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ABSTRACT

Examining the effectiveness of an organizational development plan, this study notes the changes in school climate in two Pennsylvania schools--a junior high and a middle school. Having selected the schools for their troubled educational environments, the authors gathered data for 2 years from interviews with students and staff, from a formal assessment and school climate profile, and from such documented evidence of school climate as achievement scores, behavioral records, and attendance data. Three questions were asked of the organization and climate of each school: Will organizational change processes improve overall school climate? Do schools that change organizational processes improve achievement, attendance, behavior, and morale of students? What are the strengths and limitations of the planned change model being tested? The planned change model given to administrators at the two schools taught skills in leadership, problem-solving and decision-making. Following general conclusions, the appendixes contain the instruments used in data collection. (JW)

School Climate Renewal: A Longitudinal Study of Planned Change Strategies

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The school climate improvement project was an effort to improve school climate by creating a process of organizational change and continuous school renewal. Project goals included: selected organizational staff and student change strategies, increased opportunities for positive faculty and student involvement, increased interest and commitment to a broader range of academic and social tasks by using the current research; and development of a self-sustaining mechanism to continue refining and improving the school organization in subsequent years. Skills to accomplish the goals were acquired through: leadership training, using a problem solving model and employing a decision making process.

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School Climate Renewal: A Longitudinal Study of Planned Change Strategies

INTRODUCTION

Problem Statement

The problems of urban secondary schools continue to be one of the nation's major unresolved issues as the United States moves into the decade of the 1980's. The conditions in which urban teachers work and students learn are extreme. The problems are overwhelming with many seeming to defy solution.

Pennsylvania has not escaped the problems of disruption, violence and vandalism in its schools. In 1976, a survey was conducted for the United States Congress by the National Center for Educational Statistics (NCES). Heading the list of offenses against persons in Pennsylvania is assault on both teachers and students comprising 3.720 incidents. This figure is surpassed only by the number of burglaries (4,911) reported under offenses against property. These offenses are followed by 2,686 thefts, 1,596 incidents of drug abuse, 1,418 bomb uses or threats, 1,262 alcohol abuse incidents and 1,139 disorderly conduct suspensions. The study ends with an $8.8 million figure for school vandalism (Logan, 1977).

In addition, during the 1976-77 school year, over 1,500 public school students in Pennsylvania were committed to correctional institutions. On an average, Pennsylvania's cost to maintain one youth in a high security correctional institution for a year was more than $52,000 (PDW, 1983). The average cost of the educational program for one school aged institutionalized youth exceeded $4,700 while a regular educational program costs about $2,100 for each student (Kline, 1979).

In March of 1981, the Pennsylvania Commission on Crime and Delinquency and the Pennsylvania Department of Education funded a pilot project of school climate improvement for urban secondary schools in the Commonwealth. As the conditions of these schools continue to deteriorate or stabilize at a high frustration level for people, the Commissioner of Basic Education and the Executive Director of the Commission on Crime and Delinquency felt the time was overdue to develop a model for improving the overall climate of Pennsylvania urban secondary schools. Thus, in March, 1981, the authors were assigned the task of developing and administering the project.

The school climate improvement project was an attempt to improve school climate by creating a process of organizational change and continuous school renewal in two urban secondary schools. The goals of the project included:

1. Improvement of the overall school climate through selected organizational, staff and student change strategies
2. Development of an orderly school environment
3. Increased opportunities for positive faculty and student involvement
4. Increased interest and commitment to a broader range of academic and social tasks by using the current research on the best educational products and practices available

5. Development of a self-sustaining mechanism so that staff, students and parents can continue to refine and improve the school organization in subsequent years

It was expected that students involved in the project would demonstrate:

1. Decreased levels of delinquency
2. Increased achievement
3. Fewer behavior problems
4. Increased attendance rates

Purpose and Goals of the Study

In other states across the nation, researchers and practitioners have attempted to use various organizational change techniques to improve urban secondary school climate. Examples of ongoing urban secondary school change projects include the school climate improvement project in Colorado (Howard, 1978); organization development in schools in Oregon (Schmuck and Runkel, 1977); the High School Renewal Project in New York City (Bassin, Gross and Jordan, 1979); and School Renewal Team in Buffalo, New York (Milstein, 1979); Urban School Capacity Building in Chicago, Illinois (Wilson, 1978); The School Effectiveness Project in New Jersey (Corcoran, 1980); and The School Enhancement Project with twelve urban project sites across the country (Westinghouse, 1980). Each of the previous projects was an attempt to improve the school's learning climate through various models of planned change. Yet, each project differed based on the strategies used, the target group chosen at the school site, the problems focused on during the intervention and the degree to which they succeeded in helping a school improve its climate by building a capacity for sustained problem solving. Clearly, the results of each project have added to the literature on planned change for school climate improvement. In addition, the results have increased the knowledge base on successful intervention strategies.

