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AN INVESTIGATION OF HIGH SCHOOL PRINCIPALS' ATTITUDES AND

PERCEPTIONS TOWARD RESTRUCTURED TEACHING AND LEARNING

By

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ABSTRACT

AN INVESTIGATION OF HIGH SCHOOL PRINCIPALS' ATTITUDES AND
PERCEPTIONS TOWARD RESTRUCTURED TEACHING AND LEARNING

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The purpose of this study was to investigate high schools relative to restructured teaching and learning processes, defined as curriculum, instruction, equity, and delivery structures. Because the principal is a key player in reforming the school, the perceptions of principals were gathered and analyzed. Specifically, principals were asked to relate their attitudes toward, current extent of implementation, and pressures felt to restructure teaching and learning in their schools.

Descriptive and inferential analyses were used to investigate relationships used for descriptive research purposes. A survey was developed by the researcher to describe the four subsets involved with restructuring. The 39-statement survey was mailed to a stratified sample of 300 high school principals in Michigan, after the pilot-phase completion of content validity and reliability checks.

The Far West model was the conceptual framework for this study. This model asserts that the principal is shaped by his or her personal characteristics as well as district and external

characteristics. Principals, in turn, determine the school climate and instructional organization of the school. All independent variables were constructed from the personal, district, and external characteristics typified in the Far West model.

The results of this study revealed that principals indicated strong agreement for the concepts associated with restructuring, but they had little implementation of the same. Principals with a curriculum/instruction major/minor indicated significantly higher levels of implementation than principals without the same. Females indicated more favorable attitudes toward restructuring than their male counterparts. Principals felt most pressure to restructure from external sources, specifically, legislation/laws, government/ legislators, the Michigan Department of Education, and business/ industry. The principals also related a fair amount of pressure from their district superintendents and other principals/peers. Principals from larger schools and larger districts displayed more positive attitudes than those from smaller schools/districts.

The literature indicates that high schools are in need of major restructuring--in particular, what happens in the classroom. This study provided a framework for thinking about substantive educational reform, and it called principals to action for the same.

Dedicated to

my husband, Eric Robertson Reid;

sons, Elliott Jay Wells-Reid and Brendan Robert Wells-Reid;

and parents, Irene and Harold Wells.

Without you, my dreams would be just dreams.

ACKNOWLEDGMENTS

"Learning is not an objective phenomenon. It is a warm, highly personal, human, subjective, largely social process" (Combs, 1991, p. 57).

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CHAPTER I

INTRODUCTION

American high schools are under siege; they are being scrutinized and analyzed for their ability to educate the youth of this nation. Public schools receive media attention on a daily basis, and they are ridiculed for not measuring up to standards of other nations. Report after report tells a story of substandard educational products instead of press coverage that the United States could feel proud about; different groups blame different sources. There are groups that blame parents; some blame the students; others blame teachers; some see it as failed leadership from principals, superintendents, or the school board; others blame legislators; some say it is the fault of teacher preparation; others blame a lack of funding.

In the early 1980s, a concerted effort was begun to reform American public education in hopes of causing a radical change in public education (Murphy, 1991). The foundation of the reform rested on criticisms from business and industry, parents, legislators, and analysts. The calls for reform were not unheeded. When the National Commission on Educational Excellence published A Nation at Risk in 1983, its title became the rationale of the first wave of reforms that followed (Hawley, 1988). Basically, these

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reforms focused on setting higher standards and pushing for excellence (Passow, 1987). Standards for entrance into teaching programs were raised, as were high school graduation requirements. The new emphasis included increased attention to academics and better equipment and textbooks (Murphy, 1990).

Several analysts thought that the wave-one reforms were lacking (Chubbs, 1988; Sedlak, Wheeler, Pullin, & Cusick, 1986; Sizer, 1984). These analysts looked for fundamental changes in the way schools were organized and governed. Elmore (1987) stated:

> If we accept the existence of standard practices, and see their resilience as a symptom of organizational failure, then solutions seem to be in fundamentally changing the organizational form of schools, the characteristics of the people who work in them, and the incentives under which they work. (p. 66)

With the criticisms of the first wave of reform came new approaches that were subsequently labeled as wave-two reforms. The wave-two reforms focused on empowerment of teachers to work more effectively with students (Murphy, 1990). Many analysts complained that the bureaucratic infrastructure of schools was the source of their problems (Murphy, 1990; Sedlak et al., 1986; Sizer, 1984). The second wave of reforms also advocated heavily for children who are greatly at-risk in the educational system, particularly children with special needs (Hawley, 1988). Murphy (1990) wrote:

> Three broad content areas are stressed in wave two reform reports: (1) The professionalization of teaching. (2) The development of decentralized school management systems. (3) The enactment of specific reform topics overlooked in the early 1980s (such as programs for at-risk students).

The wave-two reforms are being debated, implemented, and analyzed, and they provide the foundation for what has been referred to as restructuring. Murphy (1991) provided a definition of what this concept includes:

> Restructuring generally encompasses systemic changes in one or more of the following: work roles and organizational milieu; organizational and governance structures, including connections about the school and its larger environment; and core technology. Restructuring also involves fundamental alterations in the relationships among the players involved in the educational process. (p. 15)

Murphy and Evertson (1991) argued for restructuring the teaching and learning processes.

Background of the Problem

Restructuring Teaching and Learning

Murphy and Evertson (1990) articulated what would change in the teaching-learning processes. Basically, these authors speculated about and envisioned restructured teaching-learning processes with the fundamental change in the student as being the worker and producer of knowledge. The teaching-learning processes have also been labeled as teaching for understanding; this is the area that has received the least amount of attention in the media (Elmore, 1991; Hawley, 1988; Murphy, 1990). The three areas with the most media attention are teacher empowerment, choice for schools, and site-based management. The core activity of any school is teaching and learning; because they are central to school improvement, despite being ignored in the media, teaching and learning processes were the focus of this study.

Murphy and Evertson (1990) described four main areas of teaching and learning as curriculum, instruction, equity, and delivery systems. They predicted what the restructured teaching and learning processes would look like, based on a thorough analysis of the reform movement. A central theme of their conceptualization is the student as worker and the teacher more as coach or facilitator of knowledge; there are new roles for all the players in education, and the organizational hierarchy is altered to allow for more decision making at the school. The emphasis is on teaching for understanding, where the goals for learning are thinking, reasoning, and problem solving, not rote memorization.

Murphy (1991) provided an organizational structure indicating what changes occur in the roles of the key players in a school system. This structure is shown in Figure 1.1. Murphy explained his organizational framework as follows:

> Even a cursory review of the framework shows the complexity involved in transforming schooling. It should also be obvious that restructuring efforts can begin in a variety of places and employ a number of different strategies depending upon the specific objectives sought. The framework is also designed to convey the message that real educational transformation will require the involvement of all the key players, work on all components of the system, and the simultaneous use of four distinct but interrelated restructuring strategies. To date, most efforts at reformation have emphasized only one or two strategies. Teacher empowerment held center stage at the outset of the restructuring movement. More recently, attention has shifted to school-based management and choice. Considerably less work has been devoted to teaching for understanding, or redefining the teaching-learning process, although the rumblings of early movements in the area are becoming distinctly audible. (p. 17)

State as Facilitator

STATE OFFICIALS

Choice-Voice

Superintendent as Enabler

SUPERINTENDENT

School-Based Management

Organization and Governance

Work Redesign

Parents as Partners

PARENTS

Principal as Facilitator

PRINCIPAL

Organization and Governance

Work Redesign

Teacher Empowerment

Teachers as Leaders

TEACHERS

Core Technology

Work Redesign

Teaching for Understanding

Students as Workers

STUDENTS

Figure 1.1: Murphy's organizational structure.

Statement of the Problem

The term "restructuring" receives a great deal of attention in the media. American companies are involved with restructuring; in that context, the term typically means downsizing or streamlining while increasing production and profits. In the educational arena, the term is a popular one. Unfortunately, restructuring can be as misinterpreted as any concept, and if that happens in education, the results will be disastrous for it will signal another in a long line of failed attempts to reform learning and restore pride in the American public school system.

American educators have much to learn about their educational system. Analysts have clearly defined the nature and scope of the problems that plague American public schools. Several analysts have specifically studied American high schools and the state of teaching and learning that occurs there (Goodlad, 1983; Powell et al., 1985; Sedlak et al., 1986; Sirotnek, 1983; Sykes, 1990). These analysts have pointed out, in graphic detail, that American high schools appear to have a major stronghold on pedestrian, uninspired, teacher-dominated learning. Classrooms have been depicted as dull, affectless places where teachers outtalk their students by a three-to-one margin (Sirotnek, 1983). Analysts have described, in detail, the bargains that are made, often covertly as tacit agreements where student compliance is traded for lack of academic challenge (Powell et al., 1985; Sedlak et al., 1986). High schools have been depicted as shopping malls where students get lost while they browse (Powell

et al., 1985). High schools have been seen as failing institutions that try, often in desperation, to change, but reform after reform disappears without leaving a trace of meaningful change (Cuban, 1988a; Fullan & Miles, 1992; Toch, 1991; Tye, 1992).

In fact, many reform analysts have been skeptical about the ability of today's educators to change their schools in substantive ways. These analysts have believed that, despite the intense pressure for high schools to change, the reform efforts are doomed to failure (Sarason, 1982; Tye, 1992). These analysts have issued warnings to educators to look beyond quick-fix, superficial, glossed-over solutions and instead to focus on the core technology of the school--the teaching and learning, or what happens in the classroom (D. K. Cohen, 1988; Cuban, 1992; Goodlad, 1983; Murphy, 1990; Sizer, 1992).

Teaching for understanding is a phrase that is often used, but usually without true conceptual understanding. Teaching for understanding involves the creation of learning environments that stimulate higher-level thinking, use multiple perspectives, and engage students in active participation (Murphy, 1990). Sizer (1992) advocated teaching students to use their minds well.

High school principals can be part of the transformation to restructuring. They play a major role in shaping what happens in their buildings. Principals can be proactive, risk-taking leaders who inspire their staffs to be involved with causing positive change to happen within the classroom. Currently, little is actually known about what high school principals think about restructuring teaching

and learning (Murphy, 1990); that fact, along with the critical need to reform and revitalize high schools, was the reason for conducting this study.

Purpose

This researcher focused on the principal and sought to know, specifically, what is currently happening in the State of Michigan relative to restructured teaching and learning processes, also referred to as the core technology of the school. Because the principal is a key player in reforming the school, the perceptions of principals were gathered and analyzed. Principals have been referred to as gatekeepers for change. It is important to know what these gatekeepers think about teaching and learning.

The purpose of this study was to determine and analyze selected Michigan high school principals' attitudes, current levels of implementation, and pressures to restructure teaching and learning processes in their schools. It also sought to discover what personal, district, and external characteristics are associated with actual implementation or favorable attitudes toward restructured teaching and learning processes, i.e., curriculum, instruction, equity, and delivery structure. The hope was that the knowledge gained from this research could give direction/motivation for substantive change in the areas involved with restructured teaching and learning.

Research Questions

Twenty research questions were developed and tested for this study; they are stated on the following pages.

Descriptive Research Questions

Research Question 1. To what extent have restructured teaching and learning processes been implemented by Michigan high school principals?

Research Question 2. What are Michigan high school principals' attitudes toward restructured teaching and learning processes?

Research Question 3. Is there a relationship between Michigan high school principals' attitudes toward restructuring teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure) and the current extent of implementation of the same?

Research Question 4. To what extent do Michigan high school principals perceive district and external forces as exerting pressure to restructure teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure)?

Research Questions Related to
Personal Characteristics

Research Question 5. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of the principals' graduate degrees?

Research Question 6. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of their graduate degrees?

Research Question 7. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of the principals' graduate degrees?

Research Question 8. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of their graduate degrees?

Research Question 9. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as a teacher/nonadministrator?

Research Question 10. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as a teacher/nonadministrator?

Research Question 11. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as an administrator?

Research Question 12. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as an administrator?

Research Question 13. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) between male and female principals?

Research Question 14. Is there a difference between Michigan male and female high school principals with regard to their attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined)?

Research Questions Related to District (Internal) and External Variables

Research Question 15. Is there a relationship between the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) and pressures principals feel to restructure from district and external forces?

Research Question 16. Is there a relationship between the pressures that Michigan principals feel from district and external forces to restructure teaching and learning processes and principals' attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined)?

Research Question 17. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment?

Research Question 18. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment?

Research Question 19. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

Research Question 20. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

Conceptual Assumptions

There were a number of assumptions taken as an article of faith that were implicit in this study, but one that was central to the study involved the principal. Principals were viewed as instructional leaders in their schools, without seeking any empirical evidence for that particular assertion. The conceptual framework for this study, the Far West model, places the principal "center stage" in the school relative to providing the expectations that shape the instructional climate. This researcher did not ask the staffs of the schools surveyed whether that was indeed true.

Instead, that very assumption was accepted as true, and hence principals were asked questions about what was happening at their schools; the analyses of their responses referred to principals' roles that would be valid according to the role defined by the Far West model. Likewise, the Far West model provided the framework for other postulates relative to the questions asked in the study.

Because principals are the ones who encourage, guide, or expect change in the schools, the writer assumed that the principals would play a major role in the innovation of restructuring. It was hypothesized that principals who demonstrated the most favorable attitudes toward restructuring would also have the highest level of restructuring in their schools. Likewise, it was expected that principals who perceived a great deal of pressure to restructure would have the highest levels of implementation in their buildings. This would follow Bossert's (1987) research, which indicated that principals respond to contextual expectations that can be external or internal.

Bossert's research also indicated that there are several personal characteristics that shape principals' behavior. Bossert found that female administrators were typically more involved in instructional-leadership activities than were their male counter-parts. Therefore, it was expected that the female principals in this study would indicate more favorable attitudes and higher levels of implementation of restructured teaching learning processes than would their male counterparts.

The research conducted by Hallinger and Murphy (1985, 1987) pointed to the fact that administrators who have strong backgrounds in areas of instructional leadership are more likely to be involved in active instructional leadership in their buildings than administrators without such backgrounds. Therefore, it was assumed that the principals with majors or minors in curriculum and instruction would demonstrate more favorable attitudes toward restructuring and higher degrees of implementation of restructured teaching and learning processes than their counterparts with majors and minors in other areas.

Conceptual Framework

Teaching for understanding is a major component of the core technology of the school--teaching and learning. Restructured teaching and learning processes were the essential elements of this study. In particular, principals' attitudes toward restructured teaching and learning processes, the current extent of implementation of the same, and the degree of pressure they felt to restructure were the main components of the questionnaire used in this study. Because principals are seen as key players in reform, the focus of this study was the principal and his or her perceptions of and relationship to restructured teaching and learning processes.

The building principal is the person seen as the gatekeeper for change in the school. Principals provide direction and vision for their schools, and they facilitate educational changes. Principals, however, do not operate in a vacuum; instead, they are involved in

an intricate system of relationships. Murphy's (1991) organizational framework indicates that the principal is the facilitator, with superintendents as enablers, parents as facilitators, teachers as leaders, students as workers, and the state as a facilitator.

Bossert, Dwyer, Rowan, and Lee (1982) developed a conceptual framework to show that there are antecedent conditions that influence principals. These researchers developed what is referred to as the Far West model to explain the context with other variables. The Far West model is represented in Figure 1.2.
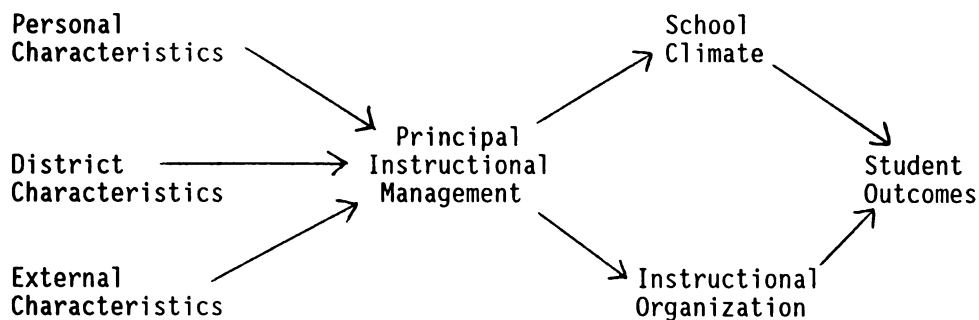
Figure 1.2: The Far West model.

Basically, the Far West model asserts that the school district and outside community interact with and influence the principal. The Far West model provided the conceptual framework for this study; this model helps in understanding the political reality in which principals work. Principals provide leadership expectations for the entire school by proclaiming their vision and working with their staffs to encourage their contributions to the refinement and

implementation of that vision. Principals' leadership sets the stage for school climate and helps determine instructional organization. Basically, principals who emphasize restructured teaching and learning processes influence both the school climate and instructional organization. The effect of principals on school climate and instructional organization has been studied by several researchers, and there is agreement that principals play a major role in changing and motivating the staff and students within their schools to change (Fullan, 1991; Sergiovanni, 1987). The attitudes of principals were also considered central in importance to this study.

Beliefs and Attitudes as They Relate to Restructuring

In examining the attitudes of principals, it is useful to relate the works of Daryl Bem (1970). Bem indicated that there are cognitive, emotional, behavioral, and social foundations for beliefs and attitudes. Basically, he suggested that people's actions do not necessarily mirror their beliefs and attitudes. People learn to develop their beliefs by what they see and experience from interacting with their environment; these interactions form the cognitive side of beliefs. Many beliefs are primitive in nature; according to Bem, these are beliefs "which demand no independent formal or empirical confirmation and which require no justification beyond a brief citation of direct experience" (p. 6). Primitive beliefs accumulate from many experiences; therefore, the senses are

very important because they validate that what is believed is seen, felt, sensed, or heard from the environment.

The emotional side of beliefs and attitudes is also formed with experiences. Emotional responses are accompanied by physiological changes in the body, such as blood pressure or heart rate. Bem indicated that self-perception is part of emotional responses; "self-knowledge . . . comes to us from outside" (p. 49).

Bem maintained that, "in identifying his own internal states, an individual partially relies on the same external cues that others use when they infer his internal states" (p. 50). Bem discovered that people look to others' cues to determine how they feel about something; hence, external cues are essential in how people respond emotionally to a situation.

Bem's analysis of the behavioral foundation of beliefs and attitudes can be reduced to one sentence: "Behavior causes attitudes" (p. 54). Bem found that people who engaged in behaviors subsequently altered their beliefs and attitudes to coincide with their behaviors. Bem's self-perception theory indicates that attitudes follow behavior. He stated, "To us, as observers, the most important clues to an individual's inner states are found in his behavior" (p. 58). Bem advocated for attention to people's actions to draw inferences about beliefs.

Bem also explained the social foundation for beliefs and attitudes; he summarized, "The major influence upon people is people. Even in our technologically advanced society, there appears to be no substitute for direct personal contact" (p. 75). Bem

indicated the powerful effect that norms have for reference groups. Peers influence each other, and there is a sense of competition and comparison as colleagues witness other colleagues' work and achievements. People inspire each other to study together and diet or work out together, and professionals often view the quality of their own work in the context of the larger work environment.

Theories of Change

Theories of change are also important to the understanding of principals and their relationship to restructuring. Kempner (1980) provided a social-psychological analysis of the context for change and explained the effects of legislating change. Basically, legislated change causes a shift in behaviors, which ultimately causes a change in people's attitudes. Kempner stated, "Individuals' belief structures are evidenced in the attitudes they express, and conversely, attitudes provide judgments derived from the beliefs an individual holds" (p. 121).

According to Kempner, "social psychologists generally agree that altering behavior will lead to changes in attitudes and that this is a more efficient means of changing behavior than an initial focus on values" (p. 125). He cited Festinger's theory of cognitive dissonance and Bem's theory of self-perception as evidence for that position.

Kempner applied the principles of these theories when he discussed how behavioral changes take place:

> Because behavior can alter attitudes, change agents must identify as many social determinants of behavior as possible in order to create the most effective change strategies. The most notable of these determinants of behavior are social pressures exerted by family, peers, valued leaders, religious affiliations, mass media, and any other social contingency or norm that dictates behavior. Because certain behavior is expected from individuals who are members of a group, it is extremely difficult for change agents to alter one individual's behavior unless the group's pressure for conformity is removed. Social pressures from the family and peer groups greatly influence how an individual will behave. Meaningful change cannot be accomplished until strategies are developed that alter the pressures exerted by a significant number of such social determinants. (p. 128)

Kempner's description relates to the pressures that principals feel to restructure their schools. One might expect that principals could have a strong influence on each other relative to change with restructuring. Likewise, valued leaders and the media could influence principals' behaviors.

Kempner showed how legislation causes changes in behavior; he stated:

> Because social science research has indicated that attitudes will be altered to coincide with changes in behavior, the legislation of behavior can be one of the most effective methods in changing inequitable social situations in our democracy. (p. 132)

Kempner suggested the use of economic rewards to accompany legislated demands for the enhancement of attitude change. For example, if principals received funds for compliance with legislated restructuring, one could assume more effective altering of attitudes, if Kempner's model proved true.

Kempner cited numerous examples in which legislation caused changes in hiring practices that ultimately caused people to change

old ideas (e.g., hiring of minorities or women in jobs typically held by men caused new changes in attitudes).

Kempner's cyclical effect of legislating change is depicted in Figure 1.3.

Legislation

↓

Changes

↓

Behavior

Norms   Change   Change   Attitudes
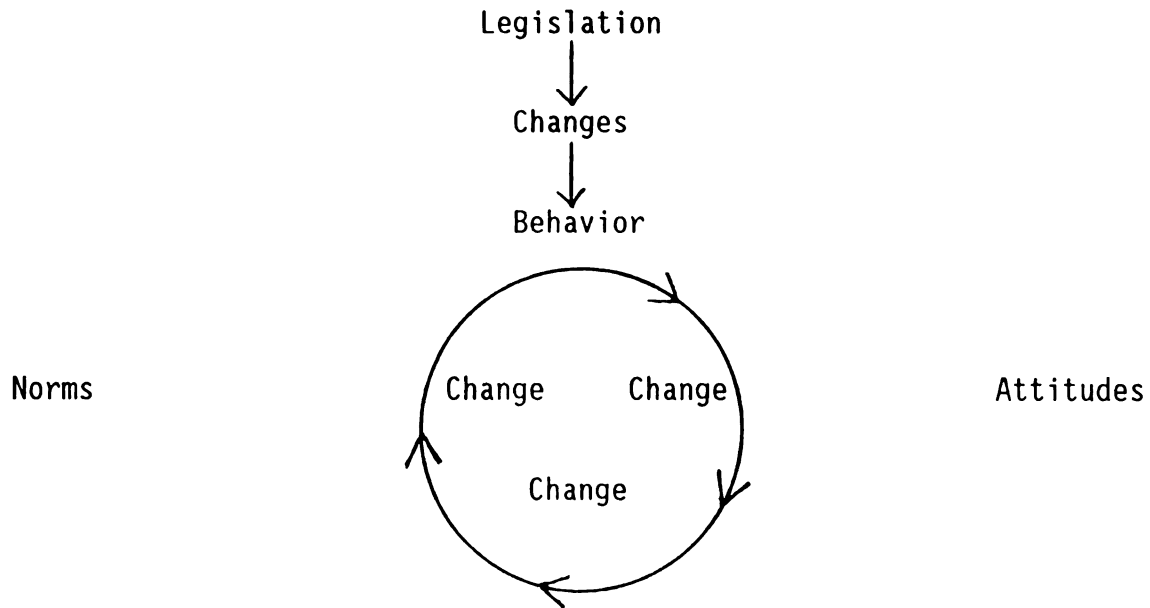
Change

Figure 1.3: The cyclical effect of legislating change.

Legislated change has become a reality for Michigan principals since school improvement became a mandate in 1990 with Public Act 25. Kempner's model directly relates to the changes that may occur when external or district characteristics create pressures for principals.

Educational change and its relationship to the principal was essential to this study. Fullan (1991) has written extensively about educational change. His writings have explained what happens

as bureaucratic, political, and hierarchical systems evolve; he placed an emphasis on understanding the "multiple realities of people who are the main participants in implementing change" (p. 198). In general, Fullan (1987) summarized his approach to change as follows:

> The most beneficial approach consists in our being able to understand the process of change, locate our place in it, and act by influencing those factors which are changeable and by minimizing those which are not. (p. 1062)

Fullan's work with planned change relates to Kempner's model of legislated change. Fullan (1987) wrote:

> Assume that people need pressure to change (even in directions which they desire), but it will only be effective under conditions which allow them to react, to form their own position, to interact with other implementers, to obtain technical assistance, etc. Unless people are going to be replaced with others who have different desired characteristics, resocialization is at the heart of change. (p. 1066)

If principals feel pressure to restructure and they are given latitude and support, one could assume that implementation of restructuring would be greater. Principals who are involved with restructuring could be initiating or responding to change. Fullan (1987) acknowledged the contextual elements related to change. He wrote:

> Effective approaches to change must include procedures for addressing and coping with issues related to characteristics of the change, the school district, the school, and the broader environment. (p. 1075)

Fullan's message relates to the Far West Laboratory model; schools do not exist in a vacuum and, as such, interact with the entire

community.   Principals are often the linking pin to the community and from the community.

Fullan (1985) related the importance of the building principal relative to change. He maintained that administrative support is essential; "successful change involves pressure, but it is pressure through interaction with peers and other technical and administrative leaders" (p. 396). Fullan seemed to speak directly to the main elements of the Far West model when he discussed the involvement of principals:

> Principals are very influential when they voice and demonstrate commitment to an adopted innovation and follow through by seeing that ongoing assistance, interaction, and so forth occur within the school. Sometimes principals assist directly; in other situations they actively facilitate assistance by others; in still other situations principals respond supportively to the activities of teachers or other facilitators. Just as ongoing assistance to teachers is crucial, so is ongoing assistance to principals, interaction between supervisors and principals, peer sharing among principals, receiving ideas, trying them out, discussing them, taking more action, and so forth. (p. 408)

The educational changes involved with restructuring teaching and learning are comprehensive; teaching for understanding is a bold departure from the teacher as lecturer transmitting knowledge. For these changes to become a lasting part of the institution, another dimension must be considered; that dimension is institutionalization.

Kempner's (1980) model of legislating change refers to the stage of "norms"; this is the stage in which attitudes become institutionalized. When norms are institutionalized, behaviors are both expected and reinforced. The goal of any innovation is

implementation followed by institutionalization. Miles (1991) spoke

to the issue of institutionalizing change associated with restruc-

turing:

> Even modest-scale innovations typically take eighteen months to
> two years to institutionalize; larger changes take longer.
> Given the ambitiousness and complexity of many restructuring
> efforts, it seems especially crucial for people in schools to
> articulate a shared "driving dream" that stands back of the
> ongoing change effort, articulating values, supplying
> direction, generating new activities, and providing criteria
> for trouble shooting. (pp. 14-15)

Principals are in key positions to facilitate the activities

that Miles listed. He advocated working on the institutionalization

phase, as people typically will do for the adoption of an innova-

tion. Understanding and coping with change are important for the

instructional leaders of the school; principals make a difference

when it comes to planning for and sustaining restructured teaching

and learning processes.

Importance of the Study

This study begins a much-needed analysis of what Michigan

principals feel about restructured teaching and learning processes.

Currently, little is known about how principals feel about

restructuring (Hallinger, Murphy, & Hausman, 1991). The

significant aspects of this study are its original survey, its

contribution to the field about what is occurring in Michigan high

schools relative to restructured teaching and learning processes,

and the attitudes Michigan principals have toward the same. The

data concerning the pressure principals feel to restructure will

allow for understanding the demands placed on these principals and

what relationship, if any, these have to the actual implementation of restructured teaching and learning.

Furthermore, this study dealt specifically with issues that analysts have claimed to be the critical problems with American high schools--classroom teaching and learning. Many reform efforts deal with program additions or structural components that do not significantly change what happens to the integrated components of program and practice. This study was carefully constructed after a thorough review of the research to subsequently develop a survey instrument that would measure both the attitudes and the extent of implementation of restructured teaching and learning processes. The researcher did not want to repeat the same mistakes made with typical reform efforts, which typically do not concentrate on issues that affect student learning and growth. Therefore, the focus of teaching and learning was both purposeful and deliberate.

Definition of Terms

Several terms had special meaning to this study. They are defined below.

1. **Restructuring**, as defined by Joe Murphy of Vanderbilt University (1991),

> . . . generally encompasses systemic changes in one or more of the following: work roles and organizational milieu; organizational and governance structures, including connections among the school and its larger environment; and core technology. Restructuring also involves fundamental alteration in the relationships among the players involved in the educational process. (p. 1)

2. **Restructuring teaching and learning processes**, according to Murphy, involves a dramatic shift to teach for understanding, where the student is the worker and producer of knowledge. Teachers act more as facilitators or coaches to their students. Restructured teaching and learning processes contain the following four subsets: curriculum, instruction, equity, and delivery structure.

CURRICULUM: What is intended to be taught; what is actually taught.

Restructured curriculum--The curricula in restructured schools may include the expanded use of a core curriculum, an increase in the interdisciplinary nature of content, emphasis on the depth of subjects (as opposed to superficial coverage), original source materials from teachers, emphasis on higher-order thinking, and expanded use of assessment of student learning.

INSTRUCTION: The act, practice, or profession of teaching; a lesson.

Restructured instruction--The most fundamental revision will be a shift from a teacher-centered to a learner-centered pedagogy. Students will be producers of their own knowledge, and teachers will be managers, modelers, or coaches of the learning process. A focus on acquiring information will be replaced by a concern for ability to use knowledge. The prevailing attitudes that knowledge is the accumulation of facts, that learning is recall, and that teaching is telling will be replaced by teachers empowering students to be more responsible for their own intellectual growth.

EQUITY: Something that is just, impartial, or fair.

Restructured equity--A renewed interest for all students, especially at-risk students. Equity will have less sorting of students into groups and more emphasis on the idea that all students can learn. Staffs will give particular attention to a close affiliation with their students.

DELIVERY STRUCTURE: Refers to organization and structure.

Restructured delivery structure--Changes are designed to underscore the centrality of human relationships in schools, to replace program isolation with connectedness, and to promote personal engagement in the teaching-learning process. The fundamental shift is from an emphasis on its physical factor to the human elements. At the heart of these changes is the dissatisfaction with the current time-based calendar arrangements for learning; instead, there is an emphasis on flexibility with the outcomes or intended learnings as well as flexibility in grouping students.

3. Four broad areas of restructuring, as reported by Murphy and Evertson (1990), are:

School-based management--A redistribution of authority from the district level to the school level.

Teacher empowerment--Strategies to foster greater professionalism within the existing teacher core, including upgrading the quality of the work environment, increasing collegial interaction, and redistributing authority from the administration to teachers.

Choice--Breaking up the complacent, consumer-insensitive, monopoly that public schools enjoy in relation to most of their clients.

Teaching for understanding--A shift from the teacher-centered to student-centered learning within the context of more coherent curricular programs and more flexible organizational structure. (p. 2)

4. **Far West Model**: The conceptual framework used for this study, which was developed by Bossert et al. (1982). This model asserts that principals' instructional-management behaviors are shaped by their own personal characteristics and by district and external characteristics. The principal shapes both the school climate and the instructional organization, which, in turn, affects student outcomes.

5. First- and second-order changes, as described by Cuban (1988):

> **First-order changes**: These are intentional efforts to enhance existing arrangements while correcting deficiencies in policies and practices. Those who propose first-order changes assume that the existing goals and structures are both adequate and desirable. (p. 93)

> **Second-order changes**: Second-order changes introduce new goals, structures, and roles that transform familiar ways of doing things into novel solutions to persistent problems. The point is to reframe the original problems and restructure organizational conditions consistent with the reframed problems. (pp. 93-94)

6. **Cognitive dissonance**, as described by Festinger (1957):

When people engage in behavior that is inconsistent with their beliefs and attitudes, they experience a disagreeable feeling that causes them to search cognitively for the reasons they are involved in this inconsistent behavior. The search is for equilibrium and absence of the stress.

7. According to **role transition theory**, as described by Allen and Van de Vliert (1988), when roles change, stress is experienced. When people believe they may have knowledge and autonomy, the role strain is moderated and reduced.

8. **Self-perception theory**, as described by Bem (1970), includes social, behavioral, emotional, and cognitive domains. Bem asserted that beliefs and attitudes have foundations in these four domains. He further asserted that people's actions do not necessarily mirror their beliefs and attitudes.

Delimitations

This study used an original survey that was developed by the researcher. The study was limited to a stratified sample of 300 Michigan high school principals employed in the 1991-92 school year. The principals received a copy of the survey, along with a letter of explanation, at their schools.

Because the sample, by design, overrepresented certain segments of the population, one cannot infer from this sample to the population in general (e.g., 100% of female principals were surveyed). The sample was chosen from the constructs of the Far West model, and therefore it does not represent a random sample that is representative of Michigan high schools. This study was intended to test the effects of the variables/characteristics associated with the Far West model.

The instrument used in this survey was not meant to address every possible element in a school that could be restructured. In fact, it generally avoided the subjects to which the media have given the most attention, namely, parental choice of schools and site-based management. Because the concept of teacher empowerment

does overlap with the areas this survey measured--namely, curriculum, instruction, and delivery services--some statements reflecting issues of teacher empowerment did appear in the questionnaire. The focus of this study was limited to the principals' attitudes toward restructured teaching and learning processes, principals' perceptions of the extent of implementation of restructured teaching and learning processes, and the pressures they felt to restructure the same.

Likewise, this study did not deal with every possible source of pressure for the principal; a list like this could be limitless. Instead, the survey deliberately categorized the sources of pressure principals might feel in accordance with the categories listed in the Far West model, i.e., district and external characteristics. The sources of pressure listed under the category of "district" were school board, superintendent, other principals/peers, teachers, and parents. The sources of pressure listed under the category of "external" were legislators, legislation/law, Michigan Department of Education, university professors, professional organizations, the media, and business/industry.

Demographic information from the survey provided the variables of the Far West model labeled as "personal" characteristics. The variables listed in this survey as demographic information were gender, years of experience as a nonadministrator and administrator, specialization of graduate degree in curriculum/instruction, and level of highest graduate degree. In addition, principals were

asked to report the size of their high school and school district in terms of student enrollment. All demographic information was taken from literature related to the Far West model and readings that related to the topic of instructional leadership. Therefore, demographic information was limited by these particular variables. Demographic information was not added for the sake of curiosity; all variables had a specific relationship, grounded in educational research.

Summary

This chapter provided the framework for understanding the topic of restructured teaching and learning processes by introducing the background of the problem in enough detail to explain the complexity of educational reform and the nature of learning in the American public high school. The purpose of the study was explained in detail; specifically, this study sought to focus on the perceptions of high school principals in Michigan and to discover principals' attitudes toward, current extent of implementation, and pressures felt to restructure. Substantive assumptions about the likely outcomes of the study were offered.

The conceptual rendition of the hypotheses was stated, followed by the importance of the study and the conceptual/operational definitions of terms used in the study. All key philosophical and theoretical foundations found in this study were introduced in an abbreviated form in Chapter I. Subsequent information follows in

the remaining chapters to extend, justify, synthesize, apply, and evaluate the foundation provided in Chapter I.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter contains a discussion of several topics that relate to the restructured teaching and learning processes. First, there is a definition of the scope of the problems that exist in American public high schools and an explanation of why the reform advocates are calling for widespread change. Second, there is a section in which the topics typically associated with restructuring--namely, teacher empowerment, parent choice, and site-based management--are described. Murphy and Evertson (1990) advocated for teaching and learning; these authors indicated that the teaching-learning processes are the core technology of the school but receive the least amount of attention relative to the topic of restructuring.

Following that is a section that relates the descriptions of life in classrooms of the United States as depicted by several analysts. Next is a description of the absence of change in American public schools, despite wave after wave of educational reform. An abbreviated history of educational reform is also included, which is followed by a section in which the current efforts to reform education are specified.

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Because there is some confusion about what restructuring actually includes, there is a section that gives several definitions of restructuring. Included in this section is the relationship of restructured teaching and learning processes to the larger heading of restructuring.

The focus of this study was Michigan principals and what they perceived to be the current extent of implementation of, their attitudes toward, and the amount of pressure they felt to restructure the teaching and learning processes. Therefore, there is a section that deals with principals and their relationship to restructuring. The conceptual framework for this study was the Far West model (Bossert et al., 1982). It provides an understanding of the social-political world of the principal, and it is the conceptual framework that will explain the constraints that principals encounter as they perform their job functions. The Far West model is discussed as part of the review of literature; the variables of this model are explained in detail, particularly as they relate to the principal.

Because the issue of change is so critical to understanding how restructuring takes place, there is a section that deals specifically with change and its relation to the principal. Principals are involved with creating change and responding to requests for change. To describe the personal variables involved with change, the theory of cognitive dissonance is discussed. Also discussed is Bem's self-perception theory and how it relates to the principal who might be involved with restructuring teaching and

learning processes. Social role theory is described to assist in understanding the personal nature of change that principals must confront. Likewise, externally motivated change, as described by Kempner, is included. These models and theories provide support for and extend the most pertinent model for this study, the Far West model.

Reform Issues

Public schools are in a period of intense stress; they are criticized for their products and their operations. The public is demanding improvements, and politicians are warning that the United States will not be able to compete as a major world leader. Students' test scores are scrutinized and compared with those of students from other countries; analysts are now asking for a complete overhaul of the educational system (Murphy, 1990; Passow, 1990). Parents are demanding equal educational opportunities for their children.

The United States is currently in what usually is referred to as the second wave of reform. The first wave of reform began shortly after the publication of A Nation at Risk in 1983. This document is viewed as a major catalyst for citing dissatisfaction and subsequent demands for educational change. This document included the sobering message that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and a people" (p. 1). This first wave of reform resulted in setting tougher

standards for graduation and higher work expectations for teachers and administrators. The early reform efforts were labeled as quick-fix types that were wrong-minded and inadequate (Murphy, 1990). New reformers began to call for fundamental changes in the way schools were organized and governed (Elmore, 1987). These new reformers began to push for major restructuring of the educational system.

Thus far, there are four major areas associated with restructuring. Murphy and Evertson (1990) presented the four broad areas:

1. School-based management--a redistribution of authority from the district level to the school level.

2. Teacher empowerment--strategies to foster greater professionalism within the existing teacher core, including upgrading the quality of the work environment, increasing collegial interaction, and redistributing authority from the administration to teachers.

3. Choice--breaking up the complacent, consumer-insensitive, monopoly that public schools enjoy in relation to most of their clients.

4. Teaching for understanding--a shift from the teacher-centered to student-centered learning within the context of more coherent curricular programs and more flexible organizational structure. (p. 2)

Murphy and Evertson (1990) indicated that, of the four areas associated with restructuring, teaching and learning (teaching for understanding) have received the least amount of attention. Various researchers have called for a focus on what is referred to as the core technology of the school--teaching and learning. Murphy and Evertson stated:

Our motivation in focusing on the core technology of restructured schools is twofold. First, we believe that, since

teaching and learning form the heart of all schooling
operations, then our understanding of educational processes in
restructured schools should be at least as well developed as is
our understanding of school-based management, teacher
empowerment, and choice. Second, through our study of
restructured schools, we have arrived at a very troubling
conclusion--the connections between the other components of
change--discretion enjoyed at the school level, authority
yielded by teachers, and options available to parents--and
improved educational processes are tenuous at best. (p. 4)

Murphy and Evertson characterized the curricula in a

restructured school as having "greater complexity and greater

cohesion" (p. 2). These authors described a core curriculum in

which all students would master similar content. They also

envisioned a curriculum that is integrative and interdisciplinary,

as opposed to the linear and fragmented curriculum that currently

exists. These authors explained a restructured curriculum as having

fewer horizontal offerings, with an emphasis on vertical or in-depth

experiences. Currently, many authors see the curricula as being

swollen or obese, with an emphasis on coverage as opposed to

learning. Sizer's (1984) statement that "less is more" applies to

this restructuring approach.

Murphy and Evertson called for sweeping changes in assessment

techniques to truly evaluate the myriad of skills learned. Examples

of new assessments include performance-based assessments,

portfolios, exhibitions, projects, demonstrations, and students'

participation in their self-assessment.

Murphy and Evertson saw a major shift from student passivity to

activity in the classroom. Instead of being responsible for the

"telling" of knowledge and facts, teachers are seen as models of

learning or coaches. These concepts predominate in Sizer's (1984) writing of restructuring. Students would be involved in cooperative teams in which they would apply knowledge in problem-solving and decision-making activities. Teachers would be assigned fewer students and be allowed greater flexibility in making decisions based on individual students' needs; teachers would also be given more time to reflect, plan, and grow professionally.

Equity, as defined by Murphy and Evertson, involves the interests of all students, with the belief that all students are capable of and interested in learning. They advocated new approaches for at-risk students. The authors were interested in less of the sorting and labeling with which schools are involved, and they sought heterogeneous groupings of students in a more humanistic environment.

Finally, Murphy and Evertson defined restructured delivery systems as being more flexible and open, with less emphasis on the calendar-driven approach to learning. Instead, they contended that schools would focus on the human elements of the school, with a focus on personalizing schools for students, a concept that deals with finding meaningful ways for all students to feel connected to their schools. These authors saw learning that is developmentally appropriate, where outcome-based or mastery learning would be the rule, rather than the exception. They created visions that are the antithesis of what is currently happening in American high schools (Powell, Farrar, & Cohen, 1985; Sedlak et al., 1986; Sizer, 1984). Murphy and Evertson also cited major changes in becoming more

flexible and adaptive in meeting student needs by altering current standards in scheduling to create larger blocks of time for learning, lengthened school days, and longer school years.

The teaching-learning processes have received attention from analysts other than Murphy and Evertson, although no one has developed such a comprehensive listing of specific anticipated changes. Elmore (1991) provided a description of teaching for understanding:

> As a theme of reform, teaching for understanding has great appeal, since it captures what many philosophers have described as the purposes of education from Socrates and Aristotle, through Rousseau and Jefferson, to Dewey. It is a difficult idea to oppose in principle. In practice, however, it is highly problematical. As its advocates freely admit, teaching for understanding requires a transformation not only of educational practice but also of knowledge about teaching and learning that underlies practice. We know only at a rudimentary level; inquiry suggests that problem-solving skills probably differ significantly depending on the subject matter area. This difference means that teaching for understanding is not a unitary phenomenon, but one that has very different manifestations in different areas of knowledge. If reform advocates are correct in their estimate that most current teaching practices do not approximate teaching for understanding, then one might ask how we will get from this state to one in which most teachers are equipped with a new model of practice. The answer in the minds of most reformers involves simultaneously changing the way teachers are educated, the conditions in which they work, and the relationship between research and the practice of teaching. The present reform agenda is not much more explicit than this, though it will probably become more so. (p. 940)

It is clear that restructuring the core technology of the school takes strong leadership skill, knowledge, flexibility, and stamina. Building principals must wrestle with their own attitudes, their backgrounds, and their social and political contexts in considering the implications of restructuring. There are no simple

recipes or equations for successfully implementing a restructured core technology. Principals, in setting expectations for their staffs, help create the culture that defines and mediates expected changes.

There is widespread agreement that public high schools are in trouble in almost every area (Murphy, 1991). The media give constant attention to issues of drug involvement, teenage pregnancy, dropout rates, gang violence, eroding test scores, and illiteracy. People continue to ask for equity for the schools; they are aware of the unequal opportunities that exist for students in this country. Researchers are asking how to confront issues that apply to all schools; the common issue is what is happening within the classroom.

Life in the Classroom

Goodlad described the culture, organization, and happenings in American schools. In A Place Called School (1984), he explained the pervasive problems that exist in this nation's schools. Goodlad's writings and analyses explain the central elements of the present study. He engaged in a rigorous study, along with 20 other researchers, to observe the total scope of 38 schools. They compiled data from 8,624 parents, 1,350 teachers, and 17,163 students; they also made detailed observations in more than 1,000 classrooms. The researchers traveled to different locations in the United States and visited urban, suburban, and rural communities.

Goodlad's research convinced him that schools' efforts at improvement needed to embrace the school as a system of interacting

parts that affect each other. He believed that schools need to cultivate the capacity to solve their own problems and become self-renewing. Goodlad's research also convinced him that schools needed dramatic change.

In A Place Called School, Goodlad revealed the dull sameness that occurs in the classroom, with the teacher in the front of the room explaining and lecturing, and the students engaged in passive behaviors of listening, preparing for assignments, and completing written work. He wrote, "On the whole, teachers at all levels apparently did not know how to vary their instructional procedures, did not want to, or had some kind of difficulty doing so" (p. 106). Goodlad indicated that, even when secondary students are involved with writing assignments, it typically includes answering questions, looking for answers, and completing worksheets. He wrote:

> On the one hand, many teachers verbalize the importance of students increasingly becoming independent learners; on the other hand, most view themselves as needing to be in control of the decision-making process. The classroom is a constrained and constraining environment. (p. 109)

In short, Goodlad used the term "emotional flatness" to describe life in the classroom (p. 113).

Other authors have written about what happens in the classroom with similar descriptions. Eisner (1983) wrote, "As I look at schools, I see largely teacher-dominated classrooms with mostly passive students" (p. 50). He advocated that educators take intellectual life seriously and push for students to be able to think critically about what they read, see, and hear. He also advocated

for an educational culture that promotes professional growth for the teachers.

Sedlak et al. (1986) painted a graphic picture of the state of the American high school in Selling Students Short. They discussed the pervasive disengagement of students who opt for the least demanding of courses. These authors discussed the fragmentation and diversity of the content of high school education. Social class is often a factor in course selection. They wrote:

> Lower-class students and adolescents lacking strong commitment to extended schooling disproportionately populate such classes; indeed, many of the special interest electives were introduced to make school more bearable for students with weak affiliative ties to more formal education. (p. 42)

Cusick (1983) also noted the correlation of students in lower-level courses with social class.

Sedlak et al. (1986) described the process of disengagement, which can be subtle and overlooked. Disengagement may appear evident when passivity predominates. Students may or may not attend class; those who attend may passively tune out of what is happening in class. Murphy and Evertson (1990) quoted Bloome, Puro, and Theodorou as follows: "The 'look' of engagement can be deceiving. We can easily assume actual engagement with the substance of what is being learned, when, in fact, what students are exhibiting is procedural display and mock participation" (p. 19).

Theodore Sizer is an author and researcher best known for his writings about the nature of the American high school and attempts to reform schools. In his 1984 book, Horace's Compromise, Sizer stated:

> My view is that American high schools today too readily stress the vulnerability and inexperience of adolescents and underrate the potency and authority that young people can exhibit. We should expect them to learn more while being taught less. Their personal engagement with their own learning is crucial. Adults cannot "give" them an education. Too much giving breeds docility, and the docility of students' minds is a widespread reality in American high schools. We adults should change our educational system where it rewards such docility, however benignly, and we should expect a great deal more from the beneficiaries of that system than we do today. (pp. 33-34)

Sizer is best known for his statement "less is more," which he advocates for high schools. He was opposed to the swollen and obese curricula and suggested, instead, that in-depth learning of fewer subjects would be more engaging and productive. Sizer criticized schools for valuing "strictly orderly thinking" and always insisting on "right answers" (p. 105). He insisted that skills are best learned by experience and best taught by coaching. Sizer has been a leading advocate for restructured teaching and learning processes, known as "essential elements." Sizer's coalition of essential schools has been a revolution in the teaching and learning practices; "essential schools" now appear in many parts of the United States.

Powell et al. wrote <u>The Shopping Mall High School</u> in 1985, after three years of visits to 15 schools where they took copious field notes and conducted extensive interviews and classroom observations. The metaphor of the shopping mall refers to the hundreds of options available to the consumer--the student. The educational mall attracts students who attend and browse, as well as those who make serious investments. Powell et al. wrote:

The sheer scope of the horizontal curriculum is one of the genuine wonders of educational history, a triumph of production skills, marketing techniques, and consumption values no less dramatic than the abundance of product lines available in shopping malls. (p. 13)

Powell et al. discussed the overwhelming presence of treaties or bargains that are made in the classroom, where students are able to disengage from learning without much trouble if they are passive or polite. These tacit agreements allow for students to complete minimal amounts of substandard work. American high schools are places that require attendance, but they do not require sustained learning. Powell et al. wrote:

> Classroom treaties are understandings about the degree to which subjects will be avoided or engaged. A course may require more or less time. Personal relationships may be employed to relate to the subject or to ignore it. A teaching method may approach the subject intensively or passively. Participation in class carries no general expectations for either students or teachers. Why not? Why the multiplicity of treaties surrounding time, relationships, and intensity? Why is so much open to private negotiation, and why are so many tacit or explicit deals in fact struck? (p. 106)

Powell et al. argued that many average students do not learn; instead, they are able to avoid learning by a series of treaties made with teachers and the educational system. They wrote, "The schools have done a masterful job at selling the importance of high school attendance, but have failed in the attempt to sell to most students the value of working hard to use one's mind" (p. 311). They explained how boring and unproductive discussions and lectures are for students and teachers alike:

> A discussion can also be an easy way to avoid learning. In addition, most lectures we observed lacked drama or even excitement; they repeated material easily available elsewhere or were discursive and ill-informed. (p. 319)

Other authors have agreed with the sentiments of Powell et al.; these analysts have pointed out the lack of meaningful activity that occurs in American high schools. "Studies of time use and time on task in high school show that students actively engage in a learning activity for only about half the time they are scheduled to be in school" (Bishop, 1990, p. 234). Bishop described the docility and apathy that infest American high schools. He thought that "the fundamental cause of the apathy and motivation problem is the way we recognize and reinforce student effort and achievement" (p. 236). Bishop believed that the culmination of the massive disengagement is seen in the lack of productivity in the workplace and that the mediocrity interferes ultimately with the whole nation's standard of living.

Sykes (1990) is another author who has written about restructuring, particularly about core elements of schools--the teaching and learning processes. He quoted Sirotnik's (1983) and Goodlad's (1984) analyses of elementary and secondary schools:

. Teachers "out talk" students by a 3:1 ratio.

. Teachers provide little corrective feedback to students.

. Teachers devote little time to questioning of any sort and almost no time to open questions that call for complex cognitive and emotional responses.

. Whole-class instruction predominates, with almost no independent, small-group, or cooperative work by students.

. Emotions rarely appear in classrooms.

. There is little praise, enthusiasm, or intensity of any sort. Classrooms are emotionally neutral, affectless places. (p. 363)

Sirotnik's (1983) description of classroom life was bleak.

> Consider again the model classroom picture presented here: a lot of teacher talk and a lot of student listening, unless students are responding to teachers' questions or working on written assignments; almost invariably closed and factual questions; little corrective feedback and no guidance; and predominantly total class instructional configurations and traditional activities--all in a virtually affectless environment. It is but a short inferential leap to suggest that we are implicitly teaching dependence upon authority, linear thinking, social apathy, passive involvement, and hands-off learning. This so-called "hidden curriculum" is disturbingly apparent. (p. 29)

Sykes (1990) mentioned the fact that the effective schools research is "entirely silent on the question of teaching." He provided the rationale of why teaching and learning are the essential elements for restructuring:

> Here, then, is our situation. We identify successful schools within which much teaching is pedestrian and uninspired. And we create a management literature on schooling that leaves out the core activity of the organization. Does this strike anyone as peculiar? (p. 363)

History of Educational Reform

America's schools have undergone cycles of reform, and yet they have stayed relatively the same; this paradox summarizes what most analysts have said about educational reform in the United States (Cohen, 1988; Cuban, 1990; Elmore, 1988; Murphy, 1990; Ravitch, 1983; Sarason, 1990; Toch, 1991). The cries for reform have often been vocal and demanding, and perhaps a policy, program, or approach has changed. But the fundamental structure with the teacher in front of the room telling students what to learn, with students sitting in rows, passively listening, has basically been unaltered.

Cuban (1990) wrote about the cycle of reform that has been repeated time after time with regard to the nation's schools:

> Certain educational reforms have been adopted over and over again to solve particular problems in schools. We can draw three conclusions from this phenomenon. First, since a solution should end a problem, and these reforms have been used again and again, they have failed to remove the problems they were intended to solve. Second, the problems defined were either not the problems that needed to be solved and the solutions [reforms] were inappropriate, or the solutions were designed to correct different problems than the ones identified. In short, the problems and the solutions are mismatched. Third, perhaps the problems were instead persistent dilemmas involving hard choices between conflicting values. Such choices seldom get resolved but rather get managed; that is, compromises are struck until the dilemmas reappear. (p. 135)

Cuban noted that the issues that become cited as problems in public policy are really value conflicts that surface, become changed, and then disappear for awhile. He saw the theme of competing values as the important distinctions in the discussions about this nation's schools. For example, the issues of excellence and equity have themes that reflect values; excellence and equity have been debated heatedly during the last century and a half (Cuban, 1990). Other authors have described the history of educational reform with its cycles of change.

Lewis (1989) quoted the Elmore and McLaughlin report for the National Institute of Education, prepared by the Rand Corporation:

> The history of American education is, in large part, the history of recurring cycles of reform. There is considerable disagreement over the meaning and effects of these cycles. Reform has historically had little effect on teaching and learning in classrooms. In this pessimistic sense, educational reform is "steadywork." That is, measured by substantial changes in what is taught and how, the rewards are puny; but the work is steady, because of the seemingly limitless supply of new ideas for how schools should be changed and no shortage of political and social pressure to force those ideas onto the

political agenda. Reforms that deal with the fundamental stuff of education seem to have weak, transitory, and emphemeral effects; while those that expand, solidify, and entrench school bureaucracy seem to have strong, enduring, and concrete effects. (pp. 27-28)

America's schools are viewed as having deeply entrenched bureaucracies in which the roles people play as well as the school's culture are clearly understood (Murphy, 1990: Sarason, 1990). It is important to understand the historical context for the changes in American education. It has generally been accepted as an American value that its youth would be prepared to have an active participation as citizens in its democracy (Ravitch, 1983). However, despite the interest in democratic participation, students have been prepared to be involved more as workers in an industrial age than as thinkers and participants in a democratic government for the information age. This phenomenon has continued to persist, despite the decade of moving into the information age (Daggett, 1991). Pendulum-like shifts of thinking can be seen in the history of reforms.

Historical Context

In the 1880s, curricular fragmentation was introduced to "augment the prevailing classical and basic academic courses of study" (Sedlak et al., 1986, p. 38). Education opportunity had a new definition that included nonacademic classes.

In 1893, the Committee of Ten on Secondary School Studies recommended that all high schools have an academic core of four years of English, three years of history, science, mathematics, and

a foreign language. All students received the same courses in a similar format (Cuban, 1990). Curricula and expectations were standardized.

By 1918, the <u>Cardinal Principles of Secondary Education</u> report called for varied curricula for each student to pursue individual interests. The curricula continued to expand to what is now commonly known as the comprehensive high school. Students began taking diverse courses, and tracking or course selection dominated (Cuban, 1990). During this early phase of the twentieth century, the secondary schools expanded the college-preparatory programs to include more vocational offerings, home economics classes, and classes related to job entry. Instead of focusing on the elite, education was being designed to educate the masses. Sedlak et al. (1986) wrote:

> During the enticements provided by external funding, and the pressure to serve an increasingly diversified student body, the high school course of study remained surprisingly intact and undiluted at least through the 1930s. The vast majority of students enrolled in roughly the same courses. (p. 40)

Powell et al. (1985) wrote, "By 1930, when high schools enrolled half of those old enough to attend, they had given up the effort to maintain decent performance for all those attending" (p. 252). Toch (1991) wrote:

> Until relatively recently, many students received no secondary schooling at all; as late as 1950 only 25 percent of black students and 50 percent of white students remained in high school long enough to earn a diploma. And since the turn of the century the majority of the students attending public high schools have been taught primarily vocational and "life" skills, rather than the rigorous use of their minds. (p. 3)

The expansion of high school courses and freedom of choice came under close scrutiny during the 1950s, particularly after the Russian Sputnik orbited the earth in 1957 (Cuban, 1990). Schools responded by raising academic standards, particularly in mathematics and the sciences. By this time, however, many of the students were already on the lower-phased tracks for much of their coursework. Students were sorted and separated; more were in school, but inequalities were perpetuated (Ravitch, 1983). High school enrollments soared in the 1940s and 1950s; the percentage of African American graduations tripled between 1940 and 1960 (Powell et al., 1985).

By the 1960s there was an increased interest in promoting social change and equal educational access, with easing of standards. The goal was to have more students graduate from high school; therefore, many standards were eased, and the numbers of graduates increased. The 1970s saw a push for a more humanistic approach to schools, again with greater freedom of choice and liberalism (Toch, 1991). This decade was criticized for its intellectual softness. Timar (1989) wrote, "Historians, like Diane Ravitch, argue that school reform trends and policies of the 1960s and 1970s had--in spite of their social necessity--seriously under-mined the institutional competence of schools" (p. 56). Still the numbers and percentages of graduates from the nation's schools increased. Consider this quote from Sedlak et al. (1986):

> Clifford Adelman's (1983) reconstruction of patterns of high
> school course selection from 1964 to 1981, based upon
> transcripts and schedules, suggests that over the past two

decades students have received a less rigorous academic education. Despite the methodological problems associated with his effort to draw conclusions from differing data bases, there remains little doubt about the direction and magnitude of the changing pattern of course selection, even though the precise scope of the shift may be impossible to determine. Adelman found that (1) students enroll in fewer basic academic courses today than a generation ago; (2) students from all curricular tracks spend more time in, and receive more credit for, "personal service and development courses"; (3) students have abandoned the college preparatory and vocational tracks for the "general" curriculum, an educational "wasteland," which is dominated by survey, remedial, and personal service classes; and (4) the high school curriculum has become increasingly "diffused and fragmented" since 1965. (p. 44)

The 1980s began the current debates about the need to reform the schools to center on academic excellence. These debates have been loud and vigorous, and they represent a plea to change American education for the economic good of this country.

Ravitch (1983) described the scope of what public education has been asked to do on behalf of its clients, the students:

Probably no other idea has seemed more typically American than the belief that schooling could cure society's ills. Whether in the early nineteenth century or the late twentieth century, Americans have argued for more schooling on the grounds that it would preserve democracy, eliminate poverty, lower the crime rate, enrich the common culture, reduce unemployment, ease the assimilation of immigrants to the nation, overcome differences between ethnic groups, advance scientific and technological progress, prevent traffic accidents, raise health standards, refine moral character and guide young people into useful occupations. While it has become fashionable in recent years to assert that schools and universities do little more than preserve the status quo and parcel out credentials, this hard-edged cynicism has less truth in it than the "myth" it is intended to debunk. Throughout history Americans have expected much of their educational institutions; sometimes schools have been expected to take on responsibilities for which they were entirely unsuited. When they have failed, it was usually because their leaders and their public alike had forgotten their real limitations as well as their real strengths. (p. xii)

Ravitch wrote the preceding passage as part of the introduction to her book entitled The Troubled Crusade: American Education 1945-1980. In that book she described, in detail, the various crusades for reform in America. Ravitch exposed the deeply flawed and unequal opportunities that existed for those in low socioeconomic levels and people of color. Struggles for excellence and equity have forced debate about the lack of equality throughout American schools. Advancements made in terms of numbers of people being educated have not equated with advancements in the quality of education for these people.

Current Efforts to Reform Education

Analysts are asking for equality for all students, and there is a renewed optimism that the humanism of the 1970s can be combined with the push for excellence of the 1980s (Toch, 1991). There are many considerations relative to the concept of restructuring. Sarason (1990) warned educators to consider the culture of the school; he wrote:

> The history of educational reform, like that of medicine, is replete with examples of interventions that either failed or had adverse effects because those involved had only the most superficial and distorted conception of the culture of the schools they were supposed to change. (p. 120)

Sarason wrote about the intractability of schools and said there is little chance for change unless schools examine their means of control and begin to allow for changes within the work roles and decision making of their teachers.

Thomas Timar (1989), from the University of California at Riverside, wrote about the policies of school restructuring. In particular, he examined the institutional culture of schools relative to restructuring. Timar analyzed the different ways that schools have responded to restructuring efforts. He noted that some restructuring efforts have focused on professionalizing the organization, or giving authority to teachers. Another approach, like the Sizer coalition of schools, believes that it is important to understand the students' needs. Timar framed these approaches to restructuring into two dimensions of policy--programs and practices. The Timar model is as follows:

Emphasis on New Programs   **Emphasis on New Practices**

	High	Low
High	Integrated	Programmatic
Low	Procedural	Pro forma

Timar's analysis relates to this study in important ways. First of all, in this study, principals were asked to describe their involvement with an innovation of restructuring. Principals might have related that they had restructured some of their programs; others might have restructured their practices. Some of the practices are added to the curricula like pieces of patchwork. These add-on programs have been standard operating procedures from

past reform efforts; meaningful change does not occur when this happens, and it is likely not to remain as lasting change. Timar provided an explanation for what constitutes practices or programs:

> Programs define the core tasks and shape the overall mission of the organization. Practices, by contrast, define the character of engagement and the quality of execution of the program structures. Programs limit as well as define organizational ends and thus reduce flexibility and diminish qualitative engagement. Moreover, mandated changes in practice and procedure are easily turned into ritualistic exercises. Under such circumstances, fundamental organizational change does not occur. Restructuring is defined as a set of programs to be implemented; organizational change is measured by an accretion of new activities. And if restructuring is limited to the creation of new rules and procedures, the result is likely to be elaboration of rituals or replacement of one set of rituals by another. The ways that schools approach implementation of new programs or practices, therefore, define the parameters of restructuring. (p. 60)

Timar emphasized that the integrated approach, which places high emphasis on new programs and new practices, is important for the possibility of lasting change. He viewed restructuring, not as "a set of prescriptions or programs that compete with others, but a set of principles that lends coherence to the school's organizational structure, curriculum, pedagogy, and social relation-ships" (p. 61). Timar indicated that restructuring efforts that are either predominantly programmatic or procedural

> are unable to generate fundamental change because they perpetu-ate (and often exacerbate) existing bureaucratic cultures by separately pursuing program or procedural change without redefining the school's fundamental social relationships, rules and procedures. (p. 61)

The criteria included in the survey used in this study represent changes that could be classified as emphasizing new practices and new programs. For example, curriculum trends such as

the core curriculum concept deal with a new program. The manner in which the curriculum is delivered would be referred to as the practice. The concept of how instruction is delivered or the new roles of teachers in decision-making activities would designate a change in practice. The integration of both concepts would constitute the deeper, substantive changes that Cuban would refer to as second-order changes.

Timar's model helps illustrate why, in part, reform efforts have failed in the past. Piecemeal efforts that have only involved some new programs, without addressing the larger issues of practices, do not allow for lasting change to occur. Likewise, innovations that involve changes in practices without the fundamentals that involve programs are not likely to produce anything other than cosmetic or superficial changes. Empowered teachers who are engaged in creating new work roles without ultimate changes in educational programs will not be able to produce meaningful change for students. Murphy's (1990) explanation of the four areas of teaching and learning--curriculum, instruction, equity, and delivery structures--aligns with the principles of Timar's model. Namely, restructuring, if it is to succeed, will need to focus on a change in both the teaching, which can be referred to as the practice, and the program, which is the learning. Timar provided a summary of these concepts:

> Whether restructuring, in its various manifestations, takes root as an effective reform strategy depends on the willingness and capacity of schools to reassess their mission and their strategies for carrying it out. If restructuring is limited to an accumulation of new programs and practices, reform is

unlikely. Instead, restructuring will be an exercise in renegotiating existing treaties. (p. 72)

Restructuring Defined

The term "restructuring" means different things to different people; there is no one precise definition that describes exactly what would happen if schools restructured. "The idea of restructured schools suggests fundamental reform of the way schools are organized and the way they operate" (Bacharach, 1991, p. 29). Raywid (1991) said, "A call for restructuring is a call for fundamental and pervasive change." As noted, the media have given the most attention to parental choice, teacher empowerment, and site-based management relative to the topic of school restructuring (Murphy, 1990).

Several authors have presented their versions of what restructuring includes. Sheingold (1991) is one author who defined restructuring. She wrote:

> In practice the term restructuring means many things at the moment. It is applied to phenomena as diverse as giving teachers more authority for school management, reorganizing a school's daily schedule, developing performance-based assessments to measure student learning, and creating ungraded classrooms. It seems either that the term is so ill-defined or that it refers to something so general that all of these phenomena qualify as part of it. Yet an attempt at definition is critical if restructuring is to mean, as it must, more than this year's special project. (p. 21)

Rowan (1991) said the following about the nature of reform and restructuring in education:

> As proposals to reform the organizational structure of schools grow in number, education analysts are beginning to speak of a new wave of educational reform--the "restructuring" movement. Unlike past reform movements in education that have had a

certain measure of coherence and unity, a perplexing aspect of this latest reform movement is the lack of common ground among supporters. Rather than consisting of a set of coherent demands for change, the restructuring movement instead consists of various reform initiatives which, in the aggregate, contain conflicting accounts of what is wrong with schools and conflicting proposals about how school structures should be changed. (p. 31)

Cohen (1991) provided the following definition of restructuring:

"Restructuring schools" is frequently an ill-defined phrase, after connoting some mix of enhanced professional status for teachers or fewer regulations and more discretion for schools. For most state policy makers, however, the essence of restructuring involves altering authority and accountability systems. . . . They view restructuring as trading off increased decision-making authority for educators in exchange for both significant improvements in and accountability for student performance. (p. 251)

Cohen's definition of restructuring raises the issue of increased accountability for teachers as a result of their increased decision making. Changes in workers' roles frequently accompany definitions of restructuring.

Fullan (1991) defined restructuring as follows:

It takes many forms, but usually involves school-based management, enhanced roles for teachers in instruction and decision making; integration of multiple innovations; restructured time table supporting collaborative work cultures; radical reorganization of teacher education; new roles such as mentors, coaches, and other teacher leadership arrangements; and revamping and developing the shared mission and goals of the school among teachers, administrators, the community, and sometimes students. (p. 7)

Timar (1989) wrote about the politics of school restructuring. In so doing, he quoted other authors who suggested that restructuring is an elusive concept. He wrote:

According to Michael Kirst (1984), "Restructuring is a word that means everything and nothing simultaneously . . . it is in

the eye of the beholder." Similarly, John Goodlad (1984) suggests that "We are rapidly moving toward the use of the word 'restructuring' whenever we talk about school reform at all." . . . This is becoming another catchword when the truth of the matter is that hardly any schools are restructured. (Olsen, 1988)

The concepts included in restructuring suggest that reform is a foundation for the changes that occur in restructuring; discontentment with the American schools has resulted in cries for widespread change. Bacharach (1990) described this issue; he wrote, "A tidal wave of education reform has swept the country, having manifested itself as a myriad of state-level initiatives, laws, tests, procedures, and conditions for funding" (p. 4). The mandates for tightening standards for teachers and increasing graduating requirements form the basis of what is referred to as the first-wave reforms (Hawley, 1988; Murphy, 1990). Continued dissatisfaction has resulted in calls for massive changes in the ways schools are organized and how they respond to the market of consumer choice in selecting schools. Calls for major changes with regard to school restructuring have become newspaper headlines, campaign rhetoric, and evening news (Murphy, 1990; Toch, 1991).

Mathew Miles, from the Center for Policy Research in New York, wrote about the possibilities for restructuring efforts to become institutionalized as part of the new school culture. He stated, "Restructuring work requires local users to unhook old assumptions, go beyond incremental change efforts, and often 'remap' customary beliefs, values, and assumptions. Such personal changes do not come easily" (Miles & Eckert, 1991, p. 2).

English and Hill (1990) provided several points of view regarding the term "restructuring":

> Schools must be restructured. The new clarion call of American education peals crisply across the educational landscape as we enter the 1990s. Like so many other watchwords of the past, restructuring means different things to different people. Teacher unions see empowerment as the driving force behind restructuring, whereby the perceived authority of the principal is radically altered to give teachers a larger leverage. Legislative reformers view restructuring as a way to deflate what they see as the bloated bureaucracy of schools. Restructuring is a method of reducing the administrative "blob," shortening lines of communication, and improving the capability of schools to be more responsive to their clientele. Think tank experts hope that restructuring will make schools more socially relevant. School board members talk about restructuring as a device to "open up" schools to their communities, to give parents more stake in governance, and to ensure that school services are well utilized. (p. 1)

Anne Lewis (1989), a national education writer and Washington columnist for Phi Delta Kappan, wrote in her book Restructuring America's Schools:

> Restructuring is a relatively new description of educational change, but its major "thinkers" agree generally on what it means--changing the dynamics of interactions in the classroom to ensure higher expectations of both teachers and students. (p. 1)

Based on her analyses of the writings of various analysts and leaders of educational reform, Lewis summarized the basic elements that restructuring includes. She wrote that restructuring

* is student and teacher-centered.

* changes the way students learn and teachers teach, requiring both to assume greater initiative.

* applies to all students and all schools, not just the disadvantaged.

* affects curriculum as well as organization.

* needs a central vision within a school to which all involved subscribe.

* requires being "unstuck" from many current reforms and from a built-up centralized bureaucracy.

* is advocated by diverse interests in society.

  Restructuring, in sum, amounts to those actions that allow and encourage higher expectations of both teachers and students. (p. 6)

Richard Miller (1989), executive director of the American Association of School Administrators (AASA), listed such general factors as school-based management, changes in the curriculum, ways that instruction is changed, and organized governance or financing structures as major examples of restructuring. He also made a plea that the primary focus of the reforms should result in "better education for students" (p. v).

Hallinger et al. (1991) reached a different conclusion about restructuring, while agreeing that restructuring has different dimensions. They wrote, "While difficult to capture to everyone's satisfaction, restructuring is not quite so amorphous a construct as critics sometimes argue" (p. 2). They then described the four basic tenets that get the majority of media attention: a decentralized structure, empowerment, new roles and responsibilities for those involved in the system, and change in the teaching and learning in the classroom. Several analysts have expressed strong advocacy for the bottom line of what restructuring is aimed at--improved teaching and learning (Cohen, 1990; Elmore, 1990; Goodlad, 1983; Hallinger et al., 1991; Sizer, 1984; Sykes, 1990).

The Michigan Association of Secondary School Principals (MASSP) defined restructuring in their 1990 task force report as the "re-forming of the interrelationships of an organization; a strategy used to analyze and redesign the organization or structure of education in order to achieve improved student outcomes" (p. ii).

In this study, the writer focused on what Murphy described as the area of restructuring that gets the least media attention--teaching and learning. Murphy has written numerous articles about educational reform and restructuring. In his 1991 book entitled <u>Restructuring Schools: Capturing and Assessing the Phenomena</u>, Murphy defined the four areas of teaching and learning that were the basis for this study. Murphy's descriptions of the anticipated changes in curriculum, instruction, equity, and delivery structures were written as the statements for the surveys used in this study. Murphy maintained that the work to restructure teaching and learning in schools demands a "thorough understanding of what constitutes good curriculum and instruction" (p. 51). He derived his knowledge about restructuring teaching and learning from the following five areas:

1. The burgeoning research base on learning, especially new perspectives on cognition;

2. National reform reports and studies from educational groups, especially curricular documents;

3. Interviews with teachers and principals that reveal their perceptions about appropriate educational processes in restructured schools;

4. Analogs developed from examining other areas of restructured schools (e.g., if in restructured schools, teachers are empowered, work more collegially, and exercise

new degrees of freedom, we might expect to find more
cooperative student work and additional choices for
learners than is currently the norm in most schools);

5. Information flowing from states and districts that are
pioneering restructuring efforts at the classroom level.
(p. 51)

Murphy listed a basic change with the student characterized as
being the active worker, with less reliance on the teacher as the
source for all learning. An emphasis on teaching for understanding
is essential if substantive changes are to occur (Murphy, 1990).
Hawley (1990) described why efforts to change schools by promoting
site-based management might be viewed as not being related to
student learning. He wrote:

> In short, the justifications given for restructuring often seem
> to focus on improving the status, autonomy, and income of
> teachers, and on decentralizing educational decision making
> generally. It seems likely that many school board members,
> school administrators, parents, first wave reformers, and other
> citizens may have trouble understanding why this will improve
> student learning. (p. 223)

Restructuring, per se, is not equivalent to improved education
and student learning. Improving teaching and learning requires work
by all players: students, teachers, administrators, and parents.
Schools exist in a social-political world. Dwyer (1984) specifi-
cally studied the principal and examined the social-political world
in which principals interact. He described a three-year study of 42
principals conducted by the Far West Laboratory; all principals were
nominated by their fellow administrators as being successful
instructional leaders. This team of researchers worked extensively
with 17 administrators from varied settings. The researchers
thought that the instructional leadership they witnessed was as

varied as the settings and the individuals. They found that these principals understood their school contexts and environments and used this information to set goals. The principals were also well aware of both constraints and problems from their communities, but they focused on the opportunities that these challenges created. Dwyer wrote:

> In addition to the important community givens, we became aware of a nested system of institutions that directly affected our principals' activities. District mandates were foremost among these, but programs at both the state and federal levels also altered their plans and actions. Like influence of community, we found that the effects of institutional contexts provide both constraints and opportunities. (p. 34)

Basically, Dwyer accounted for how principals maneuver within their environments to make the decisions that foster productivity and improvements.   The principals thought that their personal traits, experience, training, and beliefs were influential in their decision making; the researchers agreed with the principals. Dwyer stated, "Taken together, community resources, institutional contexts, and principals' backgrounds were potent precursors to their activities as instructional leaders" (p. 35).

Dwyer, Lee, Rowan, and Bossert's (1983) in-depth analysis of instructional leadership was presented in their paper entitled "Five Principals in Action: Perspectives on Instructional Management." These authors listed some concerns and guidelines from their research:

> While the inclusion of situational elements in this framework helps in synthesizing our current knowledge concerning the instructional management role of the principal, the framework actually raises more questions than it answers. In the first

place, current research findings have tapped only a limited number of characteristics for each of the important factors in the figure. In addition, their relevant importance to practitioners must be validated, and grounded definitions for each concept must be derived. Finally, in order to begin to correct the problems with existing research on successful principals, we must consider how different forms of organizations and varied management practices actually affect the concrete experiences of teachers and students. (p. 2)

Dwyer and his associates used a qualitative approach with this model. They listed different descriptors for personal, district, and external characteristics. For example, under personal characteristics, they listed different personality characteristics for each principal; these included "child centered," "humanistic," "highly organized," "rational," and so on. Instead of listing basic descriptors first and placing principals into these categories, they listed any phrase that best described the qualities of the person. In essence, the characteristics were used to describe rather than to group the principals.

Dwyer et al. described how these personal characteristics then affect the school:

A principal's instructional management behavior affects two basic features of the school's social organization: climate and instructional organization. These are the contexts in which various social relationships are formed which, in turn, shape teachers' behaviors and students' experiences that produce student learning. At the same time, the principal's own management behavior is shaped by a number of factors external to the school. (p. 2)

These authors demonstrated that principals had great variety in their approaches to providing instructional leadership, and there was not a single most effective way to lead. They also observed that external and district characteristics impinged on principals'

freedom to act; principals faced many limitations. However, during the eight weeks that these principals were observed, the authors learned that the approaches that these principals took to resolving issues, especially turning limitations into opportunities, made all the difference. Principals respond daily to pressures and circumstances, and their actions shape the climate of the school.

The Building Principal and Restructuring

It is the principal who is central to this study. Principals guide and shape the educational climate in the school, and they reward behaviors that they want to encourage. Principals are key players in the active, political community of the school. Bossert et al. (1982) analyzed the instructional-management work of the principal and how principals respond to various external and contextual pressures which, in turn, shape principals' expectations for the climate of the school. Bossert et al. developed a framework for examining instructional management in schools, also known as the Far West Laboratory model. The model indicates that principals' management behaviors are influenced by their own personal characteristics, as well as by district and external characteristics. The model indicates that the principal, in turn, influences the school climate and instructional organization, which ultimately affects student learning.

The Far West model has received much attention in the literature relative to instructional leadership. Boyan (1988)

explained the importance of the contextual elements that affect

principals and the usefulness of the Far West model:

> Dwyer neatly exposes the strategic location of the principal,
> not only in respect to affecting what happens in the school but
> also in respect to being affected by what happens in the
> community and in other places in the school district. He
> reports, insightfully, that participating principals were not
> just captives of the external pressures placed on them.

> The work of the Far West team led to more complete
> exposition of the original model identified by Bossert et al.
> (1982) through elaboration of the original set of antecedent
> variables and through substitution of nine "routine behaviors"
> for the domain of activity previously identified globally as
> Instructional Management Behavior. The thick descriptions of
> the work of four of the participating principals, including the
> results of the reflective interviews about the meaning of that
> work, track about as well as has been done in the literature
> through the mid-1980s the interaction of personal, institu-
> tional and community variables on administrative behavior.
> Particularly insightful are the comments on how the nature of
> schools and of the work of principals set basic parameters that
> the various work activities studies have identified, but how
> the personal characteristics of principals and situational
> characteristics in given schools combine to create idiosyn-
> cratic conditions of operation.

> Together, the Far West reports and the studies of Brookover
> et al., Lightfoot, and Metz, combined with the inquiries of
> Blumberg (1985), Blumberg and Greenfield (1980), Cuban (1976),
> and Wolcott (1973), have set in place strong foundations for
> inquiry into how personal and situation variables combine to
> shape administrator behavior. (pp. 92-93)

The Far West Model--Personal Characteristics

Bossert et al. (1982) found that, under the area of personal

characteristics, three factors have the possibility of influencing

the principal's instructional-management behavior. The first factor

is gender:

> A number of recent studies suggest that women are better
> principals than men. Women principals tend to score higher on
> standardized tests and have more experience in education than

male principals. Moreover, a number of studies have found that women perform better than men as principals. Women more readily exchange information, work more hours, are more inclined to be innovative, are more likely to be democratic leaders, and are more preferred by teachers and superiors than men. (p. 157)

Other analysts have studied the issue of gender as it relates to school administration and have had similar findings. Ortiz and Marshall (1987) summarized various researchers' analyses of female school administrators' work as follows:

Meskin (1974) and Fishel and Pottker (1975) found that women principals were more concerned than men with students' individual differences. Women principals have also demonstrated superior knowledge of teaching methods and have exhibited more concern with the objectives of teaching (Hemphill, Griffiths, & Frederikson, 1962, cited in Cirincione-Coles, 1975; Lupini, 1975). In brief, the research has documented that women's educational leadership concentrates heavily on areas most closely aligned with instructional tasks. (p. 133)

The other two factors related to personal characteristics are training and experience. Several authors have indicated that principals receive inadequate preparation in the area of instructional leadership. Bossert et al. (1982) stated that "principals may receive inadequate preparation in the areas of instructional supervision and curriculum development" (p. 157). Murphy (1990) stated that there is a "growing realization that administrators are often inept managers of technical core operations" (p. 281).

Training is an important element in a principal's preparation. Many authors have cited problems in the area of administrative training. Murphy (1990) wrote, "Although some scholars (such as Erickson, 1977) have suggested refocusing theory on issues of

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curriculum and instruction in administrative preparation programs, their calls have generally gone unheeded" (pp. 181-82).

Murphy and Hallinger (1987) stated that "the content of most training programs in educational administration has remarkably little to do with education" (p. 254). Numerous authors have written about administrative training programs. Goodlad (1983) believed that the reason principals are not involved with curriculum and instruction is that they have not been trained for it in their university courses.

Little and Bird (1987) indicated that principals who work with diverse aspects of schooling are now being urged to pay more specific attention to instruction and student learning. They claimed that "the test of instructional leadership is its influence on teaching at the level of the classroom" (p. 119). They further stated:

> Instructional leadership in secondary schools is the toughest case. The requirements and demands of leadership are con- founded and compounded by school size, curriculum, complexity and the scale of administrative obligations. (p. 119)

The issue of experience has received less analysis in the literature. Bossert et al. (1982) referred to Sarason's observations about principals. Sarason (1972) wrote: "What I am suggesting is that being a teacher for a number of years maybe, in most instances, is antithetical to being an educational leader or vehicle of change" (p. 143). Sarason also discussed the socialization factor of educators, which causes them to maintain the status quo. These same characteristics present in the teacher can

remain unchanged in the principal. The issue of experience is not a conclusive variable. Bossert et al. (1982) claimed that the research has shown less relationship between training and experience; gender has been found to be the strongest personal characteristic.

Contextual Factors--Internal and External Characteristics

Although the effective schools literature has argued that strong leadership is a factor clearly associated with effective schools (Brookover & Lezotte, 1977), many other explanations have been offered in the literature. Rowan, Bossert, and Dwyer (1983) pointed to many methodological problems as well as conceptual limitations in stating principal effects in effective schools studies. Peterson (1987) discussed the contextual factors that affect principals:

> The work of school principals takes place within the organizational boundaries of school districts. Within these boundaries various sets of interactional processes, structural elements, and organizational systems shape, constrain, and support the activities and the normative world of principals. Many of the organizational elements impinge upon the instructional leadership of principals. For example, the system of administrative control used in school can have a substantial influence on the instructional leadership of principals. (p. 139)

Greenfield (1987) discussed the nature of the school culture and context relative to effective schools research:

> One of the most severe limitations of the research and policy literature on effective schools and instructional leadership is its failure to consider the influence of school culture and context on the activities and orientations of students, teachers, and administrators. The culture of the school and

the particular context in which the school is located mediate the leadership role of school principals and others. The school's history, the values and beliefs of teachers, and the nature of the school's social, political, and economic environment are but several examples of factors that can shape and constrain the nature of leadership in schools, and the success of strategies intended to make a school more effective. (p. 153)

Although principals are expected to provide the vision and motivation for school improvement and instructional management, it is clear that principals are part of the larger school system and they respond to constraints and demands. The Far West model includes district and external characteristics as factors that influence the principal. Bossert et al. (1982) reviewed some of the ways that district characteristics constrain or influence a principal:

These findings suggest that schools are only loosely coupled to the district office by formal controls, but that informal controls by network peers and by the organization's culture as well as incentive systems related to promotion and evaluation can shape principal behavior. (p. 158)

Some districts exert more control over principals than do others. In this study, district and external characteristics were used as independent variables; district characteristics include school board, superintendent, other principals/peers, teachers, and parents. The external characteristics mentioned in this study include legislators, legislation/law, the Michigan Department of Education, university professors, professional organizations, the media, and business/industry. Bossert et al. indicated that involvement with the external environment takes away instructional-management time.

Hallinger and Murphy (1987) explained that secondary schools differ from elementary schools in numerous ways, "including goal structure, administrative organization, student and faculty characteristics, curricular organization and delivery, and linkages to parents and the community" (p. 188). Hallinger and Murphy quoted work from Bridges (1984), Firestone and Herriott (1982), and Firestone and Wilson (1985):

> First, secondary school principals cannot rely on the same type of direct leadership activity utilized by their peers at the elementary level. In high schools the larger staff and student populations, the multileveled organizational structure, and the specialized subject area knowledge of teachers all limit the principal's ability to be personally involved in all aspects of instructional management. Instead, the principal must rely more on indirect, facilitative, and symbolic modes of expression, providing direct intervention in selected situations. (p. 188)

Principals interact within a social context, and they are influenced by pressures and demands from a variety of groups. Studies of principals have revealed that they spend much of their time dealing with noninstructional behaviors (Peterson, 1978). Rossow (1990) stated, "Taken together, community resources, institutional contexts, and personal backgrounds determine observed instructional leadership behavior" (p. 42). Sergiovanni (1991) wrestled with the concept of context as he related it to the reflective practice of principals. He stated:

> Reflective principals are in charge of their professional practice. . . . They are painfully aware of how context and situations vary, how teachers and students differ in many ways, and how complex school goals and objectives actually are. (p. xvi)

In short, the contextual characteristics are a political reality for a principal, and principals are judged for their abilities to adjust to pressures and provide instructional management for their schools. The literature is full of praise for the leadership of principals in moving their schools forward to excellence, to claims that instructional management is something that principals are not prepared for and often perform badly. Consider the implications of the following two quotations:

> Principals are important! Indeed no other school position has greater potential for maintaining and improving quality schools. (Sergiovanni, 1991, p. 99)

> Research at every level of education management consistently uncovers administrators who believe they should devote more time to instructional issues. Yet the instructional management role is one that most administrators perform neither well nor often. (Murphy, 1990, p. 282)

The Influence of the Principal

Deal (1980) revealed that principals are able to influence classroom instruction by observing, evaluating, and providing direct support and guidance to classroom teachers. This view is consistent with Sergiovanni's (1989) observation:

> I have argued that the principal of a school occupies a position of central influence over the professionalism of teaching. I have found that transforming relationships among teachers and between teachers and principals by developing collegiality, engaging teachers in important decisions affecting their classrooms and schools, developing personal visions, becoming active adult learners, serving as mentors to other teachers and prospective teachers, and maintaining quality in their own and others' performances are all ways in which principals can make good use of their extraordinary influence. Each of these characteristics contributes to the profession of teaching; collectively they define a school culture of professionalism. (p. 244)

Principals can have tremendous power in shaping the professional school culture and setting educational goals. However, it is clear that principals have difficulty in getting to these educational issues and keeping the focus of teaching and learning on center stage. Hallinger et al. (1991) explained this concept, saying, "The focus on teaching and learning is easily lost during the complex process of overhauling the very infrastructure of schooling as we know it" (p. 30). These authors quoted Elmore (1990), who stated:

> There is no guarantee that the restructuring . . . will change the conditions of teaching and learning for teachers and students. There are a variety of ways for educators and politicians to appear to be responding to pressing political and social problems without doing much about the content, pedagogy, technology, working conditions, or governance of schooling. (p. 31)

Principals' Attitudes Toward Restruc- tured Teaching and Learning

Hallinger et al. (1991) were interested in what principals thought relative to school reform and restructuring. These authors conducted a qualitative study to understand the perceptions of principals; they wanted to know whether the current restructuring reforms would lead to fundamental changes in the teaching-learning process. For this study, they interviewed 15 principals--2 women and 13 men--from urban, suburban, and rural public schools in New York, Illinois, and Tennessee. The instrument was open-ended, and it was designed to begin with general statements about restructuring and then move to the more specific. The researchers wanted to know

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what broad changes could be expected and, finally, what specific changes might happen at the classroom level.

The results revealed that there was little consensus among the principals regarding potential ways in which the curriculum might be altered in a restructured school, although many strongly favored a more flexible curriculum. The principals wanted increased staff development, supported by a realistic budget.

The principals displayed a "consistent reluctance to let go of their past experience as a basis for their projections or conclusions" (Hallinger, 1991, p. 25). The researchers deliberately asked open-ended questions to elicit responses about a new environment. Instead, the principals consistently responded about schooling as it is known, rather than what it could be. This concept relates to Bem's theory of self-perception and explains why it is difficult to get beyond these perceptions of how business is conducted in schools. In essence, principals defined their world basically from what they had sensed, believed, and observed. Organizational socialization is strong, and people interested in restructuring will need to thoroughly understand and address the process of change and how change ultilmately affects beliefs/attitudes.

Hallinger et al. found that principals tended to agree in general terms that restructuring was favorable, but differed on specifics. They indicated:

> Aside from the predictable impediments to reform represented by entrenched bureaucracies, resistant organizational cultures, and competing political interests, this study highlighted the potentially crucial role played by the belief systems of those professionals charged with implementing education reform. It

suggests that even professionals who view themselves as supporters of fundamental reform may be severely limited by their own experience, training and beliefs in bringing about a new order of schools. (p. 35)

The American Association of School Administrators (AASA) took a small sample of their members, who indicated that they wanted more accountability from teachers (58.55%), more individualized instruction to students (69.96%), restructuring of teaching methods (58.22%), restructuring of curriculum (49.18%), and greater authority to schools (61.05%) (Lewis, 1989). However, they were basically split about giving greater authority to teachers (49.18%). There was more agreement when statements were general than when ideas were specific. Murphy (1990) also noted that principals were in favor of the concept of restructuring, but he also believed that administrators are the impediments to radical change; they often defend and protect the status quo.

Murphy (1990) quoted Chubb (1988) as another scholar who has articulated the same view:

> Significant gains in student achievement may well require basic changes in the ways schools are governed and organized--in the authority entrusted to them, the objectives imposed upon them, and the professional discretion they are granted. Such changes would, however, threaten the security of political representatives and education administrators whose positions are tied to the existing system and who now hold the reins of school reform. . . . Their responsibilities would be radically changed and likely reduced under alternate systems of control, whose enactment they have enough political influence to prevent. (p. 28)

The Far West model, used as the conceptual framework for this study, shows that principals work in open systems and are influenced by both district and external characteristics. Principals work in

political environments, and they are sensitive to political pressures. The literature indicated that principals, in general, are not totally prepared to be the instructional leaders that restructuring involves. Added to these intricacies is the perception that principals are acknowledged leaders for innovation in bureaucratic, hierarchical institutions that have been replicas of the status quo. How the principal works to bring about change and innovation is the focus of the next section.

Absence of Change

In his paper "Plus Ça Change," Cohen (1988) provided an analysis of teaching practices; he argued that education can be as the Romantics envisioned it: "They depicted education as an adventure, a collision between untamed impulses and real experience" (p. 1). Cohen added that Romantic writers were great school-haters. "They saw the nation's spreading public schools as the antithesis of education, because schools replaced compelling adventures with boring, formal instruction" (p. 2). Cohen revealed the long-standing traditions of teaching, whether it be private or public, elementary, secondary, or higher education. "Lecture and recitation are the rule, many students are bored. Rote learning is customary" (p. 6). He called for adventurous instruction; Sykes (1990) called it "inspired teaching."

Cohen (1988) questioned the absence of change by examining instructional traditions and reform:

> In this inheritance, teachers are active; they are tellers of
> truth who inculcate knowledge in students. Learners are

relatively passive; students are accumulators of knowledge of materials who listen, read, and perform prescribed exercises. And knowledge is objective and stable. By contrast, reformers have a very different picture of instruction. They see learning as an active process of constructing and reconstructing knowledge. They see teachers as guides to inquiry, who help students to learn how to construct knowledge as emergent, uncertain, and subject to revision--a human creation rather than a human reception. These conceptions of instruction are a radical departure from inherited ideas and practices. They also are a recent, still controversial, and very weakly developed product of modern intellectual culture. (p. 10)

Cohen's description of the heritage that describes teaching as telling and knowledge as the accumulation of facts helps in understanding the entrenchment of the status quo.

Murphy (1991) synthesized the conclusion from many analysts (Boyer, 1983; Chubb, 1988; Goodlad, 1984; Powell et al., 1985; Sedlak et al., 1986; Sizer, 1984) as contributing to the following observation:

Schools were characterized by intellectual softness, a lack of expectations and standards, inadequate leadership, a dysfunctional organizational structure, conditions of employment inconsistent with professional work, and the absence of any meaningful accountability. When the system was laid open to review, the basic infrastructure was found to be in need of serious repair. (p. viii)

Glasman and Glasman (1988) provided an account of the attention to the problems in the United States relative to public education. They wrote:

The reform movement of the 1980s springs out of damning critiques of American schools. These evaluations have come, not from employees of school districts or from state departments of education, but from other sources--national and state commissions, university people, and "think tanks." They criticize, not only the educational system's products (e.g., low student test scores, uninformed graduates), but also the system's means for pursuing those outcomes (e.g., incompetent and inadequately trained teachers, watered-down curricula).

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> While it is probably an exaggeration to argue that the reform movement has been fueled solely by these evaluations it is an undeniable fact that the issue of educational quality has become a major concern of American society within the last few years. (p. 438)

All of the above-mentioned authors provided rich conceptions about teaching and learning as they exist in American high schools. The authors provided descriptions that apply "across the board" to all schools, regardless of their socioeconomic status, size, or location. The issues that these writers raised demonstrate the themes, issues, and problems common to all schools. Changing the way that teaching and learning take place involves comprehensive, integrated problem solving; this substantive change is not about focusing on one narrow topic and working for improvement in only that area. For example, if one school has a particular problem with dropouts and works on that as an issue in isolation, it does not begin to suggest, let alone guarantee, that the teaching and learning processes will change. Instead, a school could focus on one discrete area without doing anything that can help change how students learn. Good intentions are meaningless without transforming what happens in the classroom. Therein lies a powerful component of the present research--the focus was on teaching and learning, which can be altered or restructured to create powerful new institutions of learning throughout the United States.

Cuban also helped explain why achieving meaningful educational change is so difficult. In "Constancy and Change in Schools: 1880s to Present," Cuban (1988a) made four statements that pointed to the contradiction of constancy amid change in schools:

. At certain times, under particular conditions, bands of reformers have been strikingly successful in transforming the shape, reach, and practice of schooling.

. Teachers and principals have adopted classroom and school changes frequently over the last century. Yet, in the face of these changes:

. Innovation after innovation has been introduced into school after school, but the overwhelming number of them disappear without a fingerprint.

. Widespread resistance to change by teachers and administrators has marked the history of public schooling. (p. 86)

Cuban (1988a) offered an explanation for why this occurs; he defined the true reform as being able to alter structural and organizational arrangements of schools. Typically, any reform or innovation gets questioned by the classroom teacher in practical ways. For example, teachers want to know whether the innovation is practical or reliable and whether it can transform a particular situation. Cuban stated:

> In my research on how teachers taught over the last century, I have read many teacher-written accounts of their classroom work. In working as an administrator, I have sat in hundreds of classrooms. I was repeatedly struck by the willingness of these teachers to alter routines and try other approaches if it met their criteria for classroom change. (p. 88)

Teachers frequently make changes or adaptations in their work that go by unnoticed by the rest of the staff. However, Cuban (1988a) added that "widespread resistance to change by teachers and administrators marks the history of public schooling" (p. 90). Teachers and principals have held onto past practices despite the minor changes that have taken place.

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Cuban defined the changes that have occurred in education as being first- or second-order changes. He described the first-order changes as follows:

> These are intentional efforts to enhance existing arrangements while correcting deficiencies in policies and practices. Those who propose first-order changes assume that the existing goals and structures of schooling are both adequate and desirable. (p. 93)

Some examples of first-order changes might be better salaries, recruiting for more competent teachers or administrators, new curricula, and new methods of professional training. These changes are typically added on and often are accepted quite easily, but they do not fundamentally change the basic structure of the school. The first wave of school reforms of the 1980s dealt primarily with first-order changes, and although they were generally accepted as the right way to proceed, the changes did not result in deeper, structural changes. Wave-one reforms typically meant tightening graduation standards, new textbooks, hiring teachers with stronger academic backgrounds, or new courses.

In contrast to first-order changes, second-order changes are developed because of major dissatisfaction with the deeper, structural arrangements of an organization. Cuban (1988a) explained:

> Second-order changes introduce new goals, structures, and roles that transform familiar ways of doing things into novel solutions to persistent problems. The point is to reframe the original problems and restructure organizational conditions consistent with the reframed problems. (pp. 93-94)

However, Cuban noted that few reforms have the capacity to truly change the design of the school. He stated, "Generally, since the turn of the century, school reform has been a series of

first-order changes" (p. 94). Cuban indicated that it is more difficult to get staffs to embrace second-order changes than first-order ones. Instead, the dominance of first-order changes has resulted in a strengthening of the organizational structure of the school.

Cuban (1988a) described what has typically happened with regard to reform in the United States:

> Unsurprisingly, many reforms aimed at altering these very same structures (second-order in their intent) failed. Consider open space architecture, informal education, team teaching, widespread use of films, programmed learning, and other electronic media, differentiated staffing, flexible scheduling, and other erratically introduced reforms. Many foundered on the shoals of flawed implementation; many also tripped over the resistance of teachers and administrators, who, unconvinced by the unvarnished cheers of reformers, saw little gain and much loss in embracing second-order changes, except in special programs at the margins. (p. 100)

Thus, it is easy to understand why many of the efforts to fundamentally change the organizational structure of the school become perhaps a school-within-a-school concept, where this change can exist in the middle of what Cuban called "constancy." Without understanding how substantive change takes place, it would be easy to repeat the mistakes of past reforms. Cuban called for reformers to understand the contradictions involved with constancy amid change and therefore to engage in a different set of questions about both the problems and solutions of schools. If reformers agreed with the premises of Goodlad, Sizer, Cohen, Powell et al., and Sedlak et al., the issue of teaching and learning would be seen as the framework for beginning the questioning about what happens in schools. To

avoid the pitfalls of quick-fix or first-order changes, teaching and learning would be examined and debated in the context of the structural organization or, as Timar (1989) stated, the integration of new programs and practices. Although the concept of restructured teaching and learning might be seen as initially being simplistic, analyses of the broader context result in viewing how substantive this second-order change would be for any school, but particularly high schools, which have been described as being rigid and protectors of the status quo.

Change and Its Relationship to the Principal

Schools cannot restructure teaching and learning processes without experiencing change. Educational change presents a challenge for high school staffs; principals play a major role with regard to what happens as a school changes. Principals are the people who provide the leadership and the challenge to fuel the improvements that will be made in the classroom. There is much in the literature about the culture of schools and its relationship to change. For purposes of this study, it is important to review the concept and process of change from several perspectives.

First of all, the broad issue of educational change includes the fact that schools are places of order and routine. Sarason (1982) indicated that the culture of a school is routinized and predictable and that innovations that confront the culture rarely make a difference unless the regularities of the culture change to support the innovation. This concept reveals the complexity

involved with restructuring teaching and learning, and it explains, in part, why it is a tremendous challenge for true restructuring to take place.

Sarason (1990) wrote that school reform is predicted to fail because of the intractability of schools. Sergiovanni (1989) indicated that the intense socialization of teachers and principals threatens the changes associated with meaningful reform. Murphy (1991) cited lack of administrative preparation in instructional leadership, and several authors related the failures of previous reforms (Cohen, 1988; Cuban, 1990; Murphy, 1990). Fullan (1991) explained that change is difficult for educators. Miles (1991) told readers that it is rare that change becomes truly institutionalized. Given these facts, it becomes clear that understanding the nature of change is basic and fundamental to understanding how restructuring teaching and learning can occur.

Lieberman and Rosenholtz (1987) described the barriers to school improvement:

> There is an unchallenged and unexamined routinization of the school culture for both adults and students; principals are more likely to act as "gatekeepers" than facilitators of school improvement; teacher isolation exacerbates uncertainties sur-rounding the teaching/learning process; teachers and principals are restricted to "trial and error" learning. (p. 81)

Because high school teachers work in isolation and the privacy of their teaching is protected by departmentalization and the bell-to-bell structure of the day, it is clear that it will take a major change to even begin a formal structure for discourse about teaching

and learning to take place. Barth (1991) explained why this will be difficult:

> Schools are cautious and confusing places where teachers, principals, and students try to create islands of safety and sanity for themselves and are reluctant to leave these safe shores for parts unknown. And schools are storehouses of our memories. To radically transform an organization is not only risky, it is also a commission of institutional homicide. Can we restructure something we are deeply attached to? Do we want to? (p. 128)

Because teachers engage in an intense socialization, they develop ways of doing business that are relatively unchallenged. Cohen (1988) described the phenomenon of teachers involved in telling students what is regarded as being true and certain and then asking for that same information to be restated when tested. A crucial question becomes: What is it reasonable to expect will change in teaching and learning, given the long-standing pedagogical practices? Hawley (1990) provided insights into this situation:

> The idea that teachers will change the way they teach because we free them from bureaucratic constraints and provide them with opportunities to shape school policies and practices has a mystical quality to it. If we really want teachers to teach more effectively, we will have to teach them how. This means retraining teacher educators, creating induction processes (like so-called professional development centers), developing ways within school systems to enhance teacher learning, and using restructuring to empower teachers intellectually as well as politically and emotionally. (p. 230)

The existing culture of schools does not lend itself to being a place where teacher learning takes place in a formal sense. Highly bureaucratic systems of management do not typically allow for the liberation and empowerment of teachers. Schools will need to change the constraints they impose on their teachers, if teachers will be

able to be engaged in decision making about the restructuring of teaching and learning.

Murphy (1991) indicated that teaching and learning have received the least amount of attention in the literature about restructuring; this issue presents a challenge for anyone interested in educational reform. If schools invested in changes in the infrastructure or areas that are involved strictly with choice or empowerment, the substantive changes involved with teaching and learning could be totally avoided. Sheinhold (1991) warned of this happening:

> With all this activity in the interest of systemic change, by far the most serious challenge for restructuring efforts is actually changing what and how students learn in school. If this does not happen, then restructuring will have failed to achieve its central purpose.
>
> Thus the ambitious goals for student accomplishment and radical approaches to reorganizing the educational enterprise must be met with equally ambitious and radical approaches to changing learning and teaching in the classroom. If we seek qualitative change, we must be willing to craft qualitatively different instructional practices and learning environments. The active learning/adventurous teaching approach can guide, inform, and be informed and expanded by the restructuring process. (p. 22)

Principals need to take an interest in how learning takes place in classrooms to appropriately encourage the risk taking that accompanies trying out new behaviors and activities. Goodlad (1987) referred to the renewal factor as being a necessary ingredient in staffs working together to improve themselves. Heckman (1987) further explained the renewal factors:

> Renewal will promote cultural change in the school, but ulti-mately what goes on in the classrooms must be addressed or renewal efforts will fall short of effecting significant

differences in students' learning. A process of inquiry in each school is a necessary vehicle, but this process must be fed by new knowledge. (p. 77)

A culture of renewal in a school suggests that professional learning is a key to being able to teach differently. There are several key roles that will change as people become more invested in the restructuring of teaching and learning. Sirotnik (1987) indicated that superintendents will be the ones to empower principals and teachers with resources of time and money. He saw principals as the ones who keep the spirit of inquiry alive in a staff and teachers as the ones who develop new ways of functioning in a collaborative enterprise. Sirotnik wrote:

> Finally, it must be emphasized that a serious commitment to inquiry and renewal at the school level requires more than just using the terminology. Educators at all levels of schooling must be responsible for endorsing and facilitating rigorous and systematic discourse--or competent communication--as a serious part of worklife and as an epistemologically valid, knowledge-producing process. This is no easy task. (p. 57)

High schools are not currently structured to engage in the systematic discourse that Sirotnik described. Typically, inservice activities designed for professional development are directed at teachers, instead of teachers being involved in the design of and participation in professional growth. Inservice time might involve only one or two days per year, and it is easy to see why teacher learning is fragmented and incomplete. Teachers are asked to do things differently, without much assistance.

David (1991) discussed the difficulties associated with the changes anticipated in the delivery of instruction. She wrote:

Today, we are asking these teachers to stop teaching students isolated facts, to stop emphasizing rote learning, and to stop just covering material and preparing for multiple-choice tests. Instead, we are asking them to start teaching students how to apply skills, how to understand concepts and solve problems, how to work collaboratively, and how to take responsibility for learning. In other words, we want teachers to give students the skills they will need to function in the work force and in society. And we expect principals to motivate and lead this transition and district and state administrators to lead, support, and assist schools as they redefine their goals, their roles, and their organizational structures. (p. 40)

The Far West model, as the conceptual framework for this study, contributes to an understanding of how contextual variables help shape principals. Thus, the media continue their attack on public education, and if legislators were to impose additional reforms, principals would respond in a variety of ways. Principals who believe in the need for fundamental change in teaching learning processes will inspire and reward teachers to alter their instructional methods. Principals can allocate resources and reward teachers who begin to change their teaching practices (Sergiovanni, 1987). The point is that the political world of the principal is sensitive to the pressure for change.

Principals who will be leading and inspiring these educational changes will probably be involved in personal change as well. Principals may or may not be comfortable with the concept of teacher empowerment and participative decision making. The changes included for principals can be described in a social-psychological context. Principals are involved in the larger social institution of their school, its entire district, and the community. Finally, both the state and national directives create the impetus for change on

behalf of the principal. Understanding the social-psychological issues helps to explain the complex nature of change in which the principal becomes involved.

Personal Responses to Change

The social-psychological framework allows for a useful description of the changes that take place in restructuring schools. Restructuring calls for new behaviors and norms; a sociological framework allows for discussion of how norms can be changed from behaviors that become standardized/institutionalized. As individuals try out new behaviors, there is the possibility of psychological disturbance of a cognitive and affective nature. Festinger's (1957) classic theory of cognitive dissonance indicates that when people engage in behavior that is inconsistent with their beliefs and attitudes, they experience a state of cognitive dissonance. This situation is disagreeable; therefore, people begin to search cognitively for the reasons they are involved in this inconsistent behavior. According to Festinger, cognitive dissonance occurs only when people believe they have freedom of choice and are not unduly coerced.

People are constantly facing dissonant situations, and they seek to reduce their dissonance by rationalizing their inconsistent behaviors. These people try to reduce the amount of stress or dissonance to a preferred state of equilibrium. As principals are confronted with stressors for change in restructuring, cognitive dissonance is likely to accelerate. Other researchers have provided

insights into what happens when people are involved personally with the change process. People involved with job-related changes typically change roles, producing role transition/strain.

Allen and Van de Vliert (1988) discussed the role transitions that create tension and strain. They pointed out that all workers enact various roles and reflected on Shakespeare's reference to role involvement: "All the world's a stage, and all the men and women merely players" (p. 4). Principals who undergo changes with educational restructuring are involved with role transition. Allen and Van de Vliert stated, "Role transition is an important type of change because it strongly influences the behavior and social identity of those who participate in the process" (p. 3). As roles change for principals, they experience role strain; however, role strain is individual and unique for each person. When people believe they have knowledge and autonomy, the role strain is moderated and hence reduced. Allen and Van de Vliert provided a psychological basis for understanding internal changes in the roles people play.

Bredeson (1990) used the role-transition theory specifically to relate the ways in which principals in restructured schools must seek means to reduce this strain and stabilize new behaviors. Principals' visions for their schools create the environment for change and innovation. Whether the impetus for change is initiated or mediated by the principal, it is clear that the principal is a prime catalyst for causing things to happen in the school.

Because restructuring calls for radical change, roles people play in schools will shift and become redefined. Bredeson (1990) referred to the difficulties associated with role transition for principals. He asserted that principals in restructured schools experience role strain as a reaction to the transition from restructuring. Bredeson conducted a study of 18 schools in which increased teacher decision making and school-based management occurred. Basically, he found that "the greater the amount of control that each principal exercised over role transition events, the greater the likelihood that intrapsychic disturbances, cognitive, affective and behavioral, were minimized" (p. 9). Bredeson's work relates to one of the basic assumptions made in this study--namely, that many principals feel ill-prepared to assume the role of the instructional leader of the school. Principals who feel ill-prepared to be instructional leaders might be less willing to change. Bredeson's study further revealed that time and money greatly affected role strain. As districts provided money for training and implementation, and time for trust building, it was easier for principals to reduce their levels of role strain; these principals learned to share their leadership by delegating and relying on others. Bredeson's use of social role theory indicated that "social behaviors are not simply random or meaningless events, but that these social behaviors tend to be patterned, predictable and have meaning for the actors and those with whom they interact" (p. 2). Principals are involved in larger social and political contexts; the way principals adjust to change affects the quality

and quantity of the change effort. Bredeson summarized his findings

as follows:

> Understanding of work role transitions can be helpful to
> individuals and to organizations as they think about and
> examine role exit and transition as important psychological,
> social and political dimensions in professional work life. As
> principals disengage and disidentify with former role
> expectations and role sets, the data suggest that school
> environments which are nurturing and supportive are important
> to principals as they attempt to redefine, negotiate and
> internalize new meanings in their leadership roles in schools.
> (p. 25)

As principals work to change their schools, they become engaged

in a struggle that has important political consequences. Elmore

(1990) wrote:

> Any fundamental change in school organization will reverberate
> through these institutionalized roles and interests, altering
> their positions relative to one another. Whether school
> restructuring is politically and organizationally feasible,
> then, will depend on how clever the advocates of reform are in
> reckoning with those affected by restructuring. (p. 6)

Principals are obviously key players in managing and advocating for

restructuring their schools. Thus, the attitudes and actions of

principals need to be studied, in order to meet individual princi-

pals' needs.

Although it is important to understand the personal or

psychological changes associated with change encountered by

principals, a social-psychological framework relative to change also

has significant utility. Kempner (1980) provided a framework for

understanding how change takes place, particularly when it is

widespread, such as social change. Kempner explained the

complications of change:

It may appear simple to change behavior, but anyone who has attempted to change the behavior of a stubborn child or adult realizes the arduous nature of this task. This chore becomes awesome when we think of changing an entire society of stubborn children and adults. (pp. 119-20)

Principals are in the center of change when restructuring takes place, and they are the very people who can influence how change unfolds.

Responses to Externally Motivated Change

Changes leading to restructured teaching and learning processes can be motivated and sustained by several sources. It is often assumed that attitudes must be in place before a change is attempted. Several researchers have indicated that this is not true (Bem, 1970; Fullan, 1992; Kempner, 1980).

The concepts of behaviors and attitudes were examined by Kempner (1980). He indicated that "social psychologists generally agree that altering behavior will lead to changes in attitudes and that this is a more efficient means of changing behavior than an initial focus on values" (p. 125). Kempner further stated, "The attitudes people espouse do not necessarily indicate how people will behave" (p. 125).

Kempner synthesized this research when he discussed the possibilities of behavioral change:

These determinants that affect the likelihood of behavioral change cannot be considered inclusive because total accuracy in the prediction of human behavior is impossible. A completely deterministic theory of behavioral change cannot be developed because human behavior does not always follow rational predictions. We know that certain factors do affect behavioral change, however, and from our understanding of these we can predict that individuals will be motivated to the greatest

extent to change their behavior and beliefs, under the
following conditions: when the change advocated comes from a
valued source, possesses the least emotional attachment, is
cognitively simple, falls within the latitude of acceptance,
and creates a dissonant situation with perceived choice and
minimal coercion. (p. 129)

A restructured teaching and learning environment is a changed
environment; change can be initiated from an internal or an external
source. Hornstein (1975) listed interventions used by change
agents; for purposes of this study, the external intervention of
change through legislation was examined. Kempner (1980) indicated
how legislation is regarded as a most useful way to implement social
change. He said, "Legislation provides the two requisite factors
necessary for creating a dissonant situation: minimal coercion (as
opposed to violence) and a perception of choice (election of
legislators)" (p. 133).

Kempner related the cyclical effect of legislating changes (see
Figure 1.3, p. 19). Legislation produces change that calls for new
behaviors; the behaviors ultimately produce new attitudes, which
cause changes in norms. Introduction of new norms brings about
changes in behaviors. Schuman (1972) demonstrated that economic
incentives are one of the best methods of inducing behavioral
change. Economic rewards, in the form of the state-aid package to
support restructured teaching and learning processes, might be an
effective means for principals to induce their staffs to gain
interest in restructuring. Kempner (1980) summarized the benefits
of legislation:

Legislation basically includes the requisites for behavioral
and attitudinal change because it uses minimal coercion,

provides the perception of choice through elected lawmakers, and can appeal to highly ordered values by providing an economic rationale. (p. 137)

Self-Perception Theory and Its Relationship to Change

Bem's theory of self-perception helps in understanding what occurs in the restructuring of schools. Principals are the catalysts for change in their schools; Bem's theory could suggest that, as principals actually become involved with new behaviors related to restructuring, there is a likelihood that their attitudes would shift as a result of the new behaviors. Hall (1982) related that organizations, by their very nature, are conservative and therefore resistant to change. Principals who are in charge of their building's organization are aware of the resistance to change. Hall also stated that "innovations within an organization are not random; innovation occurs in relation to the past and present conditions of the organization" (p. 211). Principals who choose to innovate with regard to restructuring their teaching and learning environments must resolve their own personal states of dissonance, as well as deal with organizational issues. Bem's theory of self-perception and Kempner's discussions of social-psychological change provide insights into what might happen to the principal relative to restructuring.

Bem's (1970) self-perception theory is part of his larger analysis of beliefs and attitudes. He stated, "A man's beliefs and attitudes have their foundations in four human activities: thinking, feeling, behaving, and interacting with others" (p. 2).

Bem cited several studies that carried the same message: People's own perception of their emotionality was derived from external/ social cues. In one study, subjects injected with adrenalin who were in the same room as another person whom they assumed had the same injection began to equate their own emotions and behaviors with those of the other person. In reality, this other person was not injected with adrenalin and was merely acting euphoric or angry. The subjects identified again and again with what they observed. The self-perception theory helps explain the emotional foundation of beliefs and attitudes. Bem suggested that both beliefs and attitudes are altered by external sources. He summarized:

> To us, as observers, the most important clues to an individual's inner states are found in his behavior. When we want to know how a person feels, we look to see how he acts. Accordingly, my theory about the origins of an individual's self-knowledge predicts that he might also infer his own internal states by observing his own overt behavior. Such is, in fact, the case. (p. 57)

Bem also indicated through various studies that the self-perception theory explains the behavioral foundations of beliefs and attitudes. Thus, one can look to behaviors of principals to determine what they believe. In schools where restructuring is taking place, the principal is involved; whether the principal initiates or mediates the change, he or she is able to be a catalyst for the change of attitudes as the change evolves. The cycle of change has a social-psychological nature because individual principals respond in unique ways as members of a social setting. Bem's self-perception theory is closely aligned with the Far West Laboratory

model developed by Bossert et al. (1982) in explaining the antecedent conditions that influence behaviors. Bem stated:

> We have seen that behavior and the conditions under which it occurs are one of the major foundations of an individual's beliefs and attitudes. And, although the cognitive, emotional, and social factors also have their effect, it remains true that changing an individual's behavior is one of the ways of causing change in his beliefs and attitudes. His new behavior provides a source from which he draws a new set of inferences about what he feels and believes. (p. 66)

Bem (1970) also discussed the social foundation of beliefs and attitudes, saying that "the major influence upon people is people. Even in our technologically advanced society there appears to be no substitute for direct personal contact" (p. 75). Bem showed repeatedly how people influence other people's attitudes and behaviors, particularly in referent groups. If some principals are involved in restructuring efforts, one could assume that other principals might be moved to consider the same, particularly if they held these principals in high regard.

Bem's works are inextricably linked with principals, for he showed that individuals have many dimensions to what they believe. Research has already shown that there are several constraints upon a principal. Bem's theories of self-perception align with the Far West model in several ways.

First, people believe what they experience; principals believe what they see, feel, hear, and sense in schools. These experiences form cognitive beliefs. For principals, the cognitive beliefs can produce dissonance. Dissonance occurs when principals' reality of

what should be happening is threatened. When principals perceive dissonance, they seek to reduce or eliminate it.

Second, principals have an emotional foundation to their beliefs and attitudes. The emotional foundation explains how principals might begin to change how they view restructuring once they are involved with it. Principals could experience either a positive or negative attitude, but Kempner's (1980) model suggests that people develop more positive attitudes after they have been personally involved. Bem's explanation of the behavioral foundation of beliefs would suggest that principals who become involved in restructuring activities will alter their beliefs and attitudes about restructuring. The emotional side of beliefs can be a natural by-product of the behavioral side of beliefs.

Finally, Bem's explanation of the social foundation of beliefs and attitudes would suggest that principals will be greatly influenced by other principals who are involved with restructuring activities. Bem's four foundations of beliefs and attitudes (cognitive, social, emotional, behavioral) were related to the findings from the questionnaire used in this study. Principals related their attitudes toward restructuring teaching and learning processes of their school, the current extent of implementation in their school, and the pressures they felt to restructure. Bem's theory provided the theoretical foundation that might explain the attitudes and levels of implementation revealed in the principals' answers. Bem's theory added insights that can supplement the Far West model; principals exist in a political world that imposes a

variety of pressures. Bem's theory can help explain the foundations of principals' attitudes/beliefs and actions.

The social world of the principal confirms the external and district characteristics portrayed in the Far West Laboratory model. These principles combine to help illustrate how complex and intricate the whole nature of restructuring is, relative to the principal.

Summary

In this chapter, the researcher reviewed the literature most relevant to an understanding of restructured teaching and learning processes. Currently, there are many versions of what restructuring includes, and the media give most attention to those topics other than teaching and learning--namely, parent choice, site-based management, and teacher empowerment. This research dealt with one strand of restructuring, the teaching and learning processes.

This chapter contained a discussion of the various issues that are involved with reform, including public dissatisfaction with the educational system and the variety of responses that pressures to reform create. Life in the classroom was discussed in detail by relating the most comprehensive studies of American high schools. Specifically, Goodlad's works were reviewed, as were those of Eisner, Sedlak et al., Sizer, and Powell et al. These authors spoke of treaties, compromises, disengagement, boredom, and apathy.

Following that discussion was an abbreviated history of educational reform, which gave an overview of the concepts behind

reform and the cycles involved with reform. Basically, reform efforts are in response to perceived or real crisis, and they attempt to correct what is often the most serious and complex of issues, typically with superficial responses. The current practices of high schools are, for the most part, unchanged from those of about 100 years ago. Thus, the historical context for educational reform provided a backdrop for the discussion of current efforts of reform, which began with the 1983 publication of <u>A Nation at Risk</u>.

The current efforts to reform education were discussed in detail. Researchers generally have agreed that the United States is in the second wave of reform; they have described the first wave as resulting in tighter standards and more bureaucratic responses. The second wave has been described basically as relating to teaching and what happens to influence student learning. Timar's model of types of changes was reviewed. Cuban's explanation of first- and second-order changes was described in detail; it helps illustrate why reform efforts typically fail; the model also provides an important supplement to the Far West model, which was the conceptual framework for this study.

Definitions of restructuring were discussed next. There are varied interpretations of restructuring; Murphy's definition of restructured teaching and learning processes formed the basis of what was surveyed in this study.

The high school principal and his or her relationship to restructuring was reviewed in the next section. The roles of the

principal were discussed in detail as they relate to the Far West model. The personal, district, and external characteristics were explored in relation to the building principal. The research involving principals' attitudes toward restructuring also was reviewed.

The topic of change was examined next. The absence of change in high schools was discussed, followed by models of planned educational change. Fullan's works are related to this study; they illustrate why change is difficult and how change can be mediated. Change and its relationship to the principal was also discussed. Principals have personal responses to change; these responses can be described using various models. Festinger's theory of cognitive dissonance was reviewed, as was the role transition theory.

The responses to externally motivated change were reviewed. Specifically, Kempner's model for understanding legislated change was discussed. Bem's self-perception theory also was described in detail in terms of its relationship to the present study.

CHAPTER III

METHODOLOGY

Introduction

This chapter consists of eight sections pertaining to the type of research utilized, research design, instrumentation, and data collection and analysis. Specifically, the topics discussed are as follows: Type of Research; Development of the Instrument; Pilot Testing; Refinement of the Instrument; Endorsements; Population and Sampling; Treatment of the Data; and Research Questions, Hypotheses, and Statistical Analyses. A chapter summary follows these sections.

Type of Research

This study was designed as a descriptive investigation into the attitudes and perceptions of principals. The writer attempted to describe and assess the attitudes of principals toward restructuring and the level of implementation of the same within their schools. Furthermore, the researcher analyzed the factors that pressure the principals to restructure. The researcher also analyzed which independent variables contribute to or correlate with the principals' attitudes or the implementation of the restructured teaching and learning processes, which include curriculum, instruction, equity, and delivery structure.

In this study, high school principals were asked to rate their attitudes toward restructured teaching and learning processes; they were then asked to rate the extent of implementation of the same. These principals indicated the sources of pressure to restructure teaching and learning from internal and external sources. Next, the high school principals related relevant demographic information. Last, principals were asked to describe their involvement with restructured innovations at their schools. In this study, the researcher describes, both accurately and objectively, the way things are in selected high schools that were chosen from the variables presented in the Far West model, namely, gender, size of district/school by student enrollment, i.e., personal, external, and district characteristics. Michigan high school principals' perceptions were analyzed relative to restructured teaching and learning processes, defined as curriculum, instruction, equity, and delivery structure.

Development of the Instrument

An original survey that was developed by the researcher was used in this study. The instrument was developed after a thorough review of the literature related to restructuring. Because the least media attention has been devoted to the area of teaching and learning (Murphy, 1990) and comprehensive studies have demonstrated that teaching and learning needs complete revamping (Cuban, 1992; Goodlad, 1983; Powell et al., 1985; Sedlak et al., 1986), the

researcher decided to develop an instrument that would focus on the concepts associated with teaching and learning.

Researcher Joe Murphy of Vanderbilt University divides the area of restructured teaching and learning processes into four subsets: curriculum, instruction, equity, and delivery structure. The researcher reviewed all of the descriptions for each subset and wrote out statements that would be germane to each subset. Great care was taken to attempt to make the statements unbiased. The researcher did not want to create an instrument that principals would read and think they had to agree with; instead, each statement was written as objectively as possible, with enough detail so as to avoid vagueness and ambiguity and still allow the principal to discriminate according to how he or she felt about the concept.

The researcher consulted extensively with two professors, one who has a national reputation for his analysis of American high schools and another whose expertise is the area of curriculum and instruction. In addition, the researcher visited Vanderbilt University for a private consultation with Joe Murphy. At that time, Dr. Murphy gave his consent to use the concepts for this study and further indicated that, to his knowledge, these concepts had not been used in the same format as part of a dissertation or other study.

Pilot Testing

Initially, the statements for the subsets of curriculum, instruction, equity, and delivery structure were grouped according

to their subset heading, and the question was asked whether the statement provided a measure for the construct of each particular subset. Principals were asked to check "Yes" or "No" and to write out any message about any section that was vague or difficult; they were also asked to share any comments. The first draft was sent to 26 educators, all of whom had a reputation for being strong instructional leaders or having a solid background in curriculum/ instruction. The 26 educators were high school principals, high school teachers, intermediate school district consultants, and professors of educational administration and curriculum.

Seventeen of the 26 validity checks were returned. The researcher decided that each statement had to have 80% agreement that it provided a measure for the construct of the given subset or it would be deleted, unless it was assumed that the person might have been responding to his or her personal feeling for that concept. For example, some of the questions under the subset delivery structure dealt with the idea of lengthening the school day or year. These statements are currently outside the paradigm of the traditional school structure. The researcher was concerned that principals might be responding emotionally to these statements, as opposed to indicating whether or not the statements were a measure of the construct, delivery structure. Hence, the researcher consulted with the dissertation chairperson and decided to retain the questions dealing with changes in the school calendar. The researcher wanted to know how the high school principals in Michigan would respond to those particular statements.

As a result of the validity-check return, the subset of statements concerning curriculum was reduced from 14 to 11, instruction was reduced from 11 to 9 statements, equity was reduced from 7 to 6 statements, and delivery structure was reduced from 18 to 13 statements.

At that point, Likert-type scales were constructed to measure the current extent of implementation, and the attitudes toward restructuring the teaching and learning processes addressed in the four subsets of curriculum, instruction, equity, and delivery structure. Likewise, a Likert-type scale was developed to describe amounts of pressure the principals felt to restructure teaching and learning processes from sources internal and external to the school system. A six-point scale was selected after much deliberation and consultation. The researcher was interested in having a scale that would be sensitive enough to the differences that might emerge as principals responded to what was actually happening in their schools, how they felt about it, and how much pressure they actually felt to restructure teaching and learning processes.

The six descriptors used for the extent of implementation, attitudes, and pressures felt were taken from Bass, Casio, and O'Connor (1974), who determined a numerical value for descriptors from their scientific research. These descriptors were taken from their chart entitled "Numerical Values and Statistically Optimal Scales for the Expression of Amount." The scale for current extent of implementation ranges from *Not at all* to *Fully implemented*. In the area of attitude, the scale ranges from *Very strongly disagree*

to *Very strongly agree.* In the area of internal and external pressures, the scale ranges from *Hardly any* to *An extraordinary amount.* The six-point descriptors for each category are as follows:

Current Extent	Attitudes	Pressures
1. Not at all	1. Very strongly disagree	1. Hardly any
2. To some degree	2. Moderately disagree	2. A minimum amount
3. Fairly much	3. Slightly disagree	3. Not much
4. Very much	4. Slightly agree	4. To some degree
5. Almost com- pletely	5. Moderately agree	5. Fairly much
6. Fully imple- mented	6. Very strongly agree	6. An extraordinary amount

At this stage, the demographic questions were not added; the researcher was interested in completing the reliability check. The researcher then selected a random sample of 45 currently employed high school principals from Michigan public schools to test the reliability of the instrument. Twenty-three of the 45 principals responded, and their comments helped in shaping the survey instrument.

The pilot study was conducted to determine whether the survey questions were clear, to discover how long it took to complete, and to determine whether each item under each area was significant to that area. A Cronbach alpha analysis of reliability was used on all items combined and on items from each of the four areas studied, for the current extent of implementation and attitudes toward restructuring scales.

The reliability check resulted in deleting or altering some of the statements in the survey. In the area of curriculum, two

statements were deleted and one was added, based on both the comments from the principals and the alpha scores. The decision was made to add a question about assessment because there was some concern about testing these skills, so one of the questions was divided into two parts. Statements in the curriculum subset were refined for clarity, and the subset ended up with a total of ten statements. Although the concept of the core curriculum would have increased the alpha score if it were deleted for both the extent of implementation and principals' attitudes, the researcher decided to keep it as a statement because the core curriculum is a concept that is central in the restructuring literature as an area that is debated by educators (Goodlad, 1987), and the researcher wanted to see the results of that item in this study.

The reliability check for the subset of instruction resulted in keeping all nine statements, although some of the wording was changed according to suggestions by the respondents or by the researcher in consultation with a dissertation committee member.

For the subset of equity, it was decided to remove a statement that dealt with the topic of the bell-shaped curve because it was confusing to some respondents. Further, that particular statement would have reduced the alpha score for that subset in the extent-of-implementation category.

For the subset of delivery structure, two statements were deleted. A statement about grouping students by different races and abilities was deleted because such deletion would strengthen the

alpha score. A statement about having a developmentally based approach to learning was deleted due to confusion about its meaning. In addition, the researcher decided to provide options about the flexibility in the schedule of the day and the calendar when the review of literature indicated that principals agree about vague generalities but not specifics relative to restructuring and organization (Lewis, 1989; Murphy & Hallinger, 1987). The researcher wanted to know what selected Michigan high school principals thought about these options and therefore included them. Ultimately, there were 15 statements in the subset of delivery structure.

The changes in the survey resulted in shifts within the various subsets, but the overall number of statements remained constant; the total survey included 39 statements. Table 3.1 contains the values from the Cronbach alpha analysis for the different areas of the survey questionnaire and for all items considered.

Table 3.1.--Cronbach alphas for the four areas of the dependent variables before deleting any statements.

Area	No. of Items	Current Extent of Implementation	Attitudes Toward Restructuring
Curriculum	11	.8186	.7707
Instruction	9	.8830	.7615
Equity	6	.7690	.7044
Delivery structure	13	.8624	.8136
All items combined	39	.9167	.9359

To determine the survey items that best measured each area of restructured teaching and learning processes defined in the study, each item was deleted systematically, and a new Cronbach alpha was computed for the balance of the items in the area/ category, using the SPSS program. Based on the value of the resulting Cronbach alpha, the researcher decided to remove the items that would invert the alpha significantly when deleted and whose deletion was judged not to be detrimental to the measurement of that area of restructured teaching and learning processes.

As indicated in Table 3.1, the values of the Cronbach alpha analysis for the subsets of restructured teaching and learning processes were as follows. For the categories of extent of implementation of restructured teaching and learning processes, the alpha values were: curriculum, alpha = .8186; instruction, alpha = .8830; equity, alpha = .7690; delivery structure, alpha = .8624; and all items combined, alpha = .9167. For the attitudes of Michigan high school principals, the alpha values were: curriculum, alpha = .7707; instruction, alpha = .7615; equity, alpha = .7044; delivery structure, alpha = .8136; and all items combined, alpha = .9359.

Refinement of the Instrument

With the content validity and reliability checks completed, the demographic section was added. The demographic items were directly related to the literature associated with the investigation, specifically related to the conceptual framework for the study--the Far West model.

Bossert et al.'s (1982) model indicated that district and school size are factors creating various pressures for a principal and that the influences of these variables are interactive. Therefore, district and school size were included, according to divisions used in Michigan.

According to the Michigan School Code of 1976, school districts are categorized by pupil population to reflect the size of the school districts. A five-code classification system is used. These codes are as follows:

1. School districts in Class 1 have a pupil population of 120,000 or more.

2. School districts in Class 2 have a pupil population of more than 30,000 and less than 120,000.

3. School districts in Class 3 have a pupil population of more than 2,400 and less than 30,000.

4. School districts in Class 4 have a pupil population of more than 75 and less than 2,400.

5. School districts in Class 5 have a pupil population of less than 75.

Likewise, high schools are classified according to their size by the Michigan High School Athletic Association. The 25% of high schools with the largest student enrollments are Class A; for the 1990-91 school year these high schools had 946 students and above. For the same time period, Class B high schools had 491 to 945 students; Class C included high schools with between 256 and 490 students; and Class D high schools had up to 255 students.

Bossert et al. (1982), Murphy (1990), and Sarason (1982) also indicated that either the type of training or the degree or experience in teaching/nonadministration or administration might be a factor in shaping principals' behaviors, which ultimately set expectations for their staffs. Therefore, all of the variables concerning experience were included as part of the demographic section. The researcher wanted to know which variables were significant to what was happening with restructured teaching and learning processes.

Finally, the researcher added the variable of gender because Murphy (1990) and other analysts whose writings were reviewed in Chapter II found differences in males' and females' responses regarding curriculum, instruction, and instructional leadership.

The entire demographic section of the survey provided the independent variables for this study, as did the section concerning pressures to restructure. The Far West model stipulates that there are both internal and external pressures on the principal. For purposes of this study, the researcher chose school board members, district superintendents, principals/peers, teaching faculty, and parents/guardians as the internal sources of pressure. The external sources of pressure were defined as government/legislators, legislation/laws, the Michigan Department of Education, college/ university professors, professional organizations, the media, and business/industry. All items under the area of pressures were considered as independent variables.

A final question included in the survey asked principals to write about their involvement in, contribution to, and experience with a restructuring innovation at their high school. The researcher was interested in what role the principal would relate, as well as the types of programs that would be represented.

The researcher engaged an artist to design a survey that would be worthy of its contents. After initial discussions with the researcher, the artist worked to develop both a cover design and an inside structure that would be crisp and clear. The artist wanted to capture a symbol of what restructuring might include; hence, an apple was depicted as being "under design" and on scaffolding. The artist further recommended colors of burgundy and charcoal. The artist, researcher, and printer consulted to determine that these custom colors, as well as special sizes of recycled paper for the various pieces, were available. The artist designed the mailing envelope, inside survey with a detachable cover, return post card envelope, and thank-you notes. Each size was predetermined/ measured, and all pieces were cut according to specification by the printer. All art work was line-set by another technician. The printing was done in two colors--charcoal and burgundy. In sum, this project took approximately three months. The survey and notes were all copyrighted.

Endorsement of the Study

The study was approved by the Michigan State University Committee on Research Involving Human Subjects (UCRIHS) (see

Appendix A for letter of approval). The study also was endorsed by Jack Bittle, executive director of the Michigan Association of Secondary School Principals (see Appendix A). The letter appealing to the principals was co-signed by the researcher and Mr. Bittle.

Population and Sampling

The population for this study consisted of all of the public high school principals (grades 9-12) in Michigan. The researcher reviewed the Michigan Department of Education's Professional Personnel Register for the 1991-92 school year to determine the number of secondary school principals. In addition, the Michigan Department of Education furnished an alpha list of all secondary principals, divided by gender, with the district enrollment size coding included. Using that list, the researcher identified 482 high school principals. Many of the schools' official names did not include the words "High School"; many schools are grades K-12 or 6-12. The researcher used the names of the schools that were listed as high schools or grades 9-12 and omitted any alternative or correctional high schools. The gender composition of the list was 92% male and 8% female principals.

To maintain the proportion of the various school districts in the population, a stratified-by-size systematic sampling procedure was followed. To achieve the desired sample size of 300 principals, a list of all high schools was compiled by gender of principal and district size. The local school districts were stratified according to the school district codes (Class 1-4), which reflect the pupil

enrollments of those districts. Because there was only one high school in Class 5, the researcher decided to use Classes 1, 2, 3, and 4, and to omit Class 5.

The researcher determined that a sample of 300 high school principals was needed to provide a level of confidence equal to 95% and a sampling error no greater than plus or minus 10%. Based on the presumption of a 55% return rate of mailed surveys, the 300 high school principals were selected to represent the 482 high school principals in the state. To represent both genders and the various district sizes, several procedures were followed.

First, lists of public high schools were generated according to male and female principals and cross-referenced by size of the district, i.e., Class 1, 2, 3, and 4. Because only 39 female principals were listed in the high school registry, all of them were selected to participate in the study. All but one of the principals from Class 1 and Class 2 were selected, and representative numbers of principals were selected from Class 3 (n = 60) and Class 4 (n = 186).

The initial mailing included the letter of endorsement from Jack Bittle and co-signed by the researcher, the actual survey, a self-addressed and stamped return envelope, and a stamped post card indicating that the principal had completed and returned the survey. Three hundred surveys were sent to Michigan high school principals in March 1992. Follow-up packets identical to the first mailing were mailed to nonrespondents in April, along with a letter urging them to participate. (These items are included in Appendix B.)

Treatment of the Data

Of the 300 surveys sent to Michigan high school principals, 178 were returned, for a 60% return rate. In analyzing the data, the researcher used various descriptive statistics. The SPSS system was used to compute the following: mean scores, Pearson R correlation, t-tests, and analysis of variance (ANOVA), with follow-up tests consisting of Student-Newmann-Keuls and scatterplots. Initially, chi-square analysis was attempted; it was subsequently deleted because several cells were empty.

Six-point Likert-type scales were judged/interpreted as follows:

Implementation Level

1.00-1.49	None
1.50-2.49	Little
2.50-3.49	Some
3.50-4.49	Considerable
4.50-5.49	Very much
5.50+	Fully implemented

Attitude

1.00-1.49	Very strongly disagree
1.50-2.49	Strongly disagree
2.50-3.49	Disagree
3.50-4.49	Agree
4.50-5.49	Strongly agree
5.50+	Very strongly agree

Pressures

1.00-1.49	No pressure
1.50-2.49	Little
2.50-3.49	Some
3.50-4.49	Fair amount
4.50-5.49	Strong
5.50+	Extreme amount

Mean scores were computed for the subsets curriculum, instruction, equity, delivery structure, and all items combined, by the extent of implementation and principals' attitudes toward these concepts. In addition, mean scores were calculated for the amount of pressure principals felt to restructure from sources internal and external to the system. Responses to the demographic items, treated as independent variables, were also analyzed; these items included gender, size of high school and district, highest graduate degree, specialization in curriculum/instruction, and years as teacher and administrator. Last, the narrative responses were read and coded according to types of restructuring innovations listed by the principals.

Research Questions, Hypotheses, and Statistical Analyses

Descriptive Research Questions

Research Question 1. To what extent have restructured teaching and learning processes been implemented by Michigan high school principals?

Mean scores for each item within the subset, the grand mean for that subset, and the mean score for all items combined were computed.

Research Question 2. What are Michigan high school principals' attitudes toward restructured teaching and learning processes?

Mean scores for each item within the subset, the grand mean for that subset, and the mean score for all items combined were computed.

Research Question 3. Is there a relationship between Michigan high school principals' attitudes toward restructuring teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure) and the current extent of implementation of the same?

Hypothesis 3. There is no significant relationship between Michigan high school principals' attitudes toward restructuring teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure) and the current extent of implementation of the same.

To determine whether or not the specified relationship existed, a Pearson correlation (r) was computed.

Research Question 4. To what extent do Michigan high school principals perceive district and external forces as exerting pressure to restructure teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure)?

To determine the extent of pressures high school principals felt to restructure their schools, mean scores were computed for each pressure listed, and a grand mean was recorded for both internal and external pressures.

Research Questions Related to Personal Characteristics

Research Question 5. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of the principals' graduate degrees?

Hypothesis 5. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of the principals' graduate degrees.

A t-test was used to test whether there were significant differences in the extent of restructured teaching and learning

processes, based on the specialization of the principals' graduate degrees.

Research Question 6. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of their graduate degrees?

Hypothesis 6. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of their graduate degrees.

A t-test was used to test whether there were significant differences in the attitudes of principals, based on the specialization of the principals' graduate degrees.

Research Question 7. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of the principals' graduate degrees?

Hypothesis 7. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of the principals' graduate degrees.

A one-way ANOVA was used to test whether there were significant differences in the extent of implementation of restructured teaching and learning processes, based on the level of the principals' graduate degrees.

Research Question 8. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of their graduate degrees?

Hypothesis 8. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of their graduate degrees.

A one-way ANOVA was used to test whether there were significant differences in principals' attitudes toward restructured teaching and learning processes, based on the level of their graduate degrees.

Research Question 9. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as a teacher/nonadministrator?

Hypothesis 9. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as a teacher/nonadministrator.

A one-way ANOVA was used to test whether there was a significant difference in the extent of implementation of restructured teaching and learning processes, based on principals' years of experience as a teacher/nonadministrator.

Research Question 10. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as a teacher/nonadministrator?

Hypothesis 10. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as a teacher/nonadministrator.

A one-way ANOVA was used to test whether there were significant differences in the attitudes of principals toward restructured

teaching and learning processes, based on their years of teaching/

nonadministrative experience.

> Research Question 11. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as an administrator?

> Hypothesis 11. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as an administrator.

A one-way ANOVA was used to test whether there were significant

differences in the extent of implementation of restructured teaching

and learning processes, based on principals' years of experience as

an administrator.

> Research Question 12. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as an administrator?

> Hypothesis 12. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as an administrator.

A one-way ANOVA was used to test whether there was a positive

difference in the attitudes of Michigan high school principals

toward restructured teaching and learning processes, based on their

years of experience as an administrator.

> Research Question 13. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) between male and female principals?

Hypothesis 13. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) between male and female principals.

A t-test was used to test whether there were significant differences between male and female principals in the extent of implementation of restructured teaching and learning processes.

Research Question 14. Is there a difference between Michigan male and female high school principals with regard to their attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined)?

Hypothesis 14. There are no significant differences between Michigan male and female high school principals with regard to their attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined).

A t-test was used to test whether there were significant differences between male and female principals with regard to their attitudes toward restructured teaching and learning processes.

Research Questions Related to District (Internal) and External Variables

Research Question 15. Is there a relationship between the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) and pressures principals feel to restructure from district and external forces?

Hypothesis 15. There is no significant relationship between the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) and pressures principals feel to restructure from district and external forces.

A Pearson r correlation was used to test whether there was a significant relationship between the extent of implementation of

restructured teaching and learning processes and the pressures principals feel from district and external forces.

> Research Question 16. Is there a relationship between the pressures that Michigan principals feel from district and external forces to restructure teaching and learning processes and principals' attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined)?

> Hypothesis 16. There is no significant relationship between the pressures that Michigan principals feel from district and external forces to restructure teaching and learning processes and principals' attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined).

A Pearson r correlation was used to test whether there was a significant relationship between the principals' attitudes toward restructured teaching and learning processes and the pressures they felt from district and external forces to restructure those processes.

> Research Question 17. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment?

> Hypothesis 17. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment.

A one-way ANOVA was used to test whether there were significant differences among districts of various sizes with regard to the extent of implementation of restructured teaching and learning processes.

Research Question 18. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment?

Hypothesis 18. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment.

A one-way ANOVA was used to test whether there were significant differences in the attitudes of principals toward restructured teaching and learning processes, based on the size of the district.

Research Question 19. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

Hypothesis 19. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

A one-way ANOVA was used to test whether there were significant differences among high schools of various sizes with regard to the extent of implementation of restructured teaching and learning processes.

Research Question 20. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

Hypothesis 20. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment.

A one-way ANOVA was used to test whether there were significant differences in the attitudes of principals toward restructured teaching and learning processes, based on the size of the high school.

Summary

The research was conducted in six phases. The first phase involved developing the statements that best captured the four subsets listed as restructured teaching and learning processes: curriculum, instruction, equity, and delivery structure. During this phase, a thorough review of literature was conducted on the history of educational reform in the United States, with primary emphasis on the restructuring movement that was begun with the 1983 publication of A Nation at Risk. The researcher decided to analyze the reform movement in this country that began with that publication.

In the second phase, the researcher developed the actual survey instrument with statements describing the concepts of curriculum, instruction, equity, and delivery structure. Phase three involved a pilot test of the survey instrument with 23 educators, administrators, and curriculum specialists in Michigan for the content validity check. The wording of several statements was changed to reflect suggestions made in the pilot test.

Next, the entire instrument, including the demographic section, was sent to 46 high school principals in Michigan. A reliability check was conducted to ensure that each item under each category was

significant to that category. A Cronbach alpha analysis of reliability was used. The survey was once again reworded and revised. A final question was added to the survey, asking principals to describe their role in or contribution to a restructured teaching/learning innovation at their high school.

The next phase was to send the final version of the survey to a sample of 300 Michigan high school principals who were employed during the 1991-92 school year. The final phase of the study consisted of compiling the data from the completed surveys and conducting the appropriate data analyses to answer the questions/ hypotheses formulated for the study.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

Introduction

This chapter contains an analysis and interpretation of the data gathered from the 178 Michigan high school principals who responded to the survey on restructuring the teaching and learning processes. This survey included a 39-item scale that described the restructuring of curriculum, instruction, equity, and delivery structures. Each section included a six-point Likert-type scale. Principals first indicated the extent to which each item was implemented in their building; they also reported their attitude toward each concept. The principals reported the amount of pressure they felt to restructure from external and district variables. The principals also responded to demographic items. Finally, respondents answered an open-ended question asking them to describe their involvement in and experience with a restructured innovation at their high school.

Characteristics of the Respondents

Surveys were sent to 300 Michigan high school principals in March 1992. Of that number, 178 were returned, for a response rate of 60%. Table 4.1 shows the distribution of the population and the sample by school district size. As seen in the table, the largest

124

percentage of respondents (92 or 52%) was from Class 4 districts.
Forty-three percent (77) of the responding principals were from
Class 3 districts. Just nine respondents (5%) were employed in
Class 1 and Class 2 school districts.

Table 4.1.--Distribution of population and respondents by size of
the school district.

District Size	Popula-tion		Respond-ents		Representing % of the Population
	No.	%	No.	%	
Class 1 (more than 120,000 students)	15	3	4	2	27
Class 2 (more than 30,000 students to less than 120,000 students)	10	2	5	3	50
Class 3 (more than 2,400 students to less than 30,000 students)	144	30	77	43	54
Class 4 (more than 75 students to less than 2,400 students)	312	65	92	52	30
Total	483	100	178	100	

The distribution of respondents by size of high school is shown
in Table 4.2. The majority of respondents (56 or 32%) were from
Class A high schools (946 students and above). About 50% (44 and
45) of the respondents were from Class B and C high schools, which
had student enrollments between 256 and 945 students.

Table 4.2.--Distribution of respondents by high school student enrollment.

High School Size	No.	%
Class A (946 students and above)	56	32
Class B (491-945 students)	44	25
Class C (256-490 students)	45	25
Class D (up to 255 students)	32	18
Total	177[a]	100

[a]One respondent did not report the size of the high school.

The distribution of respondents by the highest academic degree held is shown in Table 4.3. As shown in the table, 103 respondents (57.5%) indicated that they held a master's degree. The next largest group (58 or 33%) had a specialist degree. Only 9% (16) of the respondents had a doctorate degree.

Table 4.3.--Distribution of respondents by highest degree held.

Highest Degree Held	No.	%
Master's degree	103	58
Specialist degree	58	33
Doctorate degree	16	9
Total	177[a]	100

[a]One participant did not indicate the degree.

The distribution of respondents by whether they had a major or minor in curriculum/instruction is shown in Table 4.4. The largest number of respondents (122 or 69%) reported that they did not have an advanced-degree major or a minor in curriculum/instruction. However, almost one-third of the respondents (55 or 31%) did indicate that they had such a major or minor.

Table 4.4.--Distribution of respondents by major or minor in curriculum/instruction.

Curriculum/Instruction Major or Minor	No.	%
Yes	55	31
No	122	69
Total	177[a]	100

[a]One participant did not answer the question about major or minor in curriculum/instruction.

As indicated in Table 4.5, the largest number of principals (63 or 36%) reported between six and ten years of experience as a teacher or nonadministrator. Forty-three principals (24%) had between zero and five years of experience as a teacher or nonadministrator, another 43 (24%) had from 11 to 15 years, and 29 (16%) had 16 or more years of experience as a teacher or nonadministrator.

Table **4.5.**--Distribution of respondents by years of experience as a teacher/nonadministrator.

Years of Experience	No.	%
0- 5 years	43	24
6-10 years	63	36
11-15 years	43	24
16-20 years	21	12
20+ years	8	4
Total	178	100

The distribution of respondents by years of experience as an administrator is shown in Table **4.6.** Seventy-nine principals (45%) reported having 16 or more years of administrative experience. Seventy-five principals (42%) reported working between 6 and 16 years as an administrator. Twenty-four principals (13%) had been administrators five years or less.

Table **4.6.**--Distribution of respondents by years of experience as an administrator.

Years of Experience	No.	%
0- 5 years	24	13
6-10 years	34	19
11-15 years	41	23
16-20 years	44	25
20+ years	35	20
Total	178	100

As shown in Table 4.7, 151 (85%) of the respondents were males, whereas 27 (15%) were females. The total Michigan population of high school principals comprises 92% males (453) and 9% females (39).

Table 4.7.--Distribution of population, sample, and respondents by gender.

Gender	Population		Sample		Respondents	
	No.	%	No.	%	No.	%
Male	443	92	261	87	151	85
Female	39	8	39	13	27	15
Total	482	100	300	100	178	100

Findings Pertaining to the Research Questions and Hypotheses

In this section, the research questions and related hypotheses are restated, followed by the results of the data analysis pertaining to each question/hypothesis.

Descriptive Research Questions

Research Question 1. To what extent have restructured teaching and learning processes been implemented by Michigan high school principals?

As indicated by the mean scores shown in Table 4.8, high school principals' perceptions of the extent of implementation of restructured teaching and learning processes ranged from little (1.88) to some. Equity, with a mean score of 3.20, was identified

as the most implemented, whereas delivery structure, with a mean score of 1.88, was the least implemented. Curriculum and instruction were reported to have been implemented to some degree (means = 2.70 and 2.74, respectively).

Table 4.8.--High school principals' perceptions of the extent of implementation of restructured teaching and learning processes.

Area	N	Min.	Max.	Mean	SD
Equity	178	1.60	6.00	3.20	.93
Instruction	178	1.44	4.87	2.74	.80
Curriculum	178	1.40	4.80	2.70	.70
Delivery structure	178	1.00	4.67	1.88	.55
All items combined	178	1.41	4.46	2.46	.62

As shown in Table 4.9, in the curriculum subset, "increasing teaching discretion in creating instructional materials" was the item that had the highest mean (3.27), followed by "building a core curriculum for all students," with a mean of 3.19. The lowest mean score (2.24) was for the item "interdisciplinary units, e.g., English and social studies." This score would be in the category of little implementation. The second lowest mean score (2.25) was for "emphasizing interdisciplinary problem solving." The overall mean for the curriculum category was 2.7, which indicated some implementation.

Table 4.9.--Extent of implementation of restructured teaching and
learning processes in the area of curriculum.

Curriculum Statement	N	Min.	Max.	Mean	SD
Increasing teaching discretion in creating instructional materials	177	1	6	3.27	1.17
Building a core curriculum for all students, e.g., students master similar content	178	1	6	3.19	1.22
Increased emphasis on higher order thinking such as: application, analysis, synthesis	178	1	6	2.89	.97
Less memorization of facts, more utilization of facts	176	1	6	2.86	.90
Emphasizing how to learn as opposed to what to learn	177	1	6	2.77	.97
Using multiple perspectives, creative and thoughtful demonstrations	178	1	6	2.75	.96
Teachers relying less on textbooks	178	1	6	2.44	.84
Assessment by portfolios, exhibitions	178	1	6	2.34	1.18
Emphasizing interdisciplinary problem solving	177	1	6	2.25	.99
Interdisciplinary units, e.g., English and social studies, science and mathematics, history and art	178	1	6	2.24	1.02
Curriculum items combined	178	1.40	4.80	2.70	.70

As shown in Table 4.10, the subset of instruction had an overall mean of 2.74, which indicated that there had been some implementation. The highest mean (3.53) was for the item "giving teachers more influence over schoolwide decision making." The next highest mean (3.08) was for "increasing student responsibility for learning," followed by "students working in teams, i.e., cooperative learning," with a mean of 2.98. All of these responses indicated that some implementation had taken place. The lowest mean (2.16) was for "teachers planning and teaching in teams," followed closely by "restructuring the work day to give teachers time to plan" (mean = 2.19). These means were within the range of little implementation.

In the area of equity, the computed statistics showed the highest mean (3.58) for "expecting all students to learn"; the lowest mean (2.83) was for "emphasizing critical thinking for all students, including those on lower levels" (see Table 4.11). The item "grouping students with varied abilities in the same class" received a mean score of 3.44. The overall mean was 3.20, which indicated some implementation had taken place. In general, principals saw equity issues as having had from some to considerable implementation in their schools.

Table 4.10.--Extent of implementation of restructured teaching and
learning processes in the area of instruction.

Instruction Statement	N	Min.	Max.	Mean	SD
Giving teachers more influence over school-wide decision making	178	1	6	3.53	1.25
Increasing student responsibility for learning	178	2	6	3.08	1.06
Students working in teams, i.e., cooperative learning	178	1	6	2.98	1.12
Students' applying knowledge to new and real-life situations	178	1	6	2.78	.95
Making the student the worker, e.g., self-reliant learners	177	1	6	2.77	1.03
Increasing individualized instruction	178	1	6	2.58	.90
Teachers as coaches and models, i.e., less as lecturers, experts	177	1	6	2.55	1.01
Restructuring the work day to give teachers time to plan	178	1	6	2.19	1.38
Teachers planning and teaching in teams	178	1	6	2.16	1.03
Instruction items combined	178	1.44	4.78	2.74	.79

Table 4.11.--Extent of implementation of restructured teaching and
learning processes in the area of equity.

Equity Statement	N	Min.	Max.	Mean	SD
Expecting all students to learn	176	1	6	3.58	1.32
Grouping students with varied abilities in the same classes	178	1	6	3.44	1.39
Increasing affiliations with community agencies such as welfare, health, and counseling services	178	1	6	3.26	1.36
Addressing emotional needs of students in the curriculum	175	1	6	2.90	1.18
Emphasizing critical thinking for all students, including those on lower levels	178	1	6	2.83	1.11
Equity items combined	178	1.60	6.00	3.20	.93

As shown in Table 4.12, the subset of delivery structure had an overall mean of 1.88, which signified little implementation. This section presented alternate plans for high school schedules, including lengthening the school day or school year. The statement that had the highest mean (3.85) was "increased teacher decision making and participation in their own development." The second highest mean (3.47) was for the item "teachers and administrators collaborating on goals." These means were substantially higher than those for the remaining statements; they indicated that principals viewed their teachers as partners in goal setting and professional

Table 4.12.--Extent of implementation of restructured teaching and learning processes in the area of delivery structure.

Delivery Structure Statement	N	Min.	Max.	Mean	SD
Increased teacher decision making and participation in their professional development	178	1	6	3.85	1.29
Teachers and administrators collaborating on goals	178	1	6	3.47	1.36
Giving students time and opportunity to learn desired outcomes, i.e., mastery learning	178	1	6	2.53	1.10
A flexible delivery system such as multi-age grouping of students	178	1	6	2.22	1.13
An individualized approach to learning	177	1	5	2.21	.83
Teachers and students collaborating on goals, with students choosing options within limits	178	1	6	1.98	.91
Teachers and parents collaborating on and negotiating goals	177	1	6	1.76	1.00
Increased flexibility in student scheduling: larger blocks of instructional time	175	1	6	1.58	.97
Increased flexibility in student scheduling: afternoon and evening classes	178	1	6	1.50	.95
Lengthening the school day by one extra hour	178	1	6	1.42	1.10
Increased flexibility in student scheduling: rotating class schedules throughout the week	174	1	6	1.23	.66
Lengthening the school year by two weeks	177	1	6	1.11	.55

Table 4.12.--Continued.

Delivery Structure Statement	N	Min.	Max.	Mean	SD
Lengthening the school day by two extra hours	170	1	6	1.07	.46
Lengthening the school year by four weeks	174	1	6	1.05	.43
Lengthening the school year by six weeks	174	1	3	1.02	.21
Delivery structure combined	178	1.93	6.00	1.88	.81

development. The statement that had the next highest mean (2.53) was "giving students time and opportunity to learn desired outcomes, i.e., mastery learning"; this mean signified that some implementation had taken place. The lowest implementation levels in the delivery structure subset were for the statements that involved a change from the traditional structure of the school day and year. The mean scores for lengthening the school day by one or two hours indicated that this was not happening at the time of the study; likewise, the school year had not been lengthened at that point (see Table 4.12).

Research Question 2. What are Michigan high school principals' attitudes toward restructured teaching and learning processes?

Most of the principals who participated in this study expressed highly favorable attitudes toward restructured teaching and learning processes (overall mean = 5.09) (see Table 4.13). Principals were most strongly in favor of the items listed in the area of

instruction (mean = 5.48); these statements reflected changes in how teaching and learning takes place, with students being more active as learners in the classroom and teachers facilitating their students' growth. The lowest mean (4.58) was for the subset of delivery structure, but that mean still represented a positive attitude toward this concept. Many principals did not agree with some of the statements involving a change in the schedule or lengthening the school day or year; these statements received the lowest mean values. The means for both curriculum and equity were 5.37, which indicates the principals were strongly in favor of both of these concepts.

Table 4.13.--Principals' attitudes toward restructured teaching and learning processes.

Subset	N	Min.	Max.	Mean	SD
Instruction	178	3.56	6.00	5.48	.45
Curriculum	178	3.10	6.00	5.37	.58
Equity	178	3.80	6.00	5.37	.50
Delivery structure	178	1.93	6.00	4.38	.81
All items combined	178	3.26	6.00	5.09	.50

As shown in Table 4.14, the overall mean for the curriculum subset was 5.37, indicating that principals strongly favored the concepts in this area. Respondents indicated that they very strongly favored "less memorization of fact, more utilization of facts" (mean = 5.71), "emphasizing how to learn as opposed to what

Table 4.14.--Principals' attitudes toward restructured teaching and
learning processes in the area of curriculum.

Curriculum Statements	N	Min.	Max.	Mean	SD
Less memorization of facts, more utilization of facts	177	2	6	5.71	.57
Increased emphasis on higher order thinking such as: application, analysis, synthesis	178	2	6	5.64	.62
Emphasizing how to learn as opposed to what to learn	177	3	6	5.62	.62
Using multiple perspectives, creative and thoughtful demonstrations	178	3	6	5.44	.69
Emphasizing interdisciplinary problem solving	176	2	6	5.37	.74
Building a core curriculum for all students, e.g., students master similar content	178	1	6	5.35	.96
Interdisciplinary units, e.g., English and social studies, science and mathematics, history and art	178	2	6	5.32	.80
Increasing teacher discretion in creating instructional materials	177	2	6	5.20	.82
Teachers relying less on textbooks	178	1	6	5.18	1.02
Assessment by portfolios, exhibitions	178	1	6	4.87	1.14
Curriculum statements combined	178	3.10	6.00	5.37	.50

to learn" (mean = 5.62), and "increased emphasis on higher order thinking such as: application, analysis, synthesis" (mean = 5.64). The statement that principals rated the lowest was "assessment by portfolios, exhibitions" (mean = 4.87), but this still meant strongly agree. The principals did not disagree with any of the statements in the curriculum category (see Table 4.14).

The computed statistics indicated that the overall mean for the instruction category was 5.48, which would suggest that principals were in strong agreement with the concepts included in this subset (see Table 4.15). Principals gave their highest approval to "increasing student responsibility for learning" (mean = 5.78), followed closely by "students' applying knowledge to new and real life situations" (mean = 5.72), "making the student the worker, e.g., self-reliant learners" (mean = 5.60), and "teachers as coaches and models, i.e., less as lecturers, experts" (mean = 5.53). All of these mean scores indicated that principals very strongly supported these concepts. Even the statements that received the lowest mean scores--"restructuring the work day to give teachers time to plan" (mean = 5.25) and "teachers planning and teaching in teams" (mean = 5.28)--were still in the range representing strong agreement.

Table 4.15.--Principals' attitudes toward restructured teaching and
learning processes in the area of instruction.

Instruction Statements	N	Min.	Max.	Mean	SD
Increasing student responsi- bility for learning	178	4	6	5.78	.43
Students' applying knowledge to new and real life situations	178	4	6	5.72	.49
Making the student the worker, e.g., self-reliant learners	177	2	6	5.60	.65
Teachers as coaches and models, i.e., less as lecturers, experts	178	2	6	5.53	.78
Students working in teams, i.e., cooperative learning	177	2	6	5.54	.69
Giving teachers more influ- ence over schoolwide decision making	178	2	6	5.37	.91
Teachers planning and teach- ing in teams	176	1	6	5.28	.87
Restructuring the work day to give teachers time to plan	178	1	6	5.25	1.05
Increasing individualized instruction	178	2	6	5.24	.84
Instruction statements combined	178	3.56	6.00	5.48	.45

As shown in Table 4.16, the overall mean for principals'
attitudes toward the issues of equity was 5.37; this indicates a
strongly positive response. All of the mean score responses in this
category were between 5 and 6 on the six-point scale. The
principals felt most strongly positive about the statement

"expecting all students to learn" (mean = 5.80). The next highest mean score was for "emphasizing critical thinking for all students, including those on lower levels," with a mean of 5.62. The statement receiving the lowest mean score (5.01) was "grouping students with varied abilities in the same classes"; still, principals strongly agreed with this concept.

Table 4.16.--Principals' attitudes toward restructured teaching and learning processes in the area of equity.

Equity Statements	N	Min.	Max.	Mean	SD
Expecting all students to learn	177	3	6	5.80	.49
Emphasizing critical thinking for all students, including those on lower levels	178	2	6	5.62	.58
Addressing emotional needs of students in the curriculum	176	2	6	5.25	.84
Increasing affiliations with community agencies such as welfare, health, and counseling services	178	2	6	5.13	.87
Grouping students with varied abilities in the same classes	177	1	6	5.01	1.26
Equity statements combined	178	3.80	6.00	5.37	.50

The overall mean for principals' attitudes toward the concepts included in the delivery structure subset was 4.58, which would mean strong agreement (see Table 4.17). This subset included several options in scheduling and lengthening the school day and year. Of

all 15 items in this subset, principals had the most favorable attitude toward "increased teacher decision making and participation in their professional development" (mean = 5.61). Principals also had very favorable attitudes toward "teachers and administrators collaborating on goals" (mean = 5.52). "Giving students time and opportunity to learn desired outcomes, i.e., mastery learning" had a mean of 5.51. These were the three items about which the principals felt most favorable.

Table 4.17.--Principals' attitudes toward restructured teaching and learning processes in the area of delivery structure.

Delivery Structure Statements	N	Min.	Max.	Mean	SD
Increased teacher decision making and participation in their professional development	178	2	6	5.61	.73
Teachers and administrators collaborating on goals	178	2	6	5.52	.81
Giving students time and opportunity to learn desired outcomes, i.e., mastery learning	178	1	6	5.51	.72
Increased flexibility in student scheduling: larger blocks of instructional time	172	1	6	5.06	1.10
An individualized approach to learning	177	1	6	5.00	.92
Teachers and students collaborating on goals, with students choosing options within limits	177	1	6	4.90	1.01
A flexible delivery system such as multi-age grouping of students	178	1	6	4.87	.99

Table 4.17.--Continued.

Delivery Structure Statements	N	Min.	Max.	Mean	SD
Increased flexibility in student scheduling: afternoon and evening classes	174	1	6	4.66	1.27
Teachers and parents collaborating on and negotiating goals	177	1	6	4.62	1.15
Increased flexibility in student scheduling: rotating class schedules throughout the week	171	1	6	4.50	1.40
Lengthening of the school day by one extra hour	178	1	6	4.42	1.71
Lengthening of the school year by two weeks	178	1	6	4.09	1.70
Lengthening of the school year by four weeks	176	1	6	3.52	1.78
Lengthening of the school day by two extra hours	172	1	6	3.32	1.79
Lengthening of the school year by six weeks	176	1	6	3.01	1.80
Delivery structure statements combined	178	1.93	6.00	4.58	.81

Principals also expressed their attitudes toward "increased flexibility in student scheduling" with a mean of 4.66 for the item "afternoon and evening classes." The mean scores for "rotating class schedules throughout the week" and "larger blocks of instructional time" were 4.50 and 5.06, respectively. Principals showed agreement toward lengthening the school day by one extra hour

(mean = 4.42) and slightly disagreed with lengthening the school day by two hours (mean = 3.32).

Principals agreed with the concept of lengthening the school year, but not with an overwhelmingly positive mean. The mean for lengthening the school year by two weeks was 4.09. The mean dropped as the length of time to increase the school year increased. The mean for lengthening the school year by four weeks was 3.52, which would signal agreement. Of the 15 items in the delivery structure subset, "lengthening the school year by six weeks" had the lowest mean (3.01); this mean indicated disagreement (see Table 4.17).

Research Question 3. Is there a relationship between Michigan high school principals' attitudes toward restructuring teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure) and the current extent of implementation of the same?

Hypothesis 3. There is no significant relationship between Michigan high school principals' attitudes toward restructuring teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure) and the current extent of implementation of the same.

To determine whether a significant relationship existed between principals' attitudes toward restructuring teaching and learning processes and the current extent of implementation of the same, a Pearson correlation (r) was computed between principals' attitudes and the extent of implementation. As shown in Table 4.18, neither a strong negative nor a strong positive relationship existed between principals' attitudes toward restructured teaching and learning processes and the extent of implementation of the same. Thus, the

null hypothesis of no significant relationship between Michigan high school principals' attitudes toward restructured teaching and learning processes and the extent of implementation of the same was not rejected at the .05 level. The correlation between principals' attitudes toward restructured teaching and learning processes and the extent of implementation of the same was neither strongly positive nor negative; it is more accurate to say that no relationship existed.

Table 4.18.--Correlations of principals' attitudes toward and extent of implementation of restructured teaching and learning processes.

Attitudes	Implementation			
	Curriculum	Instruction	Equity	Delivery Structure
Curriculum	.09	-.02	-.06	.01
Instruction	.06	-.00	-.07	.03
Equity	.01	.07	.14	.07
Delivery structure	.08	.03	-.01	.07

Research Question 4. To what extent do Michigan high school principals perceive district and external forces as exerting pressure to restructure teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure)?

As shown in Table 4.19, with regard to external sources, principals felt the most pressure to restructure from legislation and laws (mean = 5.24), followed closely by government and legislators (mean = 5.15). A mean above 5.0 would indicate that many of these principals felt an extreme amount of pressure from

these sources to restructure. Principals reported the third highest source of pressure to be from the Michigan Department of Education (mean = 4.93). Business and industry had a mean of 4.37, whereas the media had a mean of 4.05. All of the aforementioned means in the category of external sources were higher than any of the means in the internal-source category.

Table 4.19.--Principals' perceptions of sources of pressure to restructure teaching and learning processes.

Source of Pressure	N	Min.	Max.	Mean	SD
Internal (District) Sources					
District superintendent	177	1	6	4.20	1.41
Principals/peers	178	1	6	4.18	1.32
Teaching faculty	178	1	6	3.42	1.24
School board members	178	1	6	3.13	1.43
Parents/guardians	178	1	6	2.84	1.34
Overall mean				3.55	
External Sources					
Legislation/laws	178	1	6	5.24	1.03
Government/legislators	178	1	6	5.14	1.13
Michigan Dept. of Education	178	1	6	4.93	1.11
Business/industry	177	1	6	4.37	1.38
The media	178	1	6	4.05	1.51
Professional organization	178	1	6	3.81	1.36
College/university professors	178	1	6	2.51	1.37
Overall mean				4.29	

With regard to internal sources of pressure, principals felt almost the same pressure from the district superintendent (mean = 4.20) and principals/peers (mean = 4.18); these means signified a

fair amount of pressure. College/university professors was perceived as exerting the least amount of pressure to restructure (mean = 2.51), followed by parents (mean = 2.84) and school board members (mean = 3.13). These means were in the range meaning some pressure.

It is clear that principals felt more pressure to restructure from sources outside their district than from sources within their district. The overall mean for external sources was 4.29, whereas that for internal sources was 3.55 (see Table 4.19)

Research Questions Related to
Personal Characteristics

Research Question 5. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of the principals' graduate degrees?

Hypothesis 5. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the specialization of the principals' graduate degrees.

A t-test was used to test whether there were significant differences in the extent of implementation of restructured teaching and learning processes, based on the specialization of the principals' graduate degrees. The results of this test are shown in Table 4.20. Fifty-five of the respondents reported that they had a graduate degree specialization in curriculum or instruction. Differences emerged between principals with a specialization in curriculum/instruction and those with specializations in other

areas. Principals with a curriculum/instruction specialization had higher means with regard to the extent of implementation in the categories: curriculum, instruction, equity, and delivery structure. Based on the computed statistic, the null hypothesis was rejected for three subsets: curriculum (p = .011), instruction (p = .01), and delivery structure (p = .02). Principals with a graduate degree specialization in curriculum or instruction had significantly higher extents of implementation of restructured teaching and learning processes than did their counterparts who did not have the curriculum/instruction emphasis.

Table 4.20.--Results of t-test on extent of implementation of restructured teaching and learning processes by principals' graduate-degree specialization.

Area	Specialization	n	Mean	SD	t-Value	p
Curriculum	Curriculum/instr.	55	2.91	.70	2.60	.011*
	Other areas	122	2.61	.68		
Instruction	Curriculum/instr.	55	2.97	.86	2.53	.01*
	Other areas	122	2.63	.74		
Equity	Curriculum/instr.	55	3.40	.96	1.93	.06
	Other areas	122	3.11	.92		
Delivery structure	Curriculum/instr.	55	2.04	.65	2.34	.02*
	Other areas	122	1.81	.49		
All items combined	Curriculum/instr.	55	2.66	.65	2.76	.01*
	Other areas	122	2.37	.59		

*Significant at alpha < .05.

Research Question 6. Is there a difference in the attitudes of
Michigan high school principals toward restructured teaching
and learning processes (i.e., curriculum, instruction, equity,
delivery structure, and all items combined), based on the
specialization of their graduate degrees?

Hypothesis 6. There are no significant differences in the
attitudes of Michigan high school principals toward
restructured teaching and learning processes (i.e., curriculum,
instruction, equity, delivery structure, and all items
combined), based on the specialization of their graduate
degrees.

A t-test was used to test whether there were significant

differences in the attitudes of principals toward restructured

teaching and learning processes, based on the specialization of

their graduate degrees. The results are reported in Table 4.21. In

all categories (curriculum, instruction, equity, and delivery

structure), the principals with advanced-degree majors or minors in

curriculum/instruction had more favorable attitudes toward

restructuring, although the differences were not statistically

significant (p > .05). Therefore, the null hypothesis of no

significant difference in attitudes between principals with and

those without curriculum/instruction specializations could not be

rejected.

Table 4.21.--Results of t-test on principals' attitudes toward restructured teaching and learning processes by their graduate-degree specialization.

Area	Specialization	n	Mean	SD	t-Value	p
Curriculum	Curriculum/instr.	55	5.41	.48	.83	.41
	Other areas	122	5.34	.50		
Instruction	Curriculum/instr.	55	5.52	.40	1.06	.29
	Other areas	122	5.45	.47		
Equity	Curriculum/instr.	55	5.41	.51	.94	.35
	Other areas	122	5.34	.50		
Delivery structure	Curriculum/instr.	55	4.73	.72	1.84	.07
	Other areas	122	4.50	.84		
All items combined	Curriculum/instr.	55	5.18	.43	1.75	.08
	Other areas	122	5.05	.52		

Research Question 7. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of the principals' graduate degrees?

Hypothesis 7. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of the principals' graduate degrees.

A one-way ANOVA was used to test whether there were significant differences in the extent of implementation of restructured teaching and learning processes, based on the level of the principals' graduate degrees. The results are reported in Table 4.22. Differences in the extent of implementation of restructured teaching and learning processes were found among principals with varying levels of degrees. In all areas, principals with a specialist

degree reported the highest extent of implementation, whereas the principals who had a master's or a doctorate degree reported nearly the same extent of implementation. However, this difference was significant only in the area of equity. The Student-Newmann-Keuls test was used for follow-up analysis and revealed that the statistically significant differences were between the master's and the specialist degree groups. The null hypothesis of no significant difference was therefore rejected at the .05 level.

Table 4.22.--Results of one-way ANOVA on extent of implementation of restructured teaching and learning processes by principals' highest degree held.

Area	Highest Degree	n	Mean	SD	t-Value	p
Curriculum	Master's	103	2.62	.69		
	Specialist	58	2.85	.73	2.21	.11
	Doctorate	16	2.62	.57		
Instruction	Master's	103	2.66	.75		
	Specialist	58	2.89	.84	1.83	.16
	Doctorate	16	2.61	.78		
Equity	Master's	103	3.06	.82		
	Specialist	58	3.46	1.06	3.57	.03*
	Doctorate	16	3.09	.94		
Delivery structure	Master's	103	1.84	.54		
	Specialist	58	1.96	.60	.96	.38
	Doctorate	16	1.84	.43		
All items combined	Master's	103	2.38	.60		
	Specialist	58	2.59	.66	2.27	.11
	Doctorate	16	2.38	.55		

*Significant at alpha < .05.

Research Question 8. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of their graduate degrees?

Hypothesis 8. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the level of their graduate degrees.

A one-way ANOVA was used to test whether there were significant differences in principals' attitudes toward restructured teaching and learning processes, based on the level of their graduate degrees. The test results are reported in Table 4.23. Observable differences in attitudes were found among principals who had master's, specialist, and doctorate degrees. Principals with a specialist degree had the most favorable attitudes toward all four subsets (curriculum, instruction, equity, and delivery structure). The differences, however, were not significant. Therefore, the null hypothesis of no significant difference was not rejected.

Table 4.23.--Results of one-way ANOVA on principals' attitudes toward restructured teaching and learning processes by their highest degree held.

Area	Highest Degree	n	Mean	SD	t-Value	p
Curriculum	Master's	103	5.30	.51		
	Specialist	58	5.48	.49	2.30	.10
	Doctorate	16	5.36	.41		
Instruction	Master's	103	5.45	.49		
	Specialist	58	5.54	.38	.83	.44
	Doctorate	16	5.45	.38		
Equity	Master's	103	5.30	.50		
	Specialist	58	5.47	.49	2.13	.12
	Doctorate	16	5.40	.49		
Delivery structure	Master's	103	4.52	.80		
	Specialist	58	4.70	.84	1.01	.37
	Doctorate	16	4.53	.77		
All items combined	Master's	103	5.04	.52		
	Specialist	58	5.20	.48	1.97	.14
	Doctorate	16	5.07	.39		

Note: Total N = 177 because one respondent did not indicate degree.

Research Question 9. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as a teacher/nonadministrator?

Hypothesis 9. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as a teacher/nonadministrator.

A one-way ANOVA was used to test whether there were significant differences in the extent of implementation of restructured teaching and learning processes, based on principals' years of experience as

a teacher/nonadministrator. The results of this test are shown in Table 4.24.

Table 4.24.--Results of one-way ANOVA on extent of implementation of restructured teaching and learning processes by principals' years of experience as a teacher/non-administrator.

Area	Experience	n	Mean	SD	t-Value	p
Curriculum	0- 5 years	43	2.83	.77		
	6-10 years	63	2.59	.65		
	11-15 years	43	2.70	.73	.79	.53
	16-20 years	21	2.76	.65		
	20+ years	8	2.75	.66		
Instruction	0- 5 years	43	2.96	.84		
	6-10 years	63	2.68	.77		
	11-15 years	43	2.70	.88	1.35	.25
	16-20 years	21	2.55	.59		
	20+ years	8	2.60	.54		
Equity	0- 5 years	43	3.39	.99		
	6-10 years	63	3.10	.95		
	11-15 years	43	3.27	.86	1.26	.29
	16-20 years	21	2.92	.87		
	20+ years	8	3.38	.93		
Delivery structure	0- 5 years	43	1.99	.48		
	6-10 years	63	1.81	.52		
	11-15 years	43	1.84	.57	2.83	.02*
	16-20 years	21	1.76	.37		
	20+ years	8	2.40	1.06		
All items combined	0- 5 years	43	2.61	.64		
	6-10 years	63	2.38	.60		
	11-15 years	43	2.44	.66	1.28	.28
	16-20 years	21	2.35	.49		
	20+ years	8	2.67	.72		

*Significant at alpha < .05.

The ANOVA results indicated some differences in the extent of implementation among principals with varying amounts of teaching/ nonadministrative experience. For the subset of delivery structure, the difference was significant ($p = .02$); thus, the null hypothesis was rejected. In this subset, the highest mean score (2.40) was for principals who had worked 20 or more years as a teacher/ nonadministrator, followed by a mean of 1.99 for those who had 0 to 5 years of teaching/nonadministrative experience. Also in the delivery structure subset, principals with 16 to 20 years of such experience had the lowest mean (1.76). No statistically significant differences were found among principal groups in the other subsets in this analysis. Thus, for those analyses, the null hypothesis was not rejected.

The Student-Newmann-Keuls test was performed as a post-analysis to determine which experience groups contributed to the significant difference in the delivery structure subset. It was found that principals with 20 or more years of teaching/nonadministrative experience differed significantly from those who had from 6 to 10, 11 to 15, and 16 to 20 years of such experience. No significant differences were found among other groups taken two at a time.

Research Question 10. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as a teacher/nonadministrator?

Hypothesis 10. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as a teacher/nonadministrator.

A one-way ANOVA was used to test whether there were significant differences in principals' attitudes toward restructured teaching and learning processes, based on their years of experience as a teacher/nonadministrator. The results of this analysis are presented in Table 4.25.

Table 4.25.--Results of one-way ANOVA on principals' attitudes toward restructured teaching and learning processes by their years of experience as a teacher/nonadministrator.

Area	Experience	n	Mean	SD	t-Value	p
Curriculum	0- 5 years	43	5.40	.54		
	6-10 years	63	5.33	.44		
	11-15 years	43	5.30	.59	.96	.43
	16-20 years	21	5.53	.37		
	20+ years	8	5.45	.43		
Instruction	0- 5 years	43	5.48	.51		
	6-10 years	63	5.41	.47		
	11-15 years	43	5.51	.40	.58	.67
	16-20 years	21	5.56	.43		
	20+ years	8	5.53	.27		
Equity	0- 5 years	43	5.44	.50		
	6-10 years	63	5.27	.49		
	11-15 years	43	5.37	.52	1.18	.32
	16-20 years	21	5.49	.43		
	20+ years	8	5.35	.56		
Delivery structure	0- 5 years	43	4.68	.83		
	6-10 years	63	4.59	.77		
	11-15 years	43	4.55	.73	.43	.79
	16-20 years	21	4.46	1.03		
	20+ years	8	4.39	.92		
All items combined	0- 5 years	43	5.15	.54		
	6-10 years	63	5.06	.48		
	11-15 years	43	5.07	.50	.26	.91
	16-20 years	21	5.12	.53		
	20+ years	8	5.04	.45		

As shown in Table 4.25, no statistically significant differences in attitudes were found among principals in the various experience groups for any of the four subsets: curriculum, instruction, equity, delivery structure.   Thus, the null hypothesis of no significant difference was not rejected at the .05 level.

Research Question 11.   Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as an administrator?

Hypothesis 11.   There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on principals' years of experience as an administrator.

A one-way ANOVA was used to test whether there were significant differences in the extent of implementation of restructured teaching and learning processes, based on principals' years of experience as an administrator.   The results of the ANOVA, shown in Table 4.26, indicated that there were no statistically significant differences in the extent of implementation among principals in the various administrative-experience groups for any of the four subsets-- curriculum, instruction, equity, or delivery structure.   Thus, the null hypothesis of no significant difference was not rejected at the .05 level.

Table 4.26.--Results of one-way ANOVA on extent of implementation
of restructured teaching and learning processes by
principals' years of experience as an administrator.

Area	Experience	n	Mean	SD	t-Value	p
Curriculum	0- 5 years	24	2.78	.62		
	6-10 years	34	2.57	.72		
	11-15 years	41	2.67	.71	1.46	.22
	16-20 years	44	2.89	.73		
	20+ years	35	2.59	.65		
Instruction	0- 5 years	24	2.67	.62		
	6-10 years	34	2.52	.82		
	11-15 years	41	2.68	.76	1.69	.15
	16-20 years	44	2.97	.85		
	20+ years	35	2.76	.80		
Equity	0- 5 years	24	3.20	.79		
	6-10 years	34	3.02	.96		
	11-15 years	41	3.15	.86	1.20	.31
	16-20 years	44	3.45	.97		
	20+ years	35	3.12	1.02		
Delivery structure	0- 5 years	24	1.78	.08		
	6-10 years	34	1.80	.12		
	11-15 years	41	1.88	.09	.90	.46
	16-20 years	44	2.00	.08		
	20+ years	35	1.87	.08		
All items combined	0- 5 years	24	2.42	.50		
	6-10 years	34	2.32	.68		
	11-15 years	41	2.43	.60	1.43	.23
	16-20 years	44	2.64	.65		
	20+ years	35	2.42	.62		

Research Question 12. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as an administrator?

Hypothesis 12. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on their years of experience as an administrator.

A one-way ANOVA was used to test whether there were significant differences in the attitudes of principals toward restructured teaching and learning processes, based on their years of experience as an administrator. As shown in Table 4.27, the ANOVA revealed significant differences in attitudes among principals with varying amounts of experience; these differences occurred in the curriculum subset and all items combined.

For the curriculum subset, the null hypothesis was rejected (p = .01). The group of principals who had 11 to 15 years of administrative experience had a mean score of 5.47; those who had been administrators for 6 to 10 years had a mean of 5.44, and those who had worked as administrators for 16 to 20 years had a mean of 5.43. The principals who had been administrators for 20 or more years had the lowest mean (5.09); however, it should be noted that a mean of 5.09 reflects strong agreement with this concept.

To determine which group or groups of principals differed significantly from the others, the Student-Newmann-Keuls test was performed. It was found that principals with 20 or more years of administrative experience differed significantly from the rest of the principals in the sample. Principals with the most administrative experience had the lowest mean in the curriculum subset.

Table 4.27.--Results of one-way ANOVA on principals' attitudes
toward implementation of restructured teaching and
learning processes by their years of experience as
an administrator.

Area	Experience	n	Mean	SD	t-Value	p
Curriculum	0- 5 years	24	5.39	.47		
	6-10 years	34	5.44	.44		
	11-15 years	41	5.47	.43	3.69	.01*
	16-20 years	44	5.43	.42		
	20+ years	35	5.09	.64		
Instruction	0- 5 years	24	5.39	.47		
	6-10 years	34	5.56	.34		
	11-15 years	41	5.56	.38	2.08	.09
	16-20 years	44	5.51	.46		
	20+ years	35	5.32	.55		
Equity	0- 5 years	24	5.31	.53		
	6-10 years	34	5.36	.47		
	11-15 years	41	5.44	.44	1.26	.29
	16-20 years	44	5.45	.55		
	20+ years	35	5.23	.50		
Delivery structure	0- 5 years	24	4.23	.89		
	6-10 years	34	4.72	.66		
	11-15 years	41	4.62	.83	1.90	.11
	16-20 years	44	4.70	.80		
	20+ years	35	4.46	.83		
All items combined	0- 5 years	24	4.93	.50		
	6-10 years	34	5.18	.39		
	11-15 years	41	5.16	.48	2.43	.04*
	16-20 years	44	5.17	.49		
	20+ years	35	4.92	.58		

*Significant at alpha < .05.

Statistically significant differences in attitudes among
principals in the various experience groups also were found for all
items combined. Using the Student-Newmann-Keuls test, it was found
that principals with 5 or fewer years of experience and those with

more than 20 years of administrative experience differed significantly from principals with 6 to 20 years of experience.

No statistically significant differences were found in the remaining subsets--instruction, equity, and delivery structures. Therefore, the null hypothesis was not rejected for these subsets (see Table 4.27).

Research Question 13. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) between male and female principals?

Hypothesis 13. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) between male and female principals.

A t-test was used to test whether there were significant differences between male and female principals with regard to the extent of implementation of restructured teaching and learning processes. As shown in Table 4.28, no statistically significant difference was found between male and female principals with regard to extent of implementation of restructured teaching and learning processes in any of the four areas. Males reported higher levels of implementation than did females, but the difference was not significant. Thus, the null hypothesis was not rejected at the .05 level. The mean scores indicated that delivery structure items had the lowest level of implementation (mean = 1.88 for both males and females), and equity items had the highest level of implementation (3.18 for males and 3.31 for females).

Table 4.28.--Results of t-test on extent of implementation of restructured teaching and learning processes by principals' gender.

Area	Gender	n	Mean	SD	t-Value	p
Curriculum	Males	151	2.73	.70	1.31	.20
	Females	27	2.55	.67		
Instruction	Males	151	2.76	.80	.97	.34
	Females	27	2.61	.73		
Equity	Males	151	3.18	.94	-.67	.50
	Females	27	3.31	.89		
Delivery structure	Males	151	1.88	.51	.04	.97
	Females	27	1.88	.72		
All items combined	Males	151	2.47	.62	.50	.62
	Females	27	2.40	.64		

Research Question 14. Is there a difference between Michigan male and female high school principals with regard to their attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined)?

Hypothesis 14. There are no significant differences between Michigan male and female high school principals with regard to their attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined).

A t-test was used to test whether there were significant differences between male and female principals with regard to their attitudes toward restructured teaching and learning processes. The results are shown in Table 4.29. As shown in the table, statistically significant differences were found between male and female principals for all subsets--curriculum, instruction, equity, delivery structure, and all items combined. Female principals had

significantly more favorable attitudes toward restructured teaching and learning processes than did their male counterparts. Thus, the null hypothesis was rejected at the p < .01 level.

Table 4.29.--Results of t-test on principals' attitudes toward restructured teaching and learning processes by gender.

Area	Gender	n	Mean	SD	t-Value	p
Curriculum	Males	151	5.31	.50	-5.23	.00*
	Females	27	5.69	.31		
Instruction	Males	151	5.43	.46	-4.38	.01*
	Females	27	5.72	.27		
Equity	Males	151	5.32	.50	-2.95	.01*
	Females	27	5.60	.44		
Delivery structure	Males	151	4.51	.83	-3.33	.00*
	Females	27	4.95	.58		
All items combined	Males	151	5.03	.51	-5.27	.00*
	Females	27	5.40	.28		

*Significant at alpha < .01.

Research Questions Related to District (Internal) and External Variables

Research Question 15. Is there a relationship between the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) and pressures principals feel to restructure from district and external forces?

Hypothesis 15. There is no significant relationship between the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined) and pressures principals feel to restructure from district and external forces.

A Pearson r correlation was used to test whether there was a significant relationship between the extent of implementation of restructured teaching and learning processes and the pressures principals felt from district (internal) and external forces. The results are reported in Table 4.30.

Table 4.30.--Correlation of extent of implementation of restructured teaching and learning processes and sources of pressure to restructure.

Source of Pressure	Implementation			
	Curriculum	Instruction	Equity	Delivery Structure
District (Internal)				
School board	.21*	.17	.16	.22*
Superintendent	.13	.13	.10	.09
Principals/peers	.05	.00	-.06	.00
Teachers	.19*	.23**	.12	.20*
Parents	.19*	.22*	.15	.24**
External				
Gov't./legislators	-.00	-.08	-.06	-.06
Legislation/laws	.01	-.02	.02	-.02
Mich. Dept. of Ed.	-.02	-.02	.03	-.02
Professors	.01	.08	.01	.09
Prof. organiz.	.10	.04	.03	.04
The media	.03	-.03	-.04	.01
Business/industry	-.07	-.09	-.06	-.14

*Significant at alpha < .01.

**Significant at alpha < .001.

As shown in Table 4.30, some significant relationships were found relative to the degree of pressure felt related to the extent of implementation of restructured teaching and learning processes. Principals' perceptions of pressure from the school board were significantly related to the extent of implementation in the areas of curriculum and delivery structure (p < .01). Likewise, the pressure felt from teachers was significantly related to the extent of implementation in the areas of curriculum and delivery structure (p < .01) and instruction (p < .001). The pressure felt from parents was found to be significantly related to the extent of implementation in the areas of curriculum and instruction (p < .01) and delivery structure (p < .001). Thus, the null hypothesis was rejected for these areas.

When the pressures felt from external sources were compared with the extent of implementation of restructured teaching and learning processes, extremely weak correlations emerged. In fact, pressures from the government and legislators had an inverse relationship with extent of implementation for each subset--curriculum, instruction, equity, and delivery structure. In general, it would be accurate to say that no relationship existed. The only significant relationship between pressures felt and the extent of implementation were in the district (internal) category (see Table 4.30).

Research Question 16. Is there a relationship between the pressures that Michigan principals feel from district and external forces to restructure teaching and learning processes and principals' attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined)?

Hypothesis 16. There is no significant relationship between the pressures that Michigan principals feel from district and external forces to restructure teaching and learning processes and principals' attitudes toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined).

A Pearson r correlation was used to test whether there was a significant relationship between principals' attitudes toward restructured teaching and learning processes and the pressures they felt from district and external forces to restructure those processes. As shown in Table 4.31, a significant (p < .01) relationship was found between the pressures that principals felt from other principals to restructure and their attitudes toward restructured teaching and learning processes in the areas of curriculum, instruction, and delivery structure. Likewise, pressure principals felt from teachers was significantly related to principals' attitudes toward restructured teaching and learning processes in the areas of curriculum and instruction (p < .01). Also, the pressure principals felt from parents was significantly related to principals' attitudes toward restructuring in the areas of instruction and delivery structure (p < .01). A negative and significant relationship was found between the pressure felt from legislation/laws and principals' attitudes toward restructuring in the areas of curriculum (p < .001) and instruction (p < .01).

Table 4.31.--Correlation of principals' attitudes toward restructured teaching and learning processes and sources of pressure to restructure.

Source of Pressure	Attitudes			
	Curriculum	Instruction	Equity	Delivery Structure
District (Internal)				
School board	-.03	-.07	-.05	-.00
Superintendent	-.02	.02	.06	.01
Principals/peers	.20*	.25*	.00	.19*
Teachers	.19*	.18*	.05	.06
Parents	.07	.18*	.13	.20*
External				
Gov't./legislators	-.17	-.12	.01	-.03
Legislation/laws	-.26**	-.19*	-.09	-.13
Mich. Dept. of Ed.	-.13	-.04	.07	-.05
Professors	-.19	.08	.00	-.15
Prof. organiz.	-.02	.11	.13	-.17
The media	-.13	-.05	-.02	.08
Business/industry	-.08	-.00	-.00	-.05

*Significant at alpha < .01.

**Significant at alpha < .001.

These data revealed that the strongest positive and significant relationships were between principals' attitudes toward restructured teaching and learning processes and the pressures they felt from sources within the district. Principals influence each other; likewise, the pressures felt from parents and teachers were related to principals' attitudes. In direct contrast, most of the pressures

felt from sources external to the district were related negatively to principals' attitudes toward restructured teaching and learning processes. Because of the significant relationships that were found, the null hypothesis was rejected at the .01 level (see Table 4.31).

Research Question 17. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment?

Hypothesis 17. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment.

A one-way ANOVA was used to test whether there were significant differences among districts of various sizes with regard to the extent of implementation of restructured teaching and learning processes. The results of the ANOVA showed that, for all the subsets--curriculum, instruction, equity, delivery structure, and all items combined--none of the differences among districts were statistically significant (p > .05). Thus, the null hypothesis of no significant difference was not rejected at the .05 level.

Table 4.32.--Results of one-way ANOVA on extent of implementation
of restructured teaching and learning processes by
size of district (student enrollment).

Area	District Size	n	Mean	SD	F-Ratio	p
Curriculum	Class 1	4	2.88	.83		
	Class 2	5	2.49	.14	.64	.59
	Class 3	77	2.77	.70		
	Class 4	92	2.65	.71		
Instruction	Class 1	4	2.58	.78		
	Class 2	5	2.76	.54	.94	.42
	Class 3	77	2.85	.83		
	Class 4	92	2.65	.77		
Equity	Class 1	4	2.95	.44		
	Class 2	5	3.48	.80	.49	.69
	Class 3	77	3.27	1.06		
	Class 4	92	3.14	.84		
Delivery structure	Class 1	4	2.17	.75		
	Class 2	5	2.08	.27	1.73	.16
	Class 3	77	1.95	.63		
	Class 4	92	1.80	.48		
All items combined	Class 1	4	2.56	.67		
	Class 2	5	2.52	.32	.92	.44
	Class 3	77	2.54	.68		
	Class 4	92	2.38	.58		

Key: Class 1 = 120,000+ students
Class 2 = 30,000-120,000 students
Class 3 = 2,400-29,999 students
Class 4 = Fewer than 2,400 students

Research Question 18. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment?

Hypothesis 18. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the district in terms of student enrollment.

A one-way ANOVA was used to test whether there were significant differences among principals from varying sizes of districts with regard to their attitudes toward restructured teaching and learning processes. As shown in Table 4.33, a statistically significant difference (p < .05) was found in the attitudes of principals from various sizes of districts; these differences were in the subsets of curriculum, instruction, and equity. Highly significant differences (p < .01) were found in the subsets of delivery structure and all items combined.

To determine which groups were contributing to the overall differences, Student-Newmann-Keuls tests were completed for each subset. In the areas of curriculum, instruction, equity, and delivery structure, as well as for all items combined, principals from Class 3 districts had significantly higher means than did their counterparts from Class 4 districts.

In the curriculum subset, principals from Class 1 districts had the most favorable attitudes toward restructured teaching and learning processes (mean = 5.52). In the area of instruction, principals from Class 2 districts had the most favorable attitudes

Table 4.33.--Results of one-way ANOVA on principals' attitudes toward restructured teaching and learning processes by size of district (student enrollment)

Area	District Size	n	Mean	SD	F-Ratio	p
Curriculum	Class 1	4	5.52	.39		
	Class 2	5	5.44	.42	3.07	.03*
	Class 3	77	5.48	.37		
	Class 4	92	5.26	.58		
Instruction	Class 1	4	5.64	.40		
	Class 2	5	5.67	.35	3.13	.02*
	Class 3	77	5.57	.35		
	Class 4	92	5.38	.51		
Equity	Class 1	4	5.15	.77		
	Class 2	5	5.56	.29	2.80	.04*
	Class 3	77	5.47	.46		
	Class 4	92	5.25	.51		
Delivery structure	Class 1	4	5.25	.73		
	Class 2	5	5.05	.73	5.37	.00**
	Class 3	77	4.76	.65		
	Class 4	92	4.36	.89		
All items combined	Class 1	4	5.40	.41		
	Class 2	5	5.36	.17	5.92	.00**
	Class 3	77	5.23	.38		
	Class 4	92	4.95	.56		

Key: Class 1 = 120,000+ students
      Class 2 = 30,000-120,000 students
      Class 3 = 2,400-29,999 students
      Class 4 = Fewer than 2,400 students

*Significant at alpha < .05.

**Significant at alpha < .01.

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(mean = 5.67), followed closely by their counterparts from Class 1 districts (mean = 5.64). In the area of equity, principals from Class 2 districts had the most favorable attitudes (mean = 5.56). In the area of delivery structure, principals from Class 1 districts had the most favorable attitudes (mean = 5.25). For all items combined, principals from Class 1 districts had the most favorable attitudes toward restructured teaching and learning processes (mean = 5.40) (see Table 4.33).

Research Question 19. Is there a difference in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

Hypothesis 19. There are no significant differences in the extent of implementation of restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

A one-way ANOVA was used to test whether there were significant differences among high schools of various sizes with regard to the extent of implementation of restructured teaching and learning processes. The results are shown in Table 4.34. No statistically significant differences in the extent of implementation were found among the four categories of high schools in any of the subsets-- curriculum, instruction, equity, delivery structure, and all items combined. Thus, the null hypothesis of no significant difference was not rejected.

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Table 4.34.--Results of one-way ANOVA on extent of implementation
of restructured teaching and learning processes by
size of high school (student enrollment).

Area	School Size	n	Mean	SD	F-Ratio	p
Curriculum	Class A	56	2.79	.71		
	Class B	44	2.70	.62	1.42	.24
	Class C	45	2.52	.62		
	Class D	32	2.78	.82		
Instruction	Class A	56	2.83	.85		
	Class B	44	2.74	.77	.76	.52
	Class C	45	2.73	.78		
	Class D	32	2.73	.78		
Equity	Class A	56	3.19	1.00		
	Class B	44	3.28	1.03	.91	.44
	Class C	45	2.59	.79		
	Class D	32	3.32	.82		
Delivery structure	Class A	56	1.94	.56		
	Class B	44	1.91	.68	.87	.46
	Class C	45	1.77	.41		
	Class D	32	1.83	.51		
All items combined	Class A	56	2.53	.66		
	Class B	44	2.48	.63	1.07	.37
	Class C	45	2.31	.52		
	Class D	32	2.47	.65		

Key: Class A = 946 students and above
      Class B = 491-945 students
      Class C = 256-490 students
      Class D = up to 255 students

Research Question 20. Is there a difference in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment?

Hypothesis 20. There are no significant differences in the attitudes of Michigan high school principals toward restructured teaching and learning processes (i.e., curriculum, instruction, equity, delivery structure, and all items combined), based on the size of the high school in terms of student enrollment.

A one-way ANOVA was used to test whether there were significant differences in principals' attitudes toward restructured teaching and learning processes, based on the size of the high school. As shown in Table 4.35, statistically significant differences ($p <$ .01) were found in all subsets except equity, as well as for all items combined. Hence, the null hypothesis of no significant difference was rejected for those subsets. The means in every subset were higher for the Class A and Class B groups, indicating that principals from the larger school districts had more favorable attitudes toward the concepts associated with restructuring than did their counterparts from smaller schools (Class C and Class D).

To test which two groups contributed to the overall difference, the Student-Newmann-Keuls test was used. In the area of curriculum, principals from Class C high schools had a significantly lower mean than did those from the Class A and Class B high schools. In the area of instruction, principals from the Class D high schools had a significantly lower mean than did their counterparts from the Class A and Class B high schools. In the subset of delivery structure, principals from the Class D high schools had a significantly lower

Table 4.35.--Results of one-way ANOVA on principals' attitudes toward restructured teaching and learning processes by size of high school (student enrollment).

Area	School Size	n	Mean	SD	F-Ratio	p
Curriculum	Class A	56	5.52	.40		
	Class B	44	5.43	.31	4.79	.00*
	Class C	45	5.17	.67		
	Class D	32	5.30	.50		
Instruction	Class A	56	5.59	.36		
	Class B	44	5.55	.35	4.18	.00*
	Class C	45	5.39	.47		
	Class D	32	5.29	.60		
Equity	Class A	56	5.45	.49		
	Class B	44	5.42	.51	1.57	.19
	Class C	45	5.27	.51		
	Class D	32	5.27	.47		
Delivery structure	Class A	56	4.87	.65		
	Class B	44	4.64	.79	5.88	.00*
	Class C	45	4.42	.82		
	Class D	32	4.19	.90		
All items combined	Class A	56	5.27	.38		
	Class B	44	5.16	.42	6.69	.00*
	Class C	45	4.95	.54		
	Class D	32	4.87	.59		

Key: Class A = 946 students and above
     Class B = 491-945 students
     Class C = 256-490 students
     Class D = up to 255 students

*Significant at alpha < .01.

mean than did those from Class A and Class B high schools. In addition, principals from the Class C and Class D high schools had a significantly lower mean than did their counterparts from the Class A high schools. With regard to all of the items combined, it was found that principals from Class A and Class B schools had significantly higher means than did their counterparts from Class C and Class D schools (see Table 4.35).

Responses to Open-Ended Question Concerning Principals' Involvement in, Contributions to, and Experience With a Restructured Innovation at Their High Schools

One hundred nineteen (41%) principals responded to the open-ended question asking them to describe their role in a restructuring innovation at their school; 59 (33%) chose not to respond. The responses principals gave first are tabulated in Table 4.36; additional information is discussed in Chapter V. Four principals described their role as pushing for change or working on a committee for school improvements; the remainder described what was happening at their schools relative to school improvement. Thirty principals (17%) said that their schools were involved with Public Act 25, which mandates school improvement in Michigan. Sixteen respondents (9%) said their schools were involved with outcome-based education, and 14 (8%) were involved with North Central accreditation, although many principals added that they were involved with the outcome-based North Central process as a secondary notation.

Table 4.36.--Distribution of principals' responses regarding their involvement in restructured teaching and learning innovations.

Response	No.	%
No response	59	33
Public Act 25	30	17
Outcome-based education	16	9
Outcome-based North Central accreditation	14	8
Curriculum revision	13	7
Trying to get started	12	7
Professional staff development	10	6
New teaching techniques	10	6
Miscellaneous	9	5
Sizer's coalition of schools	4	2
Visiting other schools	3	2
Total	178	100

CHAPTER V

SUMMARY, MAJOR FINDINGS, CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS, AND REFLECTIONS

Introduction

The major findings and their relationship to findings from previous studies are reported in this chapter. The chapter includes six major sections: summary of purpose and methods, major findings and discussion, conclusions, educational implications, recommendations, and reflections.

Summary of Purpose and Methods

Purpose

The writer's purpose in this study was to examine the extent of implementation of, attitudes of selected Michigan high school principals toward, and the pressures they felt to restructure teaching and learning processes. Principals also responded to questions regarding their districts and their personal backgrounds. Two of the categories were district variables measuring size of the district and size of the high school. Five of the variables were under the "personal" category; they included highest graduate degree, major/minor in curriculum/instruction, years as a teacher/nonadministrator, years as an administrator, and gender. Both district and personal variables were analyzed for their relationship

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to the extent of implementation and principals' attitudes toward restructured teaching and learning processes. This study was designed to assess the status of what is currently happening relative to restructuring teaching and learning processes in selected high schools and to analyze the factors that contribute to restructuring.

Educational restructuring is a term that is currently receiving much attention in the media as well as in the educational profession. Restructuring, as a term, conveys different meanings to different people. In the 1980s, the topic of educational reform was worldwide (Warren, 1990). In the United States, a primary catalyst for concern about reform was the 1983 publication of A Nation at Risk. State legislators, businesspeople, parents, and educational researchers began to call for reforms that involved the actual restructuring of the school's organization and governance (Murphy, 1990). Analysts like Goodlad (1984) and Sizer (1984) called for schools to change from giving the students more of what was "making them sick" to looking to new configurations of the teaching and learning processes.

The majority of attention relative to restructuring has been directed toward choice, teacher empowerment, and school-based management. However, the teaching and learning processes have received the least attention (Murphy, 1990). This study focused on the central elements of school teaching and learning, also referred to as teaching for understanding. Because principals are key players in creating visions for their schools, leading and

motivating their staffs, and reviewing instruction and curricula, their perceptions about implementation and attitudes toward restructuring were gathered and analyzed.

Hallinger et al. (1990) indicated that little is actually known about what principals think about restructuring the core technology of their schools. This study provides information about what is currently happening in Michigan high schools selected by the variables in the Far West model known as personal, district, and external characteristics. The extent of restructured teaching and learning processes was ascertained, and the principals' attitudes toward restructuring the core technology were gathered and analyzed. Also, the principals indicated the sources of pressures they currently feel to restructure teaching and learning processes in their schools. This study provides important information that can be used as a basis for understanding what needs to happen to encourage or motivate principals to be educational leaders in these areas of reform.

The Far West model has been used in the literature to explain the antecedent conditions that influence principals; this model also has been used in qualitative studies. The Far West model was used to construct the independent variables for this study. The model indicates that personal, district, and external variables influence the principal to set the instructional climate and instructional organization of the school. For purposes of this study, personal variables were gender, years of nonadministrative and administrative

experience, highest graduate degree, and degree major or minor in curriculum/instruction. District variables were the size of the school and district. District variables were also listed as school board, superintendent, principals/peers, teachers, and parents in the section asking principals to record the amount of pressure felt from these groups to restructure. The external variables listed in the same section were government/legislators, legislation/laws, the Michigan Department of Education, professors, professional organizations, the media, and business and industry. Statistical tests were used to determine whether the independent variables were related to the dependent variables: curriculum, instruction, equity, delivery structure, and all items combined.

The 39 statements used as dependent variables provide a vision of what restructured teaching and learning processes might include. Formulating this vision into a series of concrete and specific statements allowed for distinctions to be made between the four main areas: curriculum, instruction, equity, and delivery structure.

Other models also were used to help explain this study; Bem's self-perception theory was used. Bem's model provided a discussion relevant to the independent and dependent variables; Bem's theory helped form the hypotheses, and it also was used in explaining the results. Educational research is enhanced by powerful social-psychological frameworks; the self-perception theory helped provide an understanding of the attitudes principals revealed and helped explain the discrepancy between those attitudes and actions, as defined by the extent of implementation in the schools.

Likewise, Kempner's (1980) model for understanding the process was used to discuss how mandated change causes the changes in behaviors that ultimately influence changes in attitudes. Cuban's (1988) explanations of first- and second-order changes provided an understanding of why substantive educational change is so difficult to obtain. Fullan's (1992) analyses of educational change further illustrated the complexities associated with educational reform.

Subjects

Three hundred principals were selected to be part of this survey, using a multi-stage proportionate stratified sampling procedure. Two hundred sixty-one males received surveys; this represented 58% of the male principals in the state. Thirty-nine females received surveys; this represented 100% of the female principals in the state. Collectively, females hold 8% of the principalships in Michigan high schools, and males hold 92% of the principalships.

One hundred seventy-eight Michigan high school principals responded to the questionnaire. The respondents represented approximately 36% of all public school principals employed in Michigan during the 1991-92 school year. Respondents represented the largest districts (Class 1, Detroit) to the smallest ones (Class 4, 75-2,400 students). The principals also represented the largest high schools (Class A, 946+ students) to the smallest high schools (Class D, up to 255 students).

With regard to graduate-degree status, 103 principals (58%) reported having a master's degree, 58 (32%) reported having a specialist degree, and 16 (9%) reported holding a doctorate degree. As far as degree specialization is concerned, 55 respondents (31%) reported a curriculum/instruction major or minor, whereas 122 (68%) said they did not have such a major or minor.

Measures

The instrument developed for this study consisted of 39 statements regarding four areas of restructured teaching and learning processes: curriculum, instruction, equity, and delivery structure. Each statement required two responses; first, principals were asked to rate the level of implementation of a particular concept in their schools, and then they were asked to indicate their attitude toward the concept. Principals next rated the pressure they felt to restructure teaching and learning processes from sources within and external to the school system. Respondents then reported demographic information concerning the size of their district and high school, curriculum/instruction major or minor for advanced degree, highest degree held, years of teaching/nonadministrative experience, years of administrative experience, and gender. Last, principals were asked to indicate their involvement in and/or experience with restructuring innovations at their high schools.

Procedures

The survey, along with an explanatory letter endorsed by the executive director of the MASSP, and a return post card were mailed

to the selected sample of secondary school principals. A follow-up reminder letter and a second copy of the survey and post card were mailed to principals who did not return the first post card. The entire data-collection process was completed in two months.

Data Analysis

The data gathered from the instrument were analyzed mainly by using the Statistical Package for the Social Sciences (SPSS/PC) data-analysis system. Specifically, subprograms in descriptive statistics, t-tests, Pearson correlation coefficients, and one-way ANOVAs with posteriori contrasts, namely, Student-Newmann-Keuls, were used. Also, the reliability program was used to examine the reliability of the instrument. The program was used to compute Cronbach alpha coefficients for each scale and for all items combined. The alpha coefficients were used to judge the quality of the scales.

Major Findings and Discussion

In this section, major findings pertaining to the research questions and hypotheses are presented. Descriptive and inferential analyses were used to investigate relationships used for descriptive research purposes, and comparisons between sample means.

Research Question 1

To what extent have restructured teaching and learning processes been implemented by Michigan high school principals?

The analysis of the data showed that there was some degree of implementation of restructured teaching and learning processes. The

overall mean for the four subsets combined (mean = 2.46), which signified little implementation. Principals indicated that the equity subset had the highest amount of implementation (mean = 3.20), and the delivery structure subset had the lowest amount (mean = 3.20). The delivery structure statements dealt with new roles for key players in the school; these statements described teachers, parents, students, and administrators collaborating on goals. The delivery structure section also listed the options of changing the daily schedule and lengthening the school day and year. This subset yielded the lowest mean; at present, high schools are traditional in nature, and the structures are preserved as part of the status quo. Changing the school day/year would also involve renegotiating changes in the bargaining agreement for teacher work day/hours. Although high schools have responded to Public Act 25 by working with school improvement, the school day/year has basically been unaltered.

The mean scores for the subsets of curriculum (mean = 2.70) and instruction (mean = 2.74) indicated that some of the concepts were being implemented to some degree. These subsets dealt with core concepts in what would be taught in a restructured curriculum and how it would be presented differently. The paradigm shift is in teaching for understanding, where students are expected to be actively engaged as learners in the classroom, taking part in applying knowledge, not just being passive recipients of knowledge. Teachers are involved with planning and delivering instruction in

teams. Teachers act more as facilitators and coaches and emphasize problem solving, critical thinking, and higher-order thinking skills. The curriculum statements embraced various concepts, which included higher-order thinking skills, interdisciplinary units, problem solving, and new assessment techniques to measure student learning. Principals reported the highest extent of implementation in the area of equity (mean = 3.20); this score would indicate some implementation. The highest mean score was for "expecting all students to learn" (mean = 3.58); the lowest was for "emphasizing critical thinking for all students, including those on lower levels" (mean = 2.83).

Research Question 2

What are Michigan high school principals' attitudes toward restructured teaching and learning processes?

The analysis of the data showed that principals had highly favorable attitudes toward restructured teaching and learning processes. The mean score for all areas combined was 5.09. Principals indicated strong agreement in the areas of instruction (mean = 5.48), curriculum (mean = 5.37), and equity (mean = 5.37); they also indicated agreement in the area of delivery structure (mean = 4.38).

Principals indicated their strongest agreement for the subset of instruction (mean = 5.48). This category involves the changes in how teaching would take place. In a restructured environment, teachers are less active as lecturers and are more involved in coaching students to become more self-reliant as learners. Teachers

also plan and work in teams and likewise foster cooperative-learning techniques for their students.

In the subset of instruction, principals were most strongly in favor of "increasing student responsibility for learning" (mean = 5.78); "increasing individualized instruction" (mean = 5.24) and "restructuring the work day to give teachers time to plan" (mean = 5.25) were the two statements that received the least favorable responses. However, even the statements with the least favorable means still signified strong agreement.

Principals' attitudes toward curriculum and equity yielded identical mean scores (mean = 5.37), meaning strong agreement. The curriculum category dealt with changes in what would be taught and assessed; the changes involved less memorization and more use of facts. The statement in this category that was least favored was still within the agreement range.

For the category of equity, principals gave the strongest support to "expecting all students to learn" (mean = 5.80) and the least support to "grouping students with varied abilities in the same classes" (mean = 5.01).

For the subset of delivery structure, principals had the most favorable attitudes toward "increased teacher decision making and participation in their professional development" (mean = 5.61). Principals also strongly agreed to "teachers and administrators collaborating on goals" (mean = 5.52) and "giving students time and opportunity to learn desired outcomes, i.e., mastery learning" (mean = 5.51). The statements that were least favored involved

lengthening the school day by two hours, or extending the school year by four to six weeks (means = 3.32, 3.52, and 3.01, respectively). However, principals were strongly in favor of creating larger blocks of instructional time within the school day (mean = 5.06) and rotating class schedules throughout the week (mean = 4.50).

Research Question 3

Is there a relationship between Michigan high school principals' attitudes toward restructuring teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure) and the current extent of implementation of the same?

Principals' attitudes were not related significantly to the levels of implementation of restructured teaching and learning processes in their schools. Although principals' attitudes toward the concepts involved with restructured teaching and learning processes were very positive, the respondents indicated that their schools had little implementation of the same.

The findings from this study supported the research, which indicated that little has been actually happening relative to restructured teaching and learning processes (Cohen, 1988; Cuban, 1987; Goodlad, 1983; Murphy, 1990; Sirotnek, 1983). These researchers indicated that high schools are typically bureaucratic places where teaching remains relatively unchanged.

Murphy (1990) indicated that little is known about how principals feel about restructured teaching and learning processes. In the present study, it was found that principals agreed with the

specific statements listed under curriculum, instruction, and equity. With regard to delivery structure, principals agreed with the concepts concerning new roles for teachers and parents in negotiating goals or mastery learning or multi-age groups of students. What principals disagreed with were proposed changes with regard to lengthening the school day or year.

Research Question 4

> To what extent do Michigan high school principals perceive district and external forces as exerting pressure to restructure teaching and learning processes (i.e., curriculum, instruction, equity, and delivery structure)?

Principals indicated that they felt more pressure from external sources (mean = 4.29) than they did from sources within their district (mean = 3.55). The conceptual framework for this study, the Far West model, indicates that principals are influenced by personal, district, and external sources and that the actions of principals influence the school climate and instructional organization, which ultimately affect student outcomes.

Principals indicated that they felt the most pressure to restructure from legislation/laws (mean = 5.24), followed closely by government/legislators (mean = 5.14). Both of these pressures are external in nature. Principals also indicated that they felt strong pressure to restructure from the Michigan Department of Education (mean = 4.93). They also felt a fair amount of pressure to restructure from business/industry (mean = 4.37). All of the

strongest pressures were felt from sources external to the school district.

The principals indicated a fair amount of pressure to restructure from their district superintendent (mean = 4.20) and other principals (mean = 4.18) who are their peers. These sources are both in the internal district category. Sergiovanni (1989) discussed the superintendent's importance in creating pressure and support for educational change.

The Far West model indicates that influences and pressures are interactive; therefore, principals are influenced not only by outside forces. Principals' personal characteristics are factors that help explain behaviors. Bem's (1970) theory would indicate the importance of one's peers in shaping attitudes; the findings from this study indicate that there is some support for this concept. Principals in this study were influenced by their peers and superiors. This study did not differentiate among various types of pressure/influence within each group. Instead, the focus was on how much pressure each group exerts relative to restructuring teaching and learning processes.

Research Questions 5 Through 14

These questions concerned the relationship of personal/ demographic variables (graduate degree specialization of curriculum/ instruction major/minor, level of graduate degree, teaching or nonadministrative experience, administrative experience, and gender) to extent of implementation and principals' attitudes.

Extent of implementation. Personal variables that were sig-
nificant were the major/minor in curriculum/instruction with the
current extent of implementation of restructured teaching and
learning processes in the curriculum, instruction, and delivery
structure subsets; the level of the graduate degree with the extent
of implementation of equity; and years of teaching/nonadministrative
experience with the extent of implementation of delivery structure.
The observed differences among the other variables were not statis-
tically significant.

With reference to the graduate degree specialization, this
study confirmed what the research suggested, namely, that the
majority of principals are not generally schooled in curriculum and
instruction (Goodlad, 1983; Murphy & Hallinger, 1987). This study
indicated that 31% of the respondents had a curriculum/instruction
major or minor; these principals reported levels of implementation
in curriculum, instruction, and delivery structure subsets that were
significantly higher than those of principals who did not have cur-
riculum/instruction as a major or minor. Specifically, principals
with a major or minor in curriculum/instruction reported higher
levels of implementation in the subsets of curriculum, instruction,
delivery structure, and all areas combined; these differences were
statistically significant. Although not statistically significant,
the attitudes of principals with a major or minor in curriculum/
instruction were more positive in every subset than those of their
counterparts without a curriculum/instruction major or minor.

With reference to the level of the graduate degree, differences were found among principals at the three levels concerning current extent of implementation of restructured teaching and learning processes. Principals with specialist degrees reported a significantly higher level of implementation in the area of equity than did their counterparts with master's or doctorate degrees.

The study findings indicated that it was the type of degree specialization as opposed to level of degree that was significantly related to the extent of implementation when all areas of restructured teaching and learning processes were combined.

With respect to the years of teaching/nonadministrative experience, statistically significant differences were found in the subset of delivery structure. Principals who had taught 20 or more years and those who had taught 5 or fewer years reported the highest extent of implementation in the subset of delivery structure. There was no statistically significant relationship between extent of implementation and years principals had worked as administrators.

Principals' attitudes. With regard to principals' attitudes toward restructured teaching and learning processes, several variables were statistically significant. In the area of administrative experience, statistically significant differences emerged in the subset of curriculum. Specifically, principals who had worked 6 to 20 years as administrators reported the most favorable attitudes toward the concepts listed in the curriculum subset. The lowest attitude mean was from principals who had worked as administrators for more than 20 years. However, the means for every

category of years of administrative experience were within the positive range.

When all items were combined for the question about attitudes and administrative experience, statistically significant differences were found. Principals who had been administrators 6 to 10 years, 11 to 15 years, and 16 to 20 years had means that were nearly identical (means = 5.18, 5.16, and 5.17, respectively). Principals with up to 5 years and 20 or more years of experience had nearly identical, but less favorable, attitudes (means = 4.92 and 4.93, respectively).

As reported in the literature, findings regarding the variable of experience have not been conclusive. Actually, Bossert et al.'s (1982) research indicated that, in the area of personal characteristics, training and experience are less important or significant than is gender. Researchers also have found that many principals are not trained specifically in the areas of curriculum and instruction (Murphy & Hallinger, 1987). This study confirmed that experience was not related to the extent of implementation. However, principals' administrative experience was significantly related to their attitudes in the areas of curriculum and all subsets combined (curriculum, instruction, equity, and delivery structure). Principals who had from 6 to 20 years of experience as administrators had higher attitude means in the subset of curriculum than did their peers who had worked up to 5 years and 20 or more years as administrators. Likewise, for all items combined, statistically

significant differences in attitudes were found between principals with 6 to 20 years of administrative experience, as compared with those who had up to 5 years and 20 or more years of such experience.

With regard to gender, statistically significant differences in attitudes were found between male and female principals. Female principals had significantly more favorable attitudes than their male counterparts in all subsets--curriculum, instruction, equity, delivery structure, and all items combined. These findings support the research, which has indicated that women display more interest in topics of educational leadership and other instructional issues (Marshall, 1987). Likewise, Bossert et al. (1982) claimed that gender is the strongest personal characteristic, more so than either training or experience. That assertion was confirmed in this study.

Research Questions 15 and 16

Pressures to restructure. Research Questions 15 and 16 asked whether there was a positive relationship between either the extent of implementation or the attitudes of principals and the pressures they felt to restructure from district and external sources. The results of this study indicated that several variables were significantly related to extent of implementation and principals' attitudes toward restructured teaching and learning processes; both positive and negative relationships were found.

With regard to the extent of implementation of restructured teaching and learning processes, principals' perception of pressure from the school board was positive and significant in the areas of

curriculum and delivery structure. The pressure felt from teachers was positive and significant in the areas of curriculum, instruction, and delivery structure. The pressure felt from parents was positive and significant in the areas of curriculum, instruction, and delivery structure. All of these significant relationships were in the category of district or internal pressures.

With regard to principals' attitudes, a positive and significant relationship was found with the pressure principals reported from other principals and their attitudes toward the areas of curriculum, instruction, and delivery structure. Likewise, pressure from teachers was significantly related to principals' attitudes toward curriculum and instruction. Finally, pressure from parents was positive and significant when compared with principals' attitudes toward the subsets of instruction and delivery structure. When the pressures felt to restructure from external sources were compared with principals' attitudes, statistically significant relationships emerged. Principals' attitudes toward curriculum and instruction were negatively related to the pressure they felt from legislation/laws. In the entire external-pressure category, the majority of relationships (75%) were negative.

Because restructured teaching and learning processes per se are not mandated by law, there are no means by which to measure the relationship with a law specifically mandating restructuring. This is a limitation of the present study. In response to the open-ended question, principals did mention Public Act 25 as a predominant

source of their school improvement efforts. Likewise, they indicated that the North Central accreditation process was a catalyst for school improvement. It is clear that these principals perceived pressure from outside sources to change their schools. The research has indicated that the principals who lead their schools forward in change demonstrate strong instructional leadership qualities. Research also has indicated that principals, in general, are unprepared for an instructional leadership role (Murphy, 1990). Principals' attitudes as reflected in this study, however, indicate a willingness to confront existing high school traditions.

Research Questions 17 Through 20

District characteristics. When principals' attitudes were analyzed for their relationship to the size of the district, significant differences were found. In the area of curriculum, principals from Class 1 districts (120,000 or more students) had the most favorable attitudes, followed closely by those from Class 3 (2,400-29,999 students) and Class 2 (30,000-120,000 students) districts. In the area of instruction, principals from Class 2 districts had the most favorable attitudes, followed closely by those from Class 1 and Class 3 districts. In the area of equity, principals from Class 2 districts expressed the most favorable attitudes, followed by those from Class 3 districts. In delivery structure, principals from Class 1 districts reported the most favorable attitudes, followed by those from Class 2 and Class 3

districts. For all items combined, principals from Class 1 districts had the most favorable attitudes, followed by those from Class 2 and Class 3 districts. It was principals from the smallest districts who had attitudes that were least favorable toward the concept of restructuring. Bossert et al. (1982) found that the schools were loosely coupled to the school district by formal controls but that the promotion and evaluation system can shape principals' behavior. This research would confirm that the relationship between size of district and principals' attitudes is not conclusive.

Principals' attitudes also were analyzed for their relationship to the size of the high school; some significant differences were found. Principals from Class A and Class B high schools (student enrollments above 491) reported more favorable attitudes toward every subset, but these differences were statistically significant in the areas of curriculum, instruction, and all items combined. Principals from the larger high schools, like those from the larger school districts, had more favorable attitudes toward restructured teaching and learning processes than did their counterparts from smaller high schools.

Bossert et al. (1982) found that schools were loosely coupled to their district offices by formal controls, but the informal controls from their peers or the culture of the district would shape principals' behavior. Bem's (1970) self-perception theory would also support the social and emotional foundation for principals'

beliefs and attitudes. Bem indicated that peers are powerful shapers of beliefs and attitudes. The principals in this study were influenced by other principals and their superintendents; therefore, the results of this study supported the Bossert et al. and Bem models with regard to the variable of influence.

Conclusions

Teaching and learning processes are the core technology of the school (Bossert et al., 1982; Murphy, 1990). They are what leading analysts criticize, and they receive the least media coverage relative to the topics of restructuring and reform. The purpose of this study was to discover what is currently happening in public high schools in Michigan with regard to restructured teaching and learning processes, identified as subsets of curriculum, instruction, equity, and delivery structure. This study focused on restructured teaching and learning processes through the eyes of the high school principal; thus, principals were asked to relate the current extent of, attitudes toward, and pressures felt to restructure teaching and learning processes. The following conclusions were drawn from the findings of this study:

1. High school principals indicated that some of the concepts of restructured teaching and learning processes were being implemented from little to some degree; however, overall, there was some implementation. Principals reported that the issues of equity were most highly implemented, with changes in the delivery structure being least implemented.

2. High school principals expressed very strong agreement toward the concepts of restructured teaching and learning processes: curriculum, instruction, equity, delivery structure, and all items combined. Principals indicated the strongest agreement with statements in the subset of instruction, especially in making students more responsible for their learning; teachers more involved as coaches for learning, with students working in teams. Principals also showed strong support for the subsets of curriculum and equity. They indicated the least support for the subset of delivery structure, specifically in terms of changing the school day or year by lengthening them.

3. No significant positive or negative relationship was found between principals' attitudes toward restructured teaching and learning processes and the extent of implementation of the same. In essence, principals' attitudes were not related to the extent to which restructured teaching and learning processes had been implemented in their schools.

4. Principals ranked the pressure to restructure from external sources as higher than the pressure from internal sources. They felt the most pressure from legislation/laws, government/ legislators, the Michigan Department of Education, and business/industry. Principals indicated nearly identical pressure from their superintendent and other principals; these were the fourth highest sources of pressure, and both were in the district or internal-pressure category.

When the pressures felt to restructure from district and external sources were correlated with the extent of implementation and principals' attitudes, only weak correlations were found. However, several statistically significant differences emerged. With respect to the extent of implementation, all of the significant and positive correlations were in the district/internal category. The pressure felt to restructure from the school board was positively correlated with the extent of implementation of curriculum and delivery structure. The pressure felt to restructure from teachers was positively correlated with the extent of implementation of curriculum, instruction, and delivery structure.

Statistically significant differences were found when principals' attitudes were correlated with the pressures from external and internal sources. The category of district pressures contained all of the positive correlations. Principals' attitudes toward restructured teaching and learning processes in the areas of curriculum, instruction, and delivery structures were positively correlated with pressures from their peers (other principals). Principals' attitudes toward restructuring in curriculum and instruction were correlated positively with pressures from teachers. Principals' attitudes toward restructuring in instruction and delivery structure were positively correlated with pressures from parents. Finally, principals' attitudes toward restructuring in curriculum and instruction were negatively correlated with pressures from legislation/laws.

5. Personal characteristics that were significantly related to the extent of implementation of restructured teaching and learning processes were (a) major or minor in curriculum/instruction with implementation of restructured curriculum, instruction, delivery structure, and all subsets combined; (b) specialist degree with implementation of restructured equity; and (c) teaching/nonadministrative experience with implementation of restructured delivery structure (principals with up to 5 years of experience and those with 20 or more years of experience had higher implementation).

Personal characteristics that were significantly related to principals' attitudes were (a) administrative experience with attitudes toward restructured curriculum and all items combined (6 to 20 years of experience most positive); and (b) gender with attitudes toward restructured teaching and learning processes in every subset--curriculum, instruction, equity, and delivery structure (females displayed more favorable attitudes than their male counterparts).

6. Principals' attitudes were related to the size of the district and size of the high school. Principals from school districts with student enrollments greater than 2,400 were more favorable toward the concepts of restructuring than were their counterparts from smaller school districts. Likewise, principals from schools with student enrollments of 491 and higher had more favorable attitudes toward restructured teaching and learning processes than did their counterparts from smaller schools.

Educational Implications

Restructuring and Change, and Their
Relationship to the Principal

Principals who become involved with restructuring will be involved with managing change. Fullan (1991) wrote:

> What the principal should do specifically to manage change at the school level is a complex affair for which the principal has little preparation. The psychological and sociological problems of change that confront the principal are at least as great as those that confront teachers. (p. 77)

In this study, it was found that principals had strong agreement for the concepts of restructured teaching and learning processes but that their schools had little overall implementation of the same. These findings would suggest that principals will either have to become involved with helping cause the change to happen, or they will mediate changes imposed through legislation. "Principals' actions serve to legitimate whether a change is to be taken seriously (and not all changes are) and to support teachers both psychologically and with resources" (Fullan, 1991, p. 76). Principals, therefore, play a major role with how the change is perceived. Principals will need to wrestle with their own feelings about restructuring, as well as deal with feelings about their own readiness to provide the type of instructional leadership that allows others also to lead.

Fullan's (1991) analysis of change indicated four main areas that are important in change; these include (a) action initiation and participation, (b) pressure and support, (c) behaviors and beliefs, and (d) the overriding problem of ownership. Fullan

explained that active initiation may begin with a small core of
people:

> There is no evidence that widespread involvement at the
> initiation stage is either feasible or effective. It is more
> likely the case that small groups of people begin and, if
> successful, build momentum.

> Second, it is increasingly clear that both pressure and
> support are necessary for success. Successful change projects
> always include elements of both pressure and support. Pressure
> without support leads to resistance and alienation; support
> without pressure leads to drift or waste of resources.

> Third, the relationship between changes in behavior on the
> one hand, and changes in beliefs or understanding on the other
> hand, requires careful consideration. In many cases, changes
> in behavior precede rather than follow changes in beliefs.

> The role of ownership is the fourth subtitle in the change
> process. Clearly, deep ownership of something new on the part
> of large numbers of people is tantamount to real change, but
> the fact is that ownership is not acquired that easily. True
> ownership is not something that occurs magically at the
> beginning, but rather is something that comes out the other end
> of the change process. (pp. 91-92)

Fullan raised several key issues in this passage that have

direct implications for high school principals. It is clear that

expecting wholesale buy-ins from an entire high school staff is

unrealistic. In fact, principals could consider starting with a

core of teachers to actively begin the change process. These

teachers could represent the various departments of the school, and

they could ultimately become the change agents for the school.

Fullan raised the issue of actions preceding beliefs, as did Kempner

(1980). Principals could expect that their staffs would begin to

believe in the concepts of restructured teaching and learning while

they were working through them. Both Kempner and Fullan indicated

that actions cause a change in beliefs; active participation can

cause a strengthened or altered belief, which can, in turn, reinforce this behavior.

Conversion does not happen overnight, particularly in the second-order change that Cuban (1988) described. Sergiovanni (1987) referred to the intense socialization factor in education and likened it to the priesthood. It is clear that principals who contemplate restructured teaching and learning must be prepared for the ensuing barriers and resistance to the same.

Principals who want to begin to bring about change with their staffs might begin with a small group of teachers who would be empowered to work with fellow staff members to consider restructuring. According to Fullan, principals who provide pressure and support increase the chances that this meaningful change will occur.

Understanding the change process is also helpful because there are many emotional highs and lows that a staff encounters while working through change. Principals provide understanding and support when they acknowledge the difficult work that happens as staffs attempt serious change.

Staffs that would consider changing the core of their school, i.e., the teaching and learning, are attempting to change what Cuban (1988a) referred to as second-order changes. Such changes are more difficult to implement because they result in deeper and more fundamental change. A second-order change would need considerably more support as well as pressure. Principals who can articulate a

vision of restructuring and provide technical assistance are more likely to succeed with actual implementation of the same.

Analysts are calling for different types of leadership to instill changes in the schools; therefore, the issue of change relates directly to the issue of leadership. Traditional forms of building management might begin to change as principals recognize the professional contributions their teachers are able to make; empowerment of teachers includes teachers making decisions about curriculum, instruction, and their professional growth. Teachers become invested when they are part of the change process. Bem's (1970) self-perception theory explains the importance of the social and emotional foundations for beliefs and attitudes. This type of reinforcement is critical for peers to validate and encourage new behaviors. Likewise, the Far West model indicates that pressure and support from the principal are key in motivating change in the instructional organization and school climate.

If the principal is willing to loosen a bureaucratic hold or tradition, leadership can be transformed. Collaboration is a main element in the working partnership in a restructured environment. With collaboration, a principal does not abdicate authority; instead, there is a sense of harmony in the working partnership between the administration and the teaching faculty.

Leadership and the Principal

Principals in this study indicated that they strongly supported the concepts of restructured teaching and learning and that their

schools had little implementation of the same. Many responded in the narrative section by saying that public education needs to change in the direction of restructuring teaching and learning and that principals need assistance in providing the leadership needed for these fundamental changes.

Principals need assistance in understanding the technical core of their schools. Beyond the level of understanding about how planned educational change takes place is the need to understand concepts like teaching for understanding, where the emphasis is on critical thinking with multiple perspectives, higher-order thinking, curriculum issues, and new, more effective assessment techniques. Principals would benefit from what their professional staffs or students also need--namely, cooperative-based problem solving in teams with an experiential learning that is interdisciplinary. This concept is a paradigm shift about leadership. It places an emphasis on active leading. Consider what Goens and Clover (1991) said about the nature of leadership:

> The ultimate causal impact of leadership can be measured only when real and lasting change is implemented. Leaders, as change agents, must be judged by their ability to commit followers to the intended change and to motivate those followers to take ownership in the change to make it succeed. (p. 154)

This view of leadership could create some concern for building principals. Principals are not viewed as being prepared in administrative course work for the knowledge needed in instructional leadership (Murphy, 1990). Principals who want to increase their skills in instructional leadership could be assisted by their

membership in professional organizations. The Michigan Association of Secondary School Principals (MASSP) has sent monographs on restructuring and outcome-based education to all of its members. The MASSP also offers three four-day principal institutes each June, which help principals learn about issues in school improvement and plan how they will work to help their schools improve. The June 1992 institute dealt specifically with the topic of restructuring. State professional organizations were not cited as an external source of pressure for change in this study, but they could be viewed as important agents for helping their practitioners achieve the professional growth needed for transforming schools.

The results of this study indicated that the North Central Association is also seen as an important catalyst for school growth and improvement. Many principals cited the North Central accreditation process known as outcome accreditation as the primary thrust behind their schools' efforts to reform, as indicated in the narrative-response section of the questionnaire. Principals can receive assistance in formulating their school improvement plans from the North Central agency. As principals look at what happens in their schools relative to teaching and learning, the North Central process can facilitate the focus on what happens in the classroom. The North Central Association outcome-based accreditation process recommends that schools select three cognitive and two affective goals to work on for a five-year cycle. These goals are intended to directly affect students.

In Michigan, Public Act 25 was passed in 1990; this law mandates school improvement. Many principals cited Public Act 25 as the catalyst for change in their schools, and they reported that the law was the scope of what was happening relative to restructuring their schools. Public Act 25 mandates annual reports that measure progress of student learning and share the findings with the public. If the Michigan State Department of Education were to host ongoing workshops and training sessions featuring Public Act 25 mandates and restructured teaching and learning processes, principals could increase their knowledge base and prepare for new demands of educational leadership.

The principals in this study did not indicate that university professors were a source of pressure to restructure, but these educators are in a key position to help principals grow in the theoretical foundations and practical applications of restructuring teaching and learning processes. University coursework could be a powerful motivation to help building practitioners see the need for change, as well as methods for bringing about change. It is interesting to note the correlation between advanced degree work and change in this study; principals reporting majors or minors in curriculum/instruction had more favorable attitudes toward and higher levels of implementation of restructured teaching and learning processes than did their counterparts without such a major or minor. Likewise, principals with a specialist degree indicated more favorable attitudes toward and a higher level of implementation

of restructured teaching and learning processes that were statistically significant than did their counterparts with master's or doctorate degrees.

Last, school districts must be willing to provide financial assistance to schools; they must also be willing to consider providing time for the reflective planning these reforms demand. School districts must make professional staff development a priority if they expect to see meaningful change occur. The correlations among the various internal groups of a school system generated by this study are interesting. For example, principals indicated that superintendents provided about the same amount of pressure to restructure as did the principals' peers (other principals). Sirotnek (1987) indicated that superintendents are in key positions to cause educational change because of their ability to empower teachers and principals with time and money. Superintendents can also reinforce educational change through recognition and/or promotion. Superintendents must be willing to confront their own tendency to stay on safe ground, and take some risks (Cuban, 1989).

Superintendents and school boards can empower building administrators to restructure teaching and learning processes if they will take the educational risks associated with change. Cuban (1989) indicated that superintendents typically are involved in trying to reduce tension and avoid major changes and, in doing so, compromise innovations by choosing constancy over change. Cuban noted that many of the changes that are approved are of the first-order types that do not change the fundamental organizational

structures of schooling. He argued that a sense of crisis and an enlightened school board that has a vision are requisites for the deeper, second-order changes. Cuban wrote:

> The superintendent must be the one who shares the school board's vision or has enough of another vision to induce the board to reshape its original picture of what should be. He or she possesses the stamina, ambition, and daring, plus the technical, social, and mental skills, to direct that vision into practice over at least a five-year period. (p. 269)

Thus, school boards and superintendents are intricately involved as schools change. The conceptual framework for this study indicated the importance of the district in influencing the principal. However, the results of this study indicated that school boards are not currently putting significant pressure on principals to change. Superintendents must be willing to see education through the eyes of the analysts if they want to keep the focus on meaningful change--change that centers on teaching for understanding.

Recommendations

Based on the results of this study, several recommendations are made.

Future Research

It is recommended that this study by replicated by:

1. Using the instrument with various groups to analyze their attitudes toward the concepts associated with restructured teaching and learning. Superintendents, board of education members,

teachers, students, and parents could complete this survey, and the results could be compared with the perceptions of principals.

2. Using this survey for an in-depth look at one district, to try to gain a sense of how different groups within a district feel about restructured teaching and learning processes. Comparisons could also be made between districts of different sizes.

3. Conducting qualitative research that asks the same questions on the survey in a face-to-face, interactive interview, but with an emphasis on asking how these changes might be implemented. In such a study, teachers, principals, superintendents, students, and parents could describe the type of help they want and define their willingness to change.

4. Replicating this study with middle-level and elementary school principals to see if restructured teaching and learning processes are occurring at these levels with different intensities.

Legislation

1. It is clear that the principals in this study felt pressure to restructure. If future legislation were enacted that asked schools to work toward restructuring the core technology, principals might respond by providing pressure and support for changes in teaching and learning processes. This study revealed that principals already approve of the restructuring concepts, and a law might provide the catalyst needed to begin implementation. Kempner's (1980) research supported the need for legislation to cause the action to occur, which, in turn, could cause a change in

attitude. The focus of the law would need to correlate with what educational researchers have indicated is problematic with public education, rather than the arbitrary actions/feelings of lawmakers who were probably very successful in a traditional, rigid, and bureaucratic school system. The law would need to focus on causing educators to begin to change by making school improvement efforts in the areas of how teaching and learning take place, where educators/administrators/parents could make decisions about what is most needed for the clients they serve, based on conceptions about learning and how learning takes place.

2. Caution is urged with any mandate that narrowly defines exactly what should be followed. Instead, it is recommended that guidelines be developed in which personnel in individual schools would study their particular needs as well as the research that deals specifically with teaching and learning which could be applied to their particular school. Powell et al. (1985) described concerns with top-down reform:

> First, top-down reform usually skirts the question of what students have actually learned in favor of emphasizing superficial symbols of learning: what courses are taken, how many credits are accumulated, how much homework is given, how long a student spends in school. Standards can thus be raised without much attention to actual performance. . . . Finally, most top-down schemes can easily be subverted in schools and classrooms if they have little support from parents, students, and teachers. (pp. 312-313)

3. It is recommended that legislators appropriately fund the inservice training that is needed. Analysts believe that the United States is in an absolute crisis in education, and legislators have yet to acknowledge that need in terms of financial resources.

Legislators are key people in causing meaningful reform to happen, and there is a price tag for that reform. Without appropriate funding, it is unlikely that schools will be able to afford quality training opportunities.

Education

1. Continued professional growth is the only hope for meaningful educational change; educational research has provided theoretical and philosophical foundations that should not be ignored. Educators need inservice training and a variety of professional-growth activities. Continued learning is the only way to model the lifelong learning that is so often talked about and then abused or ignored in public education. Teachers, administrators, school board members, and parents must be willing to regularly read, analyze, and discuss educational research. Time must be allocated for meaningful collaboration among professional staff members.

2. University professors can become role models for administrators and teachers by allowing their classrooms to be places where active learning takes place. This learning can be interdisciplinary in nature, with an active orientation toward problem solving, a place where issues and challenges form the agenda, and new learning is desired and expected, in addition to studying theories and models of educational leadership. For example, programs in educational administration can integrate studies of curriculum and instruction with courses in law, finance, and supervision. Cohen (1988) wrote about this topic; he indicated:

> If academic subjects are to be taught as fields for intellectual adventure, students must learn how to become competent adventurers--that is, inquirers. They must learn how to frame problems and decide disputes rather than learning how to get the right answer. They must therefore be encouraged to assume the authority that comes with intellectual competence, rather than to fly blind on the authority of test or teacher. (p. 38)

No less is needed at the university level.

3. The Michigan Department of Education could assist schools by offering inservice and on-site consultation specifically in the areas associated with restructured teaching and learning processes.

4. Professional organizations like the MASSP can continue to provide inservice training for their members that focuses on planned educational change, instruction, communication, problem solving, and team building. Specifically, administrators need additional assistance in helping to move their districts forward in school improvement efforts.

5. The addition of curriculum and instruction courses for administrators involved in pursuing advanced degrees should be considered. The results of this study indicated a strong correlation between a major/minor in curriculum and instruction and the extent of implementation of restructured teaching and learning processes.

Reflections

Systemic Changes

Eisner (1991) described what practitioners should think about as they consider educational reform. He wrote:

> This neglect of the deeper mission of schooling is paralleled only by the unwillingness to address the complex, systemic features of schooling, especially what teachers need. The President's reform effort has paid virtually no attention to the school as an organization, as a workplace, as a slice of culture, as a community displaying a certain ethos, and as an array of intellectual and social norms. In short, we have focused our attention on symptoms, and shallow ones at that, and have neglected the deeper structural conditions that impede the improvements of schools. (p. 78)

The results of this study indicate that principals are interested in restructured teaching and learning processes; these are not examples of shallow symptoms. The teaching and learning processes need to change, and the principal is in a key position to facilitate the change and articulate the vision. Sykes (1990) wrote about this role:

> Administrators have a crucial role both in interpreting teaching to the public and in creating professional subcultures that in turn generate norms and standards. Goals, results, and planning are the traditional tools of management, but these are insufficient. School administrators must also establish expectations and provide resources for frequent, regular observation of teaching, curriculum, evaluation, and learning, and for teacher writing about these matters. (p. 367)

Principals have a choice. They can either become the best informed advocates who initiate the changes, or they can be responsive to legislative changes and mediate them. It is hoped that this study will encourage principals to take an active lead in reforming public education. Many people believe it is unlikely that the change will come from within the institution. Barth (1991) wrote:

> It has been long held that the priest is incapable of reforming the priesthood. Many believe the same to be true of education reform. For instance, when corporate officials look at the public schools, they see obsolete, inefficient, and bankrupt factories. A recent article in Business Week concluded with

these words: "To survive . . . , America's public schools must be totally restructured top to bottom. And they will not restructure themselves. Only a powerful, outside presence will lead to that." (p. 126)

The question arises: Where and how will this needed change occur? If the changes are mandated through legislation, there is concern that the changes must not reflect the core technology of the school. Without legislation, however, what are the chances that widespread change will ever happen? It is clear that shallow rhetoric will not get the job done. Quimby (1985) quoted what Goodlad told him in an interview:

> Cosmetic changes can be legislated and mandated; the ways children and youth acquire knowledge and ways of knowing cannot. These depend on the knowledge and creativity of teachers. Better preparation of principals and teachers, along with help and time for designing programs at the site, are necessary ingredients of school improvement.
>
> This message is at best only at the rhetorical level of acceptance, at policymakers seeking to improve schooling. Unless it becomes a guiding principle of action as well as faith, little more than peripheral changes in the central curricular and instructional functioning of schools is likely to occur. (p. 19)

Goodlad made a convincing argument for the continued professional growth of principals and teachers. He warned of the peripheral changes that Cuban would describe as first-order changes. Because new programs, titles, and courses sound, on the surface, progressive or innovative, they can take educators down a seductive path. Fullan (1991) warned that change is everywhere but progress is not; he also warned that major problems with innovations are not the many resistors or barriers, but the uncritical acceptance when programs are adopted without reasoned debate. Educators need help

in discriminating the deeper level of changes that will affect
teaching and learning. As Glickman (1990) noted:

> By always focusing on short-term accomplishments, we trivialize
> and deny the value of the process of arriving at what is most
> important, enduring, and significant. Education is a long-term
> proposition.
>
> Without long-term goals, schools focus on the immediate,
> the expedient--and, often, the superficial. They succumb to
> the pressure of mortgaging the future for the present. (p. 73)

Future Directions

There is not one single way to promote or produce meaningful
educational reform. Ultimately, the reform either happens, is
sabotaged, or is avoided at the building level. The individual
school is the ultimate unit of change, and it is the principal who
will be guiding that change. When Sarason's (1990) statement is
considered, America's wake-up call is chillingly clear:

> As a nation, we have no higher priority than ensuring our
> children gain the knowledge, skills, and critical thinking
> ability essential to their survival in a world of dizzying
> technological, economic, and social change. But America's
> schools are failing our young people and jeopardizing our
> nation's future. At stake is our nation's ability to compete
> with the economic powerhouse of Western Europe and Asia--and
> with it, the quality of life for generations of Americans to
> come. (p. 176)

The goals for school improvement can be considered high stakes.
Educators need to be close to the discussions that are taking place
across this nation to help with creative solutions. Principals are
in key positions to motivate their staffs, communicate with parents,
and influence lawmakers. Bishop (1990) touched on these topics in
the following passage:

Only when educational outcomes are aggregated at the state or
national level do the real costs of mediocre schools become
apparent. The whole community loses because the work force is
less efficient, and it becomes difficult to attract new
industry to an area. As competitiveness deteriorates, the
whole nation's standard of living declines. This is precisely
the reason that employers, governors, and state legislators
have been the energizing force behind school reform. State
governments, however, are far removed from the classroom, and
the instruments available to them for imposing reform are
limited. If students, parents, and school board officials
perceive the rewards for learning to be minimal, then state
efforts to improve the quality of education will not succeed.
(p. 244)

Glasman and Glasman (1990) suggested that assessment be linked

to the new policies. Effective assessment can assist educators by

allowing them to reflect about their practices, monitor them, and

continue to make progress. Glasman and Glasman wrote:

Large-scale reforms require the enactment of policies. Many
public policies enacted in the 1980s consist of new educational
directions, standards, and requirements. These policies
address what students ought to study, what curriculum should
include, what teachers need to know, when testing should occur,
and a variety of other topics. But what evidence is there that
these policies reflect actual educational change? We submit
that educational policies that include requirements for
evaluating educational practice are indicative of changes in
policies. (p. 395)

Educators can help by working with legislators to keep the

focus of reform on teaching and learning. Lengthening a school year

to provide for professional-growth activities is one means for

ensuring the time that is needed for quality learning to take place

for staff members. Complex problems are not solved by simple

solutions, but educational researchers have provided practitioners

with convincing evidence of what needs to change.

Sizer (1991) wrote:

> What to do? Narrow the curriculum. Raise the expectations for each student. Proceed largely at the paces of the students rather than wholly by an externally imposed calendar--this step absolutely requires that we know each student well. Devise tests that reward serious, deep, and original work. All must be done simultaneously. Pain results: We have to teach differently; we have to rethink testing, the shape of the curriculum, the schedule; we have to demand more of our students. (p. 33)

Teachers will need help with creating the kinds of learning environments discussed in this study. These deeper changes do not happen overnight, and they are unlikely to happen given the current structure of the school, including the limited time available for personal reflection, discussion, and professional growth. Powell et al. (1985) expanded on these concepts as they helped define an agenda for educational reform within a school and throughout the nation:

> If teachers talked more with each other about both education and students, the chances for productive exchange about the effects of their efforts on students would increase. They could begin to discuss curriculum in its proper and broad context: what students should know and be able to do at the end of high school, not everyone to the same extent but everyone in the same direction. Many of the most serious "life skills" that high schools can teach--speaking cogently, writing clearly, reading with understanding, listening with empathy, having facility with numbers, solving problems--are not the exclusive domain of one subject. They need constant reinforcement in many subjects throughout high school. (p. 320)

Powell et al. shared a vision that is not unlike Sizer's: It is a plea for a change in the focus of learning, where the discrete disciplines are broken down and the emphasis is on higher-level thinking processes, where subjects are learned in depth and with a sense of adventure.

Much has been written about the need to graduate students who can reason, pose as well as solve problems, and communicate. David (1991) wrote:

> Ultimately, a school system designed to engage the minds of twenty-first-century students will look quite different from present school systems, created during the industrial era. The explosion of information and mechanization of routine tasks will force schools to teach ways of learning and reasoning instead of rules and facts. (p. 209)

Teaching reasoning, thinking skills, the ability to see things from multiple perspectives, problem solving, and analysis takes hard work. It is far easier to allow students to drift intellectually. Unfortunately, many attempts at reform simply put new labels on old behaviors. Consider what Toch (1991) said in discussing the need to revamp pedagogy in the United States:

> To date, few serious attempts have been made to make academic course work more compelling to the many students who are turned off by the tedium of traditional academic instruction. Indeed, in responding to new graduation requirements by placing such students in watered-down courses, school systems have taken an easier, less-expensive route. (p. 117)

Solutions/Directions

If schools combined the humanistic efforts of the 1970s, the concern for academic excellence of the 1980s, and a push for intellectual rigor and study that is in-depth, perhaps educators could significantly change curriculum that is a mile wide and an inch deep. Students and community members could be convinced that "less is more," as Sizer has asserted.

Boyer (1990) argued for a practical side that has depth and mastery. He stated:

What we seek, then, is a core curriculum that focuses on cultural literacy that is global as well as national, on science literacy with an ecological perspective, on language study that includes the mastery of symbols, clear thinking, and integrity. What students need, in short, is a solid course of study that relates content to the realities of life. (p. 33)

At this point, unfortunately, the issues of teaching and learning are either obscured or even void in most of the literature regarding restructuring (Murphy, 1990). Eisner (1991) commented:

What is even more troublesome is that almost all of the national proclamations for school reform, including those demanding higher standards and tougher courses, neglect the deeper mission of schooling: the stimulation of curiosity, the cultivation of intellect, the refinement of sensibilities, the growth of imagination, and the desire to use these unique and special human potentialities. (p. 78)

One goal of this research was to promote and stimulate educators to become involved with taking the risks that are needed to tear down old barriers and build the educational environments that can change the course of history for this nation. The moral and ethical obligation of learning should be a sacred trust of the principal as the educational leader of the school. If principals become literate in the research base and subsequent means for educational improvement, they can be proactive, action oriented. Principals can refuse to participate in useless writing of hollow mission statements that sound good, get put on a plaque, but never implemented. Principals can ask for and expect accountability with educational changes. Principals can be role models as learners, and they can be the bold risk takers they hope to cultivate with their staffs. Barth (1991) called educators to action: "Let go of the

trapeze, think otherwise. Become an independent variable. Lick the envelope. Bell the cat. Fly the cage. Leave your mark" (p. 128).

The Nike ad does not allow for many excuses; it simply states, "Just do it." The time has come for principals to create the kinds of schools this nation deserves. As Powell et al. (1985) stated, it is time to renegotiate the treaties:

> Effective treaties, for one thing, must be developed by those with a stake in compliance. Further, rearranging school time in this manner empowers teachers by placing them in the center of educational decision making rather than on the periphery. It empowers good teachers by removing the protective isolation that allows the mediocre to survive and the competent to remain impotent. And it underscores that an effective school for students and a desirable one for teachers is a genuine community of learning for both. It thus helps make the job of teaching more attractive to the most able. Much depends on that. (p. 320)

APPENDICES

APPENDIX A

LETTERS OF APPROVAL AND ENDORSEMENT

MICHIGAN STATE UNIVERSITY

April 29, 1992

Caryn Wells
2769 Steamboat Springs
Rochester Hlls, MI 48309

RE: PRINCIPALS' ATTITUDES TOWARD, CURRENT LEVELS OF IMPLEMENTATION, AND
     PRESSURES TO RESTRUCTURE TEACHING AND LEARNING PROCESSES, IRB #91-609

Dear Ms. Wells:
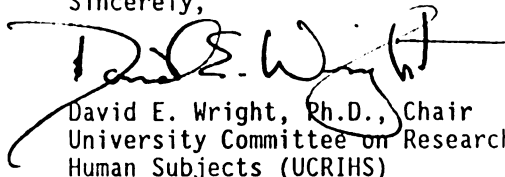
The above project is exempt from full UCRIHS review. The proposed research
protocol has been reviewed by a member of the UCRIHS committee. The rights and
welfare of human subjects appear to be protected and you have approval to conduct
the research.

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 April 20. 1993.

Any changes in procedures involving human subjects must be reviewed by UCRIHS
prior to initiation of the change. UCRIHS must also be notifed 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 my attention. If I can be of any future
help, please do not hesitate to let me know.

Sincerely,

David E. Wright, Ph.D., Chair
University Committee on Research Involving
Human Subjects (UCRIHS)

DEW/pjm

cc: Dr. Frederick Ignatovich

Michigan Association of Secondary School Principals

Executive Director
JACK D. BITTLE

Associate Director
JIM BALLARD

Ass't. Dir. for Middle Level
JACOB BRISENDINE

Serving High School & Middle Level Administrators
2339 School of Education Bldg — The University of Michigan
Ann Arbor, Michigan 48109-1259
(313) 769-5497 or (313) 763-9850

President	President-Elect	Vice-President
PHIL HELZER	JOHN TOMA	TOM DENEWITH
Hills & Dales M S	Andover H S	L'Anse Creuse H S North
Grand Rapids	Bloomfield Hills	Mt Clemens

March 10, 1992

Dear Colleague,

This letter is being written to ask if you would consider taking approximately twenty-five minutes to complete a survey about teaching and learning processes. This survey will measure:

1.   **What is happening in Michigan high schools relative to restructured teaching and learning.**
2.   **How Michigan high school principals feel about these concepts.**
3.   **How much pressure these principals feel to restructure.**

In addition, there is one final question which gives you the opportunity to define how you became involved, as the building principal, in a restructuring innovation that deals with teaching and learning.

As you know, restructuring is a concept that is receiving a lot of attention nationwide. **This study will let us know what is currently happening in Michigan high schools.** Your voluntary participation is vitally important; the results of this study will be published in the MASSP journal. Your perceptions will tell us what Michigan principals think about restructured teaching and learning processes.
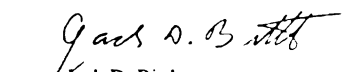
This study is part of a doctoral dissertation at Michigan State University, conducted by a student/building administrator. MASSP endorses this research and is asking selected members to indicate their support by completing the survey.
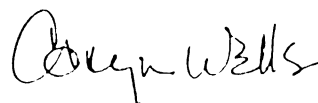
The statements used in this survey do not list every possible factor that relates to restructuring; the focus is on **teaching** and **learning** as described by researcher Joe Murphy of Vanderbilt University.

We hope you will show your interest in this research by completing the survey and returning it in the self-addressed envelope to Caryn Wells at Rochester High School no later than **April 9, 1992.** Please call Caryn Wells (313) 651-5590, during the school day with any questions. This survey guarantees anonymity and confidentiality; therefore, to indicate that you have mailed the survey, mail the post card separately. No follow up reminder will need to be sent to those people who indicate they have completed the survey by returning the post card.

Thank you for your support of this research.

Sincerely yours,

Jack D. Bittle
Executive Director
M.A.S.S.P.

Caryn Wells
Assistant Principal
Rochester High School

APPENDIX B

COVER LETTER, SURVEY INSTRUMENT, AND RETURN POST CARD

July 22, 1991

Dear Colleague,

Your name was suggested to me as a resource because of your knowledge and involvement with curriculum and instruction. I have put together an original questionnaire for my doctoral dissertation based on the works of Dr. Joseph Murphy of Vanderbilt University. Dr. Murphy has analyzed educational reform and restructuring; some of the basic tenets and definitions of his research are included for your review.

Before I would be able to use the actual survey, I need to complete a content validity and reliability check on one section. I am asking you to assist me by taking twenty-thirty minutes to review section A of this survey for the content validity check. Specifically, I need you to determine whether or not the statements under each category measure/capture the essence of that category. Please check yes or no according to the instructions and write in any comments which you feel are warranted.

I hope to have the actual survey mailed this fall to high school principals; your assistance in helping with this stage of the development will be greatly appreciated:

Please return this content validity check to me by August 29, 1991 in the envelope provided. If you have any questions please call me at my summer school number (651-7370) until August 7; after that I will return to Rochester High (651-5590).

Thank you for your willingness to help out - I am grateful to you.

Sincerely,

Caryn Wells

October 1991

Dear Colleague,

I am writing you this letter to ask if you would consider taking approximately thirty minutes to complete and critique a survey about restructured teaching and learning processes. This survey will measure:

1. What is happening in Michigan high schools relative to restructured teaching and learning.
2. How Michigan high school principals feel about these concepts.
3. How much pressure these principals feel to restructure.
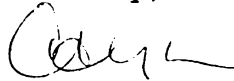
Before I can send out the survey to almost four hundred high school principals in Michigan, I need a select group of forty-five principals to read the survey, complete it, and make a few comments. I am asking you to be one of forty-five principals representing various parts of the state. This phase will be my reliability check and it is essential for this study. After these surveys are returned to me, I can continue with the refinement of the survey and the goal is to have the final copy mailed in November.

These statements do not list every possible factor that relates to restructuring; instead, the focus is on the core technology of the school, the teaching and learning processes as defined by researcher Joe Murphy of Vanderbilt University. I intend to use this survey for my doctoral dissertation from Michigan State University.

Please complete the survey and indicate the time it took to finish. Also, if there are any statements that are unclear or could be improved, please indicate those comments in the final column. Place the survey in the enclosed envelope and return by October 31, 1991.

I am grateful to you for your help with the design of this survey; my hope is that this research will make a significant contribution to what we know is happening relative to restructured teaching and learning processes in Michigan high schools. Please feel free to call me with any questions at Rochester High School (313) 651-5590.

Sincerely,

Caryn Wells

CW/sw
enc: survey
     return envelope

April 13, 1992

Dear

    I am asking you to share and give in this letter to help us understand what is currently happening in Michigan high schools relative to restructured teaching and learning. Specifically, I am asking you to:

1. **Share** your insights and observations about restructuring;
2. **Give** 20 minutes of your time.

    I know your schedule as a building principal is already full, but I urge you to find a place in that schedule for filling out this survey.

    I plan to use this survey as a guide for what could assist Michigan principals in restructuring their schools. This survey has been sent to three hundred principals; a good return rate will allow me to state what is currently happening in this state with better certainty.

    Perhaps you did not feel that your opinions were needed - they are! I have sent you the complete set of survey information in case the first set is misplaced.

    I want to thank you for giving this research a second consideration and I promise a prompt return of the results of this study when I finish the analysis.

    As a fellow practitioner/administrator, I am truly grateful to you for your contributions to this research. Please return the survey by April 27, 1992.

Sincerely,

Caryn Wells
Assistant Principal
Rochester High School
313-651-5590

CW/sw
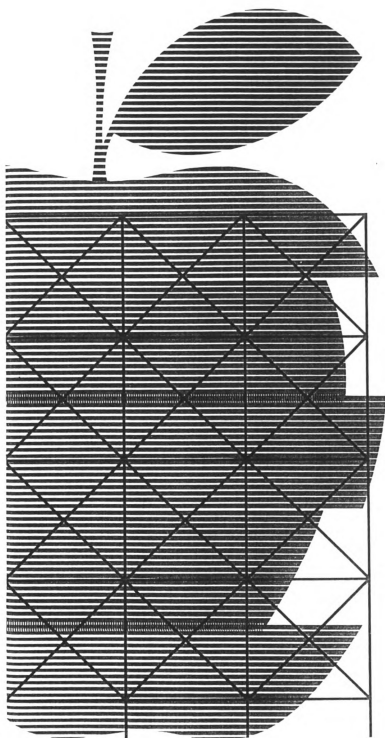
Restructuring the Teaching and Learning Process: A Survey for Selected Michigan High School Principals.

about this survey:

Designed to study, measure and determine principals' perceptions relative to the current extent of implementation....pressures felt, and attitudes toward restructuring the teaching and learning processes... principals are requested to share their contributions and observations made, including the added educational experience/insight gained in implementing restructured teaching and learning innovation at their high schools.

Restructuring the Teaching & Learning Process: A Survey for Selected Michigan High School Principals

Survey Instructions/Examples:

In general... Please answer all questions and statements posed in this survey. Circle descriptor numbers, check boxes, and write or print legibly.

part A Under the section Implementation Level, circle number for descriptor that most accurately reflects the extent to which this concept is implemented in your high school.

Under the next section Attitude, circle number for the descriptor that most accurately reflects your own attitude toward this concept.

part B Below Perceived Amt. of Pressure, circle descriptor number that best indicates the extent of pressure received from internal/external sources to restructure high school teaching and learning processes.

part C Check 1 appropriate answer box under each demographic question.

part D Write about your own insights, contributions, involvement, and experience with a restructuring innovation in your high school.

SURVEY STATEMENTS	IMPLEMENTATION LEVEL What is the extent to which this concept is implemented in your high school?						ATTITUDE Which descriptor most closely reflects your attitude toward this concept?					
							disagree			agree		
Restructuring teaching and learning would include...	not at all	to some degree	fairly much	very much	almost completely	fully implemented	very strongly	moderately	slightly	slightly	moderately	very strongly
emphasizing curriculum that is developmentally appropriate.	1	(2)	3	4	5	6	1	2	(3)	4	5	6
increasing student responsibility.	1			4	(5)		1	(2)			5	6

To what extent are internal/external sources pressuring schools to restructure teaching and learning processes?

SOURCES OF PRESSURE	PERCEIVED AMOUNT OF PRESSURE					
SCHOOL DISTRICT INTERNAL SOURCES	hardly any	a minimum amount	not much	to some degree	fairly much	an extra ordinary amt.
School Board Members	1	2	3	(4)	5	6

What is the student enrollment in your school district?

☐ 1st Class	–	120 000 or more
☐ 2nd Class	–	more than 30 000 less than 120 000
☑ 3rd Class	–	more than 2 400 less than 30 000
☐ 4th Class	–	more than 75 less than 2 400

What is your school size?

part A

Restructuring the Teaching & Learning Process: A Survey for Selected Michigan High School Principals

Please answer each statement given below.   Circle one number under Implementation Level   Circle one number choice under Attitude

SURVEY STATEMENTS	IMPLEMENTATION LEVEL What is the extent to which this concept is implemented in your high school?						ATTITUDE Which descriptor most closely reflects your attitude toward this concept?					
							disagree			agree		
Restructuring teaching and learning would include...	not at all	to some degree	fairly much	very much	almost completely	fully implemented	very strongly	moderately	slightly	slightly	moderately	very strongly
building a core curriculum for all students...e.g., students master similar content.	1	2	3	4	5	6	1	2	3	4	5	6
interdisciplinary units...e.g., English and social studies; science and mathematics; history and art.	1	2	3	4	5	6	1	2	3	4	5	6
emphasizing interdisciplinary problem solving.	1	2	3	4	5	6	1	2	3	4	5	6
teachers relying less on textbooks.	1	2	3	4	5	6	1	2	3	4	5	6
increased emphasis on higher order thinking such as: application, analysis, synthesis	1	2	3	4	5	6	1	2	3	4	5	6
using multiple perspectives, creative and thoughtful demonstrations.	1	2	3	4	5	6	1	2	3	4	5	6
emphasizing how to learn as opposed to what to learn.	1	2	3	4	5	6	1	2	3	4	5	6
less memorization of facts, more utilization of facts.	1	2	3	4	5	6	1	2	3	4	5	6
assessment by portfolios, exhibitions.	1	2	3	4	5	6	1	2	3	4	5	6
increasing teacher discretion in creating instructional materials.	1	2	3	4	5	6	1	2	3	4	5	6
making the student the worker e.g., self-relient learners.	1	2	3	4	5	6	1	2	3	4	5	6
teachers as coaches and models i.e., less as lecturers, experts.	1	2	3	4	5	6	1	2	3	4	5	6

part

A

Restructuring the Teaching & Learning Process: A Survey for Selected Michigan High School Principals

Please answer each statement given below   Circle one number under Implementation Level   Circle one number choice under Attitude

SURVEY STATEMENTS	IMPLEMENTATION LEVEL What is the extent to which this concept is implemented in your high school?						ATTITUDE Which descriptor most closely reflects your attitude toward this concept?					
							disagree			agree		
Restructuring teaching and learning would include...	not at all	to some degree	fairly much	very much	almost completely	fully implemented	very strongly	moderately	slightly	slightly	moderately	very strongly
students' applying knowledge to new and real life situations.	1	2	3	4	5	6	1	2	3	4	5	6
increasing student responsibility for learning.	1	2	3	4	5	6	1	2	3	4	5	6
increasing individualized instruction.	1	2	3	4	5	6	1	2	3	4	5	6
students working in teams i.e., cooperative learning.	1	2	3	4	5	6	1	2	3	4	5	6
restructuring the work day to give teachers time to plan.	1	2	3	4	5	6	1	2	3	4	5	6
giving teachers more influence over school-wide decision making.	1	2	3	4	5	6	1	2	3	4	5	6
teachers planning and teaching in teams.	1	2	3	4	5	6	1	2	3	4	5	6
expecting all students to learn.	1	2	3	4	5	6	1	2	3	4	5	6
grouping students with varied abilities in the same classses.	1	2	3	4	5	6	1	2	3	4	5	6
addressing emotional needs of students in the curriculum.	1	2	3	4	5	6	1	2	3	4	5	6
increasing affiliations with community agencies such as welfare, health, and counseling services.	1	2	3	4	5	6	1	2	3	4	5	6
emphasizing critical thinking for all students including those on lower levels.	1	2	3	4	5	6	1	2	3	4	5	6
giving students time and opportunity to learn desired outcomes i.e., mastery learning.	1	2	3	4	5	6	1	2	3	4	5	6

part **A**

Restructuring the Teaching & Learning Process: A Survey for Selected Michigan High School Principals

Please answer each statement given below   Circle one number under Implementation Level   ...Circle one number-choice under Attitude

SURVEY STATEMENTS	IMPLEMENTATION LEVEL What is the extent to which this concept is implemented in your high school?						ATTITUDE Which descriptor most closely reflects your attitude toward this concept?					
							disagree			agree		
Restructuring teaching and learning would include...	not at all	to some degree	fairly much	very much	almost completely	fully implemented	very strongly	moderately	slightly	slightly	moderately	very strongly
an individualized approach to learning.	1	2	3	4	5	6	1	2	3	4	5	6
a flexible delivery system such as multi-age grouping of students.	1	2	3	4	5	6	1	2	3	4	5	6
teachers and students collaborating on goals with students choosing options within limits.	1	2	3	4	5	6	1	2	3	4	5	6
teachers and parents collaborating on and negotiating goals.	1	2	3	4	5	6	1	2	3	4	5	6
teachers and administrators collaborating on goals.	1	2	3	4	5	6	1	2	3	4	5	6
increased teacher decision making and participation in their professional development.	1	2	3	4	5	6	1	2	3	4	5	6
increased flexibility in student scheduling												
A. afternoon & evening classes	1	2	3	4	5	6	1	2	3	4	5	6
B. rotating class schedules throughout the week.	1	2	3	4	5	6	1	2	3	4	5	6
C. larger blocks of instructional time.	1	2	3	4	5	6	1	2	3	4	5	6
lengthening the school day												
A. one extra hour.	1	2	3	4	5	6	1	2	3	4	5	6
B. two extra hours.	1	2	3	4	5	6	1	2	3	4	5	6
lengthening the school year												
A. two weeks.	1	2	3	4	5	6	1	2	3	4	5	6
B. four weeks.	1	2	3	4	5	6	1	2	3	4	5	6
C. six weeks.	1	2	3	4	5	6	1	2	3	4	5	6

part **B**

Restructuring the Teaching & Learning Process: A Survey for Selected Michigan High School Principals

circle only one number under Perceived Amount of Pressure. for each source

To what extent are internal/external sources pressuring schools to restructure teaching and learning processes?

SOURCES OF PRESSURE	PERCEIVED AMOUNT OF PRESSURE					
SCHOOL DISTRICT INTERNAL SOURCES	hardly any	a minimum amount	not much	to some degree	fairly much	an extra- ordinary amt.
School Board Members	1	2	3	4	5	6
District Superintendent	1	2	3	4	5	6
Principals/Peers	1	2	3	4	5	6
Teaching Faculty	1	2	3	4	5	6
Parents/Guardians	1	2	3	4	5	6

SOURCES OF PRESSURE	PERCEIVED AMOUNT OF PRESSURE					
SPECIAL INTEREST GROUPS EXTERNAL SOURCES	hardly any	a minimum amount	not much	to some degree	fairly much	an extra- ordinary amt.
Government/Legislators	1	2	3	4	5	6
Legislation/Laws	1	2	3	4	5	6
Michigan Dept. of Education	1	2	3	4	5	6
College/University Professors	1	2	3	4	5	6
Professional Organizations	1	2	3	4	5	6
The Media	1	2	3	4	5	6
Business/Industry	1	2	3	4	5	6

part **C** Demographics,etc.

please check only one answer for each question

What is the student enrollment in your school district?

☐ 1st Class – [120,000 or more]

☐ 2nd Class – [more than 30,000 less than 120,000]

☐ 3rd Class – [more than 2,400 less than 30,000]

☐ 4th Class – [more than 75 & less than 2,400]

What is your high school size?

☐ Class A ☐ Class B ☐ Class C ☐ Class D

What is your highest degree?

☐ Master's ☐ Spec. ☐ Ph.D

Do you have a major or a minor in curriculum/instruction for any advanced degree?

☐ Yes...I do ☐ No...I do not

Years as a teacher or other non-administrative role,i.e.,counselor, teacher consultant, etc.?

☐ 0 to 5 years ☐ 6 to 10 years

☐ 11 to 15 years ☐ 16 to 20 years

☐ 20 yrs. or more [teacher non adm]

Years as a school administrator?

☐ 0 to 5 years ☐ 6 to 10 years

☐ 11 to 15 years ☐ 16 to 20 years

☐ More than 20 years as an Adm.

What is your gender?

☐ male ☐ female

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part D

Restructuring the Teaching & Learning Process: A Survey for Selected Michigan High School Principals

Please write about your involvement in, contribution to, and experience with, a restructuring innovation at your high school.

Restructuring the Teaching & Learning Process: A Survey for Selected Michigan High School Principals

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THANK YOU!...

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for the interest shown and time given to complete this survey.
Your thoughts and professional input are sincerely appreciated.

··

Mailing Instructions

IMPORTANT: Please follow these directions for return mailing of survey and separate notification postcard.
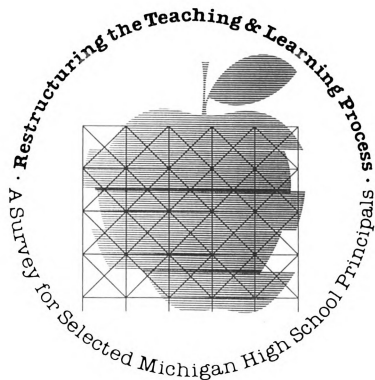
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1 Remove the outside cover from this inside, 8-page center section [survey pages are designed to separate easily from the cover for convenient return mailing].

2 Then, fold these survey pages in half [along the dotted line] for insertion into the pre-addressed, stamped envelope.

3 A special notification postcard has been placed into the return envelope. Be sure you remove it prior to inserting the completed survey pages for return mailing.

4 Now, please complete the information on back of postcard & mail promptly, both the postcard and survey [separately].

· Restructuring the Teaching & Learning Process ·
· A Survey for Selected Michigan High School Principals ·
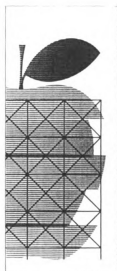
I have completed the survey
and mailed it on:
☐ March ☐ April _____, 1992

signed _____
                                    Principal

High School _____

☐ Please send me the results of your study.

Restructuring the Teaching and Learning Process:

A Survey for Selected Michigan High School Principals.

Rochester High School
Caryn Wells
180 South Livernois
Rochester Hills, MI 48307

APPENDIX C

GROUPING OF THE SCALE ITEMS ACCORDING TO AREA MEASURED

GROUPING OF THE SCALE ITEMS ACCORDING TO AREA MEASURED

Item No.	Item	Area Measured
1.	building a core curriculum for all students; e.g., students master similar content.	Curriculum
2.	interdisciplinary units, e.g., English and social studies; science and mathematics; history and art.	Curriculum
3.	emphasizing interdisciplinary problem solving.	Curriculum
4.	teachers relying less on textbooks.	Curriculum
5.	increased emphasis on higher order thinking, such as: application, analysis, synthesis.	Curriculum
6.	using multiple perspectives, creative and thoughtful demonstrations.	Curriculum
7.	emphasizing how to learn as opposed to what to learn.	Curriculum
8.	less memorization of facts, more utilization of facts.	Curriculum
9.	assessment by portfolios, exhibitions.	Curriculum
10.	increasing teacher discretion in creating instructional materials.	Curriculum
11.	making the student the worker, e.g., self-reliant learners.	Curriculum
12.	teachers as coaches and models, i.e., less as lecturers, experts.	Curriculum
13.	students' applying knowledge to new and real-life situations.	Instruction
14.	increasing student responsibility for learning.	Instruction
15.	increasing individualized instruction.	Instruction
16.	students working in teams, i.e., cooperative learning	Instruction

Item No.	Item	Area Measured
17.	restructuring the work day to give teachers time to plan.	Instruction
18.	giving teachers more influence over school-wide decision making.	Instruction
19.	teachers planning and teaching in teams.	Instruction
20.	expecting all students to learn.	Equity
21.	grouping students with varied abilities in the same classes.	Equity
22.	addressing emotional needs of students in the curriculum.	Equity
23.	increasing affiliations with community agencies such as welfare, health, and counseling services.	Equity
24.	emphasizing critical thinking for all students, including those on lower levels.	Equity
25.	giving students time and opportunity to learn desired outcomes, i.e., mastery learning.	Delivery Structure
26.	an individualized approach to learning.	Delivery Structure
27.	a flexible delivery system such as multi-age grouping of students.	Delivery Structure
28.	teachers and students collaborating on goals, with students choosing options within limits.	Delivery Structure
29.	teachers and parents collaborating on and negotiating goals.	Delivery Structure
30.	teachers and administrators collaborating on goals.	Delivery Structure
31.	increased teacher decision making and participation in their professional development.	Delivery Structure

Item No.	Item	Area Measured

Increased flexibility in student scheduling:

32. a. afternoon and evening classes.		Delivery Structure
33. b. rotating class schedules through the week.		Delivery Structure
34. c. larger blocks of instructional time.		Delivery Structure

Lengthening the school day:

35. a. one extra hour.		Delivery Structure
36. b. two extra hours.		Delivery Structure

Lengthening the school year:

37. a. two weeks		Delivery Structure
38. b. four weeks.		Delivery Structure
39. c. six weeks.		Delivery Structure

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