual influence exists regarding these aspects of trust. A weak but significant relationship existed between PDM and other variables of interest in this study. The results from Hypothesis 1 affirm that positive relationships exist and provide support for continued examination to determine whether the relationships are affected by differing levels of the variables.

Standard Procedure Used in Two-Way
Analyses of Variance Using Aspects
of Trust as the Dependent Variable

The following steps were taken to test hypotheses that examined the influence of each of the independent variables (PDM, DGLT, SIPs, and PA) on each of the dependent variables (CT, OT, and PT).

1. Each hypothesis was stated in null form, beginning with the hypothesis that there was no interaction effect between the independent variables.

2. If the null hypothesis was rejected, the nature of the interaction was reported.

3. If the null hypothesis regarding interaction effects was retained, null hypotheses regarding main effects were examined.

4. Where the null hypothesis regarding either or both of the main effects was retained, the process ended.

5. If the null hypothesis regarding either or both of the main effects was rejected, post-hoc analysis was employed and the nature of the difference was explained.

Regarding Colleague Trust:

<u>Hypothesis 2a</u>: The level of colleague trust is not dependent on an interaction between school-improvement programs and principal authenticity.

<u>Hypothesis 2b</u>: There is no difference in the level of colleague trust between teachers who report that their schools have school-improvement programs and teachers who report that their schools do not.

<u>Hypothesis 2c</u>: There is no difference in colleague trust among teachers who report high, average, and low levels of principal authenticity.

To test Hypotheses 2a, 2b, and 2c, a two-way analysis of variance was computed using school-improvement programs and principal authenticity as the independent variables and colleague trust as the dependent variable. The results of this analysis are shown in Table 4.10.

Table 4.10.--Analysis of variance for colleague trust by school-
          improvement programs and level of principal authen-
          ticity (N = 229).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
SIP	.68	1	.68	.920	.340
PA	10.73	2	5.37	7.330	.001*
SIP by PA	3.52	2	1.76	2.405	.093
Explained	14.55	5	2.91	3.970	.002
Residual	163.31	223	.73		
Total	177.86	228	.78		

*Significant at the .05 alpha level.

Because the significance of F for SIP by PA was greater than the .05 level of significance, as shown in Table 4.10, CT was not dependent on an interaction between SIP and PA; thus, Hypothesis 2a was retained. In addition, the p-value for SIP exceeded the .05 significance level; therefore, SIPs exerted no effect on CT and Hypothesis 2b was retained. The F-probability for PA was less than the .05 level of significance, which indicates a main effect on CT based on level of PA. Therefore, Hypothesis 2c was rejected.

Table 4.11 shows the means of colleague trust broken down by level of principal authenticity and status of school-improvement program.

To help in interpretation, the mean levels of colleague trust based on level of principal authenticity are graphed in Figure 4.1.

Table 4.11.--Colleague trust by principal authenticity and presence
of school-improvement program.

School- Improvement Program	Principal Authenticity						Total	
	Low		Medium		High		Mean	n
	Mean	n	Mean	n	Mean	n		
Yes	4.48	68	4.65	63	4.91	59	4.67	190
No	4.38	10	4.07	13	5.11	16	4.58	39
Total	4.47	78	4.55	76	4.96	75		229
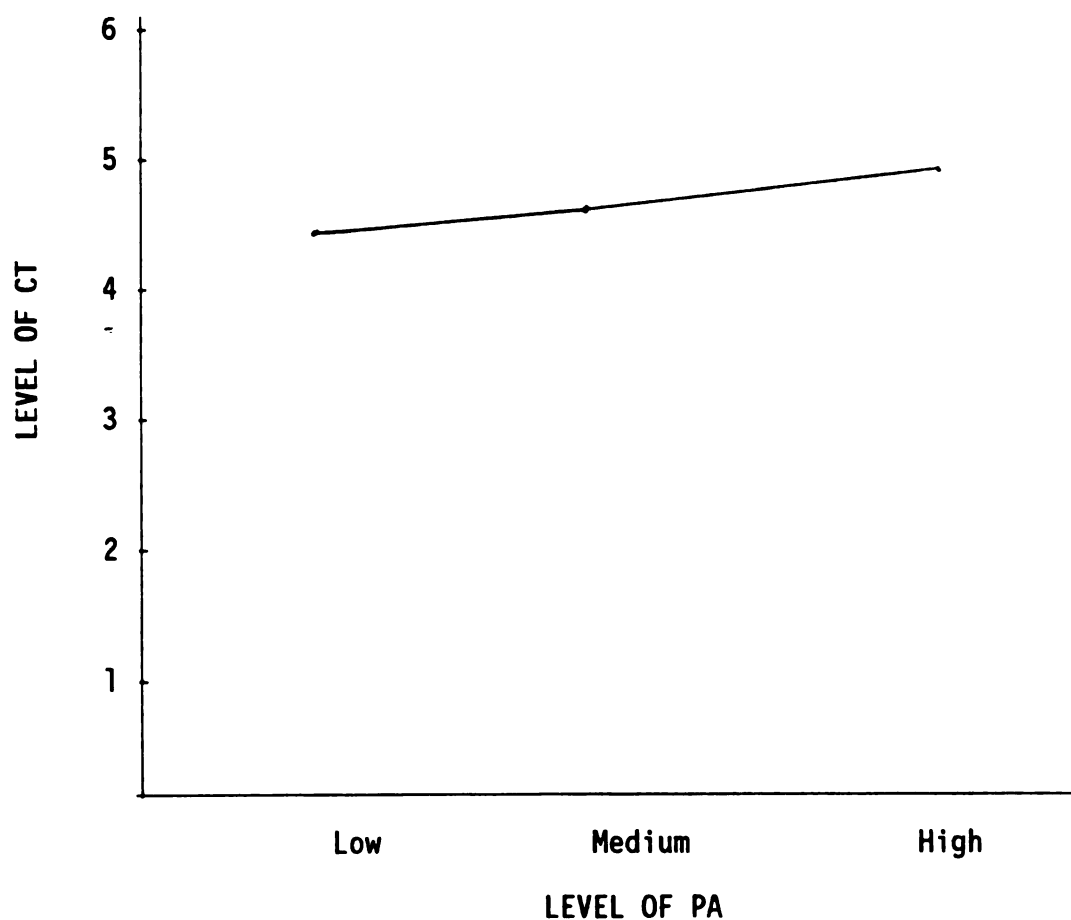
Figure 4.1: Colleague trust based on level of principal authenticity.

From Table 4.11 and Figure 4.1, it appears that the three mean levels of colleague trust progressively increased for each level of principal authenticity. A follow-up post-hoc analysis was conducted using the Scheffé procedure to determine which of the means, taken two at a time, were significantly different. Table 4.12 contains the findings of this analysis.

Table 4.12.--Scheffé post-hoc analysis of main effects of principal authenticity on colleague trust (N = 229).

Group	Group	
	Low PA	Medium PA
Low PA (4.47)		
Medium PA (4.55)	No difference	
High PA (4.96)	Significantly greater	No difference

Note: Group means are in parentheses.

As shown in Table 4.12, there was no significant difference between groups reporting low and medium PA. Likewise, there was no significant difference between groups reporting medium and high PA. However, a significant difference was found between groups reporting low PA and those reporting high PA. Teachers reporting high PA had a significantly greater amount of trust in their colleagues than did teachers reporting low PA. A high level of PA had a significantly greater influence on colleague trust than did a low level of PA. Principal authenticity influenced colleague trust only when the lowest and highest groups were compared.

<u>Hypothesis 2d</u>: The level of colleague trust is not dependent on an interaction between daily grade-level teaming and principal authenticity.

<u>Hypothesis 2e</u>: There is no difference in colleague trust between teachers who report that their schools use daily grade-level teaming and teachers who report that their schools do not.

To test Hypotheses 2d and 2e, a two-way analysis of variance was computed using daily grade-level teaming and principal authenticity as the independent variables and colleague trust as the dependent variable. The results of this analysis are contained in Table 4.13.

Table 4.13.--Analysis of variance for colleague trust by daily grade-level teaming and level of principal authenticity (N = 229).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
DGLT	.054	1	.054	.074	.786
PA	9.533	2	4.766	6.489	.002*
DGLT by PA	2.761	2	1.381	1.880	.155
Explained	12.374	5	2.475	3.369	.006
Residual	163.786	223	.734		
Total	176.160	228	.773		

*Significant at the .05 alpha level.

Because the significance of F for DGLT by PA was greater than .05, as indicated in Table 4.13, CT was not dependent on an interaction between DGLT and PA; hence, Hypothesis 2d was retained. Again referencing Table 4.13, the probability level for DGLT

exceeded the .05 significance level; therefore, DGLT exerted no effect on CT, and Hypothesis 2e was retained. The significance of F for PA shown in the table was less than the .05 level of significance, which indicates a main effect on CT based on level of PA. This main effect was examined in Hypothesis 2c. Table 4.14 is a summary of colleague trust broken down by principal authenticity and presence of daily grade-level teaming.

Table 4.14.--Colleague trust by principal authenticity and presence of daily grade-level teaming.

Daily Grade-Level Teaming	Principal Authenticity						Total	
	Low		Medium		High			
	Mean	n	Mean	n	Mean	n	Mean	n
Yes	4.60	10	5.30	3	4.62	8	4.71	21
No	4.45	68	4.52	74	4.98	66	4.64	208
Total	4.47	78	4.55	77	4.94	74		229

Although it might be inferred from the data presented in Table 4.14 that the mean level of colleague trust was greater for medium-level principal authenticity and daily grade-level teaming, use of the analysis of variance procedure did not reveal a significant difference. The table also shows the low numbers of respondents for DGLT, which might have affected the power of the analysis.

Hypothesis 2f: The level of colleague trust is not dependent on an interaction between participation in decision making and principal authenticity.

Hypothesis 2g: There is no difference in colleague trust among teachers who report high, average, and low levels of participation in decision making.

To test Hypotheses 2f and 2g, a two-way analysis of variance was computed using level of PDM and principal authenticity as the independent variables and colleague trust as the dependent variable. The results of this analysis are shown in Table 4.15.

Table 4.15.--Analysis of variance for colleague trust by participation in decision making and level of principal authenticity (N = 221).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
PDM	7.067	2	3.534	4.822	.009*
PA	4.786	2	2.393	3.265	.040*
PDM by PA	3.120	4	.780	1.064	.375
Explained	18.952	8	2.369	3.233	.002
Residual	155.367	212	.733		
Total	174.319	220	.792		

*Significant at the .05 alpha level.

Because the significance of F for PDM by PA was greater than the .05 level of significance, as shown in Table 4.15, CT was not dependent on an interaction between PDM and PA; thus, Hypothesis 2f was retained. Again referencing Table 4.15, the p-value for PDM was less than the .05 significance level; therefore, Hypothesis 2g was rejected. The significance of F statistic for PA was less than the

.05 level of significance, which indicates a main effect on CT based on level of PA, which was examined earlier.

Table 4.16 helps clarify colleague trust broken down by principal authenticity and level of PDM. Referring to the table, it appears that each level of PDM led to a greater level of CT.

Table 4.16.--Colleague trust by principal authenticity and level of participation in decision making.

| Level of PDM | Principal Authenticity | | | | | | Total | |
| | Low | | Medium | | High | | | |
	Mean	n	Mean	n	Mean	n	Mean	n
Low	4.25	39	4.43	19	4.58	13	4.36	71
Medium	4.56	25	4.66	26	4.75	22	4.65	73
High	4.94	14	4.54	28	5.17	35	4.90	77
Total	4.47	78	4.56	73	4.93	70		221

To help in interpretation, the mean levels of colleague trust based on level of participation in decision making are graphed in Figure 4.2. From Table 4.16 and Figure 4.2, it appears that the three mean levels of colleague trust progressively increased for each level of PDM.

Figure 4.2: Colleague trust based on level of participation in decision making.

A follow-up post-hoc analysis was conducted using the Scheffé procedure to determine which of the means were significantly different from the others. The findings of this analysis are summarized in Table 4.17.

Table 4.17.--Scheffé post-hoc analysis of main effects of partici-
pation in decision making on colleague trust (N = 221).

Group	Group	
	Low PDM	Medium PDM
Low PDM (4.37)		No difference
Medium PDM (4.66)	No difference	
High PDM (4.92)	Significantly greater	

Note: Group means are in parentheses.

A review of Table 4.17 shows that the difference between the means for CT for low PDM and medium PDM was not large enough to be attributed to other than chance.   Likewise, for groups reporting medium and high PDM, the differences in the means must be attributed to chance.   However, CT was significantly higher for groups reporting high PDM than for groups reporting low PDM.   With reference to the original survey, CT was significantly higher for teachers whose involvement in decision making was at least at the recommended decision level than for teachers who had no involvement in decision making.

Regarding Organizational Trust:

<u>Hypothesis 3a</u>:   The level of organizational trust is not dependent on an interaction between school-improvement programs and principal authenticity.

<u>Hypothesis 3b</u>:   There is no difference in organizational trust between teachers who report school-improvement programs and teachers who do not.

Hypothesis 3c: There is no difference in organizational trust among teachers who report high, average, and low levels of principal authenticity.

To test Hypotheses 3a, 3b, and 3c, a two-way analysis of variance was computed using school-improvement programs and principal authenticity as the independent variables and organizational trust as the dependent variable. The results of this analysis are shown in Table 4.18.

Table 4.18.--Analysis of variance for organizational trust by school-improvement programs and level of principal authenticity (N = 222).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
SIP	.694	1	.694	1.095	.297
PA	34.713	2	17.356	27.380	.000*
SIP by PA	2.152	2	1.076	1.698	.185
Explained	38.713	5	7.743	12.220	.000
Residual	136.901	221	.634		
Total	175.614	221	.795		

*Significant at the .05 alpha level.

Because the significance of F for SIP by PA was greater than the .05 level of significance, as shown in Table 4.18, OT was not dependent on an interaction between SIP and PA; hence, Hypothesis 3a was retained. The significance of F statistic for SIP exceeded the .05 significance level; therefore, SIPs exerted no effect on OT and Hypothesis 3b was retained. However, the significance of F statistic for PA was less than the .05 level of significance, which

indicates a main effect on CT based on level of PA. Therefore, Hypothesis 3c was rejected. Table 4.19 contains a breakdown of organizational trust by principal authenticity and presence of school-improvement program.

Table 4.19.--Organizational trust by principal authenticity and presence of school-improvement program.