Yet, more intervention work is needed. Organization development researcher, Richard Schmuck, has noted that "...the research on various approaches and models is sorely lacking and this gap must be filled..." (Schmuck, Francisco, Bell, 1979).

Based on the previous statement, there were two general factors that needed further study. First, the effectiveness of school renewal for climate improvement needs to be documented so that its credibility could be carefully scrutinized by educators. Second, more must be learned about which parts of change models in schools are successful and which are unproductive and why. The former data should focus on the overall effectiveness of the change process--the outcomes and changes or the macro factors. The latter data should focus on micro issues--which interventions work, which ones have problems, why and what can be done to improve specific interventions or components of the change process.

Most of the climate improvement and school renewal projects mentioned previously collected some data regarding the effects of the change process employed. In some projects (Schmuck and Runkel, 1977; Bassin et al., 1979; Milstein, 1979) the data primarily anecdotal or participant perceptions of a process. Outcome data played a secondary role. Other projects (Howard, 1978;

Corcoran, 1980; Westinghouse, 1980), on the other hand, were more concerned with gathering data on student outcomes while not collecting process evaluation or participant perception data regarding the changes taking place in the school.

This study, however, gathered both outcome and process data to document the overall effectiveness of the approach. Data were also gathered to assess which parts of the planned change approach were successful and which were not successful based on the perceptions of the participants.

Based on the previous discussion, the purpose of the study was to examine the effectiveness of an urban secondary school planned change process which sought to impact school climate. The study was not a definitive statistical inquiry. Rather, it was a case study of the strengths and limitations of a particular approach.

The study was an attempt to critique over two years an organizational change process which may later be tested under more rigorous experimental conditions in other studies. These conditions could include the use of control schools or the employment of a sophisticated causal evaluation model. However, for the present, this study provided additional data which supported a more objective stance for future hypothesis generation.

Answers to the following three questions were sought:

1. Will organizational change processes, implemented in a school, improve overall school climate?

   Or stated more specifically, will particular organizational changes such as instituting a school-wide problem solving process, a participative decision making model, an action planning process and ongoing data collection impact the overall school climate? Will the establishment of active ad hoc task forces and a school-wide steering committee consisting of teachers, administrators, parents and students improve the school climate? Finally, will the content areas the faculty chooses to work on--discipline, parent involvement, academic achievement and public image to name a few--have a positive effect on the overall school climate?

2. Do schools that make changes in their organizational processes show improvement in student achievement, attendance, behavior, delinquency and faculty morale?

   More specifically, when the school community internalizes new organizational behavior patterns in its system, will there be a concomitant change in student outcome data and other school condition data? Faculty absences and parental involvement in teacher-parent conferences are examples of school condition factors. Student outcome factors include standardized test scores, truancy levels, suspension rates, referrals to the principal's office, vandalism, weapon's abuse and assaults on students and teachers. Thus, this question will attempt to examine the link between newly established organizational changes and changes in school conditions and outcomes.

3. What are the strengths and limitations of the organizational planned change process as described in this study?

   Specifically, which components, interventions and strategies in the process worked well as measured by participant perception? Which components of the approach were unsuccessful? What aspects need to be increased or decreased? Which interventions should be added or stopped altogether? In essence, what has been learned about the relative effectiveness of individual components in the process? This information will be used to improve the process in subsequent years.

Methodology

Five data sources were used to answer the questions posed in the purpose and goals section.

1. Interviews with participants (teachers, students, administrators)
2. School climate profile instrument administered to teachers, students and administrators
3. Outcome or symptom data collected on school conditions of delinquency, achievement, behavior and attendance
4. Process evaluation data of participants' points of view regarding the strengths and limitations of the process
5. Educational Quality Assessment (EQA) survey data*

To answer questions one and two (outcome effectiveness of the process), certain baseline data were collected at the beginning of the project, interventions were made in the two schools over a two-year period, and then follow-up data were collected at the end of the first year and the second year. The pre- and post-data were compared to examine differences. For question three (strengths and limitations of the process), written participant perceptions were collected during the first year and second year of the project regarding successful and unsuccessful intervention strategies. In addition, participants were interviewed at the end of each year to assess their perceptions of the change process, strengths and weaknesses.

Overall, the collection of both types of data--outcome and process--allowed the consultants on the project, as well as other educators, to scrutinize more carefully the effectiveness of a school organizational change approach. The data collection also allowed others to study the successes and limitations of specific change components in these particular school settings.

The following illustration (Figure 1) shows the research questions and the data which were collected in an attempt to answer each question.

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* Pennsylvania's state assessment program, Educational Quality Assessment, provides school data in fourteen different areas including self-esteem, understanding others, reading, writing, mathematics, among others. In addition, data were available on thirty-five school condition variables which provide comparative information regarding teacher and student perceptions of the school, socio-economic indicators, student expectations and others.

Figure 1

Methodological Summary

Research Question (Assumption)	Data to be Collected
Question One Will organizational change processes implemented in school improve overall school climate?	1. Pre- and post-teacher, student and administrator individual interview sessions were used to assess the program and process changes under way in each school and their impact on climate. 2. Pre- and post-teacher, student and administrator written surveys were used to assess the program and process changes going on in the schools and their impact on climate. 3. Pre- and post-EQA survey data were used to assess the changes in perceptions of teachers on various climate factors.
Assumption: By making direct changes in the way things are done in the organization, change will result in school climate as measured by the interviews and survey.	Both the interviews and survey instrument deal with factors such as students involvement, problem solving ability, how decisions are made, active learning opportunities, how people are rewarded and punished in the schools, communications and the ability of school community to deal with conflict.
Question Two Do schools that make changes in their organizational processes show improvement in student achievement, attendance, behavior, delinquency and faculty morale?	1. Pre- and post-school outcome data were gathered. Specifically, these outcome or symptom data included student standardized test scores, vandalism costs, number of suspensions, average daily attendance, number of referrals to the principal's office, the number of students involved inappropriately with the local juvenile justice system and the number of faculty absences. Pre-data were gathered before the project began while post-data were collected at the end of each project year.
Assumption: Organizational changes will impact on school outcomes or symptoms as measured by the school outcome data.	
Question Three What are the strengths and limitations of the organizational planned change process described in this study?	1. Written process evaluation data were gathered from faculty and administrators during the course of the two years related to what is working well or not working well in the content and process of the approach.
Assumption: Gathering data from the participant's point of view will provide an accurate assessment of specific components of the process.	2. Informal interviews and observations were completed with teachers and administrators to assess their perceptions of the strengths and limitations of the planned change process.

A more detailed explanation of the methodology used in this study follows.

Question one states: will organizational change processes implemented in a school improve overall school climate.

Two methods of collecting and measuring school climate data were employed. The first method consisted of conducting individual interview sessions with all faculty, administrators and students in each school.

A team of four or five persons spent a day in each school conducting individual interviews of each faculty member and administrator. Several groups of six students each were also interviewed. The interviewing team consisted of individuals from the Pennsylvania Department of Education. They spent approximately 30 minutes asking each individual and student group the following questions:

1. What is working well:
   a. in your classroom
   b. in your department/grade level
   c. throughout the school
   d. between the school and community/parents?

2. What do you, as a school, need to do more of or start?

3. What do you, as a school, need to do less of or stop?

Answers were recorded on the interview forms (see Appendix A). Data from the interviews were then collated by the author and matched with the appropriate school climate factors developed by the Charles F. Kettering Foundation. These climate factors included program process and material determinants which have an impact on school climate.

It should be noted, however, that the reason for personal interviews was not only to collect data. A second reason for interviewing faculty at the start of the project was to build a level of trust in consultants by talking with a person one-on-one. Urban faculties were often characterized as being highly defensive, thus the need was seen for a personal type initial intervention rather than using only a faceless survey form. In addition, the questions asked were worded as positive as possible in order to reduce negativism and defensiveness. The feedback document and session was likewise designed to stress the positives. It was hoped that from this first "positive" contact with consultants, some strong bond would result along with a willingness to trust and risk some new changes.

The second method used to assess school climate data was the Charles F. Kettering Foundation questionnaire developed in 1973. Also known as the School Climate Description Profile (SCDP), this instrument was modified for length and readability. A copy of the revised instrument was placed in Appendix B.

The SCDP questionnaire measured the same factors that were assessed in the school interviews, thus providing an additional source of data on the current school climate.

In order to measure whether organizational changes resulted in overall improved school climate, a pre- and post-assessment took place. The collection of baseline data began with data collection before any changes had been introduced in the schools. The same set of interviews and questionnaires was

repeated at the end of each school year. Changes were compared between pre- and post-interviews and questionnaires. The comparison of interview responses was based on the frequency and category of statements. As previously mentioned, a framework of school climate determinants was used to categorize responses in clearly defined school climate areas. Within the school climate determinant areas, positive and negative response frequencies were calculated along with descriptive statistics.

A similar approach was utilized when analyzing the SCDP data. The change in scores from the pre- and post-surveys was graphed and descriptive statistics calculated.

Question two states: Do schools that make changes in their organizational process show improvement in student achievement, attendance, behavior and delinquency.

To answer that question, pre- and post-school outcome or symptom data were collected. Once the organizational strategies were in place interviews and questionnaires indicated that employees perceived there had been a change in the climate. It was considered important to assess what impact that perceived change had on student and faculty behavioral outcomes.

Student outcomes were measured by school symptom data collected for the 1980-81 school year. These data consisted of the number of times students were involved in:

1. cutting class
2. disrupting class
3. fighting
4. leaving class without permission
5. disrespectful behavior
6. leaving school without permission
7. weapons' violations
8. extortion
9. lateness
10. assault on a teacher
11. assault on a student
12. drug problems
13. threatening teacher or student
14. truancy

In addition, the following school climate symptoms were also collected:

1. the number of in-school and out-of-school suspensions
2. the amount of vandalism committed on school grounds
3. the average daily attendance rate
4. student expulsions
5. student academic achievement rate as measured by standardized state (EQA) and national tests
6. number of students involved inappropriately with the local juvenile justice system

Faculty outcomes regarding morale were measured by school symptom data collected on the rate of faculty absenteeism and the number of verbal and physical confrontations with students which result in students being sent to the principal's office.

Baseline symptom data for the 1980-81 school year were collected over the summer of 1981. Post-data for the 1981-82 and 1982-83 school years were collected during the summer of 1982 and 1983. The pre- and post-data were compared to examine changes in school climate behavioral symptoms.

The changes in symptom data were examined by producing descriptive statistics for each of the variables. In other words, descriptive statistics were calculated for each symptom variable. In analyzing the descriptive statistics, the May 1981 data were compared to the May 1982 and the May 1983 data.

Definitions

The following definitions are offered for clarification.

School climate is defined as being formed by peoples' norms, beliefs and attitudes which impact on the conditions, events and practices of the total school environment. The term "ethos" is used synonymously with the previous definition of climate.

Organization development is that body of knowledge which provides a systematic intervention model for implementing a planned change process in a school organization.

Symptom data are those baseline condition indicators which are related to the climate of a school. Indicators include suspension, office referrals, truancy, vandalism, student achievement and delinquency data.

Process evaluations are those interview and pencil and paper surveys which assess, in an ongoing way, the degree to which the strategies and interventions being used to reach the outcomes and goals of the program are working.

Process consultations are those interventions with the school community which aim at improving the group and intergroup procedures used by school personnel to reach their educational objectives and to solve their own problems. Process consultations deal with areas such as patterns of communications, leadership, role clarity, conflict, decision making and running effective meetings.

Limitations of the Study

An important limitation in this type of research was that taken alone, the case study method may not produce generalizable results. Although the study may be useful for hypothesis generation, data from case studies have limited generalizability. Case studies are, by their nature, situational and historical. After the behaviors and changes of a group and a process have been described, there is a movement into new personal relationships and processes. Perceptions change and environmental factors shift. In effect, the descriptive aspects of this research could only have been considered relevant in the specific setting and time in which they occurred.

Another limitation in the research was that the changes studied in the schools may not be a direct result of the intervention strategies employed. This is not a causal model. The writer cannot say that specific interventions caused specific changes in the school climate and school symptoms. However, since the writer was studying two separate schools where similar interventions were employed, it may be possible to make some cautious inferences regarding the connection between organizational interventions and climate changes if similar changes occurred in both schools.

In addition, the fact was acknowledged that it was impossible to observe, record and collect data on every factor in the schools. The very nature of the role of the project director/consultant preclude close observation of the change process. Rather, the writers relied on written process evaluations and monthly interviews and observations at the school sites. Perhaps, events which went unobserved and unrecorded were as educationally important as those which were described.

Additional limitations were imposed when instruments and techniques to measure school climate were selected and employed. In this study, the investigators attempted to use a wide range of social science research tools in an effort to learn a reasonable amount about the climate changes that took place in two urban secondary schools during a two year period.

Since this was designed to be a three year project, significant changes may not be observable until the third year or after the third year. This time limitation provided a major constraint in evaluating the organizational change process.

Finally, the study also reflected built-in biases which the investigators accepted when formulating the definition of climate and selecting the organizational intervention strategies. Another investigator with a different set of assumptions may have developed a different definition and intervention process.

REVIEW OF THE LITERATURE AND RELATED STUDIES

Purpