

AN EXAMINATION OF EDUCATORS' PERCEPTIONS OF THE MANAGEMENT OF THE
CHANGE PROCESS WITH RESPECT TO THE OUTCOME DRIVEN
DEVELOPMENTAL MODEL FOR SCHOOL IMPROVEMENT

Lib

by

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CHAPTER I

INTRODUCTION

Statement of the Problem

Since the first recommendations by Horace Mann, educators in the United States have been striving toward the goal of having all students achieve at their full potential. Numerous school improvement programs have been offered through the years. Most school improvement programs have proven to be ineffective because of certain basic deficiencies. These identified shortcomings include: (a) foundation on an insufficient data base (Trois, 1983; Henley, 1987); (b) lack of perspective on the total school organization (Kirst, 1982; Kaufman & Stakenas, 1981); (c) legislatively mandated guidelines (Wise, 1988); (d) implementation in an incomplete fashion (Tyler, 1987); (e) ineffective leadership (Sheive & Schoenheit, 1987); and (f) failure to incorporate consideration for managing the change process (Champlin, 1987).

The general public continues to display dissatisfaction with public education reform efforts (Gallup, 1989). Pressure continues to mount among the public to improve the quality of education. In response, many educators have turned to educational research for guidance. Educators have begun to realize that factors other than student ability significantly affect learning (Carroll, 1963; Irvine, 1987). The necessity of an adequate data base as a foundation for school reform

is becoming more evident (Bloom, 1976; Block, 1979; Hunter, 1979; Anderson, 1980; Guskey, 1985). The depth and consistency of current research and literature are sufficient, if properly used, to provide adequate insight for the organization of an effective instructional program (Trois, 1983; Champlin, 1987).

The works of W. B. Brookover and L. W. Lezotte (1977), R. Edmonds (1979), and M. Rutter (1979), have served to identify the correlates associated with schools that were effective in providing a minimum basic education for all students. The correlates pervade the successful school organization at all levels and are not restricted to the area of classroom instruction. School improvement involves a commitment toward change by the total organization (Roueche & Baker, 1986).

Educators and others have contended that school improvement programs cannot be legislatively mandated. While some positive changes have resulted, mandated reforms traditionally have proven to be generally ineffective (Wise, 1988). There is a call for control by local districts in designing and implementing reform programs (Danzberger, 1987). This control must be accompanied by a long-term commitment to the goals of the improvement program and to effective practices (Kirst, 1982).

To be successful, a school improvement program must be holistic in nature, that is, it must pervade or affect the entire organization (Evans, 1983). A combined effort by the entire school organization toward school improvement is more forceful and effective than uncoordinated efforts. A holistic approach produces greater commitment by the

participants and greater probability for realizing the desired outcomes (Kaufman & Stakenas, 1981). All aspects of the school organization must be scrutinized and be subject to alteration if necessary (Block, 1971; Champlin, 1988).

Effective leadership is an integral part of any school improvement program. Without effective leadership, school improvement is not possible (Lipham, 1981). A leader must have vision and a true commitment to improve through change (Squires et al., 1983). Leadership roles can be assumed by a variety of personnel at various levels. Thus, empowerment of staff is a key quality of leadership in a school improvement program (Evans, 1983). These necessary qualities of a leader are best reflected in a transformational leadership approach (Burns, 1978; Squires et al., 1983).

Failure to plan for management of the change process severely limits the potential for success (Champlin, 1988). The natural resistance to change by participants is intensified by demands for risk taking and necessary additional skills acquisition by leaders (Loucks-Horsley & Hergert, 1985). Leaders must be aware of the change process and take steps to manage it correctly (Daft & Steers, 1986). Stages of readiness and implementation must be a part of the change process. While change requires the acquisition of technical skills, the alteration of the socioculture belief system is more critical for lasting success (Blanchard, 1986).

Previous school improvement programs have failed to address adequately the above identified deficiencies (Tyler, 1987; Henley,

1987). One current school improvement process--Outcome Driven Developmental Model (ODDM)--holds promise for achieving successful change for school improvement (Vickery, 1988). The ODDM is a planned, intentional school improvement process. The model requires an articulated mission and an identifiable philosophical and psychological base. The model requires participants to use current research and organizational goals as the determinants of all decision making. Desired student exit behaviors are identified and the local board of education, administrative support systems, and school support systems combine in a total effort toward producing the desired outcomes. The model is characterized by transformational leadership, a commitment by staff and administrators, and a strategic plan for managing change successfully (Champlin, 1987). This process for school improvement addresses the six deficiency areas (foundation on an insufficient data base, lack of perspective on the total school organization, legislatively mandated guidelines, implementation in an incomplete fashion, ineffective leadership, and failure to incorporate consideration for managing the change process) and thus has a higher probability for success.

Purpose of the Study

The purpose of this study was to examine the perceptions of educators who have been involved with the ODDM. Perceptions were examined with respect to management of the change process in school improvement. The ODDM has been introduced in several school districts but is considered in place in those districts which have made a formal

commitment to the process, display the characteristics of the model, and have been actively engaged in the process. Major factors in the change process for school improvement were identified from the literature, and research and changes in educators' perceptions were measured in a survey format.

The ODDM has been recognized as a viable process for school improvement (Barber, 1986). Research on the implementation of the model is incomplete. Especially necessary is an examination of educators' attitudes toward managing factors basic to school improvement in the context of the change process. A change in the perceptions of those individuals managing school improvement may well be the most critical factor in insuring lasting improvement (Blanchard, 1978; Kaufman and Stadenas, 1981; Red & Shainline, 1987). The specific purposes of the study were (1) to examine the perceptions of educators in the change process with respect to the ODDM school improvement process; (b) to compare perceptions of educators in introductory, participating, and sustaining groups with respect to the ODDM; and (c) to analyze the perceptions of educators in relation to those specific factors identified as critical to the school improvement change process.

Research Questions

The scope of the study generated several pertinent questions:

1. Will those aspects of the Outcome Driven Developmental Model (ODDM) designated as primarily important to design by the Model developers also be perceived as important by educators in the introductory,

participating, and sustaining groups?

2. Will those aspects of the ODDM designated as effective in implementation by the Model developers also be perceived as effective by educators in the introductory, participating, and sustaining groups?

3. Will those aspects of the ODDM designed as primarily important to design also be perceived as being implemented effectively by educators in the introductory, participating, and sustaining groups?

4. What key elements will be identified as critical to the success of ODDM by educators in the introductory, participating, and sustaining groups?

5. Will the perceptions of elementary educators vary from those of secondary educators in the introductory, participating, and sustaining groups?

6. Will the introductory, participating, and sustaining groups evidence commensurate scores on a positive climate indicators for their particular schools?

Delimitations

It is pertinent to identify basic constraints of the study:

1. This study was limited to the examination of educators' perceptions as measured by the Outcome Driven Developmental Model (ODDM) Evaluation Questionnaire and the supporting Texas Education Agency Climate Survey.

2. The sample group was confined to professional educators in those districts implementing the ODDM and identified by definition as initiating, participating, or sustaining groups.

3. The analysis was restricted to those critical factors identified by literature as critical to the school improvement change process.

4. Data collected were obtained exclusively from the selected districts during the Spring of 1989.

Limitations

1. The educators involved in the study have been oriented in the Outcome Driven Developmental Model (ODDM) and were committed to implement the model. Randomization of the sample was therefore not possible.

2. There was the possibility of demand characteristics among the subjects. The results should, however, be generalizable to other districts choosing to pursue a school improvement program. The use of anonymous surveys containing specifically designed indicators alleviated this problem. Honest responses were more likely than with other methods. The use of a manipulation check by a sample group of outside authorities in this area aided in insuring internal validity. Since only one district comprised the sustaining group, group consensus pressure might have been present. The campus by campus approach to implementation may have negated this concern.

3. The rate of return on the surveys was another area of concern. The involvement of a major consultant in this area and the stated cooperation of district officials ensured an adequate return rate. Selected sample responders and nonresponders were contacted as well.

4. Regional differences did not affect the results of the study due to the design of the ODDM.

5. The study did not deal with student outcomes which are the primary objective of the ODDM. While student outcomes are a viable area of concern, they were not the focus of the study. Rather than being an input/output study, the emphasis was on examining improvement through a change process. Educators' perceptions of the school improvement change process was the subject of study and the effectiveness of the ODDM in altering student outcomes must remain for future research.

Justification for the Study

The need for a viable school improvement program for school districts continues to grow. Educators as well as the general public are calling for reform, demanding quality education with increased accountability (Sizer, 1983; Gallup, 1989; Tyler, 1987). The Outcome Driven Developmental Model (ODDM) has the potential to answer these concerns. The Model is based on current research and literature, and incorporates elements of the change process (Champlin, 1987; Vickery, 1988). Research must continue on the implementation of the ODDM. This study contributed to the body of the knowledge by examining educators' perceptions of the management of the change process with respect to the ODDM. Educators can use the findings to determine the validity of the model's design and to identify implementation problems. The study identified and examined those elements of the change process which are critical to success. Finally, the study traced changes in beliefs which must accompany

a lasting reform movement. The ODDM is on the cutting edge of positive, sustaining school improvement and warrants immediate research efforts.

Assumptions

1. Educators have answered their questionnaires honestly and to the best of their abilities.
2. The data collected reflects the perceptions of educators in the selected districts during the Spring and Fall of 1989.

Definition of Terms

ODDM is the Outcome Driven Developmental Model. The Model is a planned, intentional school improvement program. The Model is holistic in nature and features data driven, goal driven decision making. The Model has an articulated mission and an identifiable philosophical and psychological base.

Introductory Groups are districts that have committed to following the Outcome Driven Developmental Model, have received initial orientation and are in the readiness and/or pre-entry phases of the process.

Participating Groups are districts that have made a district-wide commitment to the Outcome Driven Developmental Model, have received extensive training, and are in the operational and/or implementation phases of the process.

Sustaining Groups are districts that have committed to the Outcome Driven Developmental Model, have been trained in the process, and

have actively implemented the model over time.

Educators are professional employees of a district in either a teaching, administrative, or supervisory role.

Climate is the prevailing actions and ambience which characterize conditions in a district.

Procedures

The study was designed to examine educators' perceptions of the management of the change process for school improvement with respect to the Outcome Driven Developmental Model. The study was carried out in five phases:

- a) Phase I--Review of pertinent literature and research;
- b) Phase II--Design of instrument;
- c) Phase III--Identification of sample;
- d) Phase IV--Collection of data;
- e) Phase V--Analysis of data.

Phase I

Current literature and research in the area of school improvement, the change process, and the Outcome Driven Developmental Model (ODDM) was studied and evaluated in order to identify those elements critical in initiating and sustaining a positive improvement process. The review was undertaken to determine those factors which must be successfully managed in the change process for school improvement. The eight variables identified were sustaining effect, human relations factors, data base, total organizations, mandated reforms, holistic implementation, leadership, and change.

Phase II

An Outcome Driven Developmental Model Evaluation Questionnaire (see Appendix A) was developed as a survey instrument. Part I of the questionnaire sought responses to both the perceived importance of several items and their perceived effectiveness in the implementation of the ODDM on a five-point scale. Inclusion of the items was based upon research and data related to the ODDM, school improvement, and the change process. The survey was designed to include those elements identified as a key to the basic nature of the ODDM and its successful implementation. The questionnaire was prepared with the guidance and approval of those educators who were instrumental in the creation of the ODDM and its implementation in several districts. Part II of the evaluation questionnaire asked for additional information concerning this process. A school climate survey designed and validated by the Texas Education Agency served as Part III of the questionnaire. Parts I and II of the instrument were reviewed and validated by twenty-two professional personnel (see Appendix B) in various districts who are familiar with outcome based school improvement and the change process. These personnel also provided input into the initial design of the questionnaire.

Phase III

The questionnaires were sent to seven districts located in different regions of the United States. The districts were identified as introductory, participating, or sustaining groups (see Appendix C). Professional staff in introductory, participating, and sustaining

districts implementing the Outcome Driven Developmental Model, served as the subjects of the study. The groups were differentiated by district, by group status (introductory, participating, or sustaining), by position (teacher, administration, and supervisor), and by level (elementary and secondary).

Phase IV

Educators in the districts completed the surveys anonymously and returned them. After collection of the questionnaires, telephone interviews were conducted to elicit additional information. Selected nonresponders also were contacted to obtain perceptions and to determine the cause for nonresponse.

Phase V

The interrelationship between the introductory, participating, and sustaining groups was analyzed with respect to importance to design and effectiveness in implementation. Emphasis was placed on the overall improvement process. Therefore, an examination of defined groups was the focus of analysis and not individuals in the districts. Comparisons between defined groups was based upon group status in the Spring of 1989 and was not conducted over time. Narrative responses were compared among groups. Climate indicators also were studied. The study was descriptive in nature and pertained to a specific sampling of Outcome Driven Developmental Model districts. A frequency distribution was used to report the information concerning educators' perceptions of the importance to design and the effectiveness in implementation of elements of the ODDM for the introductory, participating, and sustaining

groups. A multiple analysis of variance was used to investigate the variables and the interaction between them. Total scale score is more reliable than individual within group comparisons because of the limited number of variables. Thus, comparison between groups was more psychometrically sound than within group analysis. A Chi Square nonparametric test of significance was used to compare proportions actually observed in the study with proportions expected to be seen if a significant difference was present. Telephone interviews and open response questions served to define previous responses and were reported in narrative form. Data were analyzed based upon perceptions of importance, effectiveness, demographic differences, and group membership. The climate survey results were compared to implementation effectiveness and importance in design. Climate results were intended to accompany ODDM scores and were not the focus of the study. Other variables in addition to the ODDM variables influenced climate scores, therefore additional analysis of climate scores was not reasonable.

Organization of the Research Report

The research is reported in five chapters. Chapter I includes the statement of problem, purpose of the study, delimitations, limitations, justification for the study, assumptions, definition of terms, and procedures for the study. Chapter II contains the review of related research. The methodology of the research is included in Chapter III. Chapter IV presents the data and findings. Chapter V contains the summary of the findings, conclusions, and recommendations for future study.

CHAPTER II

REVIEW OF LITERATURE AND RESEARCH

Introduction

The review of literature and research represents current professional thought in several critical areas. While focusing on educational research, the review also encompasses material from other disciplines. The review begins with information relating to the systems approach which is a key to the general discussion of school districts as organizational entities. The next area of examination is the nature of organizations. Some important elements of all organizations are studied in relation to educational organizations. The review continues with an examination of issues related to the school improvement process. The change process warrants special attention with emphasis on successful management of the process. The review concludes with a view of the Outcome Driven Developmental Model.

Systems Approach

Any study of the school improvement change process must include an examination of the systems view of organizations. Educators, borrowing from the behavioral sciences, have begun to realize that schools cannot be fully analyzed as one dimensional entities, but rather must be viewed as composed of interrelated parts that function together toward a common purpose (Schermerhorn, 1986). Most educators view school organizations as open systems which

interact with their environment. Understanding the systems approach is important because systems must continually interact with their environment to survive and subsystems must be coordinated into a coherent organizational whole. Schools, as complex organizations, must be studied by examining systems at different levels using both a micro and macro perspective (Daft & Steers, 1986).

Aristotle succinctly identified the concept behind a systems approach when he stated that the whole is more than the sum of parts. The essence of this concept has been a problem for scholars throughout history. Current questions in this area "...are contemporary expressions of perennial problems which have been recognized for centuries and discussed in the language available at the time" (Bertalanffy, 1977, p.319). Ludwig von Bertalanffy, the father of the general systems theory, wrote in the late 1920s:

Since the fundamental character of the living thing is its organization, the customary investigation of the single parts and processes cannot provide a complete explanation of the vital phenomena. This investigation gives us no information about the coordination of parts and processes. Thus the chief task of biology must be to discover the laws of biological systems (at all levels of organization). We believe that the attempts to find a foundation for theoretical biology point at a fundamental change in the world picture. This view, considered as a method of investigation, we shall call "organismic biology" and, as an attempt at an explanation, "the system theory of the organism". (p.323)

The concentrated work of Ludwig von Bertalanffy provided the impetus for the creation and development of the general systems theory. The concept was not immediately recognized as a theory. It was first identified by the label, general systems theory, in 1930. In 1977, David and Louis Kurtz identified the concept in organizations including schools as

synergism. The authors defined the concept as the combined total effort of an organization. This effort is greater than the effort demonstrated by the individual parts. The total forces are concentrated or brought to bear on one point. The essence of synergism is that the whole is greater than the sum of the parts. While Ludwig von Bertalanffy initiated the concept to science, other researchers contributed to the continuing development of the systems theory in organizations.

The concept of the systems theory in respect to organizations did not spring fully developed in its present form but rather was the result of an evolutionary process. Many "systems" have been proffered to explain the processes occurring in organizations. In 1911, Frederick Taylor espoused the tenets of scientific management in The Principles of Scientific Management. Frank and Lillian Gilbreth (1911) extended the work in this area through their study of motion. Henri Fayol's system for understanding organizations was introduced in 1949. Groundwork for the systems theory approach to organizations was furnished by Mary Parker Follet. She advocated that business problems were caused by a variety of factors which did not occur in isolation but must be studied in relationship to one another (Metcalf & Urwick, 1940).

More recent authors have presented a variety of systems to explain the complex processes associated with today's organizations. Peter Blau and Richard Scott (1962) proposed that organizations be categorized on the basis of "who benefits." The four organizational types in this system are: (a) members in mutual benefit associations;

(b) owners, managers, and stockholders in business concerns; (c) the public at large in commonwealth organizations; and (d) clients outside the organization. In contrast, the classification system of Daniel Katz and Robert Kahn (1978) identified organizations according to function. All organizations are either economic, political, maintenance or adaptive in nature. Similarly, Jerald Hage (1965) attempted to classify organizations by relating structural variables to function. The structural variables which constitute the means include: complexity, centralization, formalization, and stratification, while functional variables which constitute the ends are: adaptiveness, production, efficiency, and job satisfaction. The system of Amitai Etzioni (1961) was founded on an interrelationship between power and compliance. Coercive, remunerative, or normative power is used to secure compliance from subordinates while the response to this power--alienation, calculation, or commitment--is measured on a continuum ranging from mild to intense. As noted, there has been a wide range of systems approaches that often appear dissimilar in nature. Bertalanffy (1972) explained, "...The fact that 'system theories' by various authors look rather different is not an embarrassment or the result of confusion, but rather a healthy development in a new and growing field, and indicates presumably necessary and complementary aspects of the problem" (p.329). He realized that the concept may be difficult to grasp and concluded, "Thus there is indeed a great and perhaps puzzling multiplicity of approaches and trends in general

systems theory. This is understandably uncomfortable to him who want a neat formalism, to the textbook writer, and the dogmatist" (p.337).

Educational theorists such as Jacob Getzels, Egan Guba, Max Abbott, and Karl Wieck have attempted to utilize the systems approach in examining school organizations. The Getzels-Guba Systems Model attempts to show that social behavior is a function of the interaction of role and personality (Getzels & Guba, 1957). Abbot (1965) built upon this model by introducing the relationship between the formal school structure and informal groups. Weick, (1976, 1982), contended that there was a structural looseness "within" as well as "among" schools due to conflicting systems and subsystems.

Certain elements can be identified as the basis of a general systems theory. These elements include: 1) systems are composed of interrelated parts; 2) systems interact with the environment; 3) synergism exists in systems; 4) systems can be applied across sciences; 5) systems can be applied to non-mechanistic concepts; 6) systems deal with organized complexity rather than classical simplicity; and 7) systems may serve as new conceptual models for study (Bertalanffy, 1962).

Understanding the systems approach is necessary in an examination of school improvement. It is evident that a variety of interrelated factors affect the school organization.

Nature of Organizations

Another area of importance in the study of the school improvement change process is an understanding of the nature of organizations.

The concept of the organization is complex with a variety of distinct factors. John Schmerhorn (1986) identified an organization as composed of people striving toward a common purpose with a division of labor in a hierarchy of authority. Richard Daft and Richard Steers (1986) similarly saw an organization as "...a social entity, which is goal directed, has a deliberately structured activity system, and an identifiable boundary" (p.5). It is the intent of this treatise to study only those fundamental elements which will help provide a clearer view of the nature of school organizations and the process involved in any holistic reform program.

The research and literature reveals that there are several important components of the nature of organizations which are pertinent to school improvement. The critical elements include member motivation, organizational structure, organizational climate, decision making processes, and organizational communication. Two other elements, interpersonal relationships and organizational leadership, will be examined separately later in the treatise.

Motivation

Leaders in organizations have for years been concerned with the willingness of organizational members to exert effort in the completion of duties. Attempts continue to determine the forces that account for the level, direction, and persistence of efforts that is expended by organizational members. It is necessary to examine the forces within individuals and environments that reinforce their intensity and direction on the job. Research has centered on three types of motivation--content

(based on identification of an individual's needs), process (based on the thought processes which influence behavior), and reinforcement (based on how people learn patterns of behavior founded on environmental forces) (Hoy & Miskel, 1982; Shermerhorn, 1986).

Probably the best known content approach to motivation is Abraham Maslow's Need Hierarchy Theory. Maslow (1943) postulated that people are motivated by a desire to simultaneously satisfy several types of specific needs and that these needs are arranged in a hierarchy according to need satisfaction. The five needs in the hierarchy are physiological needs, safety needs, group belonging needs, esteem needs, and self-actualization needs. While the theory is widely accepted, little empirical research has been done to substantiate it. Wayne Hoy and Cecil Miskel (1982) commented:

First, the need hierarchy theory is somewhat useful in understanding human motivation, although the debate concerning the number of need levels and their order of gratification is not yet finished. Second, since the data are so scant, Maslow's theory may be more powerful and robust than the research testing it. (p.143)

In a closely related theory, Clayton Alderfer (1972) attempted to address the criticisms that many have leveled against Maslow's Need Hierarchy Theory. He redefined Maslow's five categories of need into three distinct categories. Existence needs pertain to desires for physical well being. Relatedness needs identify needs for an individual to have productive interpersonal relationships. Growth needs are related to psychological growth. Alderfer stressed the tendency of people to move from one need level to another irrespective of a hierarchy. He also introduced the "frustration regression" principle that a

previously satisfied lower level need will become activated at any time in the process when a higher level need cannot be satisfied. Empirical research on this theory has proven more productive and results point to a validation of the theory (Daft & Steers, 1986).

Frederick Herzberg (1959), offered the Two-Factor Theory of Motivation. He believed that certain factors enhance job satisfaction yet their absence does not cause job satisfaction (motivators). By the same token other factors may lead to job dissatisfaction but are not also a cause of job dissatisfaction (hygiene). The Two-Factor Theory is similar to Maslow's and Alderfer's tenets in its treatment of basic needs and drives but appears ambiguous on certain points and limited as to validation research method availability. It has led to increased attention to research related to motivation (Whitsett & Winslow, 1967).

A final content theory of motivation is David McClelland's (1961) Acquired Needs Theory. He developed the Thematic Apperception Test in order to examine individual needs. He contended that people are motivated by the need for achievement, the need for power, and/or the need for affiliation. These areas complement the needs identified by Maslow and have been successfully applied in a business setting by teaching people to adopt the need profiles required to be successful in various types of jobs (Schermerhorn, Hunt, & Osborn, 1985).

A major process theory of motivation stems from the work of Kurt Lewin in the 1940s. He concluded that a person's behavior is the direct result of the interaction between an individual's

characteristics and his perception of the environment. Victor Vroom (1964) formalized the work into the Expectancy Theory. Maximum motivation is obtained by manipulation of three variables: Expectancy--the person's belief that efforts will lead to the achievement of a task; Instrumentality--the person's belief that completion of the task will lead to certain outcomes; and Valence--the value a person gives to the outcomes. The theory is used to help leaders predict the task related efforts of group members and has proven to be relatively successful in this role. However, there remains criticism of the basic theoretical construct (Hoy & Miskel, 1982).

The Goal Theory brought forth by Edwin Locke (1968) shares the basic precepts of the Expectancy Theory. Simpler in nature, Goal Theory explains that people set goals and are motivated to attain these goals with specific, difficult goals leading to increased effort and greater satisfaction. Goal Theory, while apparently valid, may not be complete enough to explain the interrelated forces involved in motivation especially as related to complex goals and tasks (Daft & Steers, 1986).

The Equity Theory deals with an individual's perceptions of how equitable he is being treated in comparison with others. The theory assumes that people evaluate their social relationships and that they determine their relative value based upon a comparison with the rewards of others. People will alter their behavior to resolve any inequities which exist. The equity theory can be applied in an organizational setting easily and has led to a great deal of discussion

of the very controversial issue of comparable worth for comparable efforts (Adams, 1963).

Fritz Heider (1958) introduced the Attribution Theory of Motivation. He believed a person's behavior is the direct result of personal forces (effort and ability) and environmental forces (luck and task difficulty). The observer of the behavior decides which of these forces exercised the greatest influence. The observer bases his actions on this attribution. While the theory holds promise, little research has been done (Hoy & Miskel, 1982).

The two major examples of reinforcement theories of motivation are the behaviorism of B. F. Skinner (1974) and Thorndike's Law of Effect (1911). The principles related to Skinner's complex theory are widely applied and criticized. The three basic premises of behaviorism are: (a) the primary interest of researchers of motivation should be only the observed behavior of a person; (b) that specific, controllable factors determine behavior; and (c) internal forces, while present, do not dictate behavior. Reinforcement is the key element in motivation. Both positive and negative reinforcement act to determine the present and subsequent actions of a person.

Thorndike's Law of Effect states, "Behavior that results in a pleasant outcome is likely to be repeated; behavior that results in an unpleasant outcome is not likely to be repeated" (p.244). External forces are the only basis for determining behavior with internal forces of no consequence. While both reinforcement theories warrant examination, they may be more forceful in situations in which cooperation

among workers is not necessary and the contributions of each individual worker can be differentiated from the contributions of others (Bacharach & Conley, 1986).

Structure

The structure of an organization is a key consideration in understanding the nature of an organization. Early organizational studies assumed that there was a one "best way" approach to organizational structure. The bureaucratic model was offered by Max Weber (1947) and has proven to be a viable organizational configuration. While the model addressed many of the abuses of organizations, it has proven not to be dynamic enough to be responsive to today's constantly changing organizations (Blau & Scott, 1962). Organizational structural dimension considerations include formalization, complexity, span of control, and professionalism (Daft & Steers, 1986).

Formalization is the amount of formal documentation in an organization. Centralization tends to lead to formalization while conversely, decentralization leads to less formalization. Jack Frymier (1986), warned against centralization in school organizations as "debilitating to professionalism and inhibiting to improvement" (p.647). Even though decentralization appears to be on the increase, some educators question its value. Allan Ornstein (1981) stated, "There is little research evidence that...(decentralization)...has positive effects"(p.27).

Complexity refers to the number of subparts within the organization. Thomas Peters and Robert Waterman (1982), in In Search of Excellence,

called for a simpler form of organization. Excellent companies, they reported, are willing to reorganize and reshuffle as needed while maintaining the integrity of the basic, central form. David Hurst (1984) saw the need to vary complexity with the situation with organizations moving from "boxes to bubbles." Leaders are concerned with both vertical complexity which refers to the number of management levels in the hierarchy and horizontal complexity which refers to the number of occupational specialties across the organization.

The issue of span of control has led to a move toward loosely coupled structure in organizations. The last of Peters and Waterman's (1982) eight basics for management excellence is "simultaneous loose tight properties." They contended that it is in fact possible to have both flexible and rigidly disciplined conditions at the same time within a successful organization without resulting chaos. Allan Glathorn (1981) believed schools, rather than being tightly coupled systems with top down tendencies, are actually "loosely coupled systems composed of subsystems operating somewhat autonomously" (p.110). Karl Wiech (1982) recognized the distinctiveness of schools as tightly coupled on key values but loosely coupled in all other areas. While advocating the loosely coupled approach, he warned, "The risk in a loosely coupled system is that people will become uncertain, lonely, and captives of local populations to which they make increasingly large accommodations that undercut educational aims" (p.676). Hoy and Miskel (1982) believed that schools reflect both tight and loose properties. They looked for a balance between the

...two organizational domains--a bureaucratic one consisting of the institutional and managerial functions of mediating between the school and community, implementing the law, administering internal affairs, procuring and allocating necessary resources, and mediating between students and teaching; and a professional one involved with the actual technical processes of teaching and learning. (p.104)

Figure 2.1 identifies the systems of organizations in a Mechanistic and an Organic organization. These organizations are characterized as existing in a stable or dynamic environment. Mechanistic organizations tend to have tight structural qualities while organic have loose qualities.

Climate

Climate is a critical factor in the nature of an organization. For many years "climate" was not recognized as a distinct entity. It was identified as the general morale associated with the prevailing attitudes of organizational personnel (Kelley, 1980). Research in the 1950s began to suggest that there was a casual relationship between the nebulous concept of climate and the productivity of organizations. Studies in the 1960s indicated that while morale, structure, and management were related to the concept of climate, they were conceptually distinct terms. Continued related research highlighted the need to identify and study this complex notion as it related to the overall effectiveness of an organization. Researchers began to examine the manner in which climate could be controlled or altered (Fox, 1985).

There has been much discussion over what precisely constitutes climate and how best to classify the factors which contribute to this concept. John Rouché and George Baker (1986) appeared to offer a

Stable Environment

Mechanistic

1. Tasks are highly fractionated and specialized.
2. Tasks tend to remain rigidly defined unless altered formally by top management.
3. Specific role definition (rights, obligations, and technical methods prescribed for each member).
4. Hierarchic structure of control authority, and communication. Sanctions derive from employment contract between employee and organization.
5. Communication is primarily vertical between superior and subordinate.
6. Communications primarily take form of instructions and decisions issued by superiors.
7. Insistence on loyalty to organization and obedience to superiors.

Dynamic Environment

Organic

1. Tasks are more interdependent; emphasis on relevance of tasks and organizational objectives.
2. Tasks are continually adjusted and redefined through interaction of organizational members.
3. Generalized role definition (members accept general responsibility for task accomplishment beyond individual role definition).
4. Network structure of control, authority, and communication. Sanctions derive more from community of interest than from contractual relationship.
5. Communication is both vertical and horizontal, depending upon where needed information resides.
6. Communications primarily take form of information and advice.
7. Commitment to organization's tasks and goals more highly valued than loyalty or obedience.

definition closest gaining consensus agreement among several authors. They defined climate as "...the overall environment, values, shared beliefs, and personality of an organization"(p.24).

There has not been a wealth of valid research conducted on school climate. The first comprehensive study of school climate was conducted by Andrew Halpin and Don Croft in 1962. They observed that schools differ markedly in their "feel." The concept of morale did not provide an index to this feel. Halpin and Croft also found that "ideal" principals who were assigned to schools where improvement was needed were immobilized by the faculty. These researchers developed the Organizational Climate Description Questionnaire in order to measure climate along a continuum from open to closed using eight criterion (hindrance, intimacy, disengagement, esprit, production emphasis, thrust, and consideration). The climate types include open, autonomous, controlled, familiar, paternal, and closed.

Rensis Likert (1967) drew from Halpin's and Croft's studies in developing an instrument to measure climate in terms of the character of superordinate, subordinate relationships. The organization types fall into four categories: System 1--Exploitive-Authoritative; System 2--Benevolent-Authoritative; System 3--Consultative; and System 4--Participative. The organizational characteristics examined are leadership, motivation, communication, interaction influence, decision making, goal setting, control, and performance goals.

Donald Hall's (1972) study compared Halpin and Croft's and Likert's measures of climate and found a positive correlation between the

two. Hoy (1982) led Penn State researchers in concentrating on the effects of climate on students. Schools ranged from a custodial orientation to a humanistic orientation. H. A. Murray, George Stern, and Rudolph Moos worked primarily in developing assessment tools. Herbert Wolberg and Lawrence Lezotte contributed research on satisfaction and productivity as related to school climate (Kelley, 1980).

Fred Gibson (1982) contended that the establishment of a positive climate within an organization required the articulation of a definitive philosophy that is widely recognized and accepted within the organization. Arthur Combs (1988) believed that too much emphasis is placed on "things" rather than people. He saw the changing of people's beliefs as the key to a productive climate. William Ouchi (1981) offered Theory Z (see figure 2.2) as a structural way to ensure a positive climate in an organization. While the concept of organizational climate continues to be difficult to identify and study, researchers agree there is importance in creating a healthy organization which is in a constant state of renewal (Conrath, 1984).

Decision Making

The nature of an organization is greatly influenced by the decision making process present in the organization. Decision making is defined as the process of finding and solving organizational problems (Schwenk & Thomas, 1983). Chester Barnard (1940) identified three types of decisions--intermediary (instructions from superiors),

Japanese Organizations-Theory J

1. Lifetime employment
2. Slow evaluation and promotion
3. Non-specialized career paths
4. Implicit control mechanisms
5. Collective decision making
6. Collective responsibility
7. Holistic concern

American Organizations-Theory A

1. Short-term employment
2. Rapid evaluation and promotion
3. Specialized career paths
4. Explicit control mechanisms
5. Individual decision making
6. Individual responsibility
7. Segmented concern

Type Z

1. Long-term or lifetime employment
2. Relatively slow process of evaluation and promotion
3. Career paths display much "wandering around" across functions
4. May have explicit control mechanisms that are carefully tended and don't often dominate major decisions

appellate (interpretations from subordinates), and creative (initiated by an executive). Peter Drucker (1968) later catalogued two types of decisions: generic and unique. Generic decisions can be made based upon rules and past precedences, while only unique decisions require a formal decision making process. Charles Sharman (1984) described the rational decision making process as a seven step process: (a) identify the problem, (b) analyze the problem, (c) collect information, (d) identify alternatives, (e) evaluate alternatives, (f) implement the preferred alternative, and (g) evaluate the decision.

Some authors contend that the rational model cannot always be used and must be modified to accommodate the nonrational world. Nonrational implies a world that does not always conform to rational rules rather than irrational which indicates the absence of any rational reason. (Patterson, Purkey, & Parker, 1986) (see figure 2.3). Simon (1947) felt that administrators responded to their nonrational environment by choosing the first acceptable solution (satisficing) rather than continuing to seek the best solution because they lacked the knowledge, ability, or capacity to maximize the decision making process. Edward Litchfield (1956) viewed decision making as a complex problem. One elaborate cycle, regarding fundamental goals and objectives may be proceeding at one level, while smaller and related sequential cycles may progress on an interrelated level. Many educators are now calling for shared decision making in schools. Jerald Bachman and Arnold Tannenbaum (1968) linked teacher job satisfaction to

RATIONAL

Goals

- . There is a single set of uniform goals that provides consistent direction for us.
- . The district goals are clearly stated and specific.
- . The goals remain stable over a sustained period of time.
- . Organizational goals are set via a logical problem-solving process.
- . The goals for the district are determined by the leaders of the organization.

Power

- . The formal organizational chart determines who can have power to make things happen.
- . Power to make things happen is located almost exclusively at the top of the organizational chart.

NONRATIONAL

Goals

- . There are multiple, sometimes competing sets of goals that attempt to provide direction for us.
- . The district goals are somewhat ambiguous and general in nature.
- . The goals change as conditions change.
- . Organizational goals are arrived at through bargaining and compromise.
- . The goals for the district are set by many different forces, both in and out of the organization.

Power

- . Having access to information, support, and resources is the basis for power to make things happen.
- . Power to make things happen is located throughout the organization.

RATIONAL

- . There is a very direct connection between what the central office says should happen in the classroom and what actually goes on behind the classroom door.

Decision Making

- . The issues that receive attention are those which are most important at a given point in time.
- . The decision-making process makes sure that all feasible options are considered.
- . The decision-making process keeps away extraneous forces (e.g., competing demands, outside pressures) that negatively affect logical decision-making.
- . The decision-making process leads to a sound, one-best decision that maximizes organizational

NONRATIONAL

- . The extent of implementing central office directives is in large part controlled by teachers at the classroom level.

Decision Making

- . The issues that receive attention are those which are pressing for immediate resolution.
- . The decision-making process usually ends up with a limited number of options to consider, constrained by factors such as politics, economics, and finances.
- . The decision-making process accommodates various forces shaping eventual decisions (e.g., external pressures and persistence of people in their points of view).
- . The decision-making process incorporates compromise and concession, leading to a decision

RATIONAL

goals.

External Environment

- . The environment external to the school district remains passive while organizational decisions are made internally.
- . The external environment acts in a stable and predictable fashion.
- . The external environment respects and defers to the official expertise and official power vested in school district staff.
- . The external environment acknowledges the right of the organization to make its own decision.

Teaching

- . There is a clear picture of best instructional methods to achieve organizational goals.
- . There is a standard set of best practices to improve learning.

NONRATIONAL

that may not have been the most educationally sound decision.

External Environment

- . The external environment maintains an active level of involvement in organizational affairs.
- . The external environment acts in a somewhat unstable and unpredictable manner.
- . The external environment questions organizational expertise and challenges the power of school officials.
- . The external environment demands a piece of the action at virtually every point in the decision-making process.

Teaching

- . There is a somewhat fuzzy picture of best instructional methods to achieve organizational goals.
- . There is a multiple array of effective practices to improve

RATIONAL

- . School board policymaking directly affects teaching, which directly affects learning.

NONRATIONAL

- learning.
- . School board policymaking bears very little direct relationship to teaching and learning in the classroom.

teachers feeling good about their ability to control their working environment and to have input in building decisions. Edwin Bridges (1968) encouraged shared decision making when making decisions outside a teacher's zone of acceptance with more arbitrary decision making on alternatives located within the zone.

Communication

There are almost as many definitions of communication as there are authors addressing the concept. Daft and Steers (1986) see communication as, "the transmission of messages between people" (p.528). Schermerhorn (1986) contended that "Communication is an interpersonal process of sending and receiving symbols with meanings attached to them" (p.303). Richard Farace, Peter Monge, and Hamish Russell (1977) expanded further, "Communication refers to the exchange of symbols that are commonly shared by the individual involved, and which evoke quite similar symbol referent relationships in each individual" (p.26). In an organizational setting communication is seen as the sending and receiving of information within a complex organization (Redding, 1972). In 1966, Katz and Kahn perceived organizational communication simply as the flow of information. As a consensus definition, organizational communication is identified as, "all oral, written and nonverbal exchanges of ideas and information between persons directly or indirectly involved in the organizational setting" (Hamilton, Parker, & Smith, 1982, p.2). As varied as the definitions are, all the authors agree as to the importance of communication to the nature of an organization.

James March and Herbert Simon (1958) emphasized this point by contending that the capacity of an organization to maintain a complex, highly interdependent pattern of activity is limited by its ability to handle the communication required for coordination. Communication is very important if an organization is to effectively reach all identified goals efficiently and effectively. More recently, Peters and Waterman (1982) stated:

The nature and uses of communication in the excellent companies are remarkably different from those of their nonexcellent peers. The excellent companies are a vast network of informal, open communications. The patterns and intensity cultivate the right people getting into contact with each other regularly. (p.121)

Kent Stewart (1978) summarized, "People hear only about one-half of what is said and of that one-half, they understand and retain only a small percentage. Effective communication, therefore, is critically important" (p.13).

Most authors have concentrated on networks in their study of organizational communication. Networks represent the way communication flows in an organization (downward, upward, and horizontally) (Hamilton, Parker, & Smith, 1982). Barnard began extensive work on formal communication channels as early as 1938. Katz and Kahn (1966) contended that downward communication, a function of formal channels, is used to convey the following types of messages: job instructions, job rationale, policy and procedures, feedback, and indoctrination. While this downward communication flows from managers to subordinates, upward communication flows from subordinates to supervisors. To be effective, upward communication must be accurate. It is most optimum when an

open relationship exists between all hierarchical levels (Gemmill, 1970). In horizontal communication messages flow laterally between persons of the same rank. Horizontal channels are used to coordinate tasks, solve problems, share information, and resolve conflict (Goldhaber, 1979).

Obviously, not all messages flow along the prescribed channels in organizations. The informal communication network is active in most organizations. In open organizations the informal channels convey mostly personal messages. However, when formal channels are ineffective, then informal channels will begin to transfer organizational information. Informal networks are consistently accurate and fast. Indications are that informal networks need not be destructive but can be utilized for the attainment of positive organizational goals (Davis, 1977).

Researchers now realize that communication is a dynamic process. It is viewed in organizations as being transactional--mutually reciprocal. Communication influenced by the personal perceptions of both the receiver and sender and is affected by numerous internal and environment variables (Josefowitz, 1980).

In 1961, Lee Thayer postulated that communication in organizations has four distinct functions. People in an organization use communication to inform others in the organization. They use communication to give instructions and direct activities. Communication is also a tool for evaluation. Finally, communication is a means for influencing others in the organization.

Much study has been done to help communication in organizations to become effective. Several barriers to effective communication (noise) have been identified: semantic problems, absence of feedback, poor use of communication channels, physical distractions, cultural differences, and status effects (Level, 1972). Schermerhorn (1986) reported the ten commandments of good communication:

1. Clarify your ideas before communicating.
2. Examine the true purpose of each communication.
3. Consider the total physical and human setting.
4. Consult with others in planning communications.
5. Be aware of the overtones as well as the basic content of your message.
6. Take every opportunity to communicate something of help or value to the receiver.
7. Follow up your communication.
8. Communicate for tomorrow as well as today.
9. Be sure your actions support your words.
10. Be a good listener.

Building upon the initial work of A. Bavelas and D. Barrett (1951), other researchers such as M. Shaw (1976) and Carl Rogers (1976) continued to examine the specific characteristics of group communication. Centralized versus decentralized models of communication draw particular attention. Related areas such as nonverbal communication (body language, voice intonations, and physical appearance) are also attracting renewed research, especially in relation to avoiding mixed

messages and enhancing effective communication (Lipham & Francke, 1966; Spradley, 1980).

The nature of organizations has proven to be a very complex concept for researchers and practitioners alike for many years. Numerous factors serve to influence the nature of organizations. However, several critical elements are evidenced in any examination of this concept which may have more direct effect on the nature of organizations than other elements. Particular attention was given to member motivation, organizational structure, organizational climate, decision making processes, and organizational communication. These elements are not prioritized in any rank order as all have a major influence on the nature of organizations. All elements must be taken into consideration when an indepth study is conducted of the school improvement change process in the schools.

Sustaining Effect

Robert Slavin (1989) voiced a strong indictment of school improvement programs in general.

Educational innovation is famous for its cycle of early enthusiasm, widespread dissemination, subsequent disappointment, and eventual decline--the classic swing of the pendulum. Of course, a similar pattern exists in most applied fields but many nonetheless exhibit steady generational progress that is far more important than the latest fad. For example, there are fads in medicine, agriculture, and engineering, but they occur against a backdrop of steady, widely acknowledged, and irreversible progress. Generational progress does occur in education, but it is usually a product of changes in society, rather than changes in educational techniques themselves. (p.752)

Even the most promising reform programs often fail to sustain the

impetus necessary to create permanent improvement in student outcomes. A perusal of current research and literature reveals several causes for the demise of current reform programs and offers insight into those elements which ensure sustaining, positive reform.

A first critical element in sustaining school improvement is preparation and planning. Participants must not only be well versed in the technical aspects of program improvement, but must be aware of the change process as well (Snyder, 1985). Ascertaining when and how to enter into change is as critical to sustaining affect as the actual implementation of a program (Champlin, 1988). Part of the planning involves sharing information with all personnel involved and utilization of an extensive staff development program as needed. Planning needs to be comprehensive and continual (Troutman, 1985). A clear vision must be present in planning so that participants understand the overall goals of the district and have a value base to which they can apply decisions and judge actions. This philosophical base joins a research screen as a prerequisite for sustaining change based upon issues and concepts rather than personalities (Champlin, 1988).

Stephen Miller, Shelley Cohen, and Kathleen Sayre (1985) contended, "Any lasting change in a school will occur only because the staff itself changes norms of expectations, appropriate role definitions, standards of accountability, and patterns of behavior" (p.40). This goal is accomplished by institutionalizing programs and procedures. Actions associated with the improvement program must become routine.

Positive behavior is rewarded in hopes that desired behavior will become internalized (Marx & Spady, 1984).

Another critical element in sustaining a school improvement program is supervision. Karolyn Synder (1983) reported, "One of the most embarrassing explanations for the current poor reputation of schools, and the presumed failure of many excellent innovations, is that teachers have not had adequate, well informed, and direct supervision to help them understand and implement new practices" (p.33). While principals are chief actors in the supervision process, they are not the only ones in the district who can fill this role. Other administrators and even teachers may take on this role (Corbett, 1982). Thomas Sergiovanni (1983) added accountability to the supervision formula. He viewed administrators as active members of the process who lead by example and are thus in a position to supervise effectively. Other authors advocate that supervision be used as a tool to sustain change by monitoring cultural adaptations as well as technical criteria. Supervisors must nurture growth and facilitate renewal (Parish & Arends, 1983).

Constant support is essential to sustaining a school improvement program. Support can come in many forms. The support may come in the form of human resources with all personnel working toward identified organizational goals. Often, human resources are not adequate alone for success of a school improvement program. This support clearly must include providing fiscal resources (DuFour & Eaker, 1988). This commitment to fiscal resources support need not necessarily entail significant

budget increases on the part of organizations. Michael Kirst (1982) explained:

School improvement is possible during hard times. It requires successful manipulation of alterable variables. It also requires persistence; educators should stick with a given reform effort for five or more years. But the current fiscal status need not spell deterioration in the quality of education. It can become, instead, the stimulus for lasting change. (p.8)

Many times support comes in the form of specific rewards and special recognition. Continued incentives for personnel who demonstrate innovative behavior are necessary if positive classroom changes are to be maintained long enough for the new practice to become institutionalized and the new behaviors to become routine (Corbett, 1982). Support must permeate all levels of an organization and is often construed as manifesting itself in the form of shared knowledge. Teachers tend to be isolated from other educators, staying in their classrooms. Teachers are calling for a larger share of the decision making power and greater input in planning and implementation of the school improvement process (Tye & Tye, 1984). Support is not restricted to any one level but is needed at all levels in order to sustain positive reform. Bill Honig (1985) summarized:

We must organize the public and the education community in support of an education reform package at the state level and in support of reform efforts at the district, school, and classroom levels. We must organize effective technical support to improve our efforts in such areas as curriculum and instruction; preparation, selection, support, and evaluation of teachers and principals; selection of textbooks; testing; staff development; parental involvement; and student engagement. (p.676)

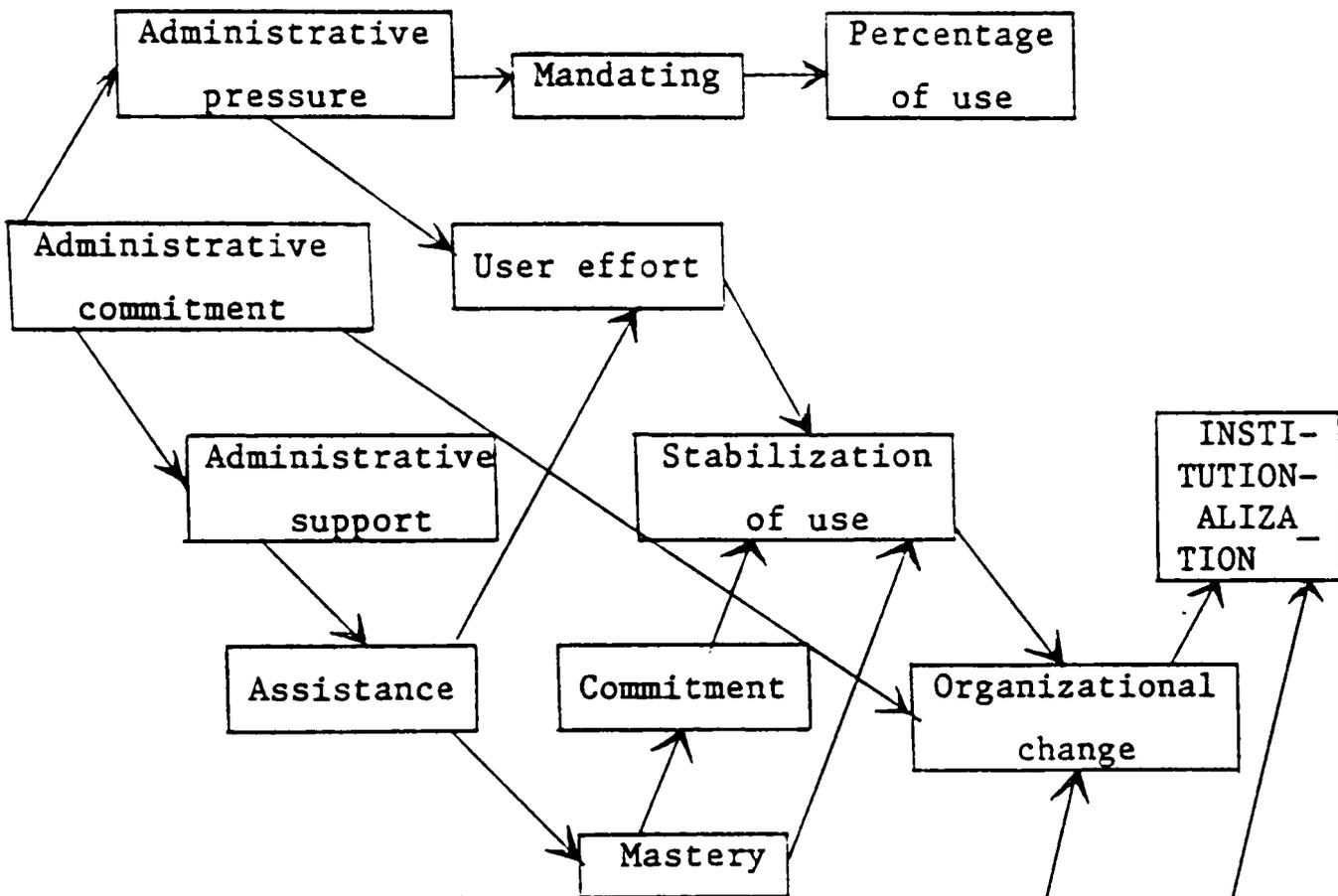
Positive, committed leadership is necessary to sustain a school improvement program. While other factors are needed for success,

leadership is critical. In his study of several schools which have maintained lasting change in a school improvement program, Matthew Miles (1983) found that leadership was a key ingredient to success. By applying pressure, providing assistance, displaying commitment, increasing flexibility, and providing incentives, leaders help institutionalize and thus sustain change. Figure 2.4 reflects a model for institutionalizing change in schools. Sergiovanni (1982) placed importance on the role of a leader in sustaining change. He viewed a leader's function as one of promoting constant renewal and acting as a catalyst for keeping the initial vision alive.

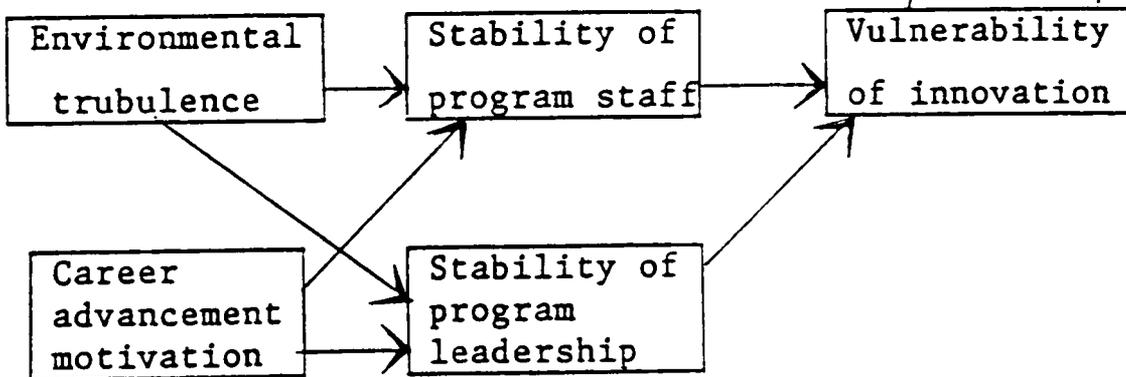
The literature is adamant concerning the need for a strong commitment by all individuals involved as a factor in sustaining change. This commitment is evidenced by a willingness of those implementing the process to allow time for change. Theodore Sizer (1935) commented, "School improvement cannot come about quickly...it requires a slow and determined effort, reflected in sound policies and patience" (p.21). Schools are made up of a multitude of people who require time to accomplish the complicated task of internalizing and accepting change. Lawrence Lezotte and Beverly Bancroft (1984) claimed districts must allow at least three to five years for the school improvement program to be implemented. Tyler (1987) believed this should be a minimum of six years.

To develop a workable plan to provide necessary training for those who will carry out the plan, to try out the plan and modify it to fit the particular conditions in a given school--all require much more time than most reformers realize. In my work on school improvement, I have found that it takes six or seven years to get a reform really working as intended. Most implementation plans greatly underestimate the amount of time required. (p.280)

Supports



Threats



A personal commitment on the part of participants also is necessary to sustain a school improvement program. This personal commitment to the program and philosophy must permeate all levels and be visible in the actions of the group members (Lezotte & Bancroft, 1985; Parish & Arends, 1983). Constant renewal is a must to keep this commitment strong (Miles, 1983; Miller et al., 1985).

A final key to sustaining a school improvement program is the tracking and sharing of progress. Lezotte and Bancroft (1985) contended that the way in which a district assesses student outcomes accurately represents the educational outcomes that the school or district cares most about. Once outcomes are established, the district must develop measurable long-range goals for student performance. Long-range goals are tied directly to attainable, realistic short-term goals. Short-term goals are set so that progress can be monitored continually (Honig, 1985). Schools sustaining positive change celebrate gains as they occur. Results are not fabricated for public relations purposes but when true progress is made, it is recognized (Dufour & Eaker, 1988). Reports of progress should not cause the momentum to stop. Downey (1986) challenged districts improving not to "rest on their laurels" but to continue sustaining school improvement.

Sustaining school improvement is a difficult task. Preparation and planning is one necessary ingredient of sustaining change. The belief system of participants must be altered to ensure that the change becomes institutionalized. Supervision by effective leaders is a key factor for successful change. The commitment necessary

to sustain school improvement is usually reflected as the patience to allow time for change and a strong personal commitment. Progress is mapped and recognized, and serves to motivate further progress.

Human Relations Factors

Many school improvement programs have proven to be unsuccessful in creating a positive change or sustaining a positive change because personnel who served as the key agents in the change process have failed to give the consideration necessary to the human relations factors present. Arthur Combs (1988) contended that many promising reform efforts have succumbed because, "they concentrate on things rather than people" (p.29). Combs continued in his analysis:

Education is a people business made up of 100 million students and at least ten million professional educators. Assuming that vital changes can be brought about in such a colossus by administrative fiat or by tinkering with methods and organization is flirting with futility. Truly effective change in so complex, an institution can only be accomplished by effecting changes in people--especially through teachers, those men and women in closest touch with students. (p.38)

In 1956, Daniel Griffiths realized the importance of considering the individual needs of people in schools stating that all educators "must have a strong and overwhelming belief in the supreme worth of all individuals" (p.14). Recent studies conducted in schools continue to point to the importance and necessity of consideration of human relations factors in the school improvement change process. The research conducted centers on those elements in a human relations program which contribute to a positive climate in schools. Research in Seattle

schools stressed the need for human relations programs (Andrews & Soder, 1987), while findings in Pittsburgh on teachers' perceptions pointed to a growing concern over human relations aspects of school improvement (Wallace et al., 1984). A recent study of principals and teachers in Anchorage found that, "Satisfied teachers believed that their principals cared about their opinions and responded to their concerns" (p.315). The study continued that teachers were more satisfied with principals who relied on personal power than with those who relied on positional power. Principals who took the time to build coalitions and plant ideas with key teachers and then slowly build support were among the most effective in influencing change in their schools (Stimson & Appelbaum, 1988). In Susan Johnson and Niall Nelson's study (1987) of four union dominated districts, which were involved in reform movements, it was discovered that if the views of teachers are sought, schools will be improved and teachers will become invested in the outcomes of the improvements.

Given the importance of human relations factors, researchers have been attempting to identify the most positive method to address the issue. In Marching to Different Drummers, Pat Guild and Stephen Gager (1985) asserted that the first most important step is to recognize and understand differing psychological styles which influence interpersonal relationships. "An understanding of the diversity of human nature and an acceptance of it as the norm can result in a cooperative attitude toward decisions and problems. Schools that celebrate diversity among people will be able to use this strength to produce effective learning" (p.25).

Current literature is saturated with the notion of teamwork as the answer to interpersonal concerns. Business analyst Andrew Dubrin (1984) discussed twenty-one strategies to improve interpersonal relationships. First on the list is to develop a norm of teamwork within the organization. Backman and Tannenbaum (1968) linked teachers' satisfaction to having a degree of control in a team setting. Knaub (1979) extended shared decision making to include students as well as teachers. Teachers shared decision making in a five-year study in Mansfield, Connecticut schools. Empowering teachers and students improved both task accomplishment and human relations concerns (Weingast, 1980). Willis Furtwengler (1985) even more strongly advocated student involvement. He stated, "Clearly, the success of a school effectiveness program depends heavily on the involvement of both formal and informal leaders. Students are defined and treated as members of the school organization, not simply as 'clients' " (p.264). William Spady and Gary Max (1984) insisted that districts build school improvement support teams composed of educators, community members, and students.

Empowering people requires mutual respect and trust. An examination of National Education Association (NEA) Mastery in Learning project revealed that faculty members tend to become more collegial through a nine step program: (a) testing, (b) exhilaration, (c) commitment, (d) dispiritedness, (e) regeneration, (f) seeking small successes, (g) using research, (h) experimentation, and (i) comprehensiveness (McClure, 1988). Ann Lieberman (1989) warned that empowerment is easily misconstrued as complete autonomy. When true empowerment occurs, teachers

learn to work together. They get a sense of themselves as a group and begin to help each other solve problems they cannot solve themselves.

Teacher peer tutoring is quickly evolving as a viable approach to human relations concerns. Calgary, Canada, schools have begun a "peer coaching" program with positive results (Paquette, 1987) and Sonoma County, California, is also involved in an on-going study of this approach (Raney & Robbins, 1989). "In addition to promoting collegiality and providing new teachers the support they so urgently need, the program has had beneficial affect on experienced teachers" (p.37). The report concluded, "Feelings of isolation and passivity have given way to an environment of collaboration and professional growth" (p.30). Some authors warn that attempts at collaboration must be sensitive to personal needs, or effectiveness will be diminished. Professionals cannot be forced to be collegial but must be led to be so (Wildman & Niles, 1987; Kline, 1987; Bertani et al., 1987).

The business community continues to offer a barrage of solutions to the problem of poor interpersonal relations. Thomas Gordon (1977) proposed "leader effectiveness training" in order to master the no-lose method of dealing with people in which all participants win in confrontational situations and no one is forced to capitulate. Field study indicated that the process of implementation may determine more accurately the effectiveness of the program than the actual design (Bonner, 1982). Gary Schuman (1987) listed ten current popular business approaches to addressing human relations

concerns: mentorship, rotation, cross training, stretch projects, team building, special assignments, flexible tasks, incentives, learning opportunities, and informal gatherings.

One must be cognizant when implementing a school improvement program that over emphasis on human relations considerations may diminish the effectiveness of change by causing individuals to neglect task requirements. Robert Elkins (1981) warned:

As long as we place a higher premium on winning approval than on critical thinking, on getting along than on questioning, on controlling behavior than on developing the ability to evaluate, we will be unable to produce individuals who can deal effectively with critical social ills. (p.482)

Gene Geisert (1988) took a dim view of the rapid move by many organizations toward participatory management. He believed schools should have strong individual leadership from personnel who have been thoroughly trained in the school improvement process and are accountable for their actions. He admonished, "Increasing the number of decision makers in schools would create a need for additional procedures and policies, thus increasing the bureaucratic obstacles to school improvement" (p.56). Other authors report that too much cohesion has undesirable consequences on the total organization. Leaders may be too much concerned about getting people to work together and to have them like each other, rather than be productive (Dubrin, 1984; Bader, 1989).

Human relations concerns must be addressed in a school improvement program. Given its importance, many researchers have attempted to find means to ensure positive relations. The "no-lose" method and quality

circles come to education from the business sector. Teamwork and empowerment are important concepts for successful human relations. Educators are warned that while human relations concerns are important, one must not lose sight of task commitment.

Data Base

The demise of many school improvement reform efforts has been linked directly to the failure of those personnel responsible for implementing the school improvement program to establish and use an adequate data base as a basis for decision making. Greg Farman (1982) contended, "For an innovation to be successful, it must be introduced into an educational system that has a solid foundation on which to build" (p.2). This solid foundation, he believed, was a well developed data base. Thomas McGreal (1988) agreed with Farman's analysis. He contended that it is crucial that there is a clear understanding among all personnel involved in the school improvement process in the district as to what the literature and the research are saying. Discussions of best practice should be initiated among all personnel about effective programs and practices which lead to desired outcomes. McGreal (1989) believed a strong data base was imperative in the school improvement process. He summarized the importance of a data base:

It is virtually impossible for the average individual to keep up with the rapid changes in current research and practice. It demands a systematic, focused, and committed effort by the district. The purpose of this effort is to assure that before decisions are made, the district can comfortably feel that it

knows the advantages and disadvantages of the available options. This information helps the district know that it is in the best possible position to match its needs with available programs and practices. While most schools end up making adaptations to what they learn, in order to better fit their unique setting, they should be doing it from an informed position. (p.36)

Othanel Smith (1985) related that in order to be a true profession, educators must be willing to establish and use a research base as the basis of decision making.

In its earliest stages, every profession is a craft, based on knowledge derived from trial error and passed on from generation to generation by imitation and informal instruction. Our modern conception as a profession, as Alfred North Whitehead told us in 1933, is of an occupation whose activities are subject to theoretical analysis and scientific study and improvable by knowledge derived therefrom. This knowledge and the process of discovering it are what distinguish a profession from a craft. (p.686)

Administrators, particularly, must keep abreast of current educational research and its implications on practices with the school district.

Nancy Hussey (1989) pointed out that the research is available and is adequate to insure that an appropriate data base for school improvement could be implemented in schools. She contended that much of the current research is well designed and studies what works in schools.

There are several reasons why education research is not used effectively. Gerald Bracey (1989) believed educators have been in error by attempting to imitate experimental psychologists in developing techniques that have some utility in the laboratory but limited applicability in the classroom. Additionally, educational research relies almost entirely on tests of statistical significance, which has proven to be a narrow foundation. The rush to publish has also damaged the reputation of educational research. Bracey listed his ten reasons

for bad research: (1) experiments are too short, (2) editors accept only studies with statistically significant results, (3) peer review is inadequate, (4) data are inappropriately reported, (5) data are destroyed, (6) the same data are published many times, (7) data are inadequately recorded in archives, (8) the prose is awful, (9) ideas are hoarded until their owner is so close to publication that no one can steal them and publish first, and (10) undergraduates get the shaft. Patricia Cross (1987) extolled researchers to tie research efforts directly to classroom practices. She contended that actual classroom practices have not been the focus of extensive empirical studies. Patricia Graham (1979) offered a view of educational research and the personnel doing the research.

Despite my criticisms of educational research, my judgement of its health and future is highly optimistic. We can change the kinds of topics we pursue and the range of methodologies we use. What is decisive is that we have the body of skilled and talented researchers to make these changes. (p.30)

While many authors accept that educational research has several identified problems, they warn against the dangers of progressing in the school improvement process without a data base. Programs based upon unresearched concepts are destined to prove ineffective in the long term and may serve to damage student learning and staff relationships (Levin & Long, 1981; Champlin, 1988).

To be effective, a reform program must establish a research base and use it to make decisions. Research from other disciplines can often be applied to school organizations (Brookover, 1987). Even complicated research can be translated for practical use (Gable &

Rogers, 1987). Research and current literature are essential in the planning stages of any reform and must continue to serve as a screen for implementation decisions (Spady & Marx, 1984; Bloom, 1980). Not all research must be sterile or restricted to a few geographical regions. Local districts can carefully analyze data from the district as a basis for decision making (Bogdan, 1980; Walberg et al., 1979; Odden, 1984).

Test scores can be a major part of a data base. It is important to properly interpret scores. Results are easily misconstrued to match desired outcomes, and boards of education tend to make inappropriate comparisons (Rayborn, 1989). Examining the innovations at Westwood School in Dalton, Georgia, Carol Livingston (1989) pointed to the debilitating effect of total reliance on standardized tests as a data base source and called for a broader foundation. She believed the school was losing focus of other important outcomes.

Faulty data also may be a source of difficulty in establishing an effective data base. John Ralph and James Fennessey (1983) believed that the current acceptance of the effective schools research may be misguided. They contended that this body of research is shallow in nature and basically not valid. Lawrence Stedman (1988) continued the attack on this research stating that implementation efforts will never be successful if they are based on a flawed data base. However, most researchers still support the validity of this research.

Even the presence of viable research and literature does not ensure that the data base will be translated into a lasting reform

effort. The transition from theory to practice can be very difficult (Tyler, 1985). Much of the more promising information concerning school practices is void of recommendations concerning implementation. Thus, traditional practices and public opinion shape implementation of reforms rather than the data base (Yudof, 1984; Lezotte, 1989; Genck, 1989). Elliot Eisner (1980) believed the way to bridge the gap between theory and practice is for researchers to become more familiar with the setting they are studying and to refrain from the use of confusing language so that results can be truly informing. Eva Baker (1984) found evidence of widespread use of research reflected in educational practices. Researchers have begun to recognize schools as existing in a nonrational environment and begin to tie research efforts to the identified needs of the practitioners. Bruce Joyce (1978) emphasized the flexibility provided by a sound data base. Practitioners can avoid the "one-best-way" syndrome and base decisions on a sound foundation while still having opportunities for individual alternatives. In Effective Instructional Management, Sally Zakariya (1983) described several school districts which have been very effective in making the transition from theory to practice through use of a strong data base. Such districts as Roseville, Minnesota; Johnson City, New York; Milwaukee, Wisconsin; Glendale, Arizona; and Northglenn, Colorado, continue to revise and utilize a broad data base concerning practices which enhance learning.

Even small districts are capable of establishing a base for informed decision making. Kenneth Henson and Thomas Saterfiel (1986)

reported, "You need facts to make informed decisions, but many schools can't afford a separate research and evaluation department. In Mississippi, the answer is a statewide consortium that conducts research and shares the findings with participating school systems" (p.41). Networking among schools has developed as districts share empirical findings and implementation strategies (Roberts & Cawelty, 1984).

It is difficult to belie the need for a strong data base when attempting a school improvement program. A data base should contain information pertinent to successful school practices. One must be careful to use the information correctly. A district's data base should serve as a screen for educational decision making. Translating the theory of research to the practice of the classroom is the biggest challenge for leaders using a data base for school improvement.

Total Organization

In practice the unit of change for educational reform is the individual school. Yet the current research and literature points to the need for the total organization to be involved in the improvement process in order for the individual school to have an opportunity to be successful. After examining the Kenmore, New York

John Szabo (1985) reported, "For school-based improvement to make a real difference, however, we need to realize that while the unit of change in education is the school, schools are not independent of a

school system" (p.63). The authors believed that members at all levels of the organization must be trained extensively. This total organizational commitment does not dictate a top down model but rather an informed collaborative effort. Larry Lezotte (1989) advocated the need for teacher, administrator, and board of education to work cooperatively. "Anytime a school board spends one dollar, one minute, one hour of time, they make a statement about mission, about purpose, about priority" (p.5). All levels of the school hierarchy are accountable to the others in an interrelated support network (Campbell, Carr, & Harris, 1989).

Bill Honig (1985) contended that the first total organizational commitment is the formation of an educational philosophy. A core of dedicated educators, regardless of hierarchical level, form the empowerment team which is responsible for translating the philosophy into action. Arthur Combs (1988) built upon this concept to advocate that peoples' belief systems must be altered if a total organizational commitment is to be attained.

Torsten Husén (1985) postulated that the concept of the total organization in educational improvement must include the society at large as well as educators and boards of education. He warned, "Reforms confined to the schools are bound to be of limited value, since so many of the problems of the schools are rooted in the society at large" (p.401). Parents and other community members must become involved in the improvement process if it is to be successful.

A reason often times given for many school improvement programs failing is that a total organizational commitment is too expensive to be practical or that it is too much of a drain on other resources, thus, areas such as personnel will suffer negative repercussions. Winston Pickett and Margaret Phelps (1982) disagreed with this reasoning. They in turn suggested that the prioritization of resources be based upon meeting the identified mission of the total organization. Better use of resources in key areas can serve to maximize effectiveness and is an alternative to increased expenditures.

While the improvement process may require schools in a district being "ready" at different times, all schools should be preparing as the process is initiated. Much of the research effort and many of the implementation suggestions apply to elementary schools and do not pertain directly to secondary schools. Considerations must be made for bringing secondary schools into the school improvement process as a part of the total organizational commitment (Farrar, Neufeld, & Miles, 1984).

Ann Dodd (1984) described a critical factor in moving a school district toward a total organization approach to school improvement. She believed that the willingness to make structural changes in the organization is imperative if positive, lasting change is to occur.

Despite the recent avalanche of proposals to fix our public schools, none confronts the basic issue: we expect the schools to accomplish so many tasks at once that they can do no job very well for very long. More of the same is not necessarily improvement. Nor do the schools need more special programs, layered one on top of the other, each with its requisite administrators, procedures, and paperwork. Because current efforts attempt to patch the present system, they are not likely to bring about fundamental reform. America can develop a whole new structure for public

education, a new design that will enable the schools to accomplish the multiplicity of purposes the public expects of them. (p.685)

School district leaders must be willing to alter the status quo if the total organization is to be involved in the school improvement process.

The literature and research related to the role and function of the total organization in the school improvement change process reveals that any positive, lasting change must be accompanied by a commitment at all levels in the district if it is to be successful. In order to develop a commitment from the total organization, the district must have a clear vision that is understood by all and a core of key personnel who can lead the process of change. Educators, boards of education, and the community must combine in a collaborative effort if positive, lasting school reform is to be accomplished. Resources are allocated on a priority basis with those practices reinforcing the district goals and objectives receiving major emphasis. District leaders also must be willing to make necessary structural changes in order to reach desired outcomes. Fenwick English summarized this point succinctly in 1974.

For any organization to be classified as a system, it must have a clear unambiguous mission, a purposive design to attain the mission, and possess the ability to issue directions to change its sum aggregate behavior based upon feedback. Unless a school system, as a system, can change its aggregate behavior, no improvement is possible overall. Sympathetic teaching is not enough. A system that cannot respond as a system cannot be controlled. It is out of control. Such systems are educationally bankrupt. (p.410)

Mandated Reforms

The occurrences of legislatively mandated school reform programs has grown perceptively in recent year. Mary Futrell (1989) reported:

Between 1983 and 1985, state legislatures enacted more than 700 statutes stipulating what should be taught, when it should be taught, how it should be taught, and by whom it should be taught. The clear purpose of this mass of legislation and the bureaucratic mandates that followed was to control and to regulate teachers and local schools. (p.11)

This passage describes the direction of school reform across the nation. As early as 1983, forty-two states reported plans for reform and forty-four states were raising standards and expectations by upgrading graduation requirements (Montgomery, 1984). In Texas, the major reforms began when the Sixty-seventh Legislature mandated changes based upon the recommendation of the then governor appointed state board of education. Enactment of House Bill 246 changed the statutory structure for public schools throughout the State of Texas. It repealed all laws which required specific courses or subjects to be taught. The new legislation set out twelve subject areas that constitute a well-balanced curriculum for each school district that offered kindergarten through grade twelve instruction. As a result of House Bill 246 and various state board of education rules, accreditation standards, graduation requirements, curriculum frameworks, and textbook selection processes were revised. House Bill 72 followed in the wake of House Bill 246 and continued the trend toward mandated legislative reform for Texas schools.

Theodore Sizer (1983) chronicled why legislatures began mandating reform programs.

There is bickering within the profession. And the virtual silence from the university schools of education on issues of national school policy during the last few years is striking. Except for John Goodlad's study of schooling, not one of the major reform efforts arose out of academia and, beyond the worried comments of a few university presidents, the voices from the universities are faint. In a sense there is a vacuum, and state authority has filled it. (p.6)

Sizer believed local communities would never again regain the autonomy which they had lost to the state legislatures. Because the people most capable of instituting reform in the public schools have failed to do so, centralized government has taken the initiative to institute its own set of reforms.

Some authors see this move toward state mandates as a positive one for school districts across the nation. After reviewing the effective schools research done by Edmonds, Joseph Murphy, Richard Mesa, and Philip Hallinger (1984) concluded, "School improvement efforts need not focus on the local school; decisions about curriculum content, textbooks, and testing should be made at the state level" (p.20). Martha Evans (1985) believed the state mandates in California served as a needed catalyst for change and that positive reform throughout that state has followed these mandates. Across the nation mandated reforms need only fine tuning, contended Chris Pipho (1986), and better implementation guidelines in order to be successful in schools. Michael Cohen (1987) saw state boards as the ideal vehicles for mandating reform for several reasons. State boards are usually

nonpartisan. They are not usually involved in electoral politics which affect local governing entities and they take a long term view of education in the public schools. Unlike local school boards, state legislatures are not limited by the pressures of special interest groups or over-concern on the part of the public for fiscal resources. Real improvement in schools is attained when uniform standards are mandated for all schools with flexibility for implementation allowed (Odden & Odden, 1984; Odden & Marsh, 1988).

The majority of authors, however, believe that centralized reform efforts by any entity are unwise and will prove to be unproductive. Lack of knowledge in the field, susceptibility to special interest groups, and lack of local involvement render centralized entities unable to enact meaningful reform in school districts (Donmoyer, 1980; Reecer, 1988). Paul Houston (1986) reported:

A striking dichotomy exists between current state education reform efforts and research about what fosters effective schools. This research indicates school effectiveness is an individual phenomenon and that the people closest to the task must set and reach their own goals. The effective school charts its own destiny. And the people most intimately involved in the process--board members, administrator, and teachers--do the navigating. (p.51)

Sally Zakariya (1984) contended that reform must begin in the school house, not the statehouse, if improvements are to take root in the public schools. She believed lawmakers do not understand the complexity of the change process and the necessity of local involvement in this process. Jerome Cramer (1984) advocated that there are three reasons mandated reform efforts are failing. First,

the mandates are based on unreasonable and unrealistic assumptions about public schools. Second, changes are being made without regard to their impact on school system curriculums or on the availability of teachers. Third, changes in many parts of the United States could erode the tradition of local control of education. Policy makers in Texas, for example, thought that school reform could be regulated by changing the state's administrative structure and promulgating painstakingly prescriptive regulations. However, it became obvious that the process was too complex to be mandated by legislative dictates (Timar & Kirp, 1989). Bill Pearman (1987) contended that seven mandated reforms have proven ineffective: (1) A longer school year; (2) Minimal competency tests; (3) Reliance on standardized tests to measure achievement; (4) State mandated courses or curriculums; (5) Using "blue-ribbon" panels to study education reform; (6) More homework; and (7) Back-to-basics. Larry Cuban (1988) claimed none of the mandated reform programs have proven successful. In reviewing mandated reforms over the last century, Cuban found that little lasting positive change has occurred.

Lawrence Erickson (1988) warned that mandating change in schools does not work in all cases and that participants should become involved in the school improvement process. He summarized, "When adults confer, engage in dialogue, reach agreement about goals, monitor school improvement initiatives, and agree on how they will change their work and the working conditions, school improvement initiatives have a much better chance of being successful" (p.31).

Mandates are usually dictated as a rush response to public opinion. Sizer (1985) advocated patience in a school improvement program rather than the need to rush toward quick-fix mandates. He stated, "School improvement cannot come about quickly nor can it be hurried by a rush of mandates. It requires a slow and determined effort, reflected in sound policies and patience" (p.21). Arthur Combs (1988) agreed with this philosophy. Patience allows for time to change beliefs which is important in the school improvement change process.

Changing people's beliefs is seldom accomplished by force or coercion. Neither is it generally achieved by lecturing, exhorting, ordering, legislation, administrative mandate, or techniques of reward and punishment. To change people's beliefs requires creating conditions for change rather than imposing reforms. (p. 39)

While some authors laud the relative merits of legislatively mandated reforms, the literature overwhelmingly points to the futility of this approach in enacting positive lasting reform. The complexity of the process requires that educators give direction and the difficulty of implementation dictates that schools secure local commitment. Rather than mandates, the school improvement process requires a patient approach to changing the beliefs of people.

Holistic Implementation

Many school improvement efforts have failed because of poor implementation. Disjointed, piecemeal attempts at implementing reform have little chance of success. Coupled with the trauma of change,

those chances of success become negligible (Orlich, 1989). Tanis Knight (1981) pointed out that the usual "shotgun" approach to implementation of school improvement programs leads only to a hodgepodge of unrelated, ineffective programs in the schools. She stressed the need for a holistic approach by practitioners to implementation of reform programs. A holistic approach entails simultaneously examining all facets of school organization and working toward overall reform by impacting several areas of the organization at once.

Holistic implementation begins with comprehensive planning on the part of leaders. Les Martisko and William Annetorp (1986) saw the planning phase as critical to the success of positive reform in schools.

The key to success at this step lies back in Step Three: involving community members, staff members, parents, and students in setting priorities. This encourages these "key actors" to acquire both a sense of mission and a stake in carrying out school goals. Everyone becomes aware of how resources, opportunities and specific needs mesh. When you've done this, the implementation phase also takes care of itself. (p.38)

Planning for change in specific areas continues as implementation begins in other areas.

Successful holistic implementation of improvement programs requires not only planning but also an appropriate strategy for staff development.

Jerry Patterson and Theodore Czajkowski (1979) summarized:

The most common explanation is that we fail to attend adequately to implementation. We make our way through the initiation, development, and adoption phases of curriculum change, but then we do not take steps necessary to achieve a satisfactory level

they do not affect day-to-day interaction between teachers and students. Three components of implementation that seem most often neglected are planning for implementation, applying change strategies, and conducting staff development. (p.204)

The authors advocated the use of comprehensive planning to ensure effective implementation and to allow leaders to successfully manage change. They viewed staff development as essential for re-education and resocialization of the personnel involved in the school improvement program.

Successful, holistic implementation also requires effective leadership at all levels. While leadership style may vary, leadership commitment is crucial for success (Frey, 1979; Cox, 1983). In his examination of twelve federally funded school improvement programs, Michael Huberman (1983) reported, "One controversial finding was that successful implementation often occurred at places where administrators exerted strong and continuous pressure on teachers" (p.25). Holistic implementation requires leaders who are committed to the innovation and have the technical skills to implement it (Evans, 1983).

The prioritization and allocation of resources is dictated by a holistic implementation approach to school improvement. This approach ensures that resources in the district are directed toward the major emphasis of the reform and are not redirected to lower priority programs. By establishing links between district goals, available resources, and implementation procedures, the opportunities for success in the school improvement process are greatly increased (Martisko & Ammentorp, 1986). Support for implementation may come in many forms but must be constantly present if implementation of school

reform is to be successful (Loucks-Horsley & Hergert, 1985). A review of the literature on holistic implementation reveals that many school improvement programs are discarded because of poor implementation. In order to have successful holistic implementation, planning must occur. Positive leadership must be present and support must be present in the allocation of resources.

Leadership

The study of leadership has intrigued humans since the time of early philosophers. For all of this study, scholars have yet to gain a clear understanding of the forces of leadership. Burns (1978) asserted that there were over 130 formal definitions of leadership found in literature at the time. The problem is clearly not one of a scarcity of information but rather an abundance of conflicting and confusing data on the subject (Wiles & Bondi, 1984). Leadership is critical to the life of any educational entity. It is especially important in determining the success of a school improvement program (Krajewski, 1988; Thomson, 1982). This section will not attempt to examine completely such a comprehensive concept as leadership. An effort will be made to scrutinize key elements of leadership in relation to the school improvement change process.

One must first realize that leadership is much more complex than most authors indicate. Reports tend to oversimplify in a desire to be decisive and clear. The more indepth studies became, the greater the complexity which is revealed (Scannell, 1988; Sergiovanni, 1979).

Much of the literature on the change process and school improvement stresses the necessity of a sense of vision within a leader. John Rouché and George Baker (1986) reported, "Considerable agreement exists among authorities on leadership that a leader's compelling vision is an essential ingredient for achieving excellence in an organization. Leaders who lack a sense of purpose may achieve competence but will fail to achieve excellence. The principal who defines, strengthens, and articulates purposes, beliefs, and values becomes a cultural leader capable of inspiring the best in everyone" (p.53). Leaders must not only have a vision, but must reflect that vision in action. John Champlin (1987) related, "In everything I did during the early years in Johnson City, I modeled my beliefs and dedication in every way possible. I wanted the staff to see me work toward making my stated vision a practical reality" (p.58). Huckaby (1980) contended that one's leadership style must be altered if necessary in order to reflect the mission of the school. Leaders must internalize the shared mission and evidence vision through appropriate behavior.

A sense of vision is not sufficient if a true commitment is not present. Thomas McGreal's (1989) research revealed that outside consultants believe the successful implementation of an improvement program is directly related to the amount of commitment shown by the administration. Research by David Squires, William Huitt, and John Segars (1985) indicated that the greatest predictor of the success of a school level innovation was the show, or lack thereof, of

commitment by the principal to the concept and vision of the project from the outset. Excellent leaders communicate a powerful commitment to the overall school mission through modeling exemplary behavior (Roueche & Baker, 1986; Honig, 1985; Sergiovanni, 1982).

Effective leaders also must be organized and efficient in a school improvement program (Cawelti, 1984). Burns (1978) stated that planning must encompass purpose, goals, and means. Planning must recognize the basic needs of followers. Leaders must see what is needed.

Leaders involved in an improvement program must be cognizant of both task and interpersonal considerations. While emphasis on each area may vary from time to time depending on the situation, effective leaders must be able to address both concerns appropriately (Walter, Caldwell & Marshall, 1980; Smith, Mazzarella, & Piele, 1981).

Barbara Burch and Elzie Danley (1986) saw the role of central office personnel as key in the school improvement process. They contended that central office personnel must be instructional leaders. The authors found in their study that supervisors were spending only half of their time on instructional improvement and thus were ineffective in supporting change for improvement. Squires et al. (1985) expanded the role of central office administrator to include direct supervision of the improvement process. They believed there were several advantages to direct supervision. The authors delineated these advantages concisely.

Monitoring whether your activities are being carried out as planned and evaluating whether the activities are having the

intended effect is essential. First, if what you planned did not occur, there is no sense in trying to see if it worked. Second, if what was planned was implemented, you need to know if it worked or whether you should try something else. Beyond the value of monitoring and evaluation for decision making, is their symbolic importance. Conducting these functions honestly sends a clear signal that plans are to be carried out and results are expected. Finally, evaluation permits public acknowledgement of accomplishments made, thereby reinforcing the effort. (p.108)

Carol Sirage (1982) believed the principal is the key leader in enacting positive change. She admitted that it is overly simplistic to assume that a principal's behavior is the sole determiner of the success of innovation in a school but contended that the principal who advocates and supports change is the most powerful force in predicting success. The author offered three ways in which principals insure success of a new program: 1) Understanding of and commitment to the concept; 2) Using and allocating resources; and 3) Encouraging involvement and social support.

Whether it be at the central office or campus level, Sally Zakariya (1983) advocated that support is the key function of leaders in a school improvement program. She contended that no major reform effort can be successful in a district without the administration acting in a strong support role to staff. Administrative support teams must be formed at all levels to aid in planning, anticipating problems, implementing, and renewing. Many authors insist that this support need not come only from hierarchial leaders.

We believe that those components of leadership, which we label support functions, need not all be carried out by the principal. Most schools will need more than one person to carry out all these activities. (Gersten, Carnine, & Green, 1982, p.4)

Burns (1978) viewed support as a prime ingredient to the effective leader. Rather than simply desiring an exchange of valued things, the true leader wants to be transformational by engaging with followers and allowing both parties to raise one another to higher levels of motivation. Mutual support is critical to this process if both leaders and followers are to fulfill needs.

Leadership roles in a school improvement program are numerous and diverse. Jon Wiles and Joseph Bondi (1984) identified nineteen distinct roles of leaders in this process ranging from expert to modeler to evaluator. In school improvement, leadership roles are often altered. This growth can be difficult for line-authority leaders. In the Johnson City improvement program, initial emphasis was on intensive retraining for principals until they felt comfortable serving as instructional leaders. "While not all the principals moved away from their previous roles with grace and willingness, they did eventually work successfully to assume the role of instructional leader. As the entire staff became more accustomed to exercising decision-making responsibility, our program grew, and the staff members took more pleasure in their professional growth" (Sheive & Schoenheit, 1987, p.141). Patterson (1986) pointed out that the leadership roles in a traditional setting vary greatly from those in a school institution which is undergoing change. Leaders must recognize that they are functioning in a very complex environment and must be willing to structure roles around necessary ambiguity. Roueche and Baker (1986) contended that "risktaker" must be an important

role of leaders in change. The willingness to take risks and minimize the anxiety of risk taking among staff is a critical role in the improvement process. Not all roles by leaders must be geared toward the "establishment." In the study of effective principals by Blumberg and Greenfield, the principals identified as most effective were not willing to simply "keep the peace" and maintain smooth running organization. They were willing to question the status quo, constantly seeking ways to effect school improvement (DeBevoise, 1984).

Effective leadership in a school improvement program need not come from the administration only. "Leadership could emerge from a few persuasive instructors or a 'critical mass' of teachers. Ideally, leadership endorsing effective instructional change permeates the organization at every position and angle" (Zakariya, 1983, p.57).

While principals are a key factor, they need not take on all leadership responsibilities.

While it seems to have become the common wisdom that principals are the key element, the principal is not, in fact, the only person who can provide leadership, especially for school improvement. Not only is this a tremendous burden, given the demands of managing a school's daily affairs, but few principals have received the training that would equip them to be reform leaders, and the skills involved in administering the daily routine are likely to be different from the leadership skills required for innovation. To be sure, leadership is essential to the success of our schools, principals are advantageously positioned to provide it, and change is unlikely to happen in schools without principals' support. Nevertheless, leadership can come from teachers and other administrators. In this sense, good principal leadership may at times consist of finding, publicly recognizing, and supporting by word and deed the leadership of others in the school. (Patterson, Purkey, & Parker, p.103)

Thomas McGreal (1989) endorsed this view and added that the history of successful implementation suggests that while it is necessary

to have strong leadership from the top, it is not sufficient. Leadership must be dispersed throughout the organization. A school improvement program must provide opportunities for leaders to emerge. There is room for more than one leader in an improvement program (Rallis, 1988; Doyle & Hartle, 1985). Roland Barth (1988) did not limit leadership but expected all staff to take some form of leadership role.

I would like to suggest that all teachers can lead. Skeptics might soften that statement to "some teachers," or "a few teachers," or even "many teachers." But every teacher is good at, or wants to and can become good at, some important part of the life and work of a school. Teachers harbor extraordinary leadership capabilities, and their leadership is a major untapped resource for improving U.S. schools. The world will come to accept the fact that all teachers can lead, as many people now accept the fact that "all children can learn", if we can overcome the many impediments that block teachers from leading and if we can provide conditions under which teachers will exercise that leadership. (p.640)

One way to tap this resource is to restructure the role of the teacher. Information is power in the school setting and leads to productive decision making which creates ownership and commitment (Sheive & Schoenheit, 1987; Tye & Tye, 1984). Barth (1988) stated that there are nine behaviors linked to restructuring the leadership role in a district: (a) articulating the goal for all to share, (b) relinquishing the responsibilities of leadership, (c) entrusting the staff with authority, (c) involving the staff in decision making, (d) assigning responsibilities wisely, (e) sharing responsibility for failure, (f) attributing success to the staff, (g) believing in the staff, and (h) admitting ignorance.

Leaders must recognize their weaknesses and not allow a desire to meet unrealistic expectations to become terminal to the improvement process (Rallis & Highsmith, 1986). Jerome Murphy (1988) concluded, "Perhaps it feels less than heroic to help develop a shared vision, to ask questions, to acknowledge weakness, to listen carefully, to depend on others, and to let go. Yet, where heroism is concerned, less can be more. To be a lamb is really to be a lion" (p.649).

In reviewing the literature related to the school improvement change process, one becomes aware of the critical nature of effective leadership to the process. The concept is very complex. Much has been written concerning leadership with much of the information being contradictory. The literature points to the need for a clear vision by the leader with the obvious presence of a commitment to attaining this vision. Planning and organization are essential as is an understanding of the balance between task and interpersonal considerations. Leaders may come from the established hierarchy or may emerge from the staff. Leadership support is important to success. The school leader must serve in many roles and must expand those roles in an improvement program. Strong leadership alone cannot ensure the success of school improvement but the lack of strong leadership surely guarantees its demise.

Change

Any school improvement plan must incorporate a consideration for the change process. Management of the change process may

be the most critical element in school improvement and the factor that is addressed the least by those initiating improvement (Champlin, 1988). The change process is a broad issue, complex in nature, which requires close examination. Because of the complexity of the issue, it is necessary to restrict the present study to change as it relates directly to school improvement. The following section of the treatise will examine those elements of change that are most critical to school improvement.

Change may or may not be perceived as positive in nature. Not all change can be considered progress, yet it is impossible to enact lasting reform without change occurring. Change in a school improvement program may serve to make what presently exists more efficient and effective or it may be used to alter the very structure of a school organization. Those who initiate change must be aware of the change process and plan for the type of change which is desired (Cuban, 1988).

Planning for change is important. There are four kinds of changes in education: (a) changes in knowledge; (b) changes in attitude; (c) changes in behavior; and (d) changes in group and organizational performance. One type of change leads fundamentally to the next (Wu, 1988).

Change for school improvement is a complex phenomenon. Difficulty in managing change is tied directly to a general misunderstanding of the concept (Wiles & Bondi, 1984; Parish & Arends, 1983). One must realize that change is a process, not an event. From Taking

Charge of Change, it is reported, "One of the most persistent tendencies of those who do not appreciate the complexities of change is to equate change with handing over a new program which is an event. This, in fact, was the false tenet on which school improvement was based in the past" (Hord, Rutherford, Huling-Austin, & Hall, 1987, p.6). As a process, change requires time and will develop at differing rates (Vallencia & Killion, 1988; Red & Shainline, 1987).

Change is a highly personal experience. Change is accomplished through people. Individuals must be the focus of implementing any change. Only when people change, can practices be truly altered. Every individual reacts differently to change and consideration must be made for these differences. Some people assimilate change more rapidly than others. The needs of individuals must be addressed if change is to occur (Hord et al., 1987; Goodlad, 1983).

If school improvement change is to be more than superficial, teachers and administrators must examine, compare, expand, and reshape their beliefs. Lasting change requires the commitment of the staff to new behaviors (Fullan, 1982; Crandall, 1983; Red & Shainline, 1987). Paul Heckman(1983) reported that, "...by considering structures and behaviors, we are led to explore not only what school processes and outcomes are like, but also why particular organizational alternatives, and not others, evolved as appropriate in a particular setting" (p.26).

One must address school improvement change in a holistic manner. Because change will permeate all levels of a school organization, a change in one area will trigger a reaction in another (Heckman, 1983). John Champlin (1981) explained the holistic nature of change in describing school improvement at Johnson City.

Schools have generally ignored the accumulated knowledge about organization behavior, individual needs and the management of change. Experiences of schools in the 1960s provided powerful lessons: The well-intentioned but haphazard insertion of programs as if they were interchangeable parts was a fatal miscalculation. The literature on systems theory clearly indicates that any change in one subsystem produces accompanying changes in other subsystems. Interventions in Johnson City were predicated on the assumption that any intervention or alteration would have an eventual, if not immediate, total organizational impact. This understanding allowed us to be proactive in anticipating and planning. A holistic, systems approach enabled us to avoid small single-phased changes that might have splintered efforts. The term synergism has special meaning here: The sum total of several small efforts does not equal the effect of a single, totally comprehensive effort. Our commitment was to make a total impact by anticipating all affected areas and then making adjustments to produce compatibility and reciprocal support. (p.60)

In order for change to occur, people must be able to relate the change to a perceived need. This need may be reflected as low test scores, poor class performance or failure to meet desired outcomes (Lipham, 1981; Wu, 1988; Pickhardt, 1979). A need for change may be created by examining optimum practices (what should be) and current practices (what is). This discrepancy between the desired and actual state of affairs is usually produced by studying and discussion of current literature and research in terms of current behavior. Effective change is designed to bridge this gap (Schermerhorn, 1986).

Before organizational change can occur, people must be provided with knowledge and information about the desired change. Knowledge is power in the change process. New knowledge and information brings changes in attitude, followed by changes in individual behavior, and finally changes in group behavior (Zakariya, 1983; Trump & Georgiades, 1978). William Spady and Gary Marx (1984) contended, "Implementing a truly effective improvement process requires careful reading and interpretation of the most promising recommendations as well as thorough consideration of the issues, implications, and cautions associated with them" (p.6).

The change agent plays a key role in the change process. Persons who fill this role need considerable authority and power as well as abundant ego strength. They should be proactive rather than reactive. They also should take responsibility for changing the existing pattern of behavior of people. Change agents must make things happen (Schermerhorn, 1986; Hord et al., 1987; Sheive & Schoenheit, 1987; Gilmer & Deci, 1977). While many people in a school district may serve as change agents, James Lipham (1981) saw the building principal as the key figure.

The principal, as head of the school, has the primary responsibility for constructive change. The power of the position itself argues for the principal's proposals to be heard and discussed. Certainly, the principal is the major decision maker in the adoption of any educational innovation. The primary responsibility for change rests with the principal. Hence, it is not surprising to find that the most frequently cited reason for discontinuing a major change program is that "the principal left". (p.16)

Research at the University of Texas revealed three change facilitator

styles (see figure 2.5). By concentrating on style, much has been learned about key behaviors and how change agents can facilitate change (Hall et al., 1984).

While the role of change agent is important, most change dictates a combined initiation effort by many on the staff. John Goodlad (1983) admonished:

Our combined effort addresses not only the necessity of losing both our innocence and our bad habits regarding school improvement but also the myth of immaculate conception regarding the creation of effective, satisfying schools. Superintendents for example, had better quickly get over the comforting notion of leaving everything to building principals. Because their principals, however competent they may appear to be, probably will need a great deal of help in taking even the first step--namely, achieving a working consensus regarding an agenda. And both superintendent and principals had better quickly get beyond the equally comforting notion and popular practice of turning over to a team of outside consultants the central task of improving instruction--because teaching won't improve much until entire staffs take their teaching out of the closet for self-examination and until the surrounding social and professional press is for something beyond better lecturing and quizzing. (p.7)

Peer relationships are important. Staff cannot work as isolated individuals. Successful change relies on a collaborative effort. Collegiality, trust, support, and interaction, are closely related to successful change (Fullan, 1982; Cox, 1983).

Change for school improvement requires time. Individuals adapt to change and improvements developmentally. Change is achieved in a series of gains and losses with time as a variable. An alteration of belief systems among staff followed by a corresponding change in behavior can be expedited but not circumvented. Constant pressure must be exerted over time for change to occur (Lieberman & Miller, 1981).

Dimensions/Behaviors	Responder	Manager	Initiator
Managing Change	Accepts district expectations for change	Meets district expectations for changes required	Accommodates district expectations for change and pushes adjustments and additions that will benefit his/her school
	Sanctions the change process and attempts to resolve conflicts when they arise	Maintains regular involvement in the change process sometimes with a focus on the impact of the change	Directs the change process in ways that aim toward effective innovation use by all teachers
	Relies on information provided by other change facilities, usually from outside the school for knowledge of the innovation	Uses information from a variety of sources for gaining knowledge of the innovation	Seeks out information from teachers, district personnel, and others to gain an understanding of the innovation and its demands
	Develops minimal knowledge of what use of the innovation entails	Becomes knowledgeable about general use of the innovation and what is needed to support use	Develops sufficient knowledge about use to be able to make specific teaching suggestions and troubleshoot problems that may emerge
	Communicates expectations relative to change only in very general terms	Informs teachers that they are expected to use the innovation	Gives teachers specific expectations and steps regarding use of the innovation
	Monitors change effort primarily through brief, spontaneous conversations and unsolicited reports	Monitors the change effort through planned conversations with individuals and groups and informal observations of instruction	Closely monitors the change and effort through class-observation, review of lesson plans and student performance
	Information gained through monitoring may or may not be discussed with a teacher	Information gained through monitoring is discussed with teachers and compared with expected behavior	Information gained through monitoring is fed back directly to teachers, compared with expected behavior, and a plan for next steps including improvements is established

Conflict with change is inevitable. Fullen (1982) believed that turmoil is not only unavoidable, but is fundamental to the success of change. Pressure exerted is often met with resistance (Red & Shainline, 1987). Resistance to change is natural. Most individuals strive to bring order to their world, and change involves the realignment of roles and relationships. There is an initial feeling of insecurity and uncomfortableness which can be threatening to individuals (Wiles & Bondi, 1984; Gilmer & Deci, 1977). Other barriers also block change. Many times staff members fail to perceive the need to change. Resistance is prevalent when the staff does not have appropriate knowledge of the change or adequate training to successfully alter behavior. Constraints on resources, both human and fiscal, often lead to resistance. Poor planning is also responsible for the demise of change. Efforts are uncoordinated and staff members are confused without proper planning. Staff members may be immobilized by administrative constraints. They feel uninvolved in the process and believe that the administration does not have the confidence in them to include them in decision making. This leads to a feeling of risk-taking with no control. Those responsible for change often neglect to address the needs of adult learners. Individuals move through identifiable stages of concern (see figure 2.6) with respect to an innovation. One must have a fundamental understanding of the needs of adult learners and their stages of development and concern. Resistance to change may be caused by staff having differing perceptions and goals. This causes

	Level	Concern	Description	Expressions of Concern
	6	Refocusing	Actualized Redirecting energies	I have some ideas about something that would work even better.
	5	Collaboration	Finding new and better ways to work together.	I am concerned about relating what I am doing with what other teachers are doing.
	4	Consequence	How innovation will effect learner. How to increase impact.	How is my use affecting students?
	3	Management	How to. Intense after first use.	I seem to be spending all my time getting material ready.
	2	Personal	Perceive as personal threat. Uncertain.	How will using it affect me?
	1	Informational	Unworried. Need to know more.	I would like to know more about it.
Introduction	0	Awareness	Heard about. Little concern.	I am not concerned about it.

a desire to serve self interests rather than organizational goals. Finally, resistance may be caused by social factors. Social needs are important to individuals and change will be resisted if social patterns and norms are disrupted (Valencia & Killion, 1988; Wu, 1988; Daft & Steers, 1986; Erickson, 1981; Loucks & Pratt, 1979).

John Kotter and Leonard Schlesinger (1979) offered several strategies for dealing with resistance to change in an organization (see figure 2.7). Education and Communication--This approach is primarily preventative in nature. The more knowledge participants have prior to and during a change the less resistant they will be. Participation and Involvement--This strategy helps increase commitment to the success of the change and engenders ownership of the program. Facilitation and Support--Active support reduces anxiety and allows for nonthreatening risk taking by the staff. Negotiation and Agreement--Rewarding positive, desired behavior encourages behavior change and reduces blocking. Manipulation and Co-optation--A form of negative reinforcement, this technique brings pressure to bear on resisters. Explicit and Implicit Coercion--This approach uses force to get people to accept change. Used only in certain special situations to promote change.

As change is initiated, the levels of use of the program can be monitored to measure the degree to which the change is being accepted. The beginning stage is one of non-use with no action being taken in respect to the program change. Orientation occurs as the user is seeking out information about the change. The next

Approach	Commonly Used in Situations	Advantages	Drawbacks
Education and Communication	Where there is a lack of information or inaccurate information and analysis	Once persuaded, people will often help with the implementation of the change	Can be very time consuming if lots of people are involved
Participation	Where the initiators do not have all the information they need to design the change, and where others have considerable power to resist	People who participate will be committed to implementing change, and any relevant information they have will be integrated into the change plan	Can be very time consuming if participants design an inappropriate change
Facilitation	Where people are resisting because of adjustment problems	No other approach works as well with adjustment problems	Can be time consuming, expensive and still fail
Negotiation and Agreement	Where someone or some group will clearly lose out in a change, and where that group has considerable power to resist	Sometimes it is a relatively easy way to avoid major resistance	Can be too expensive in many cases if it alerts others to negotiate for compliance
Manipulation and Co-option	Where other tactics will not work, or are too expensive	It can be a relatively quick and inexpensive solution to resistance problems	Can lead to future problems if people feel manipulated
Explicit and Implicit Coercion	Where speed is essential and the change initiators possess considerable power	It is speedy, and can overcome any kind of resistance	Can be risky if it leaves people mad at the initiators

stage is preparation as the participant becomes ready for implementation. Mechanical use entails implementing the change in a poorly coordinated manner and is followed by the routine level with the user making few or no changes in the program, and establishing a pattern of behavior. In refinement, the personnel begin making changes to increase outcomes. Integration has the participants making deliberate efforts to coordinate with others. Finally, in renewal the user is seeking more effective alternatives to the established change (Hall & Louks, 1977).

It is evident from the literature and research that change can be initiated and supported by personnel at all levels of a school district. What is also clear is that change cannot succeed without the active support of central administrators. General support at this level is not sufficient. The administrators must demonstrate their commitment and support. Superintendent's authority has been discovered as a greater predictor of successful change than teacher autonomy. The central administrators must actively manage change and not be manipulated by it (Fullan, 1982; Valencia & Killion, 1988; Loucks & Zacchei, 1983).

One must realize that school districts are governmental entities and are thus subject to political pressures. Change can often be a political process. Henry Brickell (1980) warned, "Public schools are government agencies. To change a school is to change a government agency. You know how hard it is to change the government. If it is difficult to fight city hall, it is nearly

impossible to change city hall" (p.205). Political influences should not automatically be considered negative and adversial. The astute change agent uses these forces to help support and legitimize the change process. Minimally, the political realities must be recognized and plans formulated for possible contingencies (Hough, 1978; Wiles & Bondi, 1984).

Change is unique to each setting. Simply transplanting a successful program to a new locale may prove to be disastrous. The basic elements of the change process can be managed and still retain the integrity of a program. However, the environment at every district and every school is different. Readiness comes at different times and under differing circumstances. Personnel make-up cause disparities as does the quality and frequency of information sharing. While managing the process, one must be cognizant of the distinctiveness of each setting and act accordingly to "personalize" procedures (Wu, 1988).

Many authors think change can be managed effectively. Rosabeth Moss Kanter (1983), in Changemasters, contended that there are eleven elements in managing change. (1) Personnel must be allowed to participate in planning the change process; (2) Personnel must be given the option of participating in the change; (3) Everyone must have a clear vision of the change; (4) There must be wide sharing of information about change; (5) The process of change must be divided into manageable divisions; (6) Personnel must have advanced knowledge of events; (7) Time must be allowed to digest the change.

(8) Leaders must demonstrate their commitment to change; (9) All requirements must be clear; (10) Desirable behavior must solicit positive reinforcement; (11) Personnel promoting change must be rewarded. The noted psychologist, Kurt Lewin (1952), viewed managing change more simplistically as a three phase process. In the unfreezing stage preparations are made to change. The need for change is established. Provisions are made to minimize resistance to change. In the changing phase the actual modifications in the organizations are made. Finally, in the refreezing phase, efforts are made to positively reinforce desired outcomes so that the momentum of the change is maintained. Extra emotional and resource support is provided. Evaluation and feedback provide important data so that the benefits of the change can be measured and constructive modifications enacted. Another planned change approach is organization development. Organization development has as an underlying framework, a strong human resource focus. This approach begins with diagnosis. Information is gathered and assessed so that appropriate change objectives can be set. Next, in intervention, change objectives are pursued through a variety of specific activities. In the reinforcement stage changes are monitored, reinforced, and evaluated with institutionalization occurring (Schermerhorn, 1986). The Process Model advocated by Lois Blanchard (1978) has seven stages for managing change--data analysis, discrepancy analysis, conflict resolution, needs assessment, brainstorming, change program selection, and planning. Other approaches offered for managing change include

Ronald Havelock's Linkage Model, Richard Smuck's Organization Development in Schools, John Goodlad's Responsive Model of Educational Improvement, and the Rand Change Agent Study Model. While these approaches differ, they all accentuate the need to actively manage the change process (Neale, Bailey & Ross, 1981).

Understanding and managing change is critical to any school improvement process. The change process is complex and must be viewed as a process rather than an event. Change is accomplished by people. It is a highly personal experience. An important step in enacting change is to alter the belief system of the people involved. The change process should be approached in a holistic manner, as splintered activities are ineffective in creating the synergistic effect desired. In order to enact change, the people involved must perceive that there is a need to alter the status quo. One primary method of establishing need is use of a discrepancy model. The sharing of information is important to the success of the change process as is the presence of a change agent who solicits a unified effort from the staff. Change requires time. During change, conflict is inevitable. Leaders must be aware of techniques for defusing resistance to change. Change progresses through definitive stages and the central administration plays a key role in supporting the process. Politics can also impact the change process in schools. Leaders must be cognizant of political influences and use them positively. Change is unique in each locale. There are many models for change. While each is different, they all

emphasize the need to manage change in order to have positive school improvement.

Outcome Driven Developmental Model

The Outcome Driven Developmental Model is a planned, intentional school improvement program. It has an articulated mission and a philosophical and psychological base (see figure 2.8). Participants must be data driven with organizational goals the basis of all decision making. Desired student outcomes are identified by local districts. Examples of student exit behaviors included self esteem as a learner and person, cognitive levels, process skills, self directed learner and concern for others. The local board of education, administrative support systems, and school support systems combine in a total effort toward producing the desired outcomes. The board of education role is evidenced by board policy, board support, community involvement, and networking. The administrative support systems include a staff development model, a communications network, a problem solving model, a knowledge of change factors and process, and a climate improvement model. School support systems encompass instructional processes, curriculum organization, intentional school practices, intentional classroom practices, and organizational structures. The model is characterized by transformational leadership, a commitment by staff and administrators, and a strategic plan for managing change successfully (Blum, 1985; Barber, 1986; Champlin, 1987).

4

Research/Literature

Mission: All Students Will Learn Well What Schools Want Them To Learn

Philosophical Base

Psychological Base

Transformational Leadership

Administrative Support Systems

Board of Education

School Support Systems

Staff Development Model
Communications Network
Problem Solving Model
Change Factors and Process
Climate Improvement Model
Resource Management

Board Policy
Board Support
Community
Networking

Instructional Processes
Curriculum Organization
Intentional School Practices
Intentional Classroom Practices
Organizational Structures

Desired Student Exit Behaviors

1. Self-esteem as learner and person
2. Cognitive levels
3. Process skills - problem solving, communication, decision making, accountability, group processes
4. Self-directed learner
5. Concern for others

Comenius, writing in the 17th century, spoke of the need to be concerned with student outcomes and how to insure they were met. Other writers such as Pestalozzi and Herbart, helped establish the foundation for later development. In the 20th century, Franklin Bobbitt and W. W. Charters began to outline the basic concepts of the program. During the '70s, research from educators such as Bloom and Block began to indicate the need for an improvement process in which learning outcomes rather than time and routinized scheduling, constituted the basic operating principle of instructional delivery and student progress. Further work by educators including Champlin, Spady, Cohen, Blum, Barber, and Mamary helped delineate the present model (Spady, 1981; Horton, 1981; Guskey, 1984).

William Spady (1988) explained that a move toward the Outcome Based Developmental Model necessitates an altering of the status quo.

Organizing for results is an inherently attractive concept. It implies a deliberate attempt to plan and conduct essential activities so as to accomplish our aims successfully--in other words, purposefully doing what we set out to do. From my perspective, that means having all students learn well, not just the fastest, the brightest, or the most advantaged. Unfortunately, our educational systems, schools, and instructional programs are not organized to achieve or ensure successful results; instead, they are organized primarily for student custody and administrative convenience. If we were to organize for results, we would have to make major changes in our philosophy, purpose, operations and structures. (p.4)

In order to make the transition to the Outcome Driven Developmental Model, one must be cognizant of certain basic assumptions concerning the concept. (a) Almost all students are capable of achieving excellence in learning the essentials of formal schooling.

- (b) Success influences self concept; self concept influences learning.
- (c) The instructional process can be changed to improve learning.
- (d) Schools can maximize learning (Murphy, 1984).

In implementing the Outcome Driven Developmental Model, certain program components must be present. The model is characterized by:

1. Clearly stated learner outcomes.
2. A sequentially structured instructional process capable of providing additional diagnosis, prescription, feedback, and correctives as required by the individual learner.
3. A commitment to learner success in each task.
4. Sufficient time to learn, varies according to the individual learner and often varies according to the nature of the task.
5. Criteria referenced assessment consistent with stated learning outcomes and with learning acquired through the instructional process.
6. A curriculum organized on the premise of continuous progress utilizing criteria referenced objectives and assessment.
7. Students progressing through the curriculum by demonstrated achievement in relation to criteria referenced objectives.
8. Student placement in the curriculum continuum according to achievement, subsequent movement from achievement group to achievement group and from one level to another level will be determined by demonstrated performance.
9. Assessment in relation to criterion referenced objectives which serve as basis for teacher planning, for additional interventions,

appropriate placement in the curriculum continuum, and reporting levels of achievement.

10. Group instruction, varying according to the instructional requirements of each task, individual pupil need for additional correctives or extended opportunities.

11. A collegial team approach in the management of instruction, continuous progress, and achievement groups.

12 Opportunities to demonstrate higher levels of individual student achievement.

13. A series of relationships prizing the dignity and worth of each individual student.

14. Identifying and eliminating practices, procedures, and policies which act in contradiction to an effective outcome based program.

15. A continuing commitment to program renewal which reflects learner needs and the inclusion of appropriate research and learning data (Champlin, 1988).

Champlin (1988) contended that there are four phases which a district must go through in implementing the Outcome Driven Developmental Model. Phase I is readiness. In readiness one must first establish a data base to serve as the screening mechanism for decision making. One must also develop a statement of philosophical commitment and an accompanying list of operational essentials. Also in the readiness stage, a district-wide need must be established as well as a rationale for closing the gap. A rationale and

comprehensive procedures for staff development are created. Next, a role analysis should be completed followed by development of position statements and procedures on key management and learning issues. Finally, the staff should identify the factors necessary to influence and manage in effecting change. In phase II, pre-entry, the district initiates staff development efforts. A problem solving procedure is created and community reeducation and renorming activities begin. In phase III, operational, definitive timelines are set and the effectiveness of other preparatory stages are assessed. Phase IV entails actual implementation of the model.

Outcome-based systems have their roots in programs of the '70s. Murphy (1984) summarized.

Virtually all students can learn excellently if instruction is approached systematically, if students are helped when and where they have learning difficulties, if they are given sufficient time to achieve mastery, and if there is some clear criterion of what constitutes mastery. (p.2)

Outcome-based education represents a total school reform. All facets of the organization are examined and are subject to change. Mastery Learning supports outcome based education as it can serve as a vehicle upon which to begin the change process in the belief systems, curriculum organization, and instructional strategies. Strategies such as Mastery Teaching, Cooperative Learning, and Teaching Models represent effective practices which enhance an outcome based program (Barber, 1986; Guskey, 1985; Vickery, 1988; Knight, 1981; Trogdon, 1980; Hyman & Cohen, 1979; Burns, 1979; Block, 1979; Abrams, 1979; Bloom, 1979).

Not all authors are enamored with the strategies described, Carl Glickman (1979) believed that not all students can learn equally well and that individual differences dictate that students learn at different levels with ability as the critical variable. He takes exception philosophically to the concept that all children should master the same competencies and emphasizes the uniqueness of every learner. Lowell Horton (1979) contended that identifying specific learning outcomes is an unattainable goal. He added that there is a scarcity of the diagnostic tools necessary to do the assessment needed and teachers do not have the time and energy to implement an outcome based program. Existing organizational structures cannot be changed, according to Horton, because of the strong desire by educators to maintain the status quo. While these criticisms have merit, on balance, current practices and research indicate that if implemented correctly, these facets of the ODDM are successful (Barber, 1986; Vickery, 1988).

The Outcome Driven Developmental Model is a viable school improvement process. While the foundations of the model are not unique, the parts have been combined into a total approach to organizational improvement. Implementing districts must examine and alter the status quo. Staffs initiating the model must develop sound philosophical and psychological bases built upon what research dictates is best for student learning. A district initiating the change must go through four phases--readiness, pre-entry, operational, and implementation. The Outcome Driven Developmental Model encompasses

successful teaching strategies. The program's overall effectiveness appears valid (Edwards, 1989; Leveine, 1985; Burns, 1986).

Overview

In an examination of educators' perceptions of the management of the change process for school improvement with respect to the Outcome Driven Developmental Model, there are several critical components which warrant consideration. The review of pertinent research and literature was designed to offer a synopsis of the information available related to these critical components.

Educators now realize that schools are not simplistic, one dimensional entities, but rather are complex organizations consisting of a multitude of interrelated processes. Being able to identify and analyze these processes in a systems approach is critical to understanding a school organization. As open systems, schools interact with the environment and are thus affected by external as well as internal forces. The fact that systems proffered by various authors are different, need not be of major concern. They must be viewed as complementary aspects of the same problem.

A systems approach allows one to examine the nature of school organizations. Several fundamental elements exert a great deal of influence on the nature of school organizations. Attempts at motivation of employees have centered around research in three areas--content motivation theories (based on identification of an individual's needs), process motivation theories (based on the

thought processes which influence behavior), and reinforcement motivation theories (based on how people learn patterns of behavior founded on environmental forces). The research of authors such as Maslow, Alderfer, Herzberg McClelland, Lewin, Broom, Locke, Heider, Skinner, and Thorndike has aided in leaders gaining a broader understanding of employee motivation. The structure of an organization is also a key consideration in understanding the nature of an organization. Great gains were made with the introduction of the bureaucratic model but it has become evident that more complex organizations require more dynamic structures. No one best way approach is appropriate. Schools have been characterized as loosely coupled systems composed of subsystems operating much of the time somewhat autonomously. The climate of a school affects its nature. Research has suggested a casual relationship between climate and the productivity of organizations. Several instruments have been developed to measure climate in schools but as yet practitioners have found it difficult to control the process. All agree that a positive climate is important in creating a healthy organization. Decision making influences the nature of school organizations. Authors such as Barnard, Drucker, and Sharman have offered classifications of rational decision making. Others including Simon and Bridges contend that the process tends to be nonrational with responses such as "satisficing" and shared decision making occurring regularly. A final major force examined which influences the nature of school organizations is communication. The capacity of an organization to

maintain a complex, highly interdependent pattern of activity is limited by its ability to handle the communication required for coordination. Communication is viewed as a dynamic process which is mutually reciprocal. Much work continues to be centered on creating models for ensuring effective communication in organizations.

Often even the most promising reform programs fail to sustain the impetus necessary to create permanent school improvement. The literature suggests several critical elements for sustaining school improvement. Preparation and planning are imperative as is supervision. Changes must become institutionalized. Constant fiscal and human support must be evident. Strong leadership and a clear commitment are prerequisites to sustaining improvement. The belief system of participants must be altered. Finally, progress must be assessed frequently if improvement is to be lasting.

Human relations factors are important to any school improvement program. Most authors call for the balancing of interpersonal considerations and task commitments. Schools appear to be moving toward emphasis on teamwork, support teams and empowerment of employees. Borrowing from business, schools have begun using such human relations techniques as mentorship, no-lose problem resolution, and rotating assignments.

There is an obvious need for establishing a data base in a school improvement program. The data base serves as a screen to ascertain the validity of all educational decision making. The information garnered must be analyzed and used appropriately.

Translating theory into the practice of the classroom may be the biggest challenge for leaders in using a data base as a part of the school improvement process.

Current research and literature points to the need for the total organization to be involved in the improvement process in order for an individual school to have an opportunity to be successful. The actions of any one part of a school district affects other subsystems. Community involvement in creating a school philosophy is important. Leaders must be willing to make structural changes in the organization, if needed, to promote improvement.

Legislatively mandated school reform programs have been precipitated by a growing community concern about the quality of schools and a failure on the part of most educators to respond to that concern. While not all mandated programs are negative, they almost universally have proven ineffective. Generally, centralized entities lack the background knowledge to initiate and sustain school reform. Improvement efforts must have local commitment and guidance to be successful.

Poor implementation has been the ruin of many well designed school improvement programs. Lasting reform requires holistic implementation. Planning and staff development is an important part of the process as is effective leadership. Support is necessary and must be especially evident in the allocation of resources.

Effective leadership is critical in school improvement. The concept of leadership is very complex. Literature points to the

need for a leader to have a clear vision and evidence true commitment to be effective. Leaders must balance task and interpersonal considerations. School leaders must be supportive. They may emerge from any level of the hierarchy and must be willing to expand their roles in the improvement process. Effective leadership does not guarantee the success of a school improvement program but the lack of it most assuredly will cause its demise.

Any school improvement plan must incorporate an understanding of the change process. Change must occur for growth in an organization to continue. While the change process is complex, leaders can plan and organize it. Participants must be personally involved in the change process in order to alter their beliefs. Change should be approached in a holistic manner with a clear need established. Change agents are responsible for providing knowledge of events and support to the participants. The process requires time, and conflict is inevitable. Resistance may be caused by many elements but there are definitive techniques for reducing resistance. Politics in schools influence the change process and must be managed in each unique locale.

The Outcome Driven Developmental Model is a planned, intentional school improvement program. It has an articulated mission and an identifiable philosophical and psychological base. The Model requires participants to use a data base and a set of organizational goals as the determinants of all decision making. While the foundations

of the model are not unique, the segments have been integrated into a total approach to organizational improvement. The model emphasizes student outcomes aligned with specific school practices. Current research appears to reflect the success of the model.

CHAPTER III
METHODS AND PROCEDURES

Design

In this descriptive study an item analysis of responses in Part I of the Outcome Driven Developmental Model (ODDM) Questionnaire was conducted. This information pertaining to the importance of elements to the design of the ODDM and to the effectiveness of elements in the implementation of the ODDM was reported in the form of frequency distributions. Mean scores of each of the thirty-one variables was used as the basis for analysis as well as percent of responses in each category. A multiple analysis of variance was used to investigate the variables and the interaction between them. A Chi Square nonparametric test of significance was used to compare proportions actually observed in the study with proportions expected to be seen if a significant difference was present.

Narrative responses in Part II of the ODDM questionnaire were categorized and reported using frequency distributions.

Part III of the ODDM Questionnaire concerned climate indicators. These indicators were compared in the form of a frequency distribution based upon mean scores of each indicator.

Ten percent of the subject group were randomly selected and telephone interviews conducted to verify and reinforce ODDM Questionnaire responses and ascertain the reason for nonresponses. All data were analyzed based upon perceptions of importance and

effectiveness; sustaining, participating, or introductory group membership; and elementary or secondary educator level status.

Subjects

The professional staff (e.g. teachers and administrators) in seven school districts currently implementing the Outcome Driven Developmental Model (ODDM) of school improvement served as the subjects in this descriptive study (see Appendix C). All seven of the school districts were actively engaged to varying degrees in implementing the ODDM with the guidance of a consultant. The introductory groups were identified as those districts that had committed to following the ODDM, had received initial orientation, and are in the readiness and/or pre-entry phases of the process. The participating groups were districts that have made a district-wide commitment to the Outcome Driven Developmental Model, have received extensive training, and are in the operational and/or implementation phases of the ODDM process. The sustaining groups were districts that have committed to the Outcome Driven Developmental Model, have been trained in the process, and have actively implemented the model continuously for several years.

Campuses in each of the seven districts were randomly selected and all professional educators on these campuses were administered questionnaires. A total of 394 questionnaires were distributed. Three hundred thirty of these questionnaires were returned for an overall return rate of 84%. In the introductory group, 77 of 110

questionnaires were returned for 81%. In the participating group 123 of 152 questionnaires were returned for a rate of 81%. In the sustaining group 132 questionnaires were distributed with 130 being returned for a rate of 98%.

Variables

Part I of the Outcome Driven Developmental Questionnaire contained thirty-one variables. These variables were determined by an analysis of the literature and research related to school improvement, the change process, and the Outcome Driven Developmental Model. Educators reflected their perceptions on a scale from 1 to 5 with five indicating highest perception of importance to design and greatest effectiveness in implementation.

Six questions comprised Part II of the ODDM Questionnaire. The questions were designed to solicit narrative responses related to the items introduced in Part I. The narrative responses were analyzed and categorized for reporting.

Part III contained specific indicators designed to assess the climate in the district. Educators rated the items on a scale from 1 to 4 with four being the highest positive response.

Instrument

The Outcome Driven Developmental Model Evaluation Questionnaire was used as a tool instrument in conjunction with a Texas Education Agency climate survey (see Appendix A). Part I of the questionnaire

solicited responses to perceptions of both the importance to the design of the Outcome Driven Developmental Model of several items and their effectiveness in the implementation of the ODDM. Inclusion of the items was based on research and literature related to the ODDM, school improvement, and the change process. The questionnaire was designed to include those elements identified as key to the basic nature of the ODDM and its successful implementation. The questionnaire was prepared with the guidance and approval of educators who were instrumental in the creation of the Outcome Driven Developmental Model and its implementation in selected school districts.

The questionnaire was sent to twenty-two educators across the nation who are recognized as leaders in the field of outcome-based education and are familiar with the Outcome Driven Developmental Model (see Appendix B). These educators evaluated the questionnaire and administered it to a small sample group. The questionnaire was modified based upon their recommendations. Part III, the climate survey, was a Texas Education Agency approved and validated instrument. It was administered by the author to a small sample group prior to general distribution with minor alterations being made.

After the questionnaires were collected, the author randomly identified ten percent of the educators from each campus involved in the study. These personnel from the introductory, participating, and sustaining groups were contacted by telephone. The telephone interviews were conducted to solicit additional perceptions related to the ODDM and to questions nonresponders as to their reasons for

not completing the questionnaires. Nonresponders from all three sample groups were contacted.

Treatment of Data

The study is descriptive and pertains to a sampling of educators in districts implementing the ODDM. Frequency distributions were used as one of the appropriate means to display the pertinent data concerning educators' perceptions of the importance to design and effectiveness in implementation of elements of the ODDM. Responses in the narrative section were recorded and categorized for reporting. A multiple analysis of variance was used to investigate the variables and the interaction between them. A Chi Square nonparametric test of significance was used to compare proportions actually observed in the study with proportions expected to be seen if a significant difference was present.

Districts were designated as introductory, participating, and sustaining groups. Each individual group was examined as to educators' perceptions of importance to design of the thirty-one variables. Effectives of these variables in implementation was then studied in each group. A comparison was made using mean scores within each group between importance to design and effectiveness in implementation. Narrative categories were reported for each of the introductory, participating, and sustaining groups. Climate indicators also were reported by mean score for each of the three groups.

The second level of analysis involved an examination of total group scores and intergroup comparisons. Perceptions of the total group of educators concerning the importance of certain elements to the design of the ODDM were measured using mean scores for each indicator. The total group perceptions were also examined pertaining to the effectiveness in implementation of the same variables. The next analysis involved a comparison of the introductory, participating, and sustaining groups' perceptions of the importance of the variables to the design of the ODDM. Mean scores for the indicators were used for comparison. Perceptions of effectiveness in implementation were compared among the three groups in a similar manner using the mean scores of the variables. Perceptions of the total group concerning importance in the design of the ODDM were compared to total group perceptions of effectiveness in the implementation of the ODDM. Narrative responses to Part II of the ODDM Questionnaire were examined. The responses of all educators participating were categorized and reported. The results of a multiple analysis of variance were reported evidencing differences between the introductory, participating, and sustaining groups. A Chi Square was reported to display differences between the thirty-one variables.

CHAPTER IV
PRESENTATION OF THE DATA

Introduction

Presentation of the data from the study is divided into four major areas--introductory group data, participating group data, sustaining group data, and total group data. The areas are examined using similar methods. Data on each group reflects educators' perceptions of both the importance in the design of the Outcome Driven Developmental Model (ODDM) of the thirty-one variables and also the effectiveness in the implementation of the ODDM of the same variables. A Likert-type scale was used and results are displayed by mean score for each variable. The mean for each variable for importance and effectiveness are compared with differences between the means indicated. Narrative response are categorized and are reported with frequency of responses indicated. A mean score is generated for each variable on the climate scale. The climate indicators for each group are displayed using the mean scores. The overall climate score for each group is indicated.

Total group data include the overall educators' perceptions of the importance of thirty-one variables to the design of the ODDM reported by mean scores for each variable. Overall perceptions of the effectiveness in the implementation of the ODDM are reported in the same manner. The means of each variable in the introductory, participating, and sustaining groups are compared for both importance

and effectiveness. Total importance and effectiveness mean scores for each variable are compared with differences between the two means indicated. Total group narrative responses are categorized and these categories are reported with frequency of responses indicated.

Climate mean scores for each of the introductory, participating, and sustaining groups are compared. Data comparing total secondary and total elementary educators' perceptions of the importance of variables in the design of the ODDM reported by mean score are included. Elementary and secondary results are similarly differentiated with respect to the effectiveness of variables to the implementation of the ODDM. The results of a multiple analysis of variance are displayed to indicate the interaction between the variables. Finally, the results of a Chi Square test of significance are presented.

Introductory Group

The introductory group are districts that have committed to following the ODDM, have received initial orientation, and have been involved in the process for less than two years. There are seventy-seven respondents in the introductory group.

Table 4.1 shows the perceptions of the introductory group educators of the importance of the thirty-one variables to the design of the ODDM. The mean score for each variable is reported with results showing a high score of 4.0 for the variable that all students can learn. The educators also show a mean score of 3.9 in the areas of effective procedures for solving problems, a willingness to live with change,

TABLE 4.1--Introductory Group Perceptions of Importance of Variables by Descriptor to the Design of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	3.7	77
2. The mission is to strive for all students to learn what is taught.	4.0	77
3. Expertise and knowledge are the key sources of power.	3.7	77
4. Success requires a long term commitment of:		
a. Time	3.8	77
b. Follow up efforts	4.0	77
c. Funding	3.8	77
5. All employees in the district are encouraged to contribute ideas for change.	3.6	77
6. There is a procedure for effectively identifying problems.	3.7	77
7. There is a procedure for effectively solving problems.	3.9	77
8. Present practices are examined to determine how well they serve the desired outcomes for students.	3.7	77
9. There exists a willingness to live with:		
a. Change	3.9	77
b. Ambiguity	3.4	77
c. Frustration	3.5	77
d. Risk	3.6	77
10. New organizational structures are created to accommodate how students actually learn.	3.7	77
11. The value, worth, and competencies of all professionals in the district are recognized.	3.8	77
12. Sufficient qualified personnel are available to implement the model.	3.7	77
13. Support to implement the model can be obtained.	3.8	77
14. There is a willingness to examine and redesign any aspect of the organization.	3.8	77

TABLE 4.1--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.9	77
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	3.8	77
17. Positive, committed leadership is necessary for program success.	3.8	77
18. There is a clear understanding of what factors relate to academic success	3.7	77
19. Understanding human relationships is an important element in the program.	3.7	77
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	3.7	77
b. Process for change	3.7	77
c. Problem solving model	3.6	77
d. Climate for change	3.7	77
e. Communications network	3.7	77
f. Written board policy	3.6	77
21. A clear, viable set of beliefs about learning and the change process are associated with the Outcome Driven Developmental Model.	3.7	77

and perceptions of the organization's health. The low range of mean scores are represented by a 3.4 for the variable of a willingness to live with ambiguity, and a 3.5 for the variable of a willingness to live with frustration.

Introductory group educators' perceptions of the effectiveness of the thirty-one variables in the implementation of the Outcome Driven Developmental Model are reported as mean scores in Table 4.2. The largest mean again, is in the variable of all students can learn, but is only 3.5. The two variables of evidence of a climate for change, and evidence of a written board policy have a mean score of 3.4. The smallest mean score is in the area of a willingness to live with ambiguity at 2.8.

A comparison is made in Table 4.3 between introductory group educators' perceptions of importance in design to the Outcome Driven Developmental Model of the thirty-one variables and effectiveness in the implementation of the ODDM. The area with the largest difference (1.0) in perceptions is displayed between the mean scores for the variable on a procedure for effectively solving problems. The area with the smallest difference (.2) is seen in perceptions of evidence of a written board policy. Every variable has a larger mean score for importance in design than in effectiveness in implementing. The largest mean scores in both importance to design and effectiveness in implementation are in the variable of all students can learn. The smallest variable mean score for both design and implementation is a willingness to live with ambiguity.

TABLE 4.2--Introductory Group Perceptions of Effectiveness of Variables by Descriptor in the Implementation of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	2.9	77
2. The mission is to strive for all students to learn what is taught.	3.5	77
3. Expertise and knowledge are the key sources of power.	3.1	77
4. Success requires a long term commitment of:		
a. Time	3.1	77
b. Follow up efforts	3.2	77
c. Funding	3.0	77
5. All employees in the district are encouraged to contribute ideas for change.	3.0	77
6. There is a procedure for effectively identifying problems.	2.9	77
7. There is a procedure for effectively solving problems.	2.9	77
8. Present practices are examined to determine how well they serve the desired outcomes for students.	2.9	77
9. There exists a willingness to live with:		
a. Change	3.1	77
b. Ambiguity	2.8	77
c. Frustration	2.9	77
d. Risk	3.0	77
10. New organizational structures are created to accommodate how students actually learn.	3.1	77
11. The value, worth, and competencies of all professionals in the district are recognized.	3.1	77
12. Sufficient qualified personnel are available to implement the model.	3.2	77
13. Support to implement the model can be obtained.	3.2	77
14. There is a willingness to examine and redesign any aspect of the organization.	3.1	77

TABLE 4.2--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.0	77
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	3.3	77
17. Positive, committed leadership is necessary for program success.	3.3	77
18. There is a clear understanding of what factors relate to academic success.	3.1	77
19. Understanding human relationships is an important element in the program.	3.3	77
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	3.3	77
b. Process for change	3.1	77
c. Problem solving model	3.3	77
d. Climate for change	3.4	77
e. Communications network	3.3	77
f. Written board policy	3.4	77
21. A clear, viable set of beliefs about learning and the change process are associated with the Outcome Driven Developmental Model.	3.3	77

TABLE 4.3--Introductory Group Perceptions Descriptor of Importance of Variables to the Design of the ODDM Compared to Effectiveness of Variables in the Implementation of the ODDM Reported by Mean Score

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
1. Decisions are based on research.	3.7	2.9	.8
2. The mission is to strive for all students to learn what is taught.	4.0	3.5	.5
3. Expertise and knowledge are the key sources of power.	3.7	3.1	.6
4. Success requires a long term commitment of:			
a. Time	3.8	3.1	.7
b. Follow up efforts	4.0	3.2	.8
c. Funding	3.8	3.0	.8
5. All employees in the district are encouraged to contribute ideas for change.	3.6	3.0	.6
6. There is a procedure for effectively identifying problems.	3.7	2.9	.8
7. There is a procedure for effectively solving problems.	3.9	2.9	1.0
8. Present practices are examined to determine how well they serve the desired outcomes for students,	3.7	2.9	.8
9. There exists a willingness to live with:			
a. Change	3.9	3.1	.8
b. Ambiguity	3.4	2.8	.6
c. Frustration	3.5	2.9	.6
d. Risk	3.6	3.0	.6
10. New organizational structures are created to accommodate how students actually learn.	3.7	3.1	.6
11. The value, worth and competencies of all professionals in the district are recognized.	3.8	3.1	.6

TABLE 4.3--continued

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
12. Sufficient qualified personnel are available to implement the model.	3.7	3.2	.5
13. Support to implement the model can be obtained.	3.8	3.2	.2
14. There is a willingness to examine and redesign any aspect of the organization.	3.8	3.1	.7
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.9	3.0	.9
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	3.8	3.3	.5
17. Positive, committed leadership is necessary for program success.	3.8	3.3	.5
18. There is a clear understanding of what factors relate to academic success.	3.7	3.1	.6
19. Understanding human relationships is an important element in the program.	3.7	3.3	.4
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	3.7	3.3	.4
b. Process for change	3.7	3.1	.6
c. Problem solving model	3.6	3.3	.3
d. Climate for change	3.7	3.4	.3
e. Communication network	3.7	3.3	.4
f. Written board policy	3.6	3.4	.2
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	3.7	3.3	.4

The narrative portion of the Outcome Driven Developmental Model Questionnaire is categorized using a frequency distribution as shown in Table 4.4. Narrative responses of the introductory group educators are categorized with those categories having four or more responses being reported. Educators perceive the categories of establishing a need (8) and leadership (8) as the most critical factors that caused change in the district. Funding considerations (8) and bus schedules (8) prove to be the key components of decision making in the district. The introductory group reports that the creation of a research base (9) was the main factor which caused a change in teaching styles in the district. Time (7) is reported as the most important ingredient in the orientation to the ODDM while both time (7) and the presence of specific guidelines (7) are the most important ingredients in the training aspects of the ODDM. The two factors recognized as most important in the implementation of the ODDM are time (6) and a change in beliefs (6).

Table 4.5 displays the introductory group educators' perceptions of the climate in the district. Mean scores are reported with a possible range of 1 (negative) to 4 (positive). Sixty-eight introductory group educators responded to this third section of the Outcome Driven Developmental Model Questionnaire. The largest mean scores of 3.1 are reported for the areas pertaining to the physical condition of the buildings and the teachers' commitment to implementing school improvement activities. The two areas with the smallest means of 2.6 deal with having appropriate supplies and materials available

TABLE 4.4--Introductory Group Narrative Responses Reported by Question, Categories of Responses, and Frequency of Responses

Question - Categories of Responses*	Frequency of Responses
1. If change has occurred in your district, what are the most critical elements or key factors that caused that change?	
Established need	8
Leadership	8
Research base	5
Increased funding	5
Alteration in belief system	4
Improved communications	4
Inservice training	4
Legislative mandates	4
2. What are the most critical elements or key components of decision making in your district?	
Funding	8
Bus Schedules	8
Administrative hierarchy	7
Community pressure	4
Shared	4
Test results	4
Research screen	4
Interaction	4
3. If you have changed your teaching or administrative style, what critical factors caused or allowed you to change?	
Research base	9
Inservice training	7
Collaboration	6
Risk free environment	6
Freedom	5
Evaluations	5
Coercion	4

TABLE 4.4--continued

Question - Categories of Responses*	Frequency of Responses
4. What are the most important ingredients in the orientation to the ODDM?	
Time	7
Supportive atmosphere	6
Fiscal support	6
Sharing	5
Research base	5
Leadership	5
Belief system	5
Proper personnel	5
Specific guidelines	5
Common agreement	4
Communication	4
Modeling	4
5. What are the most important ingredients in the training aspects of the ODDM?	
Specific guidelines	7
Time	7
Collaboration	6
Decision making proces	5
Incentives	5
Research base	5
Identifying outcomes	4
Involvement in planning	4
Examples	4
Funding	4
Consistency	4
Support	4
Leadership	4
Modeling	4
Problem solving process	4

TABLE 4.4--continued

Question - Categories of Responses*	Frequency of Responses
6. What are the most important factors involved in the implementation of the ODDM?	
Time	6
Belief System	6
Optional involvement	5
Renewal	5
Funding	5
Clear guidelines	5
Positive climate	4
Research base	4
Clear vision	4
Involvement	4
Leadership	4
Persistence	4
Support	4

* Only categories with at least four responses reported.

TABLE 4.5--Introductory Group Perceptions of Climate by Descriptor Reported by Mean Score from Positive (4) to Negative (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number Respondents
1. Mastery of basic skills is the focus of instruction.	2.9	68
2. Activities are correlated to objectives and paced to the developmental levels of students.	2.6	68
3. Special programs are coordinated with regular classroom instruction.	2.7	68
4. Appropriate materials and supplies to meet students' needs are available and in use for instruction in basic skills.	2.6	68
5. Teachers use strategies which allow students to experience frequent success.	2.8	68
6. Teachers demonstrate a variety of teaching methods which match student needs.	2.9	68
7. Teachers in this school consistently hold high expectations for all students.	2.9	68
8. Factors outside the classroom are rarely allowed to interrupt basic skills instruction.	2.7	68
9. Student test results are regularly used to give specific student feedback and plan appropriate instruction.	2.7	68
10. The principal makes frequent, informal observations in all classrooms.	2.8	68
11. Teachers work together to effectively coordinate the instruction between grades and programs.	2.7	68
12. Frequently faculty meetings are for the purpose of bringing instructional issues for discussion.	2.7	68
13. The administration provides support to teachers on student discipline.	3.0	68

TABLE 4.5--continued

Descriptor	Mean Score	Total Number Respondents
14. Teachers have open channels of communication with administrators.	2.9	68
15. A written statement of purpose exists in this school, and it is the driving force behind most important decisions.	2.8	68
16. Planning for improved student performance is a collaborative process involving administrators, teachers, parents, and community members.	2.7	68
17. Teachers exhibit commitment to implementing school improvement activities.	3.1	68
18. Follow-ups on absenteeism and tardiness normally occur within a day.	2.7	68
19. Discipline is administered in a neutral manner and focused on the student's behavior, not on personality.	3.0	68
20. In this school, all students including low achieving students, are respected.	2.9	68
21. The physical condition of this school is generally pleasant, safe, and clean.	3.1	68
22. Most parents understand and promote the school's instructional program.	2.8	68
23. School-wide students' test results are reported to parents, the school board, and the general public.	3.0	68
Overall Score	2.8	68

and also correlating activities to objectives and pacing them to the developmental level of the students. The overall climate score is 2.8.

Participating Group

The participating group are districts that have made a district-wide commitment to the Outcome Driven Developmental Model, have received extensive training, and have been actively involved in the process of change for at least two years. One hundred and twenty-three educators in the participating group responded to this first section of the ODDM Questionnaire.

Table 4.6 reflects participating group educators' perceptions in terms of mean scores for the thirty-one variables of the questionnaire. Importance of these variables to the design of the ODDM is measured. The largest means of 4.3 are recorded for the variables related to the mission that all students can learn and the commitment of those individuals responsible for implementing the ODDM. High scores of 4.2 are evidenced for the four areas of commitment to funding, understanding of factors related to academic success, understanding human relationships, and evidence of a communications network. The smallest mean scores concern perceptions of the participating group in respect to a willingness to live with ambiguity (3.1), and a willingness to live with frustration (3.2).

The effectiveness of the thirty-one variables in the implementation of the Outcome Driven Developmental Model (ODDM) is the subject of Table 4.7. Educators' perceptions are reported

TABLE 4.6--Participating Group Perceptions of Importance of Variables by Descriptor to the Design of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	4.0	123
2. The mission is to strive for all students to learn what is taught.	4.3	123
3. Expertise and knowledge are the key sources of power.	3.9	123
4. Success requires a long term commitment of:		
a. Time	4.1	123
b. Follow up efforts	4.1	123
c. Funding	4.2	123
5. All employees in the district are encouraged to contribute ideas for change.	3.9	123
6. There is a procedure for effectively identifying problems.	3.9	123
7. There is a procedure for effectively solving problems.	4.0	123
8. Present practices are examined to determine how well they serve the desired outcomes for students.	4.0	123
9. There exists a willingness to live with:		
a. Change	3.9	123
b. Ambiguity	3.1	123
c. Frustration	3.2	123
d. Risk	3.8	123
10. New organizational structures are created to accommodate how students actually learn.	4.0	123
11. The value, worth, and competencies of all professionals in the district are recognized.	4.1	123
12. Sufficient qualified personnel are available to implement the model.	3.9	123
13. Support to implement the model can be obtained.	4.0	123
14. There is a willingness to examine and redesign any aspect of the organization.	4.0	123

TABLE 4.6--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	4.0	123
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	4.3	123
17. Positive, committed leadership is necessary for program success.	4.1	123
18. There is a clear understanding of what factors relate to academic success.	4.2	123
19. Understanding human relationships is an important element in the program.	4.2	123
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	4.1	123
b. Process for change	4.1	123
c. Problem solving model	4.0	123
d. Climate for change	4.1	123
e. Communications network	4.2	123
f. Written board policy	4.0	123
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.1	123

TABLE 4.7--Participating Group Perceptions of Effectiveness of Variables by Descriptor in the Implementation of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	3.5	123
2. The mission is to strive for all students to learn what is taught.	3.7	123
3. Expertise and knowledge are the key sources of power.	3.3	123
4. Success requires a long term commitment of:		
a. Time	3.4	123
b. Follow up efforts	3.4	123
c. Funding	3.3	123
5. All employees in the district are encouraged to contribute ideas for change.	3.1	123
6. There is a procedure for effectively identifying problems.	3.0	123
7. There is a procedure for effectively solving problems.	3.0	123
8. Present practices are examined to determine how well they serve the desired outcomes for students.	3.1	123
9. There exists a willingness to live with:		
a. Change	3.2	123
b. Ambiguity	2.8	123
c. Frustration	2.9	123
d. Risk	3.0	123
10. New organizational structures are created to accommodate how students actually learn.	3.2	123
11. The value, worth, and competencies of all professionals in the district are recognized.	3.0	123
12. Sufficient qualified personnel are available to implement the model.	3.3	123
13. Support to implement the model can be obtained.	3.3	123
14. There is a willingness to examine and redesign any aspect of the organization.	3.1	123

TABLE 4.7--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	2.9	123
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	3.6	123
17. Positive, committed leadership is necessary for program success.	3.3	123
18. There is a clear understanding of what factors relate to academic success.	3.3	123
19. Understanding human relationships is an important element in the program.	3.2	123
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	3.3	123
b. Process for change	3.3	123
c. Problem solving model	3.2	123
d. Climate for change	3.2	123
e. Communications network	3.1	123
f. Written board policy	3.2	123
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	3.4	123

as mean scores with the larger the mean the greater the perception of effectiveness in implementation of the ODDM. The largest mean is the variable that all students can learn (3.7). The variable that individuals implementing the ODDM demonstrate a commitment to the ODDM is a close second at 3.6. The only three mean scores under 3.0 are the variables related to the district's organizational health (2.9), a willingness to live with frustration (2.9), and a willingness to live with ambiguity (2.8).

A comparison is made in Table 4.8 between participating group educators' perceptions of importance in design to the Outcome Driven Developmental Model of the thirty-one variables and effectiveness in the implementation of the ODDM. The area of greatest differences in perceptions is displayed between the mean scores for the four variables of evidence of a communication network (1.1), the district's organizational health (1.1), understanding human relationships (1.0), and procedure for effectively solving problems (1.0). The area of smallest difference is seen in perceptions of the variables of a willingness to live with ambiguity and a willingness to live with frustration, both at .3. These two variables also evidence the smallest mean scores for both importance to design and effectiveness in implementation. Every variable has a larger mean score for importance in design than for effectiveness in implementation. The largest mean scores in both importance to design and effectiveness in implementation are for the variables all students can learn and a commitment by those individuals implementing the ODDM.

TABLE 4.8--Participating Group Perceptions by Descriptor of Importance of Variables to the Design of the ODDM Compared to Effectiveness of Variables in the Implementation of the ODDM Reported by Mean Score

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
1. Decisions are based on research.	4.0	3.5	.5
2. The mission is to strive for all students to learn what is taught.	4.3	3.7	.6
3. Expertise and knowledge are the key sources of power.	3.9	3.3	.6
4. Success requires a long term commitment of:			
a. Time	4.1	3.4	.7
b. Follow up efforts	4.1	3.4	.7
c. Funding	4.2	3.3	.9
5. All employees in the district are encouraged to contribute ideas for change.	3.9	3.1	.8
6. There is a procedure for effectively identifying problems.	3.9	3.0	.9
7. There is a procedure for effectively solving problems.	4.0	3.0	1.0
8. Present practices are examined to determine how well they serve the desired outcomes for students.	4.0	3.1	.9
9. There exists a willingness to live with:			
a. Change	3.9	3.2	.7
b. Ambiguity	3.1	2.8	.3
c. Frustration	3.2	2.9	.3
d. Risk	3.8	3.0	.8
10. New organizational structures are created to accommodate how students actually learn.	4.0	3.2	.8
11. The value, worth and competencies of all professionals in the district are recognized.	4.1	3.2	.9

TABLE 4.8--continued

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
12. Sufficient qualified personnel are available to implement the model.	3.9	3.3	.6
13. Support to implement the model can be obtained.	4.0	3.3	.7
14. There is a willingness to examine and redesign any aspect of the organization.	4.0	3.1	.9
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	4.0	2.9	1.1
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	4.3	3.6	.7
17. Positive, committed leadership is necessary for program success.	4.1	3.3	.8
18. There is a clear understanding of what factors relate to academic success.	4.2	3.3	.9
19. Understanding human relationships is an important element in the program.	4.2	3.2	1.0
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	4.1	3.3	.8
b. Process for change	4.1	3.3	.8
c. Problem solving model	4.0	3.2	.8
d. Climate for change	4.1	3.2	.9
e. Communication network	4.2	3.1	1.1
f. Written board policy	4.0	3.2	.8
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.1	3.4	.7

The data in Table 4.9 deals with the section II narrative part of the Outcome Driven Developmental Model Questionnaire. Narrative responses of the participating group educators are categorized with those categories having four or more responses reported. Educators perceive leadership (28) by a wide margin as the most critical factor in causing change in the district. Shared involvement (23) and hierarchical position (23) prove to be the key components of decision making in the district. The participating group perceives the creation of a research base (19) as the main factor which caused a change in teaching styles in the district. A change in the belief system (15) is reported as the most important ingredient in the orientation to the ODDM while time (14) is the most important ingredient in the training aspect of the ODDM. The two factors regarded as most important in the implementation of the ODDM are a change in the belief system (24) and time (23).

Table 4.10 concerns the participating group educators' perceptions of the climate in the district. Mean scores are reported with a possible range of 1 (negative) to 4 (positive) for each climate indicator. One hundred and seventeen educators responded to this third section of the Outcome Driven Developmental Questionnaire. The largest mean score of 3.6 was reported for the area of activities correlated to objectives and paced to the level of the child. The two areas with the smallest means of 2.7 are related to having appropriate materials and supplies to meet students' needs and follow-ups on absenteeism. The overall mean climate score is 3.1.

TABLE 4.9--Participating Group Narrative Responses Reported by Question, Categories of Responses, and Frequency of Responses

Question - Categories of Responses*	Frequency of Responses
1. If change has occurred in your district, what are the most critical elements or key factors that caused that change?	
Leadership	28
Established need	14
Altered belief system	10
Research base	10
Change management process	10
Improved communication	8
Coercion	7
Collaboration	6
Trust	6
Positive climate	5
Support	5
Empowerment	5
Human relations considerations	4
2. What are the most critical elements or key components of decision making in your district?	
Shared	23
Hierarchical position	23
Research base	10
Communication	8
District goals	8
Belief system	7
Leadership	6

TABLE 4.9--continued

Question - Categories of Responses*	Frequency of Responses
3. If you have changed your teaching or administrative style, what critical factors caused or allowed you to change?	
Research base	19
Altered belief system	15
Inservice training	11
Collaboration	9
Encouragement	8
Support	8
Established need	7
Freedom	7
Risk free environment	7
Coercion	7
Success	6
Feedback	5
Time	5
Community pressure	4
4. What are the most important ingredients in the orientation to the ODDM?	
Belief system	15
Time	14
Research base	12
Collaboration	8
Trust	7
Support	7
Encouragement	7
Manage change process	6
Consultant	6
Leadership	6
Communication	5
Consistency	5
Specific guidelines	5
Establish need	5
Clear goals	4

TABLE 4.9--continued

Question - Categories of Responses*	Frequency of Responses
Risk free environment	4
Holistic approach	4
Self examination	4
Funding	4
Human relations considerations	4
Involvement	4
Philosophy	4
Community Involvement	4
5. What are the most important ingredients in the training aspects of the ODDM?	
Time	14
Collaboration	13
Consultant	12
Communication	11
Follow-up	8
Modeling	7
Funding	6
Patience	5
Establish need	5
Planning	5
Trust	5
Holistic approach	4
Encouragement	4
Managing change process	4
Research base	4
Human relations considerations	4
Belief system	4
Specific guidelines	4
Clarity	4
Consistency	4
Practice	4

TABLE 4.9--continued

Question - Categories of Responses*	Frequency of Responses
6. What are the most important factors involved in the implementation of the ODDM?	
Belief system	24
Time	23
Collaboration	13
Research base	10
Communication	10
Trust	9
Renewal	8
Involvement	8
Administrative support	7
Interpersonal relationships	5
Establish need	5
Encouragement	5
Specific guidelines	5
Practice	5
Non-risk environment	5
Flexibility	5
Community involvement	4
Sequential	4
Supervision	4
Success	4
Managing change	4
Modeling	4
Holistic approach	4
Funding	4
Consistency	4

* Only categories with at least four responses reported.

TABLE 4.10--Participating Group Perceptions of Climate by Descriptor Reported by Mean Score from Positive (4) to Negative (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number Respondents
1. Mastery of basic skills is the focus of instruction.	3.3	117
2. Activities are correlated to objectives and paced to the developmental levels of students.	3.6	117
3. Special programs are coordinated with regular classroom instruction.	2.9	117
4. Appropriate materials and supplies to meet students' needs are available and in use for instruction in basic skills.	2.7	117
5. Teachers use strategies which allow students to experience frequent success.	3.3	117
6. Teachers demonstrate a variety of teaching methods which match student needs.	3.2	117
7. Teachers in this school consistently hold high expectations for all students.	3.3	117
8. Factors outside the classroom are rarely allowed to interrupt basic skills instruction.	2.8	117
9. Student test results are regularly used to give specific student feedback and plan appropriate instruction.	3.1	117
10. The principal makes frequent, informal observations in all classrooms.	3.1	117
11. Teachers work together to effectively coordinate the instruction between grades and programs.	3.0	117
12. Frequently faculty meetings are for the purpose of bringing instructional issues for discussion.	3.3	117
13. The administration provides support to teachers on student discipline.	2.9	117

TABLE 4.10--continued

Descriptor	Mean Score	Total Number Respondents
14. Teachers have open channels of communication with administrators.	3.0	117
15. A written statement of purpose exists in this school, and it is the driving force behind most important decisions.	3.1	117
16. Planning for improved student performance is a collaborative process involving administrators, teachers, parents, and community members.	3.0	117
17. Teachers exhibit commitment to implementing school improvement activities.	3.1	117
18. Follow-ups on absenteeism and tardiness normally occur within a day.	2.7	117
19. Discipline is administered in a neutral manner and focused on the student's behavior, not on personality.	2.8	117
20. In this school, all students including low achieving students, are respected.	3.2	117
21. The physical condition of this school is generally pleasant, safe, and clean.	3.2	117
22. Most parents understand and promote the school's instructional program.	2.9	117
23. School-wide students' test results are reported to parents, the school board, and the general public.	3.2	117
Overall Score	3.1	117

Sustaining Group

The sustaining group are districts that have committed to the Outcome Driven Developmental Model, have been trained in the process, and have actively implemented the model continuously for several years. One hundred thirty educators in the sustaining group responded to section I of the ODDM Questionnaire.

Table 4.11 reflects sustaining group educators' perceptions in terms of mean scores for the thirty-one variables of the questionnaire. Importance of these variables to the design of the ODDM is measured. The largest mean of 4.7 is recorded for the variable that all students can learn. The smallest mean scores by far concern perceptions of the sustaining group in respect to a willingness to live with ambiguity (3.2) and a willingness to live with frustration (3.2). All other variable mean scores are above 4.2.

Sustaining group educators' perceptions of the effectiveness of the thirty-one variables in the implementation of the Outcome Driven Developmental Model are reported as mean scores in Table 4.12. The largest mean score again, is for the variable that all students can learn at 4.3. Four variables have mean scores of 4.1. These variables are decisions based on research, expertise as the key source of power, a long-term commitment to time, and committed leadership necessary for program success. The smallest mean scores are seen in the areas of a willingness to live with ambiguity and a willingness to live with frustration, both at 2.9. All other mean scores are above 3.3.

TABLE 4.11--Sustaining Group Perceptions of Importance of Variables by Descriptor to the Design of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	4.4	130
2. The mission is to strive for all students to learn what is taught.	4.7	130
3. Expertise and knowledge are the key sources of power.	4.6	130
4. Success requires a long term commitment of:		
a. Time	4.5	130
b. Follow up efforts	4.5	130
c. Funding	4.1	130
5. All employees in the district are encouraged to contribute ideas for change.	4.4	130
6. There is a procedure for effectively identifying problems.	4.4	130
7. There is a procedure for effectively solving problems.	4.5	130
8. Present practices are examined to determine how well they serve the desired outcomes for students.	4.5	130
9. There exists a willingness to live with:		
a. Change	4.4	130
b. Ambiguity	3.2	130
c. Frustration	3.1	130
d. Risk	4.1	130
10. New organizational structures are created to accommodate how students actually learn.	4.5	130
11. The value, worth, and competencies of all professionals in the district are recognized.	4.3	130
12. Sufficient qualified personnel are available to implement the model.	4.3	130
13. Support to implement the model can be obtained.	4.4	130
14. There is a willingness to examine and redesign any aspect of the organization.	4.4	130

TABLE 4.11--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	4.5	130
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	4.5	130
17. Positive, committed leadership is necessary for program success.	4.6	130
18. There is a clear understanding of what factors relate to academic success.	4.6	130
19. Understanding human relationships is an important element in the program.	4.5	130
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	4.5	130
b. Process for change	4.6	130
c. Problem solving model	4.5	130
d. Climate for change	4.6	130
e. Communications network	4.5	130
f. Written board policy	4.4	130
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.5	130

TABLE 4.12--Sustaining Group Perceptions of Effectiveness of Variables by Descriptor in the Implementation of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	4.1	130
2. The mission is to strive for all students to learn what is taught.	4.3	130
3. Expertise and knowledge are the key sources of power.	4.1	130
4. Success requires a long term commitment of:		
a. Time	4.1	130
b. Follow up efforts	3.8	130
c. Funding	3.6	130
5. All employees in the district are encouraged to contribute ideas for change.	3.6	130
6. There is a procedure for effectively identifying problems.	3.6	130
7. There is a procedure for effectively solving problems.	3.4	130
8. Present practices are examined to determine how well they serve the desired outcomes for students.	3.9	130
9. There exists a willingness to live with:		
a. Change	3.9	130
b. Ambiguity	2.9	130
c. Frustration	2.9	130
d. Risk	3.7	130
10. New organizational structures are created to accommodate how students actually learn.	4.0	130
11. The value, worth, and competencies of all professionals in the district are recognized.	3.4	130
12. Sufficient qualified personnel are available to implement the model.	3.7	130
13. Support to implement the model can be obtained.	3.9	130
14. There is a willingness to examine and redesign any aspect of the organization.	3.8	130

TABLE 4.12--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.6	130
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	4.0	130
17. Positive, committed leadership is necessary for program success.	4.1	130
18. There is a clear understanding of what factors relate to academic success.	4.0	130
19. Understanding human relationships is an important element in the program.	3.8	130
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	4.0	130
b. Process for change	3.9	130
c. Problem solving model	3.7	130
d. Climate for change	4.0	130
e. Communications network	3.7	130
f. Written board policy	3.9	130
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.0	130

A comparison is made in Table 4.13 between sustaining group educators' perceptions of importance in design to the Outcome Driven Developmental Model of the thirty-one variables and the effectiveness in the implementation of the ODDM of the same variables. The largest difference (1.1) in perceptions is displayed between the mean scores for the variable for a procedure for effectively solving problems. The smallest mean score difference is seen in perceptions of a willingness to live with frustration (.2). All thirty-one variables have larger mean score for importance in design than for the corresponding variable in effectiveness in implementation. Also, the largest mean scores in both importance to design and effectiveness in implementation are in the variable of all students can learn. Similarly, the smallest mean scores for both importance to design and effectiveness in implementation are in corresponding variables. The two variables are a willingness to live with frustration and a willingness to live with ambiguity.

The next data pertains to the section II narrative part of the Outcome Driven Developmental Model Questionnaire (see Table 4.14). Narrative responses of sustaining group educators are categorized with those categories having four or more responses reported. Educators perceive establishing a need (29), leadership (27), and inservice training (23) as the most critical factors that caused change in the district. A research base (35), shared involvement (27), and a belief system (22) are cited as the key

TABLE 4.13--Sustaining Group Perceptions by Descriptor of Importance of Variables to the Design of the ODDM Compared to Effectiveness of Variables in the Implementation of the ODDM Reported by Mean Score

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
1. Decisions are based on research.	4.4	4.1	.3
2. The mission is to strive for all students to learn what is taught.	4.7	4.3	.4
3. Expertise and knowledge are the key sources of power.	4.6	4.1	.5
4. Success requires a long term commitment of:			
a. Time	4.5	4.1	.4
b. Follow up efforts	4.5	3.8	.7
c. Funding	4.1	3.6	.5
5. All employees in the district are encouraged to contribute ideas for change.	4.4	3.6	.8
6. There is a procedure for effectively identifying problems.	4.4	3.6	.8
7. There is a procedure for effectively solving problems.	4.5	3.4	1.1
8. Present practices are examined to determine how well they serve the desired outcomes for students,	4.5	3.9	.6
9. There exists a willingness to live with:			
a. Change	4.4	3.9	.5
b. Ambiguity	3.2	2.9	.3
c. Frustration	3.1	2.9	.2
d. Risk	4.1	3.7	.4
10. New organizational structures are created to accommodate how students actually learn.	4.5	4.0	.5
11. The value, worth and competencies of all professionals in the district are recognized.	4.3	3.4	.9

TABLE 4.13--continued

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
12. Sufficient qualified personnel are available to implement the model.	4.3	3.7	.6
13. Support to implement the model can be obtained.	4.4	3.9	.5
14. There is a willingness to examine and redesign any aspect of the organization.	4.4	3.8	.6
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	4.5	3.6	.9
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	4.5	4.0	.5
17. Positive, committed leadership is necessary for program success.	4.6	4.1	.5
18. There is a clear understanding of what factors relate to academic success.	4.6	4.0	.6
19. Understanding human relationships is an important element in the program.	4.5	3.8	.7
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	4.5	4.0	.5
b. Process for change	4.6	3.9	.7
c. Problem solving model	4.5	3.7	.8
d. Climate for change	4.6	4.0	.6
e. Communication network	4.5	3.7	.8
f. Written board policy	4.4	3.9	.5
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.5	4.0	.5

TABLE 4.14--Sustaining Group Narrative Responses Reported by Question, Categories of Responses, and Frequency of Responses

Question - Categories of Responses*	Frequency of Responses
1. If change has occurred in your district, what are the most critical elements or key factors that caused that change?	
Established need	29
Leadership	27
Inservice training	23
Altered belief system	19
Research base	11
Increased funding	10
Community support	9
Collaboration	8
Improved communication	8
Parent involvement	8
Problem solving process	5
Coercion	4
Consultant	4
2. What are the most critical elements or key components of decision making in your district?	
Research base	35
Shared	27
Belief system	22
Establish need	15
Present practices	14
Funding	10
Hierarchical position	8
District goals	6
Leadership	6
Human relations considerations	5
Politics	4

TABLE 4.14--continued

Question - Categories of Responses	Frequency of Responses
3. If you have changed your teaching or administrative style, what critical factors caused or allowed you to change?	
Altered belief system	21
Inservice training	16
Research base	15
Collaboration	12
Established need	9
Positive climate	7
Communication system	6
Modeling	5
Visitations	5
Time	5
Leadership	5
Managing change	4
Trust	4
Flexibility	4
Planning	4
4. What are the most important ingredients in the orientation to the ODDM?	
Belief system	46
Knowledgeable presentors	25
Positive climate	16
Collaboration	16
Leadership	15
Communication	13
Trust	8
Follow up	7
Planning	5
Support	5
Human relations	5
Time	5

TABLE 4.14--continued

Question - Categories of Responses*	Frequency of Responses
Modeling	5
Managing change	5
Consultant	4
5. What are the most important ingredients in the training aspects of the ODDM?	
Expertise	28
Belief system	25
Time	13
Leadership	9
Research base	9
Human relations	9
Modeling	9
Communications	8
Consultant	8
Reinforcement	8
Honesty	7
Established need	7
Trust	7
Collaboration	7
Climate	5
Planning	4
Managing change	4
Consistency	4
6. What are the most important factors involved in the implementation of the ODDM?	
Belief system	64
Leadership	18
Research base	15
Renewal	14
Trust	14
Communication	11

TABLE 4.14--continued

Question - Categories of Responses*	Frequency of Responses
Consistency	9
Collaboration	9
Supervision	6
Risk free climate	6
Time	6
Honesty	6
Managing change	5
Human relations	4
Support	4
Community support	4

* Only categories with at least four responses reported.

components of decision making in the district. The sustaining group reports that a change in belief system (21) is the main factor which caused a change in teaching styles in the district. The belief system (46) is reported as the most important ingredient in the orientation to the ODDM while expertise (28) and the belief system (25) are the most important ingredients in the training aspect of the ODDM. The factor almost universally recognized as most important in the implementation of the ODDM is the belief system (64).

Table 4.15 concerns the sustaining group educators' perceptions of the climate in the district. Mean scores are reported with a possible range from 1 (negative) to 4 (positive) on each climate indicator. One hundred and twenty-four educators responded to this section III of the Outcome Driven Developmental Model Questionnaire. The largest mean scores of 3.6 are reported for the areas pertaining to the mastery of basic skills as the focus of instruction, and activities correlated to objectives and paced to the developmental levels of students. The only area with a mean below 3.0 is the administration providing support to teachers on student discipline at 2.8. The overall climate score is 3.3.

Total Group

All educators from the introductory, participating, and sustaining groups are included in the total group results. A total of three hundred and thirty respondents are included in the total

TABLE 4.15--Sustaining Group Perceptions of Climate by Descriptor Reported by Mean Score from Positive (4) to Negative (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number Respondents
1. Mastery of basic skills is the focus of instruction.	3.6	124
2. Activities are correlated to objectives and paced to the developmental levels of students.	3.6	124
3. Special programs are coordinated with regular classroom instruction.	3.1	124
4. Appropriate materials and supplies to meet students' needs are available and in use for instruction in basic skills.	3.2	124
5. Teachers use strategies which allow students to experience frequent success.	3.5	124
6. Teachers demonstrate a variety of teaching methods which match student needs.	3.5	124
7. Teachers in this school consistently hold high expectations for all students.	3.4	124
8. Factors outside the classroom are rarely allowed to interrupt basic skills instruction.	3.0	124
9. Student test results are regularly used to give specific student feedback and plan appropriate instruction.	3.4	124
10. The principal makes frequent, informal observations in all classrooms.	3.2	124
11. Teachers work together to effectively coordinate the instruction between grades and programs.	3.2	124
12. Frequently faculty meetings are for the purpose of bringing instructional issues for discussion.	3.2	124
13. The administration provides support to teachers on student discipline.	2.8	124

TABLE 4.15--continued

Descriptor	Mean Score	Total Number Respondents
14. Teachers have open channels of communication with administrators.	3.2	124
15. A written statement of purpose exists in this school, and it is the driving force behind most important decisions.	3.2	124
16. Planning for improved student performance is a collaborative process involving administrators, teachers, parents, and community members.	3.2	124
17. Teachers exhibit commitment to implementing school improvement activities.	3.3	124
18. Follow-ups on absenteeism and tardiness normally occur within a day.	3.0	124
19. Discipline is administered in a neutral manner and focused on the student's behavior, not on personality.	3.1	124
20. In this school, all students including low achieving students, are respected.	3.4	124
21. The physical condition of this school is generally pleasant, safe, and clean.	3.2	124
22. Most parents understand and promote the school's instructional program.	3.0	124
23. School-wide students' test results are reported to parents, the school board, and the general public.	3.4	124
Overall Score	3.3	124

group. The first report examines total group perceptions of the importance of the thirty-one variables to the design of the Outcome Driven Developmental Model.

Table 4.16 indicates the overall group perceptions of the importance of the thirty-one variables to the design of the Outcome Driven Developmental Model. It is recorded by mean scores with a possible range from a high of 5 to a low of 1. One should note that the largest mean score of 4.4 is displayed for the area of the mission that all students can learn. The smallest mean scores predictably are seen in the areas of a willingness to live with ambiguity (3.2) and a willingness to live with frustration (3.2).

A comparison is made between the perceptions of the educators in the introductory, participating, and sustaining groups with respect to the importance to the design of the thirty-one variables (see Table 4.17). The mean scores for each of the variables in each of the three sample groups are compared. These data are reported by mean score. Twenty-eight of the variables evidence a progressive increase in mean score from introductory group, to participating group, to sustaining group. Only two variables do not adhere to this pattern. In the variable a willingness to live with ambiguity, the introductory group score of 3.4 is larger than the participating group score of 3.14. The sustaining group mean of 3.18 is slightly larger than the participating group but still smaller than the introductory group. In the area of a willingness to live with frustration, the pattern is reversed with the introductory group mean

TABLE 4.16--Total Group Perceptions of Importance of Variables by Descriptor to the Design of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	4.1	330
2. The mission is to strive for all students to learn what is taught.	4.4	330
3. Expertise and knowledge are the key sources of power.	4.1	330
4. Success requires a long term commitment of:		
a. Time	4.2	330
b. Follow up efforts	4.2	330
c. Funding	4.1	330
5. All employees in the district are encouraged to contribute ideas for change.	4.0	330
6. There is a procedure for effectively identifying problems.	4.1	330
7. There is a procedure for effectively solving problems.	4.2	330
8. Present practices are examined to determine how well they serve the desired outcomes for students.	4.1	330
9. There exists a willingness to live with:		
a. Change	4.1	330
b. Ambiguity	3.2	330
c. Frustration	3.2	330
d. Risk	3.9	330
10. New organizational structures are created to accommodate how students actually learn.	4.1	330
11. The value, worth, and competencies of all professionals in the district are recognized.	4.1	330
12. Sufficient qualified personnel are available to implement the model.	4.0	330
13. Support to implement the model can be obtained.	4.1	330
14. There is a willingness to examine and redesign any aspect of the organization.	4.1	330

TABLE 4.16--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	4.2	330
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	4.3	330
17. Positive, committed leadership is necessary for program success.	4.2	330
18. There is a clear understanding of what factors relate to academic excellence.	4.2	330
19. Understanding human relationships is an important element in the program.	4.1	330
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	4.2	330
b. Process for change	4.2	330
c. Problem solving model	4.1	330
d. Climate for change	4.2	330
e. Communications network	4.2	330
f. Written board policy	4.1	330
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.2	330

TABLE 4.17--Comparison of Introductory, Participating, and Sustaining Group Perceptions by Descriptor of Importance of Variables in the Design of the ODDM Reported by Mean Score

Descriptor	Importance to Design		
	Introductory	Participating	Sustaining
1. Decisions are based on research.	3.70	3.98	4.45
2. The mission is to strive for all students to learn what is taught.	4.01	4.33	4.67
3. Expertise and knowledge are the key sources of power.	3.70	3.90	4.56
4. Success requires a long term commitment of:			
a. Time	3.84	4.11	4.52
b. Follow up efforts	3.97	4.06	4.55
c. Funding	3.81	4.15	4.16
5. All employees in the district are encouraged to contribute ideas for change.	3.84	3.89	4.38
6. There is a procedure for effectively identifying problems.	3.66	3.94	4.45
7. There is a procedure for effectively solving problems.	3.90	3.95	4.44
8. Present practices are examined to determine how well they serve the desired outcomes for students.	3.74	3.98	4.53
9. There exists a willingness to live with:			
a. Change	3.87	3.90	4.41
b. Ambiguity	3.43	3.14	3.18
c. Frustration	3.47	3.24	3.13
d. Risk	3.64	3.80	4.13
10. New organizational structures are created to accommodate how students actually learn.	3.69	3.96	4.48
11. The value, worth and competencies of all professionals in the district are recognized.	3.82	4.12	4.31

TABLE 4.17--continued

Descriptor	Importance to Design		
	Introductory	Participating	Sustaining
12. Sufficient qualified personnel are available to implement the model.	3.73	3.92	4.33
13. Support to implement the model can be obtained.	3.83	4.02	4.38
14. There is a willingness to examine and redesign any aspect of the organization.	3.77	4.04	4.44
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.87	4.05	4.54
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	3.84	4.29	4.52
17. Positive, committed leadership is necessary for program success.	3.77	4.19	4.39
18. There is a clear understanding of what factors relate to academic excellence.	3.70	4.19	4.63
19. Understanding human relationships is an important element in the program.	3.74	4.23	4.55
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	3.74	4.09	4.55
b. Process for change	3.66	4.10	4.57
c. Problem solving model	3.58	3.97	4.54
d. Climate for change	3.74	4.14	4.56
e. Communication network	3.66	4.21	4.53
f. Written board policy	3.56	4.02	4.41
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	3.68	4.11	4.52

at 3.47, larger than the participating group at 3.24, the sustaining group has the smallest mean in this area.

Total group perceptions are measured by mean score on each variable in Table 4.18. The scores reflect total group perceptions of the effectiveness in implementation of the Outcome Driven Developmental Model of these variables. As might be anticipated, the largest overall mean score of 3.9 is in the area of the mission that all students can learn. The smallest mean scores are evidenced in the predictable areas of a willingness to live with ambiguity (2.8) and a willingness to live with frustration (2.9).

The next area of examination involves a comparison by mean score of the introductory, participating, and sustaining groups. Perceptions of the effectiveness of the thirty-one variables in the implementation of the Outcome Driven Developmental Model are compared (see Table 4.19). For every variable the mean score for the sustaining group is larger than the corresponding variable mean score for the other two groups. The participating group reflects the next largest means for twenty-one of the variables. However, for eight variables--9d, 11, 15, 19, 20c, 20d, 20e, and 20f--the introductory mean is larger than the corresponding variable participating group mean.

Total importance to the design of the Outcome Driven Developmental Modes is compared to effectiveness in implementation in Table 4.20. The total group mean scores for each of the thirty-one variables

TABLE 4.18--Total Group Perceptions of Effectiveness of Variables by Descriptor in the Implementation of the ODDM Reported by Mean Score from High (5) to Low (1) and Total Number of Respondents

Descriptor	Mean Score	Total Number of Respondents
1. Decisions are based on research.	3.6	330
2. The mission is to strive for all students to learn what is taught.	3.9	330
3. Expertise and knowledge are the key sources of power.	3.6	330
4. Success requires a long term commitment of:		
a. Time	3.6	330
b. Follow up efforts	3.5	330
c. Funding	3.3	330
5. All employees in the district are encouraged to contribute ideas for change.	3.3	330
6. There is a procedure for effectively identifying problems.	3.4	330
7. There is a procedure for effectively solving problems.	3.2	330
8. Present practices are examined to determine how well they serve the desired outcomes for students.	3.4	330
9. There exists a willingness to live with:		
a. Change	3.4	330
b. Ambiguity	2.8	330
c. Frustration	2.9	330
d. Risk	3.3	330
10. New organizational structures are created to accommodate how students actually learn.	3.5	330
11. The value, worth, and competencies of all professionals in the district are recognized.	3.2	330
12. Sufficient qualified personnel are available to implement the model.	3.4	330
13. Support to implement the model can be obtained.	3.5	330
14. There is a willingness to examine and redesign any aspect of the organization.	3.4	330

TABLE 4.18--continued

Descriptor	Mean Score	Total Number of Respondents
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.3	330
16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	3.7	330
17. Positive, committed leadership is necessary for program success.	3.6	330
18. There is a clear understanding of what factors relate to academic excellence.	3.6	330
19. Understanding human relationships is an important element in the program.	3.4	330
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:		
a. Staff development model	3.6	330
b. Process for change	3.5	330
c. Problem solving model	3.4	330
d. Climate for change	3.6	330
e. Communications network	3.4	330
f. Written board policy	3.5	330
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	3.6	330

TABLE 4.19--Comparison of Introductory, Participating, and Sustaining Group Perceptions of Descriptor of Effectiveness of Variables in the Implementation of the ODDM Reported by Mean Score

Descriptor	Importance to Design		
	Introductory	Participating	Sustaining
1. Decisions are based on research.	2.94	3.50	4.08
2. The mission is to strive for all students to learn what is taught.	3.45	3.68	4.28
3. Expertise and knowledge are the key sources of power.	3.05	3.32	4.08
4. Success requires a long term commitment of:			
a. Time	3.06	3.43	4.11
b. Follow up efforts	3.22	3.37	3.78
c. Funding	3.01	3.26	3.60
5. All employees in the district are encouraged to contribute ideas for change.	2.99	3.10	3.62
6. There is a procedure for effectively identifying problems.	2.90	3.02	3.61
7. There is a procedure for effectively solving problems.	2.94	3.02	3.42
8. Present practices are examined to determine how well they serve the desired outcomes for students.	2.91	3.10	3.89
9. There exists a willingness to live with:			
a. Change	3.08	3.20	3.91
b. Ambiguity	2.80	2.80	2.86
c. Frustration	2.87	2.94	2.94
d. Risk	3.03	2.97	3.72
10. New organizational structures are created to accommodate how students actually learn.	3.03	3.19	3.98
11. The value, worth and competencies of all professionals in the district are recognized.	3.14	3.02	3.45

TABLE 4.19--continued

Descriptor	Importance to Design		
	Introductory	Participating	Sustaining
12. Sufficient qualified personnel are available to implement the model.	3.23	3.31	3.69
13. Support to implement the model can be obtained.	3.23	3.25	3.89
14. There is a willingness to examine and redesign any aspect of the organization.	3.10	3.10	3.85
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.01	2.93	3.60
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	3.32	3.59	4.03
17. Positive, committed leadership is necessary for program success.	3.30	3.33	4.08
18. There is a clear understanding of what factors relate to academic excellence.	3.14	3.33	4.01
19. Understanding human relationships is an important element in the program.	3.26	3.16	3.76
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	3.29	3.34	4.00
b. Process for change	3.09	3.25	3.93
c. Problem solving model	3.34	3.18	3.70
d. Climate for change	3.38	3.20	4.04
e. Communication network	3.29	3.08	3.68
f. Written board policy	3.36	3.24	3.91
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	3.34	3.43	4.04

TABLE 4.20--Total Group Perceptions by Descriptor of Importance of Variables to the Design of the ODDM Compared to Effectiveness of Variables in the Implementation of the ODDM Reported by Mean Score

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
1. Decisions are based on research.	4.1	3.6	.5
2. The mission is to strive for all students to learn what is taught.	4.4	3.9	.5
3. Expertise and knowledge are the key sources of power.	4.1	3.6	.5
4. Success requires a long term commitment of:			
a. Time	4.2	3.6	.6
b. Follow up efforts	4.2	3.5	.7
c. Funding	4.1	3.3	.8
5. All employees in the district are encouraged to contribute ideas for change.	4.0	3.3	.7
6. There is a procedure for effectively identifying problems.	4.1	3.4	.7
7. There is a procedure for effectively solving problems.	4.2	3.2	1.0
8. Present practices are examined to determine how well they serve the desired outcomes for students.	4.1	3.4	.7
9. There exists a willingness to live with:			
a. Change	4.1	3.4	.7
b. Ambiguity	3.2	2.8	.3
c. Frustration	3.2	2.9	.3
d. Risk	3.9	3.3	.6
10. New organizational structures are created to accommodate how students actually learn.	4.1	3.5	.6
11. The value, worth and competencies of all professionals in the district are recognized.	4.1	3.2	.9

TABLE 4.20--continued

Descriptor	Importance to Design	Effectiveness in Implementation	Difference
12. Sufficient qualified personnel are available to implement the model.	4.0	3.4	.6
13. Support to implement the model can be obtained.	4.1	3.5	.6
14. There is a willingness to examine and redesign any aspect of the organization.	4.1	3.4	.7
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	4.2	3.3	.9
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	4.3	3.7	.6
17. Positive, committed leadership is necessary for program success.	4.2	3.6	.6
18. There is a clear understanding of what factors relate to academic success.	4.2	3.6	.6
19. Understanding human relationships is an important element in the program.	4.1	3.4	.7
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	4.2	3.6	.6
b. Process for change	4.2	3.5	.7
c. Problem solving model	4.1	3.4	.7
d. Climate for change	4.2	3.6	.6
e. Communication network	4.2	3.4	.8
f. Written board policy	4.1	3.5	.6
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.2	3.6	.6

are compared in respect to importance to design and effectiveness in implementation with differences noted. The greatest difference is recorded for the area of a procedure for effectively solving problems (1.0). Large differences also are seen between the variables of the worth of individuals being recognized (.9) and the district's organizational health (.9). The smallest differences are evidenced in the variables of a willingness to live with ambiguity and a willingness to live with frustration, both at .3. It is interesting to note that the mean for every variable in importance to design was larger than every corresponding mean in effectiveness in implementation.

The data in Table 4.21 is examined similarly to earlier entries. Total importance in the design of the Outcome Driven Developmental Model is the subject of the analysis but it is compared in respect to total elementary educators' perceptions versus total secondary educators' perceptions. The mean score of the thirty-one variables for each level of educators are compared with differences between the means indicated. The largest difference is for the variable that all students can learn (.9). The least difference is in the area of willingness to live with ambiguity (.0). Of particular note is the fact that the elementary educators' perceptions as seen by variables mean scores, are larger in every category than the secondary educators except for the variable area of a willingness to live with ambiguity and the variable areas of a willingness to live with frustration.

TABLE 4.21--Comparison of Total Secondary and Total Elementary Educators' Perceptions by Descriptor of Importance of Variables in the Design of the ODDM Reported by Mean Score

Descriptor	Mean Score		Difference
	Elementary*	Secondary*	
1. Decisions are based on research.	4.2	3.7	.5
2. The mission is to strive for all students to learn what is taught.	4.5	3.6	.9
3. Expertise and knowledge are the key sources of power.	4.2	3.6	.6
4. Success requires a long term commitment of:			
a. Time	4.3	3.8	.5
b. Follow up efforts	4.3	3.7	.6
c. Funding	4.2	3.7	.5
5. All employees in the district are encouraged to contribute ideas for change.	4.1	3.6	.5
6. There is a procedure for effectively identifying problems.	4.2	3.6	.6
7. There is a procedure for effectively solving problems.	4.3	3.8	.5
8. Present practices are examined to determine how well they serve the desired outcomes for students.	4.2	3.6	.6
9. There exists a willingness to live with:			
a. Change	4.2	3.6	.6
b. Ambiguity	3.2	3.2	0
c. Frustration	3.2	3.3	.1
d. Risk	4.0	3.4	.6
10. New organizational structures are created to accommodate how students actually learn.	4.2	3.6	.6
11. The value, worth and competencies of all professionals in the district are recognized.	4.2	3.7	.5

TABLE 4.21--continued

Descriptor	Mean Score		Difference
	Elementary*	Secondary*	
12. Sufficient qualified personnel are available to implement the model.	4.1	3.6	.5
13. Support to implement the model can be obtained.	4.2	3.6	.6
14. There is a willingness to examine and redesign any aspect of the organization.	4.2	3.7	.5
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	4.3	3.6	.7
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	4.4	3.7	.7
17. Positive, committed leadership is necessary for program success.	4.3	3.5	.8
18. There is a clear understanding of what factors relate to academic excellence.	4.3	3.6	.7
19. Understanding human relationships is an important element in the program.	4.2	3.8	.4
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	4.3	3.8	.5
b. Process for change	4.3	3.7	.6
c. Problem solving model	4.2	3.4	.8
d. Climate for change	4.3	3.5	.8
e. Communication network	4.3	3.5	.8
f. Written board policy	4.2	3.4	.8
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	4.3	3.5	.8

* 262 elementary respondents; 53 secondary respondents;
15 administrators not reported in this table

Correspondingly, Table 4.22 records a comparison of the perceptions of elementary educators and secondary educators to the effectiveness of the variables in the implementation of the Outcome Driven Developmental Model. The mean scores for each variable are compared for the two levels of educators with differences noted. The largest difference is for the variable that decisions are based on research (1.0). The smallest differences are seen for a willingness to live with ambiguity (.1), a willingness to live with frustration (.1), and evidence of a problem solving model (.1). Again, the perceptions of the elementary educators as evidenced by variables mean scores are larger in every category than the secondary educators except for the variable that success requires a long term commitment of follow-up efforts.

Table 4.23 reports a comparison of the climate scores for the introductory, participating, and sustaining groups. The mean score for each of the twenty-three climate indicators is given. The climate indicators evidence an increase in mean scores for twenty of the indicators from introductory to participating to sustaining group. Only three indicators do not reflect this pattern. The sustaining group climate indicator for frequent instructional faculty meetings (3.2) was slightly smaller than the corresponding mean for the participating group (3.3) but still larger than the mean of the same variable for the introductory group (2.7). On the indicator dealing with support on student discipline, the pattern is reversed with the introductory group mean (3.0) being the largest and the sustaining

TABLE 4.22--Comparison of Total Secondary and Total Elementary Educators' Perceptions by Descriptor of Effectiveness of Variables in the Implementation of the ODDM Reported by Mean Score

Descriptor	Mean Score		Difference
	Elementary*	Secondary*	
1. Decisions are based on research.	3.8	2.	1.0
2. The mission is to strive for all students to learn what is taught.	4.0	3.3	.7
3. Expertise and knowledge are the key sources of power.	3.7	3.0	.7
4. Success requires a long term commitment of:			
a. Time	3.7	3.1	.6
b. Follow up efforts	3.6	3.8	.2
c. Funding	3.4	3.0	.4
5. All employees in the district are encouraged to contribute ideas for change.	3.4	2.8	.6
6. There is a procedure for effectively identifying problems.	3.5	2.6	.9
7. There is a procedure for effectively solving problems.	3.3	2.6	.7
8. Present practices are examined to determine how well they serve the desired outcomes for students.	3.5	2.8	.7
9. There exists a willingness to live with:			
a. Change	3.5	2.8	.7
b. Ambiguity	2.8	2.7	.1
c. Frustration	2.9	2.8	.1
d. Risk	3.4	2.9	.5
10. New organizational structures are created to accommodate how students actually learn.	3.6	3.1	.5
11. The value, worth and competencies of all professionals in the district are recognized.	3.2	3.0	.2

TABLE 4.22--continued

Descriptor	Mean Score		Difference
	Elementary*	Secondary*	
12. Sufficient qualified personnel are available to implement the model.	3.5	3.1	.4
13. Support to implement the model can be obtained.	3.6	3.1	.5
14. There is a willingness to examine and redesign any aspect of the organization.	3.5	3.0	.5
15. The district's organizational health (climate, relationships, trust, etc.) is positive.	3.4	2.9	.5
16. Those individuals responsible for implementing the ODDM demonstrate a commitment to it.	3.8	3.2	.6
17. Positive, committed leadership is necessary for program success.	3.7	3.1	.6
18. There is a clear understanding of what factors relate to academic excellence.	3.7	3.1	.6
19. Understanding human relationships is an important element in the program.	3.5	3.1	.4
20. Effective management of the ODDM process of school improvement is evidenced by an appropriate:			
a. Staff development model	3.7	3.2	.5
b. Process for change	3.6	3.2	.4
c. Problem solving model	3.5	3.4	.1
d. Climate for change	3.7	3.2	.5
e. Communication network	3.5	3.2	.3
f. Written board policy	3.6	3.3	.4
21. A clear, viable set of beliefs about learning and the change process are associated with the ODDM.	3.7	3.3	.4

* 262 elementary respondents; 53 secondary respondents; 15 administrators not reported in this table.

TABLE 4.23--Comparison of Introductory, Participating, and Sustaining Group Perceptions of Climate by Descriptor Reported by Mean Score from Positive (4) to Negative (1)

Descriptor	Mean Score		
	Introductory	Participating	Sustaining
1. Mastery of basic skills is the focus of instruction.	2.9	3.3	3.6
2. Activities are correlated to objectives and paced to the developmental levels of students.	2.6	3.6	3.6
3. Special programs are coordinated with regular classroom instruction.	2.7	2.9	3.1
4. Appropriate materials and supplies to meet students' needs are available and in use for instruction in basic skills.	2.6	2.7	3.2
5. Teachers use strategies which allow students to experience frequent success.	2.8	3.3	3.5
6. Teachers demonstrate a variety of teaching methods which match student needs.	2.9	3.2	3.5
7. Teachers in this school consistently hold high expectations for all students.	2.9	3.3	3.4
8. Factors outside the classroom are rarely allowed to interrupt basic skills instruction.	2.7	2.8	3.0
9. Student test results are regularly used to give specific student feedback and plan appropriate instruction.	2.7	3.1	3.4
10. The principal makes frequent, informal observations in all classrooms.	2.8	3.1	3.2
11. Teachers work together to effectively coordinate the instruction between grades and programs.	2.7	3.0	3.2

TABLE 4.23--continued

Descriptor	Mean Score		
	Introductory	Participating	Sustaining
12. Frequently, faculty meetings are for the purpose of bringing instructional issues for discussion.	2.7	3.3	3.2
13. The administration provides support to teachers on student discipline.	3.0	2.9	2.8
14. Teachers have open channels of communication with administrators.	2.9	3.0	3.2
15. A written statement of purpose exists in this school, and it is the driving force behind most important decisions.	2.8	3.1	3.2
16. Planning for improved student performance is a collaborative process involving administrators, teachers, other professional staff, board of trustees, parents, and community members.	2.7	3.0	3.2
17. Teachers exhibit commitment to implementing school improvement activities.	3.1	3.1	3.3
18. Follow-ups on absenteeism and tardiness occur within a day.	2.7	2.7	3.0
19. Discipline is administered in a neutral manner and focused on the student's behavior, not on personality.	3.0	2.8	3.1
20. In this school, all students including low achieving students are respected.	2.9	3.2	3.4
21. The physical condition of this school is generally pleasant, safe, and clean.	3.1	3.2	3.2
22. Most parents understand and promote the school's instructional program.	2.8	2.9	3.0
23. School-wide students' test results are reported to parents, school board, and general public.	3.0	3.2	3.4
Overall Score	2.8	3.1	3.3

group mean (2.8) the smallest. The indicator pertaining to fair discipline shows the participating group indicator mean (2.8) smaller than that of the introductory group (3.0). The sustaining group (3.2) still has the largest mean in this area. The total group climate means for all three sample groups reflect the pattern of increasing means with the introductory group at 2.8, the participating group at 3.1, and the sustaining group at 3.3.

The next data reflect the results of a Multiple Analysis of Variance (MANOVA) of the ODDM variables by group designation. The basic assumption for MANOVA is that variance-covariance matrices are homogeneity. The test is significant past an alpha level of .001. Since unequal sample sizes exist (introductory group--77, participating group--123, sustaining group--130) the cell variances for each variable are examined for cell variances (see Table 4.24). For both importance to design and effectiveness in implementation for all three groups, cells with a smaller N yield larger variances and standard deviations.

Because of the liberalness of this significance test, the more conservative Pillai's Criterion is used as a test of multivariant significance. The results are significant ($p < .0005$) to such a degree that any identified difficulties are minimal. Differences can be attributed to group status. By progressing with a stepdown analysis, it can be discerned that importance to design total scores and effectiveness in implementation total scores are affected by group membership.

TABLE 4.24--Analysis of Variance of Total Scores of Importance to Design to the ODDM and Total Scores of Effectiveness in Implementation to the ODDM by Introductory, Participating and Sustaining Group Status

Group Status	Design/Implementation	Mean	Standard Deviation	Number
Introductory	Design	115.922	21.671	77
Participating	Design	127.805	17.900	123
Sustaining	Design	136.046	13.847	130
Total	Design	128.279	19.030	330
Introductory	Implementation	97.182	24.341	77
Participating	Implementation	99.593	22.365	123
Sustaining	Implementation	118.523	12.822	130
Total	Implementation	106.488	21.956	330

The final analysis of the data is a Chi Square of the individual variables in the ODDM Questionnaire to identify sources of significant differences between the three groups of educators at the item level. Levels 1, 2, and 3 of the ratings are collapsed into one "low" category with levels 4 and 5 combined into a "high" category. Since there are thirty-one different items on each scale, a relatively high alpha level of significance of .1125 is selected to control for type 1 errors. This conservative approach ensures that only significant differences are reported and the scale total score is reliable. The standardized residual is given to reflect significant differences between actual (observed) frequencies and theoretical (expected) frequencies for each cell. If the residual is greater than 0, there are more subjects in a cell than would be expected and if the residual is less than 0, there are fewer subjects than expected in the cell. If a cell is greater than 2 or less than -2, it is considered a major contributor to the significant Chi Square value. The thirty-one items are first examined in respect to importance to design of the ODDM and then the same analysis is applied for effectiveness in implementation of the ODDM to the items.

Table 4.25 displays an analysis of the significant Chi Square values for the thirty-one items of the ODDM is examined. The standardized residual is reported by group status (introductory, participating, and sustaining) and high/low categories. Seven of the items do not meet requirements for level of significance. These items are 4c, 9b, 9c, 9d, 11, 12 and 20a. A very definite pattern

TABLE 4.25--Analysis of Significant Chi Square Values for the Thirty-one Items of the ODDM Questionnaire for Importance to the Design of the ODDM Using the Standardized Residual and Reported by Group Status and High/Low Categories

Item No.	Item Description	Introductory Participating Sustaining		Introductory Participating Sustaining		High	High	Significance
		Low	Low	High	High			
1	Decisions based on research	2.5	.8	-2.7	-1.4	-.5	1.5	.00009
2	Mission that all students can learn	3.4	.6	-3.3	-1.7	-.3	1.6	.00000
3	Expertise and knowledge key sources of power	1.9	2.3	-3.7	-1.1	-1.4	2.2	.00000
4a	Success requires time	2.4	.4	2.2	-1.2	-.2	1.1	.00134
4b	Success requires follow-up efforts	2.0	1.1	-2.5	-1.0	-.6	1.3	.00073
4c	Success requires funding	1.5	-.6	-.6	-1.1	.4	.4	.09993
5	All employees encouraged to contribute ideas	2.6	.5	-2.4	-1.5	-.3	1.4	.00018
6	Procedure for identifying problems	2.1	1.3	-2.8	-1.2	-.8	1.7	.00008
7	Procedure for solving problems	2.5	.9	-2.9	-1.4	-.5	1.7	.00004
8	Present practices examined against outcomes	2.4	1.5	-3.3	-1.3	-.8	1.8	.00000
9a	Willingness to live with change	1.8	1.3	-2.7	-1.0	-.8	1.5	.00035
9b	Willingness to live with ambiguity	-.5	.6	-.1	.5	-.6	.1	.53641
9c	Willingness to live with frustration	-.5	-.2	.6	.6	.2	-.6	.51919
9d	Willingness to live with risk	1.5	.6	-1.7	-1.0	-.4	1.1	.02103
10	Structures created to accommodate learning	2.8	.4	-2.6	-1.6	-.2	1.5	.00007
11	Value of professionals recognized	1.6	.7	-1.9	.9	-.4	1.1	.01198
12	Sufficient personnel to implement model	1.8	.5	-1.8	-1.1	-.3	1.1	.01015

emerges for those items which show significance. This primary pattern reflects the fact that there are more introductory group educators than expected selecting one of the three low rating categories on the ODDM Questionnaire for that item. Fewer sustaining group educators than expected selected the lower category values on these same items. There are no major differences accountable to group membership in the participating group in the low categories for these items. There also are no major differences due to any group membership for educators in their selections for high category responses. This pattern can be seen in items 1, 2, 4a, 4b, 5, 6, 7, 8, 10, 13, 14, 15, 16, 17, 18, 20b, 20c, 20d, 20f, and 21.

Four other significant items reflect slightly different configurations than the aforementioned primary pattern. However, these four items reflect a very similar pattern and are not contradictory to the general trend described. Item 3 is the only item in which significant differences can be attributed to group membership in the participating group. This is seen in the low range category. Also in this item, less sustaining group educators than expected responded in the low range category and more sustaining group educators than expected responded in the high categories. Item 9a displays less responses for the sustaining group in the low category than would be expected and no significant differences in any other area. Item 19 shows only one significant cell with the introductory group responses in the low range being greater than expected. Three significant differences are evident in item 10e. The introductory group responses

are greater than expected in the low category. Also in the low category there are less responses for the sustaining group than expected. Actual responses in the high category are greater for the introductory group of educators than expected.

Table 4.26 reflects an analysis of the significant Chi Square values for the thirty-one items of the ODDM Questionnaire. Effectiveness in implementation of the ODDM is examined. The standardized residual is used and results are reported by group status (introductory, participating, and sustaining) and high/low categories. Six of the items do not meet requirements for significance. These items are 4b, 4c, 9b, 9c, 11, and 12. These items correspond almost directly to the non-significant items in importance to the design of the ODDM. A wider range of patterns for significant items is present than in the previous table but the general trend remains intact. Items 3, 8, 9a, 9d, 15, 17, 20d, and 20f have the same configurations. Differences between the participating group of educators' responses and the sustaining group of educators' responses move in opposite directions depending upon priority class response. There are more participating group responses than expected in the lower ranges and fewer responses than expected for this group in the high category. There are fewer responses by the sustaining group of educators in the low priority responses and more responses than expected for this group in the high category.

Items 6, 7, 10, 13, 14, 19, 20a, and 20e reflect a similar configuration. These items have as a source of significant difference

TABLE 4.26--Analysis of Significant Chi Square Values for the Thirty-one Items of the ODDM Questionnaire for Effectiveness in the Implementation of the ODDM Using the Standardized Residual and Reported by Group Status and High/Low Categories

Item No.	Item Description	Introductory		Participating		Sustaining		Introductory		Participating		Sustaining		Significance
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	
1	Decisions based on research	3.3	-3.1	.6	-2.8	-3.1	-2.8	.6	-2.8	2.6	2.6	.00000	.00000	
2	Mission that all student can learn	1.9	-2.7	1.3	-1.3	-2.7	-1.3	1.3	-1.3	1.8	1.8	.00011	.00011	
3	Expertise and knowledge key sources of power	1.7	-3.4	2.1	-1.7	-3.4	-1.7	2.1	-2.1	3.3	3.3	.00000	.00000	
4a	Success requires time	2.1	-3.2	1.6	-1.9	-3.2	-1.9	1.6	-1.4	2.8	2.8	.00000	.00000	
4b	Success requires follow-up efforts	1.1	-1.8	1.0	-1.1	-1.8	-1.1	1.0	-1.0	1.8	1.8	.00475	.00475	
4c	Success requires funding	.9	-.7	.0	-.9	-.7	-.9	.0	.0	.8	.8	.24463	.24463	
5	All employees encouraged to contribute ideas	1.0	-1.8	1.0	-1.1	-1.8	-1.1	1.0	-1.1	2.0	2.0	.00240	.00240	
6	Procedure for identifying problems	1.3	-2.3	1.3	-1.6	-2.3	-1.6	1.3	-1.5	2.6	2.6	.00005	.00005	
7	Procedure for solving problems	1.3	-2.4	1.5	-1.5	-2.4	-1.5	1.5	-1.6	2.8	2.8	.00001	.00001	
8	Present practices examined against outcomes	1.5	-3.1	2.0	-1.5	-3.1	-1.5	2.0	-2.0	3.1	3.1	.00000	.00000	
9a	Willingness to live with change	1.4	-3.2	2.2	-1.3	-3.2	-1.3	2.2	-2.1	3.1	3.1	.00000	.00000	
9b	Willingness to live with ambiguity	.0	-.9	.8	-.1	-.9	-.1	.8	-1.2	1.3	1.3	.10162	.10162	
9c	Willingness to live with frustration	.2	-.4	.3	-.2	-.4	-.2	.3	-.4	.6	.6	.64924	.64924	
9d	Willingness to live with risk	1.0	-3.0	2.3	-1.1	-3.0	-1.1	2.3	-2.5	3.3	3.3	.00000	.00000	
10	Structures created to accommodate learning	1.8	-3.2	1.9	-1.7	-3.2	-1.7	1.9	-1.8	3.1	3.1	.00000	.00000	
11	Value of professional recognized	.3	-1.3	1.1	-.4	-1.3	-.4	1.1	-1.2	1.4	1.4	.03794	.03794	
12	Sufficient personnel to implement model	.5	-1.5	1.1	-.5	-1.5	-.5	1.1	-1.1	1.4	1.4	.02657	.02657	

TABLE 4.26--continued

Item No.	Item Description	Introductory		Sustaining		Introductory		Participating		Sustaining		Significance
		Low	High	Low	High	Low	High	Low	High			
13	Support can be obtained	1.2	1.4	1.4	-2.3	-1.1	-1.4	2.1	2.1		.00029	
14	Willingness to redesign organization	1.3	1.8	1.8	-2.8	-1.3	-1.9	2.9	2.9		.00000	
15	District's health positive	.7	2.1	2.1	-2.5	-.7	-2.2	2.7	2.7		.00001	
16	Individuals demonstrate commitment	2.1	.7	.7	-2.4	-1.7	-.6	1.9	1.9		.00017	
17	Positive leadership necessary	1.4	2.2	2.2	-3.3	-1.3	-2.0	2.9	2.9		.00000	
18	Understanding of factors for academic excellence	2.4	1.9	1.9	-3.7	-2.2	-1.7	3.4	3.4		.00000	
19	Human relationships important	1.1	1.4	1.4	-2.2	-1.1	-1.4	2.2	2.2		.00030	
20a	Staff development model evident	1.7	1.6	1.6	-2.8	-1.4	-1.3	2.4	2.4		.00001	
20b	Process for change evident	2.2	1.8	1.8	-3.4	-2.0	-1.7	3.2	3.2		.00000	
20c	Problem solving model evident	.8	1.8	1.8	-2.4	-.8	-1.7	2.3	2.3		.00010	
20d	Climate for change evident	1.4	2.4	2.4	-3.4	-1.2	-2.1	3.0	3.0		.00000	
20e	Communications network evident	.7	1.6	1.6	-2.1	-.7	-1.6	2.1	2.1		.00054	
20f	Written board policy evident	1.3	2.2	2.2	-3.1	-1.2	-2.0	2.9	2.9		.00000	
21	Belief system in place	2.0	1.5	1.5	-3.0	-1.7	-1.3	2.5	2.5		.00000	

the sustaining group of educators. There are fewer responses for this group than expected in the low category and more responses than expected in the high category. Items 2, 4a, 5, 16 and 21 also show the major source of significance as being the sustaining group. All these items display more responses than expected in the high range for the sustaining group except 16, which correspondingly reflects fewer than expected responses for this group in the low category.

Three items--1, 18, and 26-- reflect more responses than expected for the introductory group of educators in the low range and less responses than anticipated for this group in the high range. These items also show less responses than expected in the low category for the sustaining group of educators as well as more responses than expected for this group in the high range.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Introduction

The purpose of this descriptive study was to examine the perceptions of educators from several school districts which have been involved to varying degrees with the Outcome Driven Developmental Model (ODDM). These perceptions were examined with respect to management of the change process in school improvement.

This concluding chapter is divided into five sections. The first section is a response to the specific research questions. The second section deals with a summary of the major findings. The third section includes conclusions based upon the major findings. Section four concerns the implications of the results. The final section focuses on pertinent recommendations.

Research Questions

1. Will those aspects of the Outcome Driven Developmental Model (ODDM) designated as primarily important to the design of the ODDM also be perceived as important by educators in the introductory, participating, and sustaining group?

All three sample groups rated the thirty-one variables examined as important to the design of the ODDM. The overall design of the ODDM was perceived as appropriate, and the elements were seen as important to the design. The variables of a willingness to live with

ambiguity and a willingness to live with frustration reflected the lowest mean scores of the variables in all three sample groups for both importance to design and effectiveness in implementation. These ratings reflected educators' concern over the planning design for managing the change process in school improvement. These two elements were vital to designing a plan to manage change. All groups perceived the elements in design as important. As a district progressed toward full implementation of the ODDM, a greater understanding of the components of the process was realized and these components were perceived as more important to the design of the ODDM.

2. Will those aspects of the ODDM designated as effective in the implementation of the ODDM also be perceived as effective by educators in the introductory, participating, and sustaining groups?

Educators in the three sample groups perceived the effectiveness of the elements in the implementation of the ODDM as being relatively high. Exceptions included the areas of a willingness to live with ambiguity and a willingness to live with frustration. These areas, which were related to the change process, caused anxiety during the implementation phase. All groups of educators reflected this concern. Again, the sustaining group reflected the highest mean scores concerning the elements of the ODDM being effective in implementation. The introductory group, the group least immersed in the ODDM, was the group which showed the lowest mean scores as to the effectiveness of the elements in the implementation of the ODDM.

3. Will those aspects of the ODDM designated as primarily important to the design of the ODDM also be perceived as being implemented effectively by educators in the introductory, participating, and sustaining groups?

All three sample groups rated the variables lower in implementation than in design. The educators perceived the importance of the various components in the design of the ODDM, but actual implementation of the components proved more difficult and thus lowered the ratings in this area. The low rated areas for design and implementation were a willingness to live with frustration and willingness to live with ambiguity. The change process created the greatest concern during orientation and implementation. As training in the ODDM continued with district personnel, there was greater understanding of the importance of the components in its design and less apprehension by educators concerning its implementation.

4. What key elements will be identified as critical to the success of the ODDM by educators in the introductory, participating, and sustaining groups?

No clear consensus concerning key elements was reached by the introductory group. These educators expressed a wide range of views evidencing a lack of focus as to any major components necessary for success of the ODDM. Specific individual concerns were a priority at this level. The participating group had greater agreement as to the key elements for ODDM success but still evidenced a wide range of responses. The focus for the participating group appeared

to be more on implementation than the other groups. This group also put particular emphasis on the importance of positive leadership in the process. The sustaining group reached the greatest consensus on key elements critical to the success of the ODDM. Emphasis was placed on altering of the belief system of individuals. This area was identified by far as the most critical component to success. Managing change was more important for success to the sustaining group than specific practices and procedures.

5. Will the perceptions of elementary educators as to the importance to the design and the effectiveness in the implementation of the ODDM of the variables vary from those of secondary educators in the introductory, participating and sustaining groups?

Perceptions of the secondary educators were universally lower than those of the elementary educators for all sample groups for both importance to design and effectiveness in implementation. Elementary educators accepted the change more readily and were more positive toward implementation. The secondary educators were more resistant to change and more critical of implementation components. Dealing with ambiguity and frustration was even a greater concern for the secondary educators than the elementary educators. Responses evidenced a belief by many secondary educators that there was no need to initiate any school improvement program.

6. Will the introductory, participating, and sustaining groups evidence commensurate scores on positive climate indicators for their particular schools?

An overall pattern emerged to differentiate between the three sample groups concerning climate indicators. The sustaining group schools tended to have the most positive overall climate scores. The participating group schools evidenced slightly higher climate scores than educators in the introductory group schools. The range of scores indicated that other variables influenced climate along with variables pertaining to the ODDM.

Summary of Major Findings

The descriptive study of educators' perceptions of the importance to design and effectiveness in implementation of thirty-one variables related to the Outcome Driven Developmental Model rendered several major findings. These findings included:

1. A definite pattern emerged concerning the effects of introductory, participating, or sustaining group membership on perceptions of variables. Results of the multiple analysis of variance test revealed that variances in importance to design scores and effectiveness in implementation scores were attributable to group membership. In the Chi Square test of the thirty-one variables, twenty-four of the thirty-one variables showed a significant difference due to group membership. Twenty-five of the thirty-one variables in effectiveness in implementation displayed a significant difference due to introductory, participating, or sustaining group membership. This statistical test also evidenced the pattern that scores became significantly greater from the introductory group to the participating

group to the sustaining group. The frequency distributions reinforced this pattern. In comparing the three sample groups as to importance to design, twenty-eight of the thirty-one variables followed the pattern of progressively larger mean scores from introductory group to participating group to sustaining group. In effectiveness in implementation, twenty-one of the thirty-one variables adhered to this pattern.

2. All three sample groups--introductory, participating, and sustaining--displayed larger mean scores for every variable related to importance to design than for the same variable related to effectiveness in implementation.

3. The greatest differences between the variables mean scores of importance to design and effectiveness in implementation for the three sample groups were in corresponding areas. The greatest difference in the introductory group was evidenced for the variable of a process for solving problems (1.0). In the participating group, the greatest differences between variables mean scores for importance to design and effectiveness in implementation were for the variables of positive organizational health (1.1), communications network (1.1), process for solving problems (1.0), and understanding human relationships (1.0). The sustaining group showed the greatest difference for the variable of a process for solving problems (1.1).

4. The variables of a willingness to live with frustration and a willingness to live with ambiguity were the two variables displaying the smallest mean scores in importance to the design of the ODDM

and effectiveness in the implementation of the ODDM for all three sample groups. In the introductory group, the mean scores for a willingness to live with ambiguity were 3.5 and 3.4, respectively, for importance to design and 2.9 and 2.8, respectively, for effectiveness in implementation. The mean scores in the participating group for importance to design of the variables a willingness to live with frustration (3.2) and a willingness to live with ambiguity (3.1), were the smallest means for this group as were the corresponding scores for effectiveness in design (frustration--2.9; ambiguity--2.8). The sustaining group reflected importance to design scores for a willingness to live with frustration of 3.1 and for a willingness to live with ambiguity of 3.2. For effectiveness in implementation in the sustaining group, the mean score for the variable a willingness to live with frustration was 2.9 and the variable a willingness to live with ambiguity was 2.9.

5. Secondary educators' mean scores for variables for importance to design and effectiveness in implementation were markedly smaller than variables mean scores for elementary educators. Twenty-nine of the thirty-one variables scores in importance to design were greater for the elementary educators than the corresponding variables scores for the secondary educators. The greatest difference in perceptions between the secondary and elementary educators related to importance in design was for the variable of all students can learn (.9). The elementary mean scores also were larger than the secondary scores for thirty of the thirty-one variables related to

effectiveness in implementation. The greatest difference in perception between the two groups of educators related to effectiveness in implementation was for the variable that decisions are based on research (1.0).

6. A greater consensus as to critical components of the ODDM was evidenced in narrative responses, increasing from the introductory group to the participating group to the sustaining group. The introductory group displayed the widest range of responses with no clear factors critical to the success of the ODDM being identified. The participating group evidenced greater agreement than the introductory group as to the components critical to success of the ODDM. Leadership was the category with the most frequency of category responses (28) pertaining to the question on key elements which caused change in the district. Leadership accounted for the highest number of responses for any category. The factor recognized by the participating group as the most important to implementation success was altering the belief system (24). The sustaining group displayed the greatest consensus of any of the three groups concerning key components of the ODDM. An altering of the belief system was the category recognized by the sustaining group as the most critical factor in ODDM overall success. An altering of the belief system was a major category for all six questions according to the sustaining group educators (question 1--19; question 2--22; question 3--21; question 4--46; question 5--25; and question 6--64).

7. The overall perceptions of school climate became more positive, increasing from introductory group to participating group to sustaining group. The introductory group overall climate score was 2.8. The participating group overall climate score was 3.1. The sustaining group overall climate score was 3.3.

Conclusions

Based upon the major findings of the study, several conclusions were formulated. The conclusions included:

1. An altering of individuals' belief systems was the single most critical factor in sustaining school improvement change.
2. Committed, knowledgeable leadership in school improvement was a key element in implementation of the school improvement process and managing the change process.
3. A process for solving problems was essential at all phases of the school improvement process and was often not implemented effectively.
4. Management of the school improvement change process during all phases was hampered by the ambiguity and frustration associated with the process.
5. Human relations considerations were particularly important during the implementation phase of the school improvement change process.
6. As educators in school districts progressed in the school improvement change process, they gained a greater understanding and acceptance of program design and implementation components.

7. Actual implementation of components in the school improvement change process was more difficult for educators than understanding and acceptance of components as they related to the design of the school improvement process.

8. Elementary educators more willingly accepted and more readily implemented components related to the school improvement process than did secondary educators.

9. Overall campus climate is not adversely affected by the school improvement change process.

Implications

The conclusion that the altering of the belief systems of individuals was critical to lasting school improvement is commensurate with the current research and literature. Miller, Cohen, and Sayre (1985) reported, "Any lasting change in a school will occur only because the staff itself changes norms of expectations" (p.40). While all three study sample groups' narrative responses reflected a concern with altering beliefs, the sustaining group was particularly adamant. Sustaining change does require participants to internalize the beliefs associated with the change (Lezotte & Bancroft, 1985; Parish & Arends, 1983). The internalization of beliefs was most evident in the study among sustaining group educators. Combs (1988) contended that the longer amount of time a district was in the school improvement process, the greater the probability for a change in individual belief systems. Many authors recognize the need to

alter the belief system of participants in change, and they advocate addressing the issue in the change process (Fullan, 1982; Crandall, 1983; Red & Shainline, 1987). Lieberman and Miller (1981) insisted that a change in belief systems is followed by a change in desired behavior and that this process can be expedited but not circumvented if change is to occur.

Educators implementing a school improvement process must recognize the importance of altering the belief system of participants. Engendering understanding, involvement, and ownership are more important than mandating adherence to specific procedures. Regardless of how valid a school improvement program is, it will not be successfully sustained unless the educators involved believe the program is valid. Readiness for entry into implementation of a school improvement process may best be judged by educators' beliefs concerning the program. The continuing barrage of new "innovations" reflects educators nominally changing behavior to mollify administration, rather than displaying the lasting positive behavior associated with a change in beliefs. Beliefs must be introduced, reinforced, and rewarded until they internalized.

It was not surprising that the study concluded that committed, knowledgeable leadership was a critical factor during implementation of the school improvement process and managing the change process. Matthew Miles (1983) found in his study of schools that leadership was a key ingredient for lasting change. Thomas McGreal's (1989) research revealed that outside consultants believe the successful

implementation of a school improvement program is directly related to the amount of commitment shown by the school leaders. Several authors stress the need for leaders to demonstrate commitment and knowledge of planned school improvement (Squires, Huitt, & Segars, 1985; Roueche & Baker, 1986; Honig, 1985). Carol Savage (1982) believed that leadership is essential for enacting positive change. The current study particularly emphasized leadership during the implementation phase. This role as change agent is recognized as critical by several authors (Shermerhorn, 1986; Hord, 1987; Sheive & Schochet, 1987; Gilmer & Deci, 1977). While several sources stress the need for continued strong leadership in order to sustain change (Fullan, 1982; Valencia & Killion, 1988; Loucks & Zacchei, 1983), the current study indicated that this need may not be as critical as in the implementation phase. While leadership was recognized as a component for success, the established research base and philosophical screen played a greater role with the sustaining group.

Leadership is obviously important to the practical implementation of a school improvement process. The literature indicated that leaders need not come exclusively from the administrative ranks (Rallis, 1988; Doyle & Hartle, 1985; Barth, 1988). However, educators in the study did not identify any leaders other than those who were currently school administrators or consultants. It is, therefore, very important to ensure the commitment and expertise of the administrative staff in a district before attempting to enact school improvement. Many responses by educators in the study related to what a highly determinial

effect a lack of commitment or lack of expertise on the part of school administrators could have on school improvement efforts. The leaders in administrative roles either greatly aided or greatly hindered the school improvement change process. The concept that administrative resistors can be bypassed in the process may be unrealistic.

While the literature identified the need for a problem solving process as a component of the ODDM (Champlin, 1987), this study highlighted the critical importance of this component in the school improvement change process. A problem solving model is introduced in phase II, pre-entry, of the ODDM implementation. Educators recognized this component as important to the design of the ODDM but all three sample groups did not perceive the problem solving process as being as relatively effective in the implementation of the ODDM as other elements. Sharman (1984) and others have outlined rational problem solving models to be used when implementing school improvement. However, the nonrational nature of the change process may cause these models not to function as effectively as expected (Patterson, Purkey, & Parker, 1986). Satisficing--accepting the first acceptable solution to a problem rather than searching for the best solution (Simon, 1947)--may be more prevalent than anticipated by school improvement program designers.

For the practitioner implementing school improvement, awareness of the critical importance of the problem solving process should dictate attention to this component. It is convenient, at times, to arbitrarily

formulate solutions for problems under the guise of the need for speed or special expertise. Yet, the solutions garnered from this approach to problem solving may not be nearly as important as having participants be a part of the process. Involvement and ownership may often be more important outcomes of problem solving than speed or even accuracy.

It comes as no surprise that the ambiguity and frustration associated with the change process adversely affected educators in the study sample group. However, the degree to which perceptions were expressed was not expected. Hoy and Miskel (1982) in defining a dynamic environment of change stated that by necessity tasks are continually being adjusted and redefined through constant interaction among organizational members and thus some ambiguity must occur. District goals also can be somewhat ambiguous and general in nature during change (Patterson, Parkey, & Parker, 1986). Frustration also is to be expected. Most individuals strive to bring order to their world and most change involves the realignment of roles and relationships. There is an initial feeling of insecurity and uncomfortableness which can lead to frustration (Wiles, Bondi, 1984; Gilmer & Deci, 1977). Personal uncertainty and frustration are predictable in the second stage of the stages of concern associated with change (Wu, 1988). However, the study revealed that educators' perceptions of ambiguity and frustration due to the change process continued on through initial implementation and on into the sustaining phase of the school improvement change process.

A degree of frustration and ambiguity will always be present for the practitioner implementing a school improvement change process. The nature of school improvement as a process rather than an event dictates this fact. However, leaders should not be dissuaded from recognizing these concerns and attempting to minimize their negative effects. Constant refocusing on issues and values is essential as is creating a risk free environment where uncertainty and frustration are tolerated. This is important even for districts which have progressed through initial change and are in stages of renewal. Continuing concerns over frustration and ambiguity in the change process may be linked to another area of concern evidenced by educators in the study--problem solving. The use of an effective problem solving process could serve to alleviate concerns over frustration and ambiguity.

Educators in the study evidenced human relations concerns during the initial implementation of the ODDM. These concerns became much less pronounced in the sustaining group sample. As early as 1956, Griffiths insisted that all educators "must have a strong and overwhelming belief in the supreme worth of all individuals" (p.14). More recently, Combs (1988) contended that many school improvement efforts fail because "they concentrate on things rather than people" (p.28). Research by Andrews and Soder (1987), Wallace (1984), and Stimson & Appelbaum (1988) reinforce the need to address human relations consideration in the school improvement change process if this process is to be effective.

In implementing school improvement, a leader must be cognizant of human relations consideration. Neglect of this element can cause failure. Trust is important to successful school improvement. Leaders must be careful not to lose sight of task requirements. Change will impact interpersonal relationships and consideration must be given to nurturing personnel. Task requirements should not be sacrificed toward this end. Human relations considerations and task requirements can be complementary in school improvement.

As educators in the study progressed in the school improvement change process, they gained a greater understanding and acceptance of program design and implementation components. Literature recognized the fact that change requires time, and that personnel will continue to grow throughout the process (Villencia & Killion, 1988; Red & Shainline, 1987). Shermerhorn (1986) contended that as staff members progressed through change they attempted to close the gap between actual practices and desired behaviors. He viewed knowledge and understanding as essential to the success of this discrepancy change model. Acceptance also comes with time in the change process. As the process continues, understanding and acceptance increase (Lieberman & Miller, 1981). Kanter (1983) advocated increased knowledge and personal acceptance as elements in her plan for managing change. New behaviors and beliefs need an opportunity through the process to become institutionalized before final understanding and acceptance are evident (Marx & Spady, 1981).

Practitioners implementing school improvement must realize that sharing of information is essential in the initial stages of

implementation. Results of the study corresponded directly with concepts associated with managing change. A deliberate attempt must be made to manage aspects of the change process to ensure increasing understanding and acceptance on the part of the staff.

Educators in the study perceived understanding the school improvement process as much easier than implementing it. Current literature supported this finding. Hord, Rutherford, Huling-Austin, and Hall (1987) reported, "One of the most persistent tendencies of those who do not appreciate the complexities of change is to equate change with handing over a new program which is an event" (p.6). Educators often do not realize the complexity of change in implementing school improvement and therefore find actual implementation difficult. Extra support and guidance in the change process must be available when participants move from the planning stage to actual implementation (Blanchard, 1978). The seven stages in the stages of concern model for change highlight the concerns associated with implementation.

Intense training and orientation to the school improvement process must be a vital part of any readiness activity prior to actual implementation. The greater the understanding of the process educators acquire, the less difficult implementation will be. Educators also stressed other elements important to successful implementation. A sound belief system should be in place. This belief system must be modeled by committed leaders. Collaboration also was mentioned as important to implementation success as was adequate time for implementation.

The study was quite clear that elementary educators more willingly accepted and more readily implemented components related to the school improvement process than did secondary educators. This finding, especially in respect to successful districts in the sustaining group sample, would tend to contradict literature related to total organizational commitment in the school improvement change process. English (1979) contended, "Unless a school system, as a system, can change its aggregate behavior, no improvement is possible overall" (p.410). One reason for the contradiction may be the nature of most of the studies on school improvement. Much of the current research effort and implementation suggestions apply to elementary schools only (Farrar, Neufeld, & Miles, 1984). A key to understanding secondary educators perceptions may lie in numerous responses in the study from secondary educators related to the lack of a perceived need to change behaviors. Lipham (1981), Wu (1988), and Pickhardt (1979) reported that in order for change to occur, people must be able to relate the change to a perceived need.

Practitioners must realize that in implementing school improvement, the readiness activities designed for elementary and secondary educators may differ. The child-centered needs established for elementary groups may not be appropriate for secondary personnel. Needs based upon a content orientation may prove more effective. Different campuses will naturally be ready for entry into implementation at differing times. Unless specific needs are established and belief systems altered, secondary campuses may never be ready for entry.

Results of the study revealed that overall campus climate was not adversely affected by the school improvement change process. Climate indicators showed that climate scores increased to the most positive level in the sustaining group. Conrath (1984) believed that the organizations with the healthiest climates were those which were in a constant state of renewal and change. Cuban (1988) stated that change may or may not be perceived as positive and thus may affect the climate of organization positively or negatively. The literature described turmoil in change being unavoidable any time the status quo is disrupted. Resistance naturally follows (Fullan, 1982). However, educators in this implementation phase of the ODDM process were more positive concerning campus climate than educators in the introductory group. Realizing that other variables in addition to the ODDM affected school climate scores in the study, it is reasonable to contend that schools involved in the school improvement process do not evidence a negative climate due to involvement in the process.

Educators involved in the school improvement process must be careful not to assume that a "happy" staff is necessarily a staff which is productive. School improvement must be the first priority with positive climate recognized as a beneficial by-product of the process.

Recommendations

An analysis of the major findings and implications of the study dictate several pertinent recommendations related to the actions of those personnel responsible for implementing the school improvement

change process. Recommendations in this section are divided into two groups. Policy related recommendations are listed first.

Recommendations pertaining to further research then are delineated.

Policy

1. District administrators should be trained and knowledgeable of the school improvement process before intense training is initiated with the staff. District administrators as well as consultants should be involved in staff training.

2. A human relations considerations process should be added as one of the administrative support systems in the ODDM.

3. Peer collaboration, visitations to sustaining schools, and administrative modeling should be incorporated as a part of the initial orientation phase of the school improvement process.

4. Participants' beliefs concerning the school improvement process should be assessed and evaluated prior to entry to each phase of the school improvement process.

5. Strategies aimed at establishing the need for school improvement should be formulated specifically for elementary and secondary personnel. Establishing a research base and altering teachers' expectations toward student learning should be a component of any strategies associated with secondary personnel.

6. Management of the change process in school improvement should include a greater consideration for initial understanding and acceptance by all staff of the concepts associated with process. These concepts should be reinforced throughout the process.

7. Establishing a support environment should be added as one of the administrative support systems in the ODDM with particular emphasis on a risk free environment.

Research

1. Research should be initiated in the area of student outcomes in relation to educators' perceptions of effectiveness in implementation of the ODDM components.

2. Research should be initiated concerning the role of the change agent in initiating and sustaining school improvement through the ODDM.

3. Research should be initiated to ascertain those elements critical in establishing the belief system of ODDM participants.

4. Research should be initiated to ascertain the role of school board and the community in the ODDM school improvement change process.

Contributions

The current descriptive research study serves to contribute to the growing body of educational research related to the school improvement change process. The findings will prove beneficial to those educational practitioners seeking to enact positive, lasting reform in schools. The relative contributions of the study can be classified in three areas--the school improvement process, the change process, and the Outcome Driven Developmental Model.

The study's findings impact several areas pertaining directly to the school improvement process regardless of the specific model employed. Altering the belief system of participants is the key to the

success of any school improvement program. During all phases of the improvement process, educators in the study reflected the importance of altering beliefs. The study emphasized that readiness must entail intense orientation in the school improvement process. A change in beliefs must be evident as seen through a growing commitment if the process is to continue.

Leadership may play an even more important role in the success of school improvement than indicated in the literature. The study indicates that leaders must be well trained in the school improvement process and must be active in training the staff. Leaders also must be committed to the improvement process and that commitment must be modeled to the staff. Positive leadership proved to be most critical in the implementation phase of the school improvement process. The position of the identified district administrators in a leadership role is key to implementation success.

The study clearly highlights the necessity for differentiated approaches to the school improvement process in respect to elementary and secondary personnel. In order to alter the belief systems of secondary personnel, a very definite need for change must be established. Specific teacher expectations concerning student learning must be changed. A generic approach to school improvement district-wide is not effective.

A second area of contribution by the study relates to the change process. Failure to manage the change process is very detrimental to improvement. The study stressed the need for leaders to plan and

prepare for change. The role of a leader as a change agent is important in the process.

There appeared to be a link in the study between educators' apprehension over the problem solving process and concerns related to ambiguity and frustration in the change process. The change process must include an effective problem solving model. Staff personnel must be trained extensively in the change process with this orientation continuing throughout the process.

A final area of contribution by the study pertains to the Outcome Driven Developmental Model. The elements related to the global school improvement process and the change process also apply to implementation of the Outcome Driven Developmental Model. In addition, the study dictated specific alterations in the Outcome Driven Developmental Model. The need for a human relations administrative support system as a part of the Model is evident. These considerations are especially important in the implementation phase. The need for the addition of an environment administrative support system is also evidenced by the results of the study. These two additions to the model will add to its effectiveness. The problem solving component of the model must be strengthened to address educators' concerns over ambiguity and frustration.

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APPENDIX A
ODDM EVALUATION QUESTIONNAIRE

Outcome Driven Developmental Model
Evaluation Questionnaire

Please circle one: Elementary Teacher, Secondary Teacher,
Principal, Central Office

Other: _____

Part One

Directions:

Please examine each of the following items in respect to your building (district if Central Office), and do two things:

First, go through the entire list and record your assessment of the IMPORTANCE that each item is as a descriptor, a purpose, or a use of the Outcome Driven Developmental Model. How IMPORTANT is the item from your point of view to a school improvement program? Circle the number that best represents your assessment of the item's importance in the school improvement process.

Second, please cover up your responses to "importance" and consider each item with respect to its EFFECTIVENESS as a descriptor, a purpose, a use, or effectiveness in the implementation of the Outcome Driven Developmental Model. How EFFECTIVE has the item been in implementation from your point of view? Circle the number that best represents your assessment of how effectively the item has been implemented.

If you have no assessment of importance or effectiveness to record or you do not know about the item, please do not circle any of the numbers, and go on to the next item.

With Respect to the Outcome Driven Developmental Model

IMPORTANCE to Design		Descriptor/Purpose/Use/Implementation Factor	EFFECTIVENESS in implementation	
High	Low		High	Low
5	4 3 2 1	1. Decisions are based on research.	5	4 3 2 1
5	4 3 2 1	2. The mission is to strive for all students to learn what is taught.	5	4 3 2 1
5	4 3 2 1	3. Expertise and knowledge are the key sources of power.	5	4 3 2 1
5	4 3 2 1	4. Success requires a long term commitment of:	5	4 3 2 1
		a. Time	5	4 3 2 1
5	4 3 2 1	b. Follow up efforts	5	4 3 2 1
5	4 3 2 1	c. Funding	5	4 3 2 1
5	4 3 2 1	5. All employees in the district are encouraged to contribute ideas for change.	5	4 3 2 1
5	4 3 2 1	6. There is a procedure for effectively <u>identifying</u> problems.	5	4 3 2 1
5	4 3 2 1	7. There is a procedure for effectively <u>solving</u> problems.	5	4 3 2 1
5	4 3 2 1	8. Present practices are examined to determine how well they serve the desired outcomes for students.	5	4 3 2 1
5	4 3 2 1	9. There exists a willingness to live with:	5	4 3 2 1
		a. Change	5	4 3 2 1
5	4 3 2 1	b. Ambiguity	5	4 3 2 1
5	4 3 2 1	c. Frustration	5	4 3 2 1
5	4 3 2 1	d. Risk	5	4 3 2 1
5	4 3 2 1	10. New organizational structures are created to accommodate how students actually learn.	5	4 3 2 1
5	4 3 2 1	11. The value, worth, and competencies of all professionals in the district are recognized.	5	4 3 2 1
5	4 3 2 1	12. Sufficient qualified personnel are available to implement the model.	5	4 3 2 1
5	4 3 2 1	13. Support to implement the model can be obtained.	5	4 3 2 1

With Respect to the Outcome Driven Developmental Model

IMPORTANCE to Design		Descriptor/Purpose/Use/Implementation Factor	EFFECTIVENESS in Implementation	
High	Low		High	Low
5	4 3 2 1	14. There is a willingness to examine and redesign any aspect of the organization.	5	4 3 2 1
5	4 3 2 1	15. The district's organizational health (climate, relationships, trust, etc.) is positive.	5	4 3 2 1
5	4 3 2 1	16. Those individuals responsible for implementing the Outcome Driven Developmental Model demonstrate a commitment to it.	5	4 3 2 1
5	4 3 2 1	17. Positive, committed leadership is necessary for program success.	5	4 3 2 1
5	4 3 2 1	18. There is a clear understanding of what factors relate to academic excellence.	5	4 3 2 1
5	4 3 2 1	19. Understanding human relationships is an important element in the program.	5	4 3 2 1
		20. Effective management of the Outcome Driven Developmental Model process of school improvement is evidenced by an appropriate:		
5	4 3 2 1	a. Staff development model	5	4 3 2 1
5	4 3 2 1	b. Process for change	5	4 3 2 1
5	4 3 2 1	c. Problem solving model	5	4 3 2 1
5	4 3 2 1	d. Climate for change	5	4 3 2 1
5	4 3 2 1	e. Communications network	5	4 3 2 1
5	4 3 2 1	f. Written board policy	5	4 3 2 1
5	4 3 2 1	21. A clear, viable set of beliefs about learning and the change process are associated with the Outcome Driven Developmental Model.	5	4 3 2 1

Part Two

Please answer the following questions:

1. If change has occurred in your district, what are the most critical elements or key factors that caused that change?

2. What are the most critical elements or key components of decision making in your district?

3. If you have changed your teaching or administrative style, what critical factors caused or allowed you to change?

4. What are the most important ingredients in the orientation to the Outcome Driven Developmental Model?

5. What are the most important ingredients in the training aspects of the Outcome Driven Developmental Model?

6. What are the most important factors involved in the implementation of the Outcome Driven Developmental Model?

Part Three

Please circle the appropriate response which reflects current conditions in your building.

Staff Climate Questionnaire

SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

- | | |
|---|---------------|
| 1. Mastery of basic skills is the focus of instruction. | 1. SD D A SA |
| 2. Activities are correlated to objectives and paced to the developmental levels of students. | 2. SD D A SA |
| 3. Special programs are coordinated with regular classroom instruction. | 3. SD D A SA |
| 4. Appropriate materials and supplies to meet students' needs are available and in use for instruction in basic skills. | 4. SD D A SA |
| 5. Teachers use strategies which allow students to experience frequent success. | 5. SD D A SA |
| 6. Teachers demonstrate a variety of teaching methods which match student needs. | 6. SD D A SA |
| 7. Teachers in this school consistently hold high expectations for all students. | 7. SD D A SA |
| 8. Factors outside the classroom are rarely allowed to interrupt basic skills instruction. | 8. SD D A SA |
| 9. Student test results are regularly used to give specific student feedback and plan appropriate instruction. | 9. SD D A SA |
| 10. The principal makes frequent, informal observations in all classrooms. | 10. SD D A SA |
| 11. Teachers work together to effectively coordinate the instruction between grades and programs. | 11. SD D A SA |
| 12. Frequently, faculty meetings are for the purpose of bringing instructional issues for discussion. | 12. SD D A SA |
| 13. The administration provides support to teachers on student discipline. | 13. SD D A SA |
| 14. Teachers have open channels of communication with administrators. | 14. SD D A SA |
| 15. A written statement of purpose exists in this school, and it is the driving force behind most important decisions. | 15. SD D A SA |
| 16. Planning for improved student performance is a collaborative process involving administrators, teachers, other professional staff, board of trustees, parents, and community members. | 16. SD D A SA |

SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

- | | |
|---|---------------|
| 17. Teachers exhibit commitment to implementing school improvement activities. | 17. SD D A SA |
| 18. Followups on absenteeism and tardiness normally occur within a day. | 18. SD D A SA |
| 19. Discipline is administered in a neutral manner and focused on the student's behavior, not on personality. | 19. SD D A SA |
| 20. In this school, all students including low achieving students, are respected. | 20. SD D A SA |
| 21. The physical condition of this school is generally pleasant, safe, and clean. | 21. SD D A SA |
| 22. Most parents understand and promote the school's instructional program. | 22. SD D A SA |
| 23. School-wide students' test results are reported to parents, the school board, and the general public. | 23. SD D A SA |

APPENDIX B
ODDM QUESTIONNAIRE ANALYSIS

ODDM Questionnaire Analysis Form

	<u>Yes</u>	<u>To Some Extenc</u>	<u>No</u>	<u>Uncertain</u>
1. Does the questionnaire address the major components of the Outcome Driven Developmental Model? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the questionnaire reflect an understanding of current research and literature in this area? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the vocabulary appropriate? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are the questions clear? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are the questions concise? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are the instructions clear? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Is the questionnaire appropriate for use in differing regions? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Can the questions be interpreted consistly by various educators? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the questionnaire nonthreatening? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Do the questions avoid biasing the response? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>Yes</u>	<u>To Some Extent</u>	<u>No</u>	<u>Uncertain</u>
11. Is the length appropriate? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Is the format appropriate? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Is the questionnaire overall suitable as a measure of educators' perceptions of the Outcome Driven Developmental model? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments:

ODDM Questionnaire Analysis Form Group

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George Gibbs
Assistant Superintendent
Alma Public Schools

William McKinstrie
Superintendent of Schools
Alma Public Schools

APPENDIX C
ODDM DISTRICT GROUP STATUS

ODDM District Group Status

Introductory Group

Bremerton Schools
Bremerton, Washington

North Sanpete Schools
Mt. Pleasant, Utah

Juab School District
Nephi, Utah

Participating Group

Pasco School District #1
Pasco, Washington

Hobart Township School Corp.
Hobart, Indiana

Lakeland School Corp.
La Grange, Indiana

Sustaining Group

La Joya I.S.D.
La Joya, Texas