School-Improvement Program	Principal Authenticity						Total	
	Low		Medium		High			
	Mean	n	Mean	n	Mean	n	Mean	n
Yes	2.81	67	3.49	61	3.82	56	3.34	184
No	3.33	10	3.35	13	3.96	15	3.59	38
Total	2.88	77	3.47	74	3.85	71		222

The data in Table 4.19 indicate that as the level of OT increased, the level of PA increased. To further assist in interpretation, the mean levels of organizational trust based on level of principal authenticity are graphed in Figure 4.3.

From Table 4.19 and Figure 4.3, it is apparent that the three mean levels of organizational trust progressively increased for each level of principal authenticity.
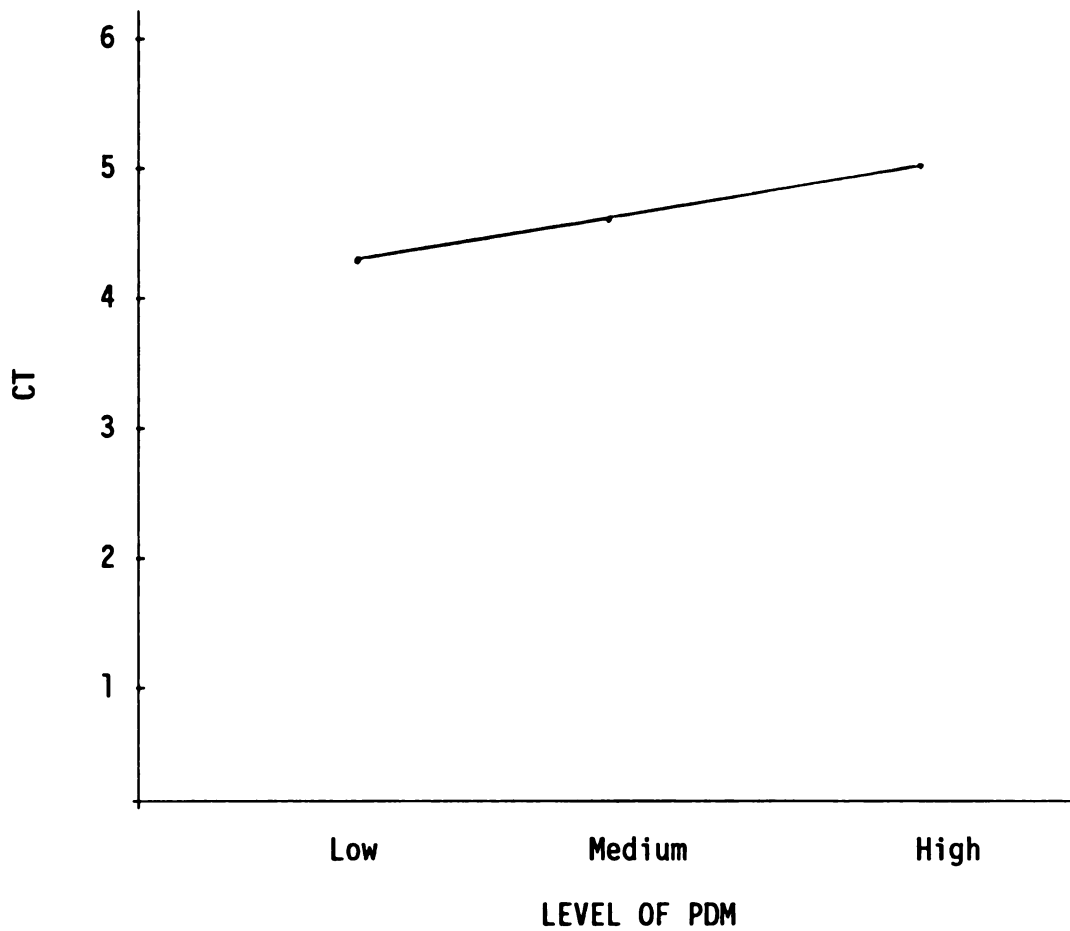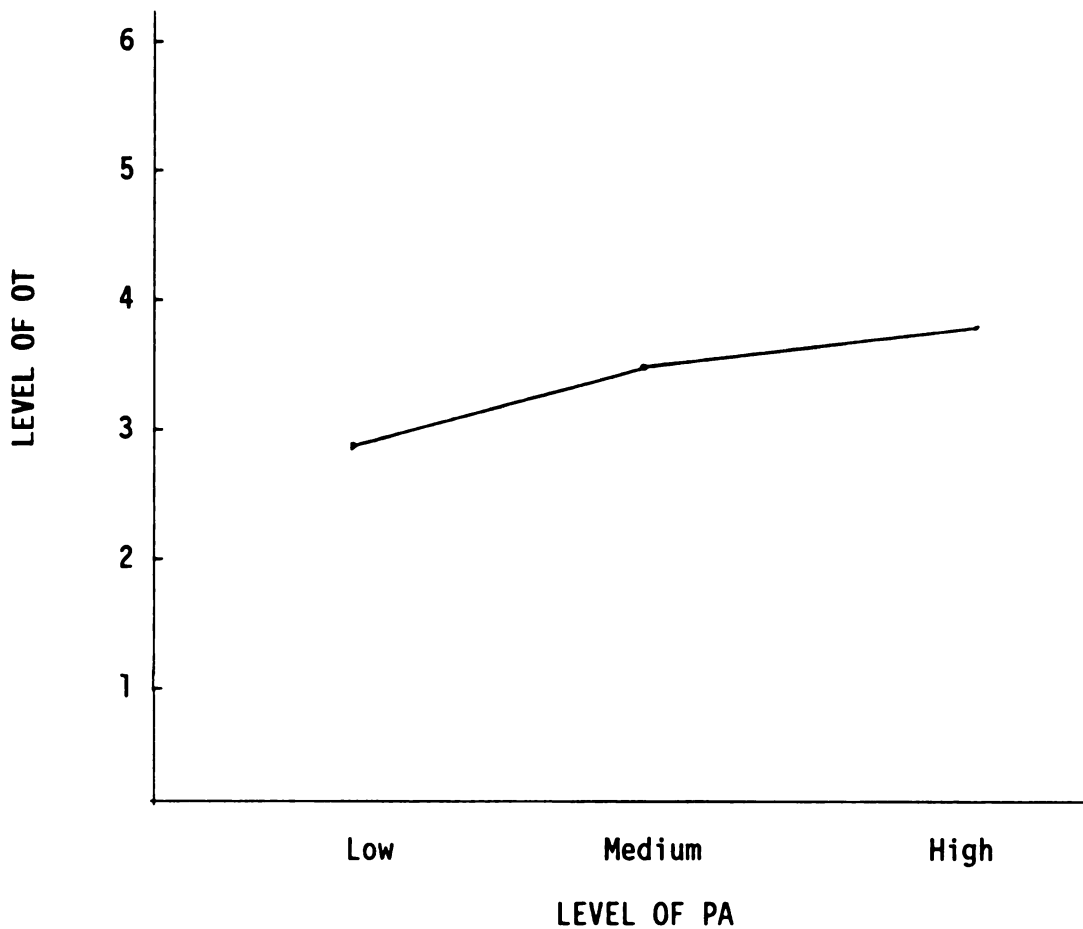
Figure 4.3: Organizational trust based on level of principal authenticity.

A follow-up post-hoc analysis was conducted using the Scheffé procedure to determine which of the means were significantly different for each combination of levels. Table 4.20 contains the findings of this analysis.

Table 4.20.--Scheffé post-hoc analysis of main effects of principal authenticity on organizational trust (N = 229).

Group	Group	
	Low PA	Medium PA
Low PA (2.88)		
Medium PA (3.47)	Significantly greater	
High PA (3.85)	Significantly greater	Significantly greater

Note: Group means are in parentheses.

Table 4.20 shows that all three group means were significantly different from one another. There was a relatively large increase in organizational trust between each level of PA. With reference to the original survey, with low PA, OT was less than the midpoint. However, medium PA influenced OT to climb above the midpoint and high PA influenced OT to climb to a level much above the midpoint. As principal authenticity increased, organizational trust increased.

> Hypothesis 3d: The level of organizational trust is not dependent on an interaction between daily grade-level teaming and principal authenticity.

> Hypothesis 3e: There is no difference in level of organizational trust between teachers who report daily grade-level teaming and teachers who do not.

To test Hypotheses 3d and 3e, a two-way analysis of variance was computed using daily grade-level teaming and principal authenticity as the independent variables and organizational trust

as the dependent variable. The results of this analysis are presented in Table 4.21.

Table 4.21.--Analysis of variance for organizational trust by daily grade-level teaming and level of principal authenticity (N = 229).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
DGLT	.017	1	.017	.026	.873
PA	34.957	2	17.479	27.060	.000*
DGLT by PA	.301	2	.150	.233	.793
Explained	35.283	5	7.057	10.920	.000
Residual	138.888	215	.646		
Total	174.171	220	.792		

*Significant at the .05 alpha level.

Because the significance of F for DGLT by PA was greater than the .05 level of significance, as indicated in Table 4.21, OT was not dependent on an interaction between DGLT and PA; thus, Hypothesis 3d was retained. The significance of F statistic for DGLT exceeded the .05 significance level; therefore, DGLT exerted no effect on OT, and Hypothesis 3e was retained. The significance of F statistic for PA was less than the .05 level of significance, which indicates a main effect on OT based on level of PA. This main effect was examined in Hypothesis 3c. Table 4.22 might be helpful as a summary of organizational trust broken down by level of principal authenticity and presence of daily grade-level teaming.

Table 4.22.--Organizational trust by principal authenticity and presence of daily grade-level teaming.

Daily Grade-Level Teaming	Principal Authenticity						Total	
	Low		Medium		High			
	Mean	n	Mean	n	Mean	n	Mean	n
Yes	2.73	10	3.47	3	3.92	10	3.35	23
No	3.90	67	3.46	71	3.83	60	3.38	198
Total	2.88	77	3.47	74	3.84	70		229

Although in Table 4.22 the mean level of organizational trust was slightly lower for daily grade-level teaming, use of the analysis of variance procedure did not reveal a significant difference. The low numbers of respondents for DGLT reflected in the table might again have affected the power of the analysis.

Hypothesis 3f: The level of organizational trust is not dependent on an interaction between participation in decision making and principal authenticity.

Hypothesis 3g: There is no difference in organizational trust among teachers who report high, average, and low levels of participation in decision making.

To test Hypotheses 3f and 3g, a two-way analysis of variance was computed using level of PDM and principal authenticity as the independent variables and organizational trust as the dependent variable. The results of this analysis are shown in Table 4.23.

Table 4.23.--Analysis of variance for organizational trust by
participation in decision making and level of
principal authenticity (N = 215).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
PDM	3.176	2	1.588	2.448	.089
PA	25.198	2	12.599	19.420	.000*
PDM by PA	1.101	4	.275	.424	.791
Explained	38.641	8	4.830	7.450	.000
Residual	133.646	206	.649		
Total	172.288	214	.805		

*Significant at the .05 alpha level.

Because the significance of F for PDM by PA was greater than the .05 level of significance, as indicated in Table 4.23, OT was not dependent on an interaction between PDM and PA; thus, Hypothesis 3f was retained. The significance of F for PDM was greater than the .05 significance level; therefore, Hypothesis 3g was retained. The F-probability for PA was less than the .05 level of significance, which indicates a main effect on OT based on level of PA, which was examined earlier.

Table 4.24 is included to illustrate more clearly organizational trust broken down by principal authenticity and level of PDM. The means for OT were greater at all three levels of PDM. However, the size of the differences approached but failed to realize a magnitude sufficient to attribute the differences to something other than chance.

Table 4.24.--Organizational trust by principal authenticity and
level of participation in decision making.

| Level of PDM | Principal Authenticity | | | | | | Total | |
| | Low | | Medium | | High | | | |
	Mean	n	Mean	n	Mean	n	Mean	n
Low	2.78	38	3.42	16	3.52	13	3.08	67
Medium	2.95	25	3.29	28	3.78	22	3.32	75
High	3.00	14	3.58	26	4.02	33	3.67	73
Total	2.88	77	3.43	70	3.85	68		215

Regarding Principal Trust:

Hypothesis 4a: The level of principal trust is not dependent on an interaction between school-improvement programs and principal authenticity.

Hypothesis 4b: There is no difference in principal trust between teachers who report school-improvement programs and teachers who do not.

Hypothesis 4c: There is no difference in principal trust among teachers who report high, average, and low levels of principal authenticity.

To test Hypotheses 4a, 4b, and 4c, a two-way analysis of variance was computed using school-improvement programs and principal authenticity as the independent variables and principal trust as the dependent variable. The results of this analysis are shown in Table 4.25.

Table 4.25.--Analysis of variance for principal trust by school-improvement programs and level of principal authenticity (N = 228).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
SIP	.505	1	.505	.967	.327
PA	231.163	2	115.582	221.200	.000*
SIP by PA	2.119	2	1.059	2.028	.134
Explained	237.518	5	47.504	90.920	.000
Residual	115.991	222	.522		
Total	353.509	227	1.557		

*Significant at the .05 alpha level.

Because the significance of F for SIP by PA was greater than the .05 level of significance, as shown in Table 4.25, PT was not dependent on an interaction between SIP and PA; thus, Hypothesis 4a was retained. The significance of F for SIP exceeded the .05 significance level; therefore, SIPs exerted no effect on PT and Hypothesis 4b was retained. The significance of F for PA was less than the .05 level of significance, which indicates a main effect on PT based on level of PA. Therefore, Hypothesis 4c was rejected.

Table 4.26 illustrates levels of principal trust broken down by principal authenticity and presence of school-improvement program.

Table 4.26.--Principal trust by principal authenticity and presence of school-improvement program (N = 228).

School-Improvement Program	Principal Authenticity						Total	
	Low		Medium		High			
	Mean	n	Mean	n	Mean	n	Mean	n
Yes	2.78	66	4.51	63	5.28	59	4.15	188
No	3.31	10	4.40	14	5.35	16	4.51	40
Total	2.85	76	4.49	77	5.30	75		228

Interpretation of Table 4.26 reveals apparently large positive differences in PT at each level of PA. To further assist in interpretation, the mean levels of principal trust based on level of principal authenticity are graphed in Figure 4.4. From Table 4.26 and Figure 4.4, it is apparent that the three mean levels of principal trust progressively increased for each level of principal authenticity.

A follow-up post-hoc analysis was conducted using the Scheffé procedure to determine which of the means were significantly different for each combination of levels. The findings of this analysis are summarized in Table 4.27.
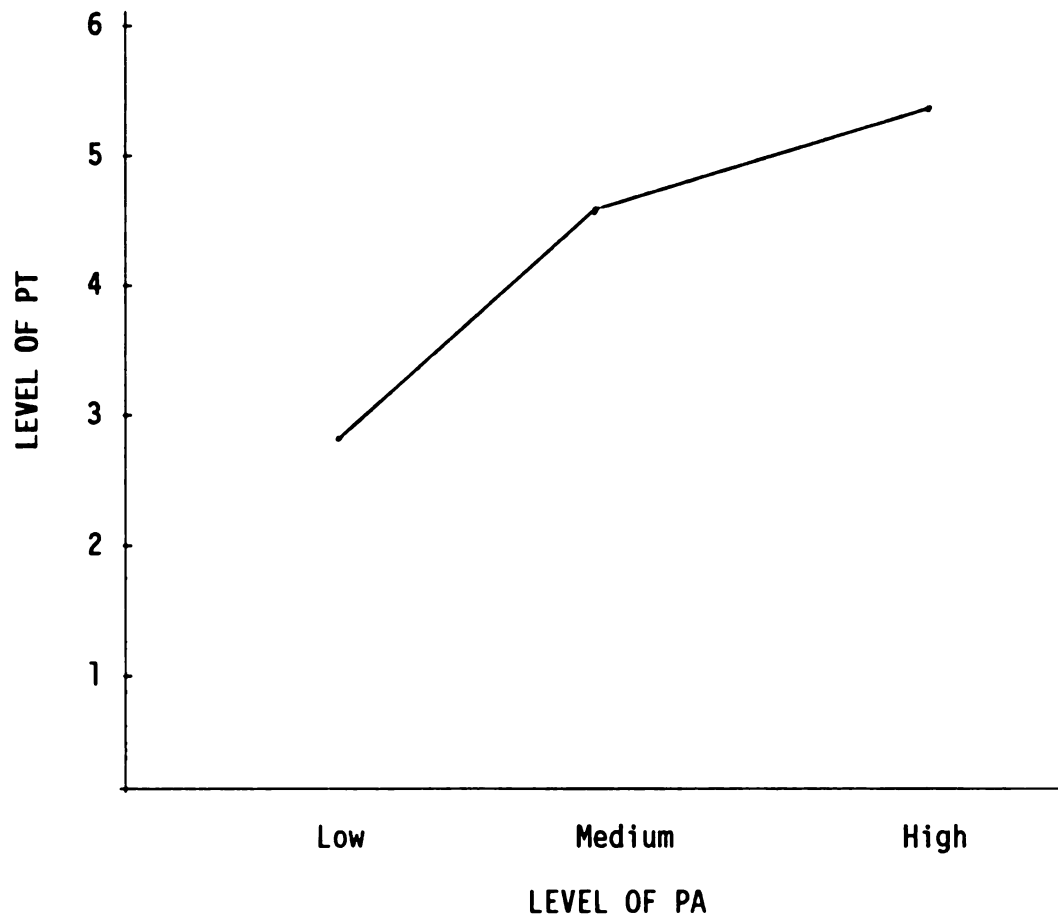
Figure 4.4: Principal trust based on level of principal authenticity.

Table 4.27.--Scheffé post-hoc analysis of main effects of principal authenticity on principal trust (N = 228).

Group	Group	
	Low PA	Medium PA
Low PA (2.85)		
Medium PA (4.50)	Significantly greater	
High PA (5.30)	Significantly greater	Significantly greater

Note: Group means are in parentheses.

As shown in Table 4.27, all three group means were significantly different. There were large increases in PT at each level of PA. Using the original survey for reference, low PA (which is not really that low, with a mean of 3.09) resulted in PT below the survey midpoint. Medium PA resulted in a jump to well above the survey midpoint, and high PA saw the level of PT approach the top of the survey (the highest level for any aspect of trust examined in this study). As principal authenticity increased, principal trust increased dramatically.

Hypothesis 4d: The level of principal trust is not dependent on an interaction between daily grade-level teaming and principal authenticity.

Hypothesis 4e: There is no difference in principal trust between teachers who report daily grade-level teaming and teachers who do not.

To test Hypotheses 4d and 4e, a two-way analysis of variance was computed using daily grade-level teaming and principal authenticity as the independent variables and principal trust as the dependent variable. The results of this analysis are shown in Table 4.28.

Because the significance of F for DGLT was less than the .05 level of significance, as indicated in Table 4.28, PT was dependent on an interaction between DGLT and PA; thus, Hypothesis 4d was rejected. This interaction did not allow analysis of Hypothesis 4e.

Table 4.28.--Analysis of variance for principal trust by daily grade-level teaming and level of principal authenticity (N = 228).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
DGLT	1.574	1	1.574	3.128	.078
PA	233.039	2	116.519	231.640	.000*
DGLT by PA	5.488	2	2.744	5.456	.005
Explained	240.339	5	48.068	95.560	.000
Residual	111.671	223	.734		
Total	352.010	227	1.551		

*Significant at the .05 alpha level.

Reporting the interaction. Table 4.29 is presented to summarize principal trust broken down by principal authenticity and presence of daily grade-level teaming.

Table 4.29.--Principal trust by principal authenticity and presence of daily grade-level teaming.

Daily Grade-Level Teaming	Principal Authenticity						Total	
	Low		Medium		High			
	Mean	n	Mean	n	Mean	n	Mean	n
Yes	2.06	9	4.96	3	5.31	8	3.93	22
No	2.96	67	4.48	75	5.29	64	4.24	206
Total	2.85	76	4.50	78	5.29	74		228

In reference to Table 4.29, PT increased with the presence of DGLT as well as with each level of principal authenticity. The mean level of PT is graphed for presence of DGLT and for levels of PA in Figure 4.5 in order to visualize the interaction.
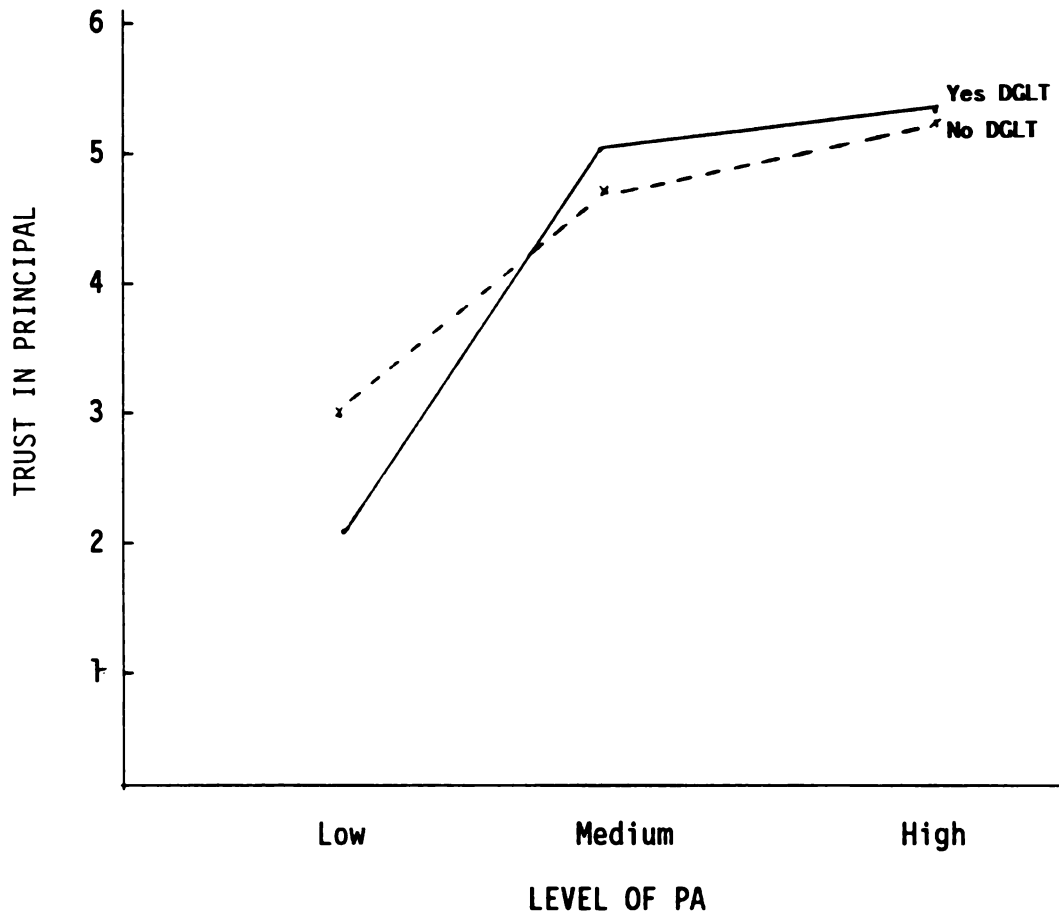
Figure 4.5:   Interaction between principal authenticity and daily grade-level teaming.

Examination of Figure 4.5 reveals the interaction to be disordinal. If the interaction were ordinal, the rank order of the categories of one factor (for example, PA) on the basis of their dependent variable scores would be the same within each level of the

second independent variable (for example, DGLT). Therefore, in a graphic representation such as that above, the lines would not cross. When the lines cross, as in the case of Figure 4.5, the interaction is said to be disordinal. The importance of this distinction for interpretation is that if the interaction were ordinal the superior level of principal trust would exist for all three levels of PA. However, because this was a disordinal interaction, the effect depended on the particular level of PA in question. In this case, a low level of PA combined with DGLT to result in a sharp decline in the level of principal trust.

Probing the interaction. The following t-tests were performed to examine further the interaction by identifying where statistically significant differences in level of PT occurred, based either on level of PA or the presence or absence of DGLT. Of the nine comparisons that follow, significant differences occurred in seven. The researcher calls the reader's attention to low n's in several categories.

1. Low PA. The level of principal trust was greater in teachers reporting no DGLT than in teachers reporting DGLT. The t-test figures shown in Table 4.30 help clarify this difference. The findings were unexpected. Low principal authenticity (even though at the midpoint of the original study) overrode the effect of DGLT to result in the lowest level of trust found anywhere in this study. In this case, principal trust was greater without DGLT.

Table 4.30.--Low PA--DGLT compared to no DGLT.

DGLT	n	Mean	S.D.
Yes	9	2.06	.37
No	62	2.89	.91

Separate Variance Estimate		
t-Value	df	2-tail Prob.
-4.93	25.80	.000

2. **Medium PA.** Within the medium PA group, the level of principal trust in teachers reporting DGLT was greater than that in teachers reporting no DGLT. This time, principal trust was greater with DGLT. The t-test results shown in Table 4.31 help to clarify this difference.

Table 4.31.--Medium PA--DGLT compared to no DGLT.

DGLT	n	Mean	S.D.
Yes	3	4.96	.28
No	75	4.37	.73

Separate Variance Estimate		
t-Value	df	2-tail Prob.
3.23	3.25	.043

Notice the sharp increase in principal trust resulting from moving up one level in principal authenticity. In a situation with medium PA, DGLT enhanced the effect of principal authenticity.

3. **High PA.** Within the high PA grouping of teachers, there was no difference in level of principal trust between teachers reporting DGLT and teachers reporting no DGLT. Table 4.32 clarifies this conclusion. From the table, it is apparent that the highest level of PA overrode the effect of DGLT. When PA was at its highest, DGLT made no difference in level of principal trust.

Table 4.32.--High PA--DGLT compared to no DGLT.

DGLT	n	Mean	S.D.
Yes	10	5.31	.49
No	64	5.29	.44

Separate Variance Estimate

t-Value	df	2-tail Prob.
.13	11.42	.900

Summary of probing the interaction by level of PA. DGLT enhanced the effect of medium PA on PT. At the low level of PA, DGLT combined to lower the level of PT. At the highest level of PA, DGLT exercised no significant effect.

The interaction effect based on presence or absence of DGLT is discussed in the next section.

Presence of DGLT. When DGLT was present, PT was significantly higher for teachers reporting medium PA than for teachers reporting low PA. Table 4.33 clarifies this finding. The striking increase in level of PT should be noted. The presence of DGLT enhanced the level of PT. Given the presence of DGLT, PT was significantly higher when PA was medium than when PA was low.

Table 4.33.--DGLT--Low PA compared to medium PA.

PA	n	Mean	S.D.
Low	9	2.06	.37
Medium	3	4.96	.28

Separate Variance Estimate

t-Value	df	2-tail Prob.
-14.30	4.61	.000

However, continuing the probe of the interaction when DGLT was present, there was no significant difference between teachers reporting average and high PA. Table 4.34 clarifies this finding. In this situation, when DGLT was present, there was no difference in PT between teachers reporting medium and high PA. It should again be noted that this circumstance resulted in the highest level of any aspect of trust found in this study.

Table 4.34.--DGLT--Medium PA compared to high PA.

PA	n	Mean	S.D.
Medium	3	4.96	.28
High	10	5.31	.49

Separate Variance Estimate

t-Value	df	2-tail Prob.
-1.55	6.22	.169

The final comparison based on presence or absence of DGLT was between categories of low and high PA. As might be expected, the difference was significant. Table 4.35 illustrates this comparison.

Table 4.35.--DGLT--Low PA compared to high PA.

PA	n	Mean	S.D.
Low	9	2.06	.37
High	10	5.31	.49

Separate Variance Estimate

t-Value	df	2-tail Prob.
-16.41	16.52	.000

This set of comparisons illustrates the most definitive contrast between two groupings of teachers regarding any aspect of trust. Within the category of DGLT, teachers reporting high PA had a level of PT that was strikingly higher than that of teachers reporting low PA.

Summary of probing the interaction by presence of DGLT. When DGLT was present, the mean level of principal trust was greater for teachers reporting a medium level of PA than for teachers reporting low PA. However, there was no difference between teachers reporting medium and high PA.

At this point, the researcher has examined six possible comparisons within the interaction of PA and DGLT. The final analysis of this interaction considered differences in PT when DGLT was not present.

Absence of DGLT. When DGLT was not present, teachers reporting medium PA had a significantly higher level of PT than teachers reporting low PA. Table 4.36 clarifies the finding. This analysis looked at the effect of PA on PT in the situation where DGLT was not present. PT was significantly higher for teachers reporting medium PA than for teachers reporting low PA.

Table 4.36.--Absence of DGLT--Low PA compared to medium PA.

PA	n	Mean	S.D.
Low	62	2.89	.910
Medium	75	4.37	.085

Separate Variance Estimate		
t-Value	df	2-tail Prob.
-10.31	116.32	.000

The next analysis examined the difference in PT between teachers reporting medium and high PA (see Table 4.37). From this table, it is apparent that PT was significantly greater for teachers without DGLT reporting high PA than for teachers reporting medium PA under the same circumstances. In a similar comparison when DGLT was present, this was not the case.

Table 4.37.--Absence of DGLT--Medium PA compared to high PA.

PA	n	Mean	S.D.
Medium	75	4.37	.73
High	64	5.29	.44

Separate Variance Estimate		
t-Value	df	2-tail Prob.
-9.06	124.19	.000

The final analysis in probing the interaction involved looking at the difference between low and high levels of PA on PT. Table 4.38 clarifies the findings. As might be expected, when there was no DGLT, PT was significantly higher for individuals reporting high PA than for individuals reporting low PA.

Table 4.38.--Absence of DGLT--Low PA compared to high PA.

PA	n	Mean	S.D.
Low	62	2.89	.91
High	64	5.29	.44

Separate Variance Estimate

t-Value	df	2-tail Prob.
-18.67	87.71	.000

Summary of probing the interaction by absence of DGLT. When DGLT was not present, the level of PT was progressively and significantly larger at each level. The increase in PT between teachers reporting low and the two categories of medium and high PA was significant and striking. Although less dramatic (and unlike the similar comparison when DGLT was present), teachers with high PA reported greater PT than did teachers reporting medium PA.

Overall summary of probing the interaction. T-tests were used to further identify where a statistically significant difference in

level of PT occurred, based either on level of PA or on the presence or absence of DGLT. DGLT made a difference in two situations based on level of PA. The researcher determined that the presence of DGLT enhanced the effect of midlevel PA on PT and, at the low level of PA, combined to reduce PT. At the highest level of PA, the presence of DGLT exercised no significant effect.

Looking only at difference in level of PT when DGLT was not present, the researcher again found two significant differences. The mean level of principal trust was greater for teachers reporting a medium level of PA than for teachers reporting low PA. However, there was no difference between teachers reporting medium and high PA.

When DGLT was not present, PA led to a level of PT that was progressively and significantly larger at each level of PA. The increase in PT between teachers reporting low and the two categories of medium and high PA was significant and striking. Although less dramatic (and unlike the similar comparison cited above when DGLT was present), teachers with high PA reported greater PT than did teachers reporting medium PA.

> Hypothesis 4f: The level of principal trust is not dependent on an interaction between participation in decision making and principal authenticity.
>
> Hypothesis 4g: There is no difference in principal trust among teachers who report high, average, and low levels of participation in decision making.

To test Hypotheses 4f and 4g, a two-way analysis of variance was computed using level of PDM and principal authenticity as the

independent variables and principal trust as the dependent variable.

The results of this analysis are shown in Table 4.39.

Table 4.39.--Analysis of variance for principal trust by partici-
pation in decision making and level of principal
authenticity (N = 220).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
PDM	2.050	2	.102	.188	.829
PA	199.293	2	99.650	182.997	.000*
PDM by PA	2.169	4	.542	.996	.411
Explained	229.609	8	28.701	52.710	.000
Residual	114.895	211	.545		
Total	344.504	219	1.573		

*Significant at the .05 alpha level.

Because the significance of F for PDM by PA was greater than the .05 level of significance, as indicated in Table 4.39, PT was not dependent on an interaction between PDM and PA; thus, Hypothesis 4f was retained. The significance of F for PDM was greater than the .05 significance level; therefore, Hypothesis 4g was retained. The significance of F for PA was less than the .05 level of significance, which indicates a main effect on PT based on level of PA, which was examined earlier.

Table 4.40 illustrates more clearly principal trust broken down by principal authenticity and level of PDM.

Table 4.40.--Principal trust by principal authenticity and level of participation in decision making.

| Level of PDM | Principal Authenticity | | | | | | Total | |
| | Low | | Medium | | High | | | |
	Mean	n	Mean	n	Mean	n	Mean	n
Low	2.87	37	4.56	19	5.09	12	3.74	68
Medium	2.94	25	4.39	28	5.20	21	4.13	74
High	2.65	14	4.53	27	5.41	37	4.61	77
Total	2.85	76	4.49	74	5.29	70		220

From the findings shown in Table 4.40, it appears as though PDM resulted in an increase in level of PT because the mean level of PT positively increased with each level of PDM. However, the sizes of the differences were not the result of PDM. The researcher attributes the difference to wide variance within each of the categories, which resulted in overlap with the other categories.

Regarding Participation in Decision Making as the Dependent Variable:

Hypothesis 5a: There is no difference in teacher participation in decision making between teachers who report a school-improvement program and teachers who do not.

To test Hypothesis 5a, a one-way analysis of variance was conducted using SIPs as the independent variable and PDM as the dependent variable. The mean PDM score in schools with SIPs was 2.09, and the mean for schools without SIPs was 2.13. This difference was not found to be significant at the .05 level.

Therefore, Hypothesis 5a was retained. This relationship is shown in Table 4.41.

Table 4.41.--Analysis of variance for participation in decision making by school-improvement programs (N = 239).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
SIP	.032	1	.032	.068	.795
Explained	.032	1	.032	.068	.795
Residual	112.188	237	.473		
Total	112.220	238	.472		

Hypothesis 5b: There is no difference between teachers who report daily grade-level teaming and teachers who do not.

To test Hypothesis 5b, a one-way analysis of variance was conducted using DGLT as the independent variable and PDM as the dependent variable. The mean PDM score in schools with DGLT was 2.44, and the mean for schools without DGLT was 2.05. As shown in Table 4.42, this difference was found to be significant at the .05 level. Therefore, Hypothesis 5b was rejected. Unlike SIPs, when DGLT was present, the level of teacher participation in decision making was greater. This finding supports the use of DGLT as a structure to increase PDM.

Table 4.42.--Analysis of variance for participation in decision
making by daily grade-level teaming (N = 239).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
DGLT	3.372	1	3.372	7.322	.007*
Explained	3.372	1	3.372	7.322	.007
Residual	109.154	237	.461		
Total	112.526	238	.473		

*Significant at the .05 alpha level.

**Regarding Various Demographic Variables as Independent
Variables and Aspects of Faculty Trust as the
Dependent Variables:**

Hypothesis 6a: There is no difference in level of colleague
trust based on gender.

Hypothesis 6b: There is no difference in level of organization
trust based on gender.

Hypothesis 6c: There is no difference in level of principal
trust based on gender.

Hypothesis 6d: There is no difference in level of colleague
trust based on age group.

Hypothesis 6e: There is no difference in level of organization
trust based on age group.

Hypothesis 6f: There is no difference in level of principal
trust based on age group.

Hypothesis 6g: There is no difference in level of colleague
trust based on level of experience.

Hypothesis 6h: There is no difference in level of organization
trust based on level of experience.

Hypothesis 6i: There is no difference in level of principal
trust based on level of experience.

Hypothesis 6j: There is no difference in level of colleague trust based on level of education.

Hypothesis 6k: There is no difference in level of organization trust based on level of education.

Hypothesis 6l: There is no difference in level of principal trust based on level of education.

Based on a series of one-way analyses of variance with significance determined at the .05 alpha level, Hypotheses 6e and 6h were rejected. The remainder of the hypotheses were retained. Data regarding Hypotheses 6e and 6h are reported in Tables 4.43 and 4.44, clarifying the relationship between age and experience and level of organizational trust.

Table 4.43.--Analysis of variance for organizational trust by level of experience (N = 229).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
Between groups	11.9272	4	2.9818	.068	.0037*
Within groups	167.2138	225	.7432		
Total	179.1410	229			

*Significant at the .05 alpha level.

Table 4.44.--Group means: Organizational trust by level of
              experience.

Years of Experience	n	Mean	S.D.	Standard Error
1 to 2	4	4.56	.30	.15
3 to 5	9	3.98	1.10	.37
6 to 10	27	3.56	.75	.14
11 to 15	35	3.50	.83	.15
16 or more	155	3.27	.88	.06

As shown in Table 4.43, the significance of F was less than .05; therefore, Hypothesis 6e was rejected. It appears that as level of experience increased, level of trust in the organization decreased. In an attempt to determine whether the differences cited above were indeed significant, a Scheffé post-hoc analysis was performed. The results of the analysis failed to indicate the nature of the difference. It is probable that small n's reduced the power of the analysis.

Table 4.45 clarifies the effect of age on level of organizational trust. The significance of F was less than .05; therefore, Hypothesis 6h was rejected. As shown in Table 4.46, there appeared to be no consistent pattern of increase or decline as was the case with level of experience. Looking at the means for each group, the mean of 4.13 for the 20 to 29 age group was the only mean that appeared to be different from the others.

Table 4.45.--Analysis of variance for organizational trust by age
(N = 230).

Source of Variation	Sum of Squares	df	Mean Square	F	Signif. of F
Between groups	7.6633	4	1.9158	2.5247	.0417*
Within groups	171.4977	226	.7588		
Total	179.1610	230			

*Significant at the .05 alpha level.

Table 4.46.--Group means: Organizational trust by age.

Age	n	Mean	S.D.	Standard Error
20 to 29	13	4.13	.90	.25
30 to 39	64	3.37	.89	.11
40 to 59	115	3.32	.88	.08
60 to 69	36	3.38	.75	.13
70 +	3	3.44	1.22	.70

To explore the above findings further, a Scheffé procedure was used. The findings are presented in Table 4.47. The mean level of organizational trust for teachers 20 to 29 years of age was greater than that for teachers in the 40 to 59 age group. This mean level of OT (4.13) represents the highest level of OT found in the study.

Table 4.47.--Scheffé post-hoc analysis of main effects of age on organizational trust.

Group	Age Group				
	40-59	30-39	50-59	60-69	20-29
40-59 (3.32)					
30-39 (3.37)					
50-59 (3.38)					
60-69 (3.44)					
20-29 (4.13)	sig. diff.				

Note: Numbers in parentheses are group means.

Open-Ended Comments

Thirty-one teachers representing 10 school districts and 15 different schools responded in this section. Comments appeared to the researcher to support the primacy of authenticity and trust. Most comments reflected a lack of real participation in decision making. A majority of comments included words and phrases such as "facade," "going through the motions," "pure rhetoric," "mistrust," and "manipulation." Actual comments can be found in Appendix I.

Summary of Findings

Overall

Relationships between all major variables in the study were positive and significant, with correlations ranging from high to modest. Although there was a modest positive relationship between aspects of faculty trust, they appeared to represent different concepts. Although the correlation between PA and PT was high, it

appears in this case also that the scales measured different concepts.

Colleague Trust

Regarding colleague trust, two conditions resulted in an increase in colleague trust. First, <u>a high level of principal authenticity resulted in a greater degree of trust than did either a medium or low level of PA</u>, which were no different statistically. Second, <u>a high level of PDM resulted in a greater degree of trust than did either a medium or low level of PDM</u>, which were no different statistically. The PDM structures of daily grade-level teaming and school-improvement programs had no effect on colleague trust. No interaction effect was found between any of the independent variables and colleague trust.

Organizational Trust

Regarding organizational trust, it was found that each level of principal authenticity influenced organizational trust. Each higher level of principal authenticity resulted in a greater degree of trust than the previous lower level. <u>As PA increased, organizational trust increased</u>. PDM, daily grade-level teaming, and school-improvement programs had no effect on organizational trust. No interaction effect was found between any of the independent variables and organizational trust.

Principal Trust

The results of this study provided considerable information regarding variables that influenced principal trust. First, each

higher level of principal authenticity resulted in a greater degree of trust than the previous lower level. When DGLT and SIPs were not present, as PA increased, principal trust increased. When DGLT was present, a medium level of PA resulted in a higher level of PT than when DGLT was not present. At a low level of PA, an interaction effect was found between DGLT and principal trust. The interaction occurred when a low level of PA combined with DGLT to lower significantly the level of principal trust beyond the level attributable to low PA alone. Finally, PDM and school-improvement programs had no effect on principal trust.

PDM as the Dependent Variable

Regarding participation in decision making as the dependent variable, SIPs had no influence on level of PDM. Teachers reporting DGLT had a significantly higher level of PDM than those reporting no DGLT.

Demographic Variables

An analysis of the demographic variables revealed that level of experience significantly influenced organizational trust. Due to small n's, post-hoc analysis was unable to determine the nature of the difference. In addition, age significantly influenced level of trust in the organization. Teachers between the ages of 20 and 29 had the highest level of organizational trust found in this study. Post-hoc analysis revealed this level of OT to be significantly higher than for teachers in the 40 to 59 age group.

In Chapter V, the findings of the study are discussed, and directions for further research are proposed.

CHAPTER V

DISCUSSION AND CONCLUSION

Introduction

In previous chapters of this study, the researcher (a) provided the theoretical framework and background for the study, (b) reviewed related literature and provided the rationale and hypotheses that guided the investigation, (c) described the methodology and procedures for data collection, and (d) presented the statistical findings. The purpose of this chapter is to summarize the findings, discuss them, and propose areas for further research.

In this study, the researcher examined the problem that although a body of research related to trust is found in organizational communication literature, little of an empirical nature had been done within public schools and nothing that specifically examined middle schools and participation decision structures found in middle schools. The researcher's purpose in the study was to determine how principal authenticity (PA) and participation in decision making (PDM) influence the development of faculty trust.

Summary of Findings

Descriptive Findings Regarding Faculty Trust

This study confirmed that faculty trust consists of the three components of colleague, principal, and organizational trust, which were moderately to highly correlated to one another. The literature review in Chapter II suggested that these three components of trust influence different aspects of organizational effectiveness.

For example, regarding organizational trust, Gibb (1978) pointed out that high trust is the key factor in organizational effectiveness, whereas lack of trust in the organization contributes to a fear/distrust cycle, leading to a self-fulfilling prophecy of continued ineffectiveness. In the case of faculty trust in the principal, the literature (Culbert & McDonough, 1985; Gibb, 1978; Roberts & O'Reilly, 1974; Rotter, 1967; Zand, 1972) suggested that when a superior and subordinate are involved, the untrusting subordinate has little desire for interaction with his superior. Finally, without a high level of colleague trust, problem-solving groups (such as DGLT and SIPs), which depend on communication between colleagues, would operate with partial efficiency due to inadequate data flow to the extent that the very survival of the group could depend on the ability to maintain a high level of colleague trust.

In this study, teachers in the 21 Kent County, Michigan, middle schools studied reported more trust in their colleagues (mean = 4.68) than in their principal (mean = 4.19) or in the organization

(mean = 3.40). Thus, scores for trust are highest for those we know personally and communicate with more frequently (i.e., colleagues) and lowest for non persona (the organization) removed from us and consequently more ambiguous and less predictable. Because the original survey used a scale of one to six, these mean scores were all above the midpoint. The descriptors from the original survey provided a reference for interpretation of these mean scores. Teachers slightly disagreed regarding trust in the organization, slightly agreed regarding trust in the principal, and somewhat agreed regarding trust in colleagues. Although these mean scores might initially appear to be high on a scale of one to six, the researcher was concerned with the presence of very high levels of trust. Although above the midpoint, none of the three means cited above approached a score of six at the top of the original survey scale, which represents strong agreement regarding trust. Thus, although trust was present, it was not at the highest level.

Descriptive Findings Regarding Participation in Decision Making

Participation in decision making was examined from three perspectives of PDM in general, and the two PDM structures of daily grade-level teaming (DGLT) and school-improvement programs (SIPs).

Perception of PDM. The literature review indicated that teacher involvement in decision making would be low. This was the case, as the average PDM score was 2.10. Using the original survey scale as a point of reference, this mean score fell below the midpoint on a scale of one to five and represented participation at

the provide-information level. Using descriptors from the original scale, an examination of the opportunities for decision making that made up the overall score revealed that participation was highest in those areas where teachers have traditionally had more autonomy. For example, the highest teacher participation in decision making was in developing innovative programs--at the recommend-decision level. Based on the standard deviation, this involvement could vary as high as the influence-decision level or as low as the provide-information level. Another group of opportunities for decision making (extra-duty assignment, faculty meeting agenda, student class placements, and course offerings) had means near the midpoint of the survey, indicating provide information/recommend decision. Based on the standard deviation, participation could vary to as high as influence decision or as low as no participation. Finally, in areas that are traditionally the domain of administration, the mean level of participation regarding school schedule, teaching assignment, teacher-evaluation criteria, and selection of building principal, while at the provide-information level, could vary as high as recommending decisions and as low as no participation.

Overall, PDM could be divided into three distinct groups. The lowest one-third had a mean of 1.38, the middle one-third had a mean of 2.04, and the highest one-third could muster only 2.90. As the literature suggested and this study confirmed, there was little evidence of teacher PDM in middle schools in Kent County above the provide-information level on the original scale.

Daily grade-level teaming. The mean PDM score in schools with DGLT was 2.44, and the mean for schools without DGLT was 2.05. This finding confirms the value of using DGLT as a structure to increase PDM. However, although the level of PDM was significantly greater for teachers who reported DGLT, the level of PDM was still not very high. To assist in interpretation, a score of 2.44 on the original scale indicated participation between the provide- and recommend-decision levels. This supports the contention made in middle school literature cited earlier--that DGLT represents an integral part of the middle school program. This also leads one to believe that designating a time and place to meet daily represents a commitment on the part of the organization, the principal, and colleagues on the team, which translates into increased PDM.

School-improvement programs. The mean PDM score in schools with SIPs was 2.09, and the mean for schools without SIPs was 2.13. This difference was not found to be significant at the .05 level. This finding calls into question the utility of using SIPs as a structure to increase participation in decision making. By definition, SIPs use building committees consisting of teachers and the principal, are created to develop improvement plans, guide implementation, and evaluate outcomes. The fact that there was no difference in PDM between teachers who reported SIPs and those who did not indicates that SIPs in the sense that they involve teachers in decision making did not exist in Kent County middle schools.

Principal Authenticity

The mean for principal authenticity was 4.46 on a scale of one to six. Using the label from the original scale, this score represents teachers seeing their principal as "somewhat" authentic. The scores for PA ranged sufficiently to look at three distinct groups: low, medium, and high. At the low end, approximately one-third of the teachers reported an average PA mean of 3.09, in the area of medium authenticity another one-third reported an average PA mean of 4.7, and only one-third reported an authenticity mean of 5.6, at the top of the original scale. To state this another way, fully two-thirds of the teachers responding did not strongly agree that their principal was authentic.

In this study, a convincing argument was presented for the need to develop principal authenticity in middle schools where there is concern for faculty trust. At each higher level of principal authenticity, each corresponding level of principal and organizational trust was significantly higher. Further, colleague trust at a high level of PA was significantly higher than CT at a low level of PA. Particularly relating to trust in the principal in a middle school with DGLT, high principal authenticity overrode the effect of DGLT on trust, whereas low principal authenticity combined with DGLT to reduce the level of principal trust to the lowest found anywhere in this study. Specifics regarding these findings follow.

Relational Aspects of the Study

In the next section, the study findings are interpreted with regard to how each aspect of trust was or was not influenced by principal authenticity and participation in decision making. The interpretations follow the general pattern of first explaining interaction effects and then explaining main effects.

Summary of Findings Regarding
Colleague Trust

School-improvement programs, perception of participatory decision making, and principal authenticity. Because the literature suggested that regular problem-solving meetings lead to increased trust among the participants, it is reasonable to assume that the presence of a school-improvement team will result in an increased level of colleague trust. In addition, because the literature indicated an overall positive relationship between principal authenticity and colleague trust (and the principal is a member of the school-improvement team), the presence of both of these characteristics should result in colleague trust beyond the level that each alone might contribute. This was not the case. There was no combined effect on colleague trust between school-improvement programs and principal authenticity. In an effort to determine why, both SIPs and PA were examined for main effects on level of colleague trust.

No difference in the level of colleague trust was found between teachers who reported that their schools had school-improvement programs and those who reported that their schools did not have such

programs. To understand this finding, it is important to remember that the researcher believed that SIPs would affect colleague trust, based on the high level of participatory decision making involved in regular group problem solving. The findings regarding SIPs and colleague trust suggest that school-improvement teams must not meet the criteria of regular group problem solving. In fact, when perception of participation in decision making was examined, colleague trust was significantly higher for teachers who reported high levels of participation in decision making (mean = 2.90) than for those who reported low levels of participation in decision making (mean = 1.38). It is clear that increased colleague trust did not result from SIPs because SIPs did not result in high levels of participation in decision making.

Although SIPs did not influence CT, the results indicate that PA did influence CT. Specifically, groups reporting high principal authenticity (mean = 5.6) had significantly greater colleague trust than groups reporting low principal authenticity (mean = 3.09).

Daily grade-level teaming, perception of participatory decision making, and principal authenticity. As cited above, this study confirmed that a high level of PDM resulted in higher colleague trust than did a low level of PDM. As cited earlier in this chapter, it was found that DGLT resulted in a significant increase in PDM. Because PA influenced CT, one might suspect that both high PA and DGLT might combine to positively affect colleague trust. However, the results demonstrated that level of colleague trust was

not dependent on an interaction between daily grade-level teaming and principal authenticity. In looking for an explanation, the researcher found that there was no difference in colleague trust between teachers who reported that their schools used daily grade-level teaming and those who reported that their schools did not. Although teachers who were involved in DGLT reported <u>significantly more PDM</u> than those who were not, it was still not a high enough level of PDM to affect colleague trust.

Finally, because both perception of PDM and PA exerted a main effect on colleague trust, a combined effect on colleague trust between the two might be present. The researcher found that, although each exerted a main effect on colleague trust, the two did not combine to exert an effect either to increase or to reduce colleague trust.

<u>Conclusions regarding CT</u>. In reference to the original survey, CT was significantly higher for teachers whose involvement in decision making was at least at the recommend-decision level than for those who reported no participation in decision making. Regarding PA, in reference to the original survey, CT was significantly higher for teachers who strongly agreed that their principal was authentic than for teachers who slightly agreed that their principal was authentic. The literature suggested that, without high levels of trust, participatory decision-making groups operate with inadequate data flow and communication distortion. By implication, flow and clarity of information can be improved as a result of increased attention to developing a high level of

principal authenticity and a high level of participation in decision making.

Summary of Findings Regarding Organizational Trust

School-improvement programs, perception of participatory decision making, and principal authenticity. The literature suggested that the site-based decision making implicit in school-improvement programs will increase teachers' trust in the organization. The literature also indicated a relationship between principal authenticity and level of faculty trust in the organization. For the reasons cited above, this analysis of OT began with the possibility of an interaction effect between SIPs and principal authenticity and found that it was not present. Follow-up analysis continued by examining just SIPs, and it was found that there was no difference in organizational trust between teachers who reported school-improvement programs and those who did not. The notion that SIPs would increase organizational trust was based on the presence of a high level of participation in decision making in SIPs. As noted earlier, there was no difference in decision making between teachers who reported the presence of SIPs and those who did not. This is a possible explanation for why OT was not influenced by SIPs. However, the findings revealed that there was no difference in organizational trust between teachers who reported high, medium, and low levels of participation in decision making. Neither level of PDM nor SIPs influenced level of organizational trust.

However, there was a significant difference in organizational trust between teachers who reported high, medium, and low levels of principal authenticity. As the level of principal authenticity went up, the level of organizational trust went up. This finding supports the role of the principal as the individual who symbolizes the organization at the building level.

Daily grade-level teaming and organizational trust. The researcher thought that characteristics of DGLT might lead to an increase in OT. DGLT represents a time and money commitment from a school district to increase the level of PDM in a school. However, it was found that the level of organizational trust was not dependent on an interaction between daily grade-level teaming and principal authenticity. In examining just DGLT, it was found that there was no difference in level of organizational trust between teachers who reported daily grade-level teaming and teachers who did not.

Participatory decision making and organizational trust. Because the previously cited literature suggested that both PA and PDM might affect aspects of trust, this researcher looked beyond PDM structures to the possibility that teacher perception of PDM would combine with level of PA to influence OT. However, there was neither an interaction effect between PA and PDM nor a main effect from PDM on organizational trust.

Conclusion regarding OT. Principal authenticity was the key factor influencing OT. As principal authenticity increased, organizational trust increased. Attention to principal authenticity holds

promise for breaking the fear/distrust cycle cited earlier, where lack of high trust in the organization leads to uncooperative behavior on the part of workers, which leads to coercive remedies on the part of management, which increases lack of trust in the organization, compounding the fear/distrust cycle.

Summary of Findings Regarding Principal Trust

School-improvement programs, perception of participatory decision making, and principal authenticity. Bennis and Nanus (1985) suggested that accumulation of trust is the measure of the legitimacy of leadership and an emotional glue that binds followers and leader behind the vision for the organization. School-improvement programs involve the principal and the teachers in determining the vision for their school and then working together to implement that vision. It would be expected that SIPs and PA would combine to influence principal trust. However, the level of principal trust in this study was not dependent on an interaction between school-improvement programs and principal authenticity. Follow-up analyses of main effects revealed that there was no difference in principal trust between teachers who reported school-improvement programs and those who did not. The reason that there was no difference is suggested by the finding cited earlier--that there was no difference in PDM between teachers who reported SIPs and those who did not. This explanation can be explored further by examining the analysis of whether perception of PDM affects PT.

Although the mean level of PT increased at each level of PDM, the differences must be attributed to chance.

However, there was a difference in principal trust between teachers who reported high, medium, and low levels of principal authenticity. As level of principal authenticity increased, principal trust increased dramatically. It was in this analysis of principal trust that the highest levels of all aspects of trust were reached, as well as the most dramatic differences noticed between the three levels of groups based on principal authenticity. The low PA group had a mean level of PT at 2.85 (slightly distrust from the original scale), the medium level jumped to a mean level of PT at 4.5 (slightly trust), and the high level jumped again to 5.3 (somewhat trust).

Daily grade-level teaming and principal trust. The analysis exploring an interaction effect between PA and DGLT led to an unexpected finding. The level of principal trust was dependent on an interaction between daily grade-level teaming and principal authenticity. The researcher suspected that he might find DGLT combining with higher levels of PA to increase PT. Indeed, this was the case at a medium level of PA (at the high level of PA there was no difference). The surprise came when examining the low level of PA when DGLT was present. The analysis revealed that daily grade-level teaming combined with low principal authenticity to reduce significantly the level of principal trust. Using the original survey scale can help understand this finding. The low level PA group had a mean score at the midpoint. This means that PA did not

have to fall very far to have disastrous consequences regarding principal trust when DGLT was present. If the principal implements daily grade-level teaming and then exhibits behavior that is perceived as even slightly manipulative, unaccountable, or impersonal, the glue that binds the teachers behind that principal's vision will be weakened more so than if DGLT had never been implemented.

Further findings involving DGLT were that, when DGLT was present, the mean level of principal trust was greater for teachers reporting a medium level of PA than for teachers reporting low PA. However, there was no difference between teachers reporting medium and high PA. But when DGLT was not present, the level of PT was progressively and significantly larger at each level of PA. The increase in PT between teachers reporting low and the two categories of medium and high PA was significant and striking. Although less dramatic (and unlike the similar comparison cited above when DGLT was present), teachers with high PA reported greater PT than did teachers reporting medium PA.

Finally, teacher perception of PDM did not exert a main effect on PT.

Conclusions

As PA increased, PT increased. Development of principal authenticity holds promise of strengthening the "emotional glue" that binds followers and leaders behind a vision. In addition, because PT is dependent on an interaction between DGLT and PA, the

results show promise for increasing PT by implementing DGLT when PA is at a medium level. However, the results also indicate caution for schools that adopt daily grade-level teaming without regard to principal authenticity. In the group reporting lower PA, the presence of DGLT combined with low PA to reduce the level of PT. It appears that, in a situation in which the principal is inauthentic as far as PT is concerned, it is better not to have DGLT until principal authenticity is established.

Conclusions Regarding PDM and Structures for PDM

The study findings suggest that DGLT holds promise for increasing teacher participation in decision making as well as teacher trust in the principal, but it bodes caution as well. Conversely, no evidence was found that SIPs had a significant effect on aspects of trust or teacher participation. What follows is a report of several differences between the two structures, which may account for the finding cited above.

Daily grade-level teaming holds promise for affecting aspects of faculty trust. Teachers who reported a high level of PDM had a higher level of colleague trust than did teachers who reported a low level of PDM. In addition, a PDM structure (daily grade-level teaming) did result in higher trust in the principal in the circumstance when principal authenticity was at a middle level. However, when principal authenticity was at a low level, DGLT combined with low authenticity to reduce the level of trust in the

principal. When principal authenticity was at a high level, the presence of DGLT made no difference.

On the other hand, SIPs did not influence level of trust in any of the three aspects of concern in this study.

Several explanations might be considered as to why perception of level of PDM and DGLT affected aspects of trust whereas SIPs did not.

One explanation has to do with the wording of the question in the original survey (i.e., "Please . . . indicate your type of involvement" and "Do you meet daily with a trade-level team?" as opposed to "Does your school have a building committee established to develop a School Improvement Plan?").

Regarding perception of PDM and involvement in DGLT, teachers were responding with their own experience. Thus, the researcher concluded that actual involvement in PDM influenced level of colleague trust, whereas actual involvement in DGLT influenced the level of principal trust. The mere presence of a PDM structure in the school building (as was the case with SIPs) had no effect on aspects of trust.

The researcher speculates, and offers for further study, that if the level of PDM were higher in DGLT, then DGLT would exert the same effect on colleague trust as high PDM.

School improvement programs did not affect aspects of faculty trust. The researcher suggests that those who look to school-improvement programs as a means to increase the level of faculty trust must consider the characteristics of DGLT and perception of

high PDM cited above in designing their school-improvement programs. Unless SIPs involve all teachers in a high level of participatory decision making while meeting on a daily basis, they will not influence aspects of faculty trust.

In looking at the differing results from the two PDM structures, further explanations would include the fact that DGLT represents a considerable monetary commitment on the part of a school district in providing regular time to meet, whereas SIPs typically do not. This monetary commitment may suggest a level of commitment by the school district that is absent in school improvement.

Another possible explanation for why DGLT affected trust and SIPs did not can be found in the purposes of the two structures. DGLTs are an inherent part of a middle school philosophy grounded in providing a supportive environment for adolescents in transition between elementary school and high school. Thus DGLT, as a PDM model, seems to fall more within the affective PDM school cited in Chapter I (focus on satisfaction). SIPs, on the other hand, represent an effort to enhance student achievement as measured primarily by standardized tests. The conceptual base for SIPs is more in the cognitive PDM school (focus on greater productivity). Thus, trust is more likely to be a desired outcome of DGLT, whereas it is only a by-product of SIPs.

Conclusions Regarding Demographic Variables

There was a difference in level of organizational trust based on age and experience. Small n's prevented post-hoc analysis from identifying the difference based on experience. However, post-hoc analysis revealed that the 20 to 29 year age group had significantly more trust in the organization than did the 40 to 49 age group. Further research would be necessary to determine whether the reason for this difference was that perception of principal authenticity was higher for the 20 to 29 age group. CT and PT were not affected by age or experience.

Interestingly, the results indicate gender equity when it comes to trust. No significant difference was found between men and women regarding level of trust. Finally, there was no difference in trust based on level of education.

Summary of Open-Ended Teacher Comments

Teacher responses in this section appeared to the researcher to support the relationship between authentic behavior, participation in decision making, and the aspect of faculty trust. Comments regarding PDM were characterized by selection of words and phrases such as "facade," "going through the motions," "pure rhetoric," "mistrust," and "manipulation." In general, teachers want to participate in PDM, but they either are not given the opportunity or are allowed to participate in a superficial way.

Discussion of Findings

Researchers (Friedlander, 1970; Golembiewski & McConkie, 1975; Roberts & O'Reilly, 1974; Zand, 1972) have described trust as one of the basic building blocks on which most interaction is built. Trust delimits the openness and accuracy with which problem-solving groups within organizations can function. Problem-solving groups with high trust will exchange relevant ideas and feelings more openly, develop greater clarification of goals and problems, search more extensively for alternative courses of action, have greater influence on solutions, be more satisfied with their problem-solving efforts, have greater motivation to implement decisions, see themselves as closer and more of a team, and have less desire to leave their group to join another.

The effect of high trust is powerful. This researcher addressed the problem that schools cannot mandate effective participatory decision making without the high level of trust mentioned in the previous paragraph. The results of this study provide a basis for informed change grounded in a conceptual understanding of how principal authenticity and participation in decision making influenced the faculty trust found in public middle school teachers in Kent County, Michigan.

Colleague Trust

The highest level of participation in decision making did lead to increased trust in colleagues. High PDM resulted in increased CT even though PDM only reached a mean level of provide information.

Based on findings from this moderate level, further research using PDM to increase CT should result in even higher levels of CT. It appears that high PDM implies regular problem solving. The face-to-face regularity of working on problems with colleagues accounts for the higher level of CT.

A high level of PA also produced increased CT. This finding supports the importance of the principal in setting the general tone of the school. When the principal does not hide behind a role in dealings with teachers, then teachers are less inclined to hide behind a role in their dealings with one another.

Organizational Trust

Once again, this study provides a way of increasing trust. In this case, each increase in level of PA resulted in an increase over each preceding lower level. These findings support the role of the principal as the standard bearer for the organization. The review of literature in Chapter II cautioned that lack of a high level of trust in the organization could have disastrous effects. An emphasis on improving teacher perception of PA guards against the fear-coercion-distrust cycle, which can damage organizational effectiveness.

Principal Trust

The researcher found great potential to improve PT and cautions that well-meaning efforts could make matters worse. PA and PT were closely correlated. Each level of PA resulted in a progressively higher level of PT than the previous lower level. Nonmanipulative,

accountable, and person- (rather than role) oriented behavior of the principal is readily perceived by the teacher and results in increased trust. However, the one exception was in the case of the PDM structure, DGLT.

DGLT actually enhanced PT at the medium level of PA. In this scenario, the principal exhibits a positive amount of authenticity and shows faith in the teachers by entrusting them with the decision making inherent in DGLT. In turn, trust in the principal increases. But when PA is low, what seems to happen is that DGLT becomes a sham where decisions of the team are overruled, the principal "pulls rank," or perhaps he/she refuses to stand behind decisions of the team. In this case, trust in the principal actually drops below the level it would be without DGLT.

School-Improvement Programs

Purkey et al. (1986-87) found that schools with no SIP did not differ from schools with SIPs regarding the variable of PDM, and where the principal said there was a SIP program, more than half of the teachers did not perceive one. In this study, it was found that SIPs had no effect on any aspect of trust, nor did they result in increased PDM. The results from this study support the "cosmetic" nature of SIPs suggested by the research cited above.

Revision of the Conceptual Model

Based on information found in this study, the conceptual model depicted in Chapter I would change as follows:
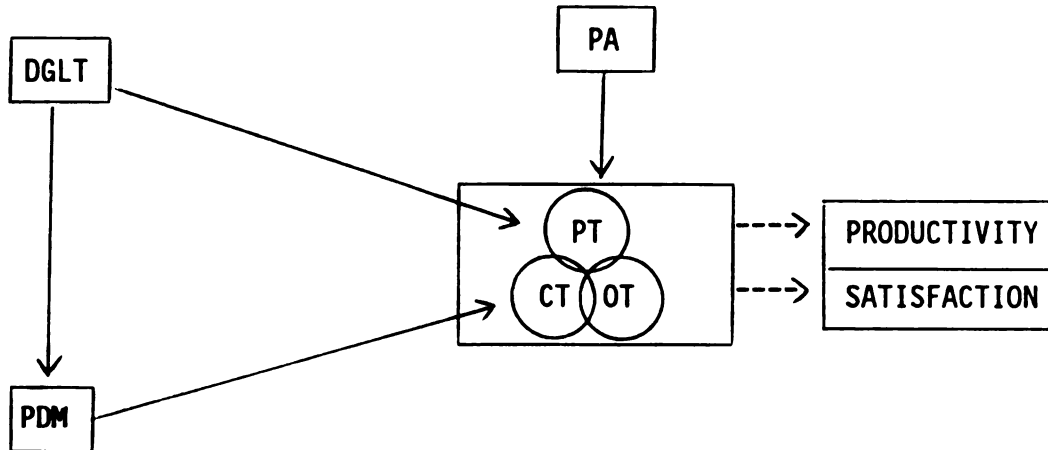
Figure 5.1: Revised conceptual model--Version A.

As explained in Chapter I, the center box represents faculty trust as made up of three distinct aspects: CT, OT, and PT. Arrows depict the fact that PDM influences only CT, whereas PA influences all three aspects of trust. Additional arrows indicate that DGLT influences perception of PDM as well as directly influencing PT. The segmented arrows indicate that development of aspects of faculty trust influences teacher productivity and satisfaction. However, this relationship was not tested in the current study. In this revised model, SIPs are no longer considered a factor in the development of any aspect of faculty trust.

This researcher would like to offer another variation of the model suggested in Chapter I for possible future study. This model illustrates PDM as the dependent variable and aspects of faculty trust as the independent variables. This notion indicates that trust is a precondition to PDM, rather than PDM being a precondition

to trust. The model shown in Figure 5.2 illustrates this relationship:
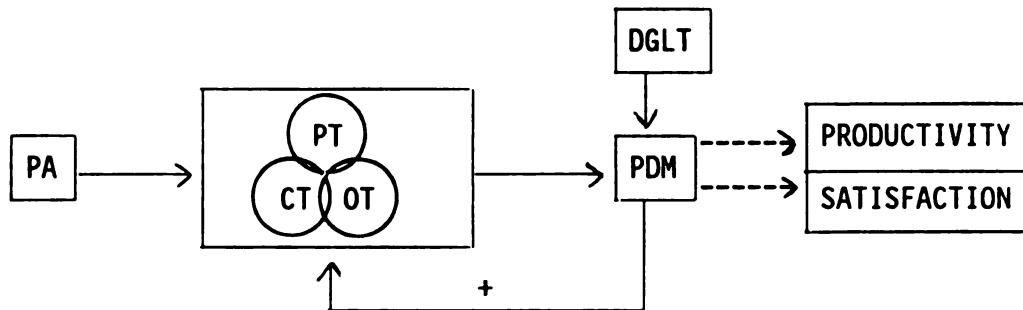
Figure 5.2. Revised conceptual model--Version B.

In the above model, PA influences all three aspects of trust, and DGLT influences participation in decision making. However, in this model, PDM is shown as the dependent variable, which is influenced by aspects of faculty trust. The arrow designated with a positive sign indicates that PDM in practice then exercises a positive effect on trust. The variables of faculty trust and PDM thus continue increasing and decreasing in ongoing mutual interdependence. This model illustrates a direct effect of trust on PDM. In turn, PDM either enhances or decreases the level of trust, depending on whether implementation is "real" or "cosmetic."

Directions for Further Research

Longitudinal Study

A longitudinal study in which information is sought from the same sample of respondents on more than one occasion would be an

ideal way to gain insights into whether participation in decision making leads to trust, as represented in Figure 5.1, or whether trust leads to participation in decision making, as represented in Figure 5.2. In addition to observing changes over time, a longitudinal study would make it possible to observe which teachers change and why they change. However, researchers using a longitudinal study would have to deal with not losing members of the sample over time and the possibility that the sample would be affected by the fact that the same teachers are being questioned on several occasions about their perceptions of trust and participation in decision making. The repeated questioning itself might skew the response.

Replications

The literature (Falcione & Kaplan, 1982; Hellriegel & Slocum, 1974; James & Jones, 1974) revealed three major perspectives from which organizational climate has been approached. The first perspective treats climate as a set of attributes belonging to the organization. These attributes are considered to be possessed by the organization itself, independent of the perceptions or attributions made by individual members (roughly an "organizational personality"). The second treats "climate" as an interaction of an organization's traits or characteristics and the individual's perceptions of these traits. As with the first approach, researchers adopting this perspective assume that organizations have distinguishable attributes that are relatively enduring over time.

Thus, climate from this perspective is essentially a consensual perception of an organization's attributes. Because this researcher took the third perspective (i.e., the individual's summary perceptions of his/her encounters with the organization), it would be useful to take an approach to climate representing the other two perspectives. This approach would involve a building-by-building analysis of the interrelationship of principal authenticity, trust, and participation in decision making. In addition, the first perspective appears to require an independent assessment of trust ("organization personality") while, in addition, the second would look for consensus regarding trust among the organization's members within the building. Replicating this study from the other perspectives and finding similar results would add support to the findings. Research attention might be given to replicating the study from other organizational climate perspectives.

PDM

The researcher was surprised that, after ten years of national attention to school-improvement programs, the level of teacher participation in decision making was still very low. Further studies are necessary to determine:

1. The validity of school-improvement programs as a means to increase teacher participation in decision making.

2. Whether lack of principal trust in teachers leads to low teacher PDM.

3. Whether lack of superintendent trust in teachers leads to low teacher PDM.

Conversely, daily grade-level teaming did make a difference in PDM. Further studies with larger n's are necessary to explore the power of daily grade-level teaming to influence school climate and increase teacher participation in decision making.

Principal Authenticity

The findings of this study support the powerful nature of the relationship between principal authenticity and faculty trust. At its highest levels, this variable overrides the effects of participation in decision making and structures for PDM as a determiner of faculty trust. However, in the process of this study, little was found regarding how to develop authenticity in current principals. As a result of this study, the following key observations concerning principal authenticity were made:

1. The inauthentic principal functions within the narrow constraints of a job description, never expanding effort beyond the routinized level (Henderson & Hoy, 1982). Halpin (1966) explained this behavior through the concept of the marginal person who eagerly overconforms to what he/she perceives to be societal expectations.

2. Henderson and Hoy (1982) suggested that objectification of self and others is a key concept to understand regarding principal authenticity.

3. Again, Henderson and Hoy (1982) saw a key concept as the principal accepting general organizational responsibilities so that teachers can focus their attention on student learning.

From these observations, it would seem that, in the development of authenticity, further research should be done in the following three areas:

1. Staff development and organizational support to improve the self-esteem and confidence of the principal.

2. Providing the principal with experience in settings such as T-groups, which sanction the expression of feelings and efforts to understand self and others.

3. Training in effective site-based management that focuses all aspects of the school on teaching and learning.

Trust

The variables of interest in this study were found to result in increased levels of trust. Yet in many cases, aspects of trust did not reach the highest levels. Thus, further research should be undertaken to answer the following questions:

1. What additional variables might result in increased levels of trust? For example, what is the role of other areas of informal, as well as formal, communication in the development of trust?

2. Are all aspects of trust of equal importance with regard to teacher productivity and satisfaction?

Demographic Variables

Because the present research was confined to public middle schools, will the variables result in increased trust at other grade levels? For example, characteristics of secondary schools that

allow teachers more autonomy as "masters of content area" may lead to different results.

1. Do middle school teachers exhibit more trust than high school teachers?

Finally, although experience was found to have an effect on organizational trust, the small number of respondents precluded discovering the nature of the relationship.

2. Further studies of organizational trust will need to improve teacher representation by level of experience in the study.

External Validity

The findings of this study can be generalized to middle schools in Kent County, Michigan. It is left for future researchers to answer whether the findings can be generalized to a more broadly defined population.

APPENDICES

APPENDIX A

TEACHER SURVEY

TEACHERS' WILLINGNESS TO PARTICIPATE IN DECISION MAKING: A COUNTYWIDE SURVEY OF MIDDLE SCHOOL TEACHERS

This survey is being done to understand better the extent to which middle school teachers currently participate in decision making in their schools, and the leadership and building-climate factors that may contribute to this involvement in decision making.

Please answer all of the questions. If you wish to comment on any questions or to qualify your answers, please feel free to use the space in the margins. Your comments will be read and considered in the final report.

Thank you for your help.

Part I. Directions. The following questions cover many different and opposing points of view. Whether you agree or disagree with any statement, you can be sure that other people feel the same as you do. Please circle the appropriate number to the right of each statement to indicate how much you agree or disagree with it. Please mark every statement according to the following scale:

Strongly Disagree	1	Slightly Agree	4
Somewhat Disagree	2	Somewhat Agree	5
Slightly Disagree	3	Strongly Agree	6

	Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1. In this school district the administration is fair.	1	2	3	4	5	6
2. Teachers in this school can rely on the integrity of their colleagues.	1	2	3	4	5	6
3. This school district typically acts in the best interest of teachers.	1	2	3	4	5	6
4. The principal accepts responsibility for his/her own actions and for the progress of the school.	1	2	3	4	5	6
5. Teachers in this school trust each other.	1	2	3	4	5	6
6. Teachers in this school district can rely upon the integrity of those who make school district policy.	1	2	3	4	5	6
7. The principal encourages "give and take" discussion with individual teachers.	1	2	3	4	5	6
8. The principal seems to talk at you and not with you.	1	2	3	4	5	6
9. The teachers in this school have faith in the integrity of the principal.	1	2	3	4	5	6

	Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree

10. Teachers in this school believe in each other.

1   2   3   4   5   6

11. In this school district the teachers' association is unnecessary.

1   2   3   4   5   6

12. Teachers in this school have confidence in the fairness of each other's actions.

1   2   3   4   5   6

13. Teachers in this school typically look out for each other.

1   2   3   4   5   6

14. The teachers' association in this school district is necessary to protect the teachers from arbitrary and capricious actions.

1   2   3   4   5   6

15. The principal in this school can be counted upon to keep his/her word.

1   2   3   4   5   6

16. Teachers in this school system are suspicious of the motives of this school district.

1   2   3   4   5   6

17. If something goes wrong in the school, the principal is sure to blame someone else on the staff.

1   2   3   4   5   6

18. The principal is honest in face-to-face interactions.

1   2   3   4   5   6

19. It is not uncommon to see the principal pit one teacher against another.

1   2   3   4   5   6

20. The principal is willing to admit to mistakes when they are made.

1   2   3   4   5   6

21. Teachers in this school district see no need for job actions.

1   2   3   4   5   6

		Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
22.	The teachers in this school have faith in the integrity of their colleagues.	1	2	3	4	5	6
23.	Teachers take unfair advantage of each other in this school district.	1	2	3	4	5	6
24.	The principal doesn't have much to do with teachers unless a teacher can help the principal in some way.	1	2	3	4	5	6
25.	This school district takes unfair advantage of its teachers.	1	2	3	4	5	6
26.	The principal appears to have "rehearsed" answers for teachers during conferences.	1	2	3	4	5	6
27.	The principal is a person first and an administrator second.	1	2	3	4	5	6
28.	Teachers in this school rely on the integrity of the principal.	1	2	3	4	5	6
29.	The principal likes to take credit for teachers' accomplishments, but doesn't want to be blamed for any failures.	1	2	3	4	5	6
30.	When dealing with a teacher, the principal behaves like a know-it-all.	1	2	3	4	5	6
31.	The principal takes unfair advantage of the teachers in this school.	1	2	3	4	5	6
32.	Teachers in this school district are suspicious of each other.	1	2	3	4	5	6
33.	If the principal ever makes a mistake, a reason is made to cover up for the error.	1	2	3	4	5	6
34.	The principal in this school keeps his/her word.	1	2	3	4	5	6

	Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
35. The principal accepts and learns from mistakes.	1	2	3	4	5	6
36. Teachers in this school system trust in the school district.	1	2	3	4	5	6
37. Teachers in this school often question the motives of the principal.	1	2	3	4	5	6
38. The faculty's values and this school's values are very similar.	1	2	3	4	5	6
39. Even in difficult situations, teachers in this school can depend on each other.	1	2	3	4	5	6
40. In this school district a strong teachers' organization is needed.	1	2	3	4	5	6
41. The principal manipulates the teachers.	1	2	3	4	5	6
42. Whenever authority is delegated to a staff member, the principal stands behind that person.	1	2	3	4	5	6
43. The teachers in this school are suspicious of most of the principal's actions.	1	2	3	4	5	6
44. The principal's beliefs and actions are consistent.	1	2	3	4	5	6
45. The principal in this school typically acts with the best interest of the teachers in mind.	1	2	3	4	5	6
46. Teachers in this school trust the principal.	1	2	3	4	5	6
47. For most faculty this is the best of all possible schools in which to work.	1	2	3	4	5	6

Part II--Directions. Please circle the appropriate number to the right of each statement to indicate your type of involvement in the following areas as they apply to your school building. Please mark every statement according to the following scale:

No participation	1
Provide information	2
Recommend decision	3
Influence decision	4
Make decision	5

48. Teacher selection   1   2   3   4   5

49. Teaching assignments   1   2   3   4   5

50. School schedule   1   2   3   4   5

51. Course offerings   1   2   3   4   5

52. Student class placement   1   2   3   4   5

53. Extra-duty assignment   1   2   3   4   5

54. Developing innovative programs   1   2   3   4   5

55. Faculty meeting agenda   1   2   3   4   5

56. Selection of building principal   1   2   3   4   5

57. Teacher evaluation criteria   1   2   3   4   5

**Please circle the appropriate answer
to the right of each question:**

58. Do you meet daily with a grade-level team?   yes   no

59. Does your school have a building committee established to develop a School-Improvement Plan?   yes   no

If you answered "yes" to Question 59, please answer Question 60.

60. Please circle the letter that best describes your School-
    Improvement Plan:

   A. The principal is aware of the School-Improvement Plan,
      and 50% of the faculty concur.
   B. The principal is aware of the School-Improvement Plan,
      50% of the faculty concur, and the following conditions
      are present:
      1. The plan is written.
      2. The plan has been distributed
      3. A committee monitors the plan.
      4. At least one teacher is on the committee.
   C. The principal is aware of the School-Improvement Plan,
      50% of the faculty concur, but not all of the character-
      istics in B are present.

Part III.   Finally, a few questions about yourself to help
interpret the results:

61. Sex: ____ Female   ____ Male

62. Age: ___ 20-29 ___ 30-39 ___ 40-59 ___ 50-59 ___ 60-69

63. Experience as an educator: ___ 1-2 years ___ 3-5 years
    ___ 6-10 years ___ 11-15 years ___ More than 16 years

64. Education: ____ Bachelor's degree   ____ Bachelor's degree +
               ____ Master's degree   ____ Master's degree +
               ____ Doctorate

    College major:_____

Is there anything else you would like to mention about teacher participation in decision making? If so, please use this space for that purpose. Also, any comments you wish to make that you think may help in future efforts to understand teacher involvement in decision making will be appreciated, either here or in a separate letter. Your contribution to this effort is very greatly appreciated!

APPENDIX B

ELECTRONIC BULLETIN BOARD MESSAGE REQUESTING

SUPPORT OF SUPERINTENDENTS

Good morning CAL,
It's 10/04/89 - Welcome to the board

Brd ->Superintendents' Board
Numb ->30 of 30
Sub ->M.S. Survey
To ->all
From ->CAL   (#3)
Date ->10/04/89

Doug Busman, Caledonia Curriculum Director, will be conducting a survey of teachers in your middle schools as part of a survey of Kent County Middle Schools to learn more about the effects of leadership and school climate on teacher participation in decision making in middle schools.
   The study is being conducted under the auspices of the Dept. of Educational Administration at Michigan State University and the Mich. Assn. of Middle School Educators.
   If you have any objections, questions about the project or would like to receive information regarding the results, please feel free to contact Douglas Busman at 891-8185   Thank you for your help with this project.
   Robert Myers

APPENDIX C

LETTER TO MIDDLE SCHOOL PRINCIPALS REQUESTING

SUPPORT FOR THE STUDY

Caledonia Community Schools

October 5, 1989

Dear Middle School Principal,

I am writing to secure your permission to survey teachers in your building to learn more about the effects of leadership and school climate on teacher participation in decision making in middle schools.

Responses will be **completely anonymous** and all data will be maintained in **total confidence** by the researcher. No individual or school can be identified through this study.

If you have time, I am hosting an informal breakfast for Kent County middle school principals at the Red Hot Restaurant at the intersection of Leonard and the East Beltline at 7:00 a.m. on Wednesday, October 11, to answer any questions regarding the project.

The study is being conducted under the auspices of the Department of Educational Administration at Michigan State University and the Michigan Association of Middle School Educators for the purpose of gathering research for my Ph.D thesis.

I greatly appreciate your participation in this research. If you have any questions, objections, or would like to receive more information about the project, please feel free to contact me at 891-8185. Thank you for your help with this project.

Cordially,

Douglas Busman
Director of Academics

Please RSVP to Leta 891-8185 to allow for meal planning

APPENDIX D

ELECTRONIC BULLETIN BOARD MESSAGE REQUESTING

SUPPORT OF CURRICULUM DIRECTORS

Brd ->Kent Curriculum Council
Numb ->30 of 30
Sub ->Middle School Survey
To ->All
From ->CAL (#3)
Date ->10/23/89 08:21:43 PM

I will be conducting a survey of teachers in local middle schools as part of a survey of Kent County Middle Schools to learn more about the effects of leadership and school climate on teacher participation in decision making in middle schools.

The study is being conducted under the auspices of the Department of Educational Administration at Michigan State University and the Mich. Assn. of Middle School Educators.

If you have any objections, questions about the project or would like to receive information regarding the results, please feel free to contact me at 891-8185. Thank you for your help with this project.

Doug Busman, Director of Academics

APPENDIX E

LETTER TO TEACHERS

December 4, 1989

Dear

Bills have recently been introduced in our state legislature requiring school districts to submit yearly school-improvement plans. These school-improvement initiatives will greatly affect the amount of building-level participation in decision making expected of teachers. However, little is known about the current level of teacher participation in decision making in Kent County and the effects that leadership and school climate characteristics might have on teachers' willingness to become involved in building-level decision making in Kent County.

Your name has been selected as one of a small random sample of middle school teachers in Kent County to give your opinion on these matters. Middle school teachers have been selected because the middle school philosophy advocates teams of teachers making building-level decisions. In order that the results will truly represent the thinking of middle school teachers in Kent County, it is important that each questionnaire be completed and returned. You and your responses are important to the accuracy of the study and the subsequent utility of the information gathered.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so your name can be checked off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire. The name of your school will never be mentioned. You indicate your voluntary agreement to participate in this study by completing and returning this questionnaire in the enclosed self-addressed envelope. The survey will take about 15 minutes to complete.

The results of this research will be made available to the Michigan Office of School Improvement, the Kent Intermediate Office of School Improvement, and the Michigan Association of Middle School Educators. You can receive the results in summary form by writing "copy of results requested" on the back of the return envelope, and printing your name and address below it. To maintain your anonymity, please do not put this information on the questionnaire itself. I would gladly answer any questions you might have. My telephone number is 891-8185.

Sincerely,

Douglas Busman
Doctoral Student
Department of Educational Administration
Michigan State University

APPENDIX F

FOLLOW-UP POSTCARD

Last week you received a survey asking your opinions regarding the relationship between participation, leadership, and school climate.

I am writing to thank you for your help if you have already returned the survey. If you have not returned the survey, won't you please take 15 minutes to complete the survey and place it in the stamped self-addressed return envelope. You and your responses are important to the accuracy of the study and the subsequent utility of the information gathered.

You may be assured of complete confidentiality. Your name or school's name will never be placed on the questionnaire. Again, thank you.

Sincerely,
Douglas Busman

APPENDIX G

LETTER OF APPROVAL FROM THE UNIVERSITY COMMITTEE

ON RESEARCH INVOLVING HUMAN SUBJECTS

MICHIGAN STATE UNIVERSITY

October 6, 1989   IRB# 89-438

Douglas Busman
Caledonia Community Schools
203 Main
Caledonia, MI 49316

Dear Mr. Busman:

RE: "PRINCIPAL AUTHENTICITY AS AN INDICATOR OF FACULTY TRUST AND
           TEACHER USE OF PARTICIPATORY DECISION MAKING IRB# 89-438"
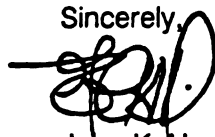
The above project is exempt from full UCRIHS review. I have reviewed the proposed research protocol and find that the rights and welfare of human subjects appear to be protected. You have approval to conduct the research.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval one month prior to October 6, 1990.

Any changes in procedures involving human subjects must be reviewed by UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to our attention. If we can be of any future help, please do not hesitate to let us know.

Sincerely,

John K. Hudzik, Ph.D.
Chair, UCRIHS

JKH/sar

cc: F. Ignatovich

APPENDIX H

SCATTER PLOTS

PLOT OF TRUSTO WITH PA

TRUSTO (Y-axis): 6, 5.4, 4.8, 4.2, 3.6, 3, 2.4, 1.8, 1.2

PA (X-axis): .975, 1.3, 1.625, 1.95, 2.275, 2.6, 2.925, 3.25, 3.575, 3.9, 4.225, 4.55, 4.875, 5.2, 5.525, 5.85, 6.175

PLOT OF TRUSTP WITH PA

T
R
U
S
T
P

6.4*
5.6*
4.8*
4*
3.2*
2.4*
1.6*
.8*
0*

.975 1.3 1.625 1.95 2.275 2.6 2.925 3.25 3.575 3.9 4.225 4.55 4.875 5.2 5.525 5.85 6.175

PA

PLOT OF TRUSTC WITH PA

```
T
R
U
S
T
C
```

6 *
5.4 *
4.8 *
4.2 *
3.6 *
3 *
2.4 *
1.8 *

.975   1.3   1.625   1.95   2.275   2.6   2.925   3.25   3.575   3.9   4.225   4.55   4.875   5.2   5.525   5.85   6.175

PA

PLOT OF TRUSTP WITH PDM

PLOT OF TRUSTO WITH TRUSTC

PLOT OF TRUSTO WITH PDM

PLOT OF TRUSTC WITH PDM

TRUSTC

```
6 +        1
         1 1 1 1
  5.4 *  1 1 1 1 1           1
       * 1 1 1 1 1 1 1       1   1    1
       * 1 1 1 2 1   1 1     2
       * 1 1 2 1 1 1 1 2 1 1
  4.8 * 1 1 1 2 1 1 1 2 1 3 1 1 1        1   1 1
       * 2 1 1 2 1   2 1   4 2 2 1        1 1
         1   1 2 3 3   1   1   2
  4.2 *   1 2 1 1 1 1 1 2 1 2 5 1   3 1 2     1
       * 1 1 1 1 1   1 2   1 2 1 1   1 1
       *     1 3 2 1 1 1 1 1 1   1
  3.6 *   1       1 1 1 1 1   1   1     2      1
       *   1 1 1 1 1 1   3   3
  3 *       1   1     1                  1
       *   1
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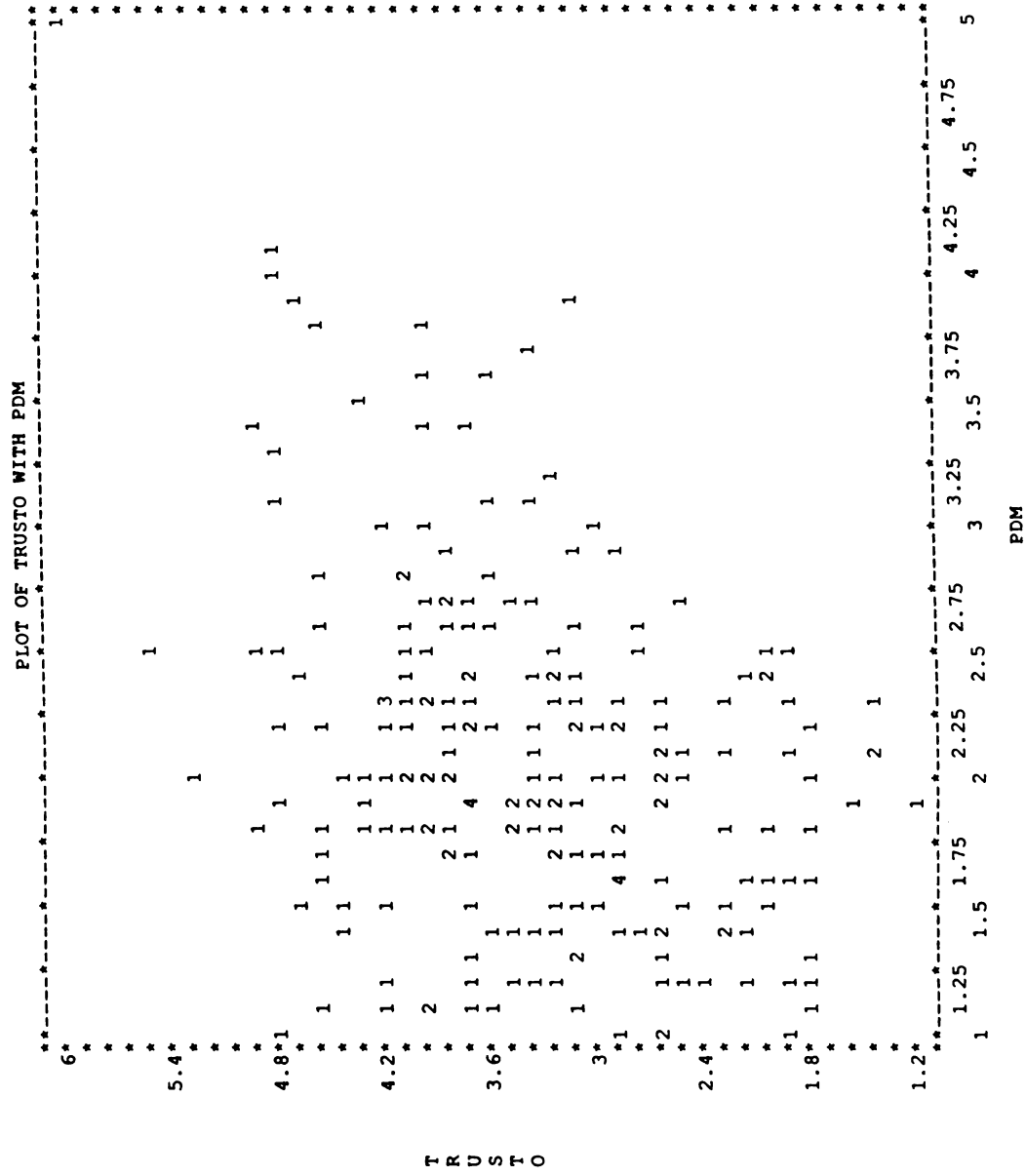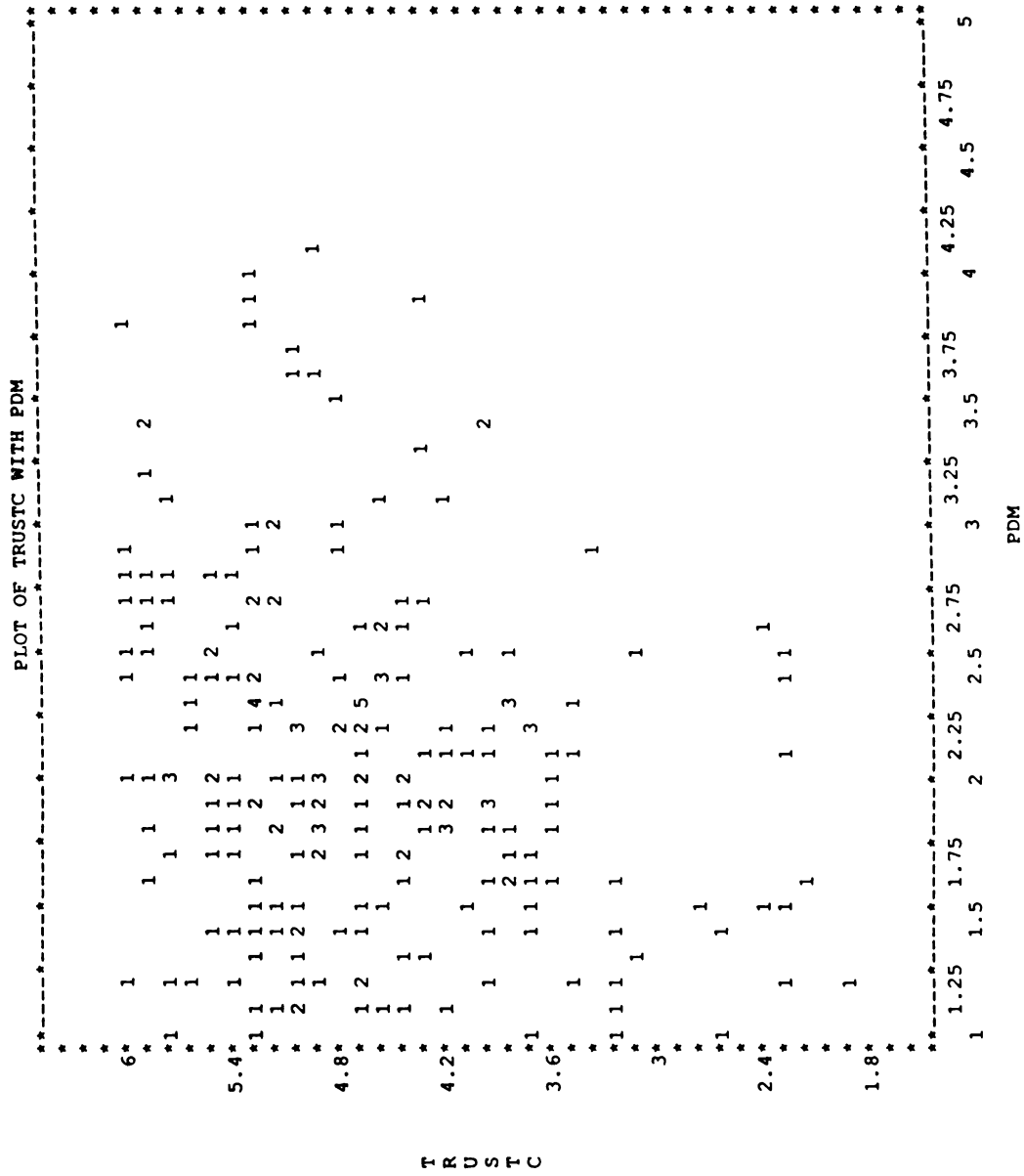
APPENDIX I

OPEN-ENDED TEACHER COMMENTS, BY DISTRICT AND SCHOOL

Open-Ended Comments Regarding Teacher Participation in
Decision Making, Principal Authenticity, and
Aspects of Faculty Trust

District I/School A

Often, on decision-making matters, teachers are under the facade that they are making the decisions. Often, the decisions have already been made.

As teachers, we participate on many committees and put in a lot of work on various areas of school improvement. However, although we participate, we often get the feeling that we are only "going through the motions" because the decisions have already been made without our input. The administration has a hard time relegating any decision-making power to the teacher. WE are told, as a teaching team, that we are empowered to make certain decisions, but in practice, we have not been allowed to do so.

There is great willingness to participate. However, the participation is "in name only." We are not sincerely involved in any decision-making process.

Our principal likes to talk about "team effort." He makes a lot of decisions in the name of "team effort." This is pure rhetoric.

I have come to the conclusion that administration wants happy kids and they do not want teacher involvement in decision making.

Teacher involvement is not worth a whole lot when it comes to decision making.

The process for communication is in place, but too many teachers feel that they "don't count." There are perceived "favorites" which is different from those recognized as natural leaders.

District II/School A

If the community is vocal, things change. Teachers on the whole are not listened to. Teachers are often the last to know of changes in the school day. Some departments get more attention paid than others. This causes bad feelings. Also, we have some teachers who are "better" than others. On the

whole the teachers get along well until a general shake-up in jobs--then it's everyone for himself.

In our building the principal and two-thirds of the staff have been together 20+ years. We are given a lot of latitude about what goes on in our rooms, and the principal is given a lot of latitude regarding policies. So there is a lot of mutual trust based on many years of working together. The character of the principal determines the tone of everything.

District III/School A

As teachers, we struggle with our principal's occasional difficulty with lack of confidence and resulting "come on strong" reaction when questioned about particular actions.

Without a strong principal, the idea of teacher participation leads to very slow progress in putting new programs into action.

The best teacher participation occurs because teachers simply assume tasks and responsibilities and get to work. My experience is that administrators are incompetent--a network of friends rewarded for time served. They have little knowledge of curricular research and primarily concern themselves with discipline.

District III/School B

Teachers have very little to say in class size, teacher selection, and scheduling--this is due to years of mistrust between central administration and teachers in their system.

Our school district tends to fear parents. Our district decided to make certain cuts, then backed down when parents complained. The district appears wishy-washy and easily manipulated. We need our teachers' association due to board manipulation and their distrust of teachers.

When teachers are treated like professionals, rather than "grown up children," by districts and administrators, much more education will take place.

This district distorts the truth of class size to the public. More cooperation is needed between central administration and the teachers' association.

District III/School C

The members of our school-improvement team have been criticized for bringing concerns to the committee **without the principal's approval.**

District III/School D

Our school has experienced an excessive administrator changeover. This has caused inconsistency, discontent, and destruction of a once-strong team of teachers. We lost our leaders who had credibility and haven't been able to create unity and trust and confidence among our staff members. Because of what has happened at my school, I feel strongly that teacher participation in decision making is essential to a school for continuity, **trust,** and program development.

District IV/School A

I have been teaching for 25 years. It has been **rare in that time that teachers are actually given a** <u>real</u> **role in decision making.** Usually a lot of time is spent in committee giving ideas that are either ignored or the intention was never there to accept the input! Changes in curriculum are often made with little or no input from teachers and particularly in the area of scheduling students.

District V/School A

We are not asked enough. **Too often we are treated as one of the students** and not professional people.

District VI/School A

Our principal has a select few that he calls upon for help or planning. Because of his **decision to always have the same few help,** this causes dissension among the ranks.

The principal likes to make final decisions. He does present things to us, sometimes as a group, for our opinions. **Sometimes he only asks a few, sometimes he doesn't appear to ask anyone.** Teachers should be treated as professionals and capable of helping make decisions, at least regarding our own areas.

District VI/School B

A lot depends on personal whim, it seems. If your opinion is not popular, no interactions or contacts will be made to serve on committees whose members already have made a decision agreeable to the administrator. If a committee produces ideas not held by the administrator, the committee is usually dissolved and members "reassigned" to more menial tasks, if any.

District VII/School A

The principal lacks leadership.

The principal wants the job and doesn't want to rock the boat.

District VIII/School A

I think teachers should be allowed to be more active in the decision-making process. Sometimes when our feelings/opinions are given, it is overlooked--so why ask us?

District IX/School A

School improvement, which was to empower the building, is only empowerment if it stays with district improvement (which isn't always concurrent). Effective School study for school improvement is one of approximately 15 programs that are "innovative" pilot studies. Too much at one time spreads everything else too thin.

We are in the crawling stages with our school-improvement committee. On the committee our principal has as much "authority" as the other six members. We have a long way to go, but I do see steps in the right direction.

District IX/School B

PDM limited at the building level due to district constraints.

District X/School A

The school-improvement team has accomplished a great deal in our school. Our principal has also improved since one of the committees talked to him of our needs and gripes. The communication among us has always been good, but more has been accomplished since the set-up of the school-improvement committee.

District Unknown

Site-based decision making is a **total facade** in this building. Totally administrator dominated.

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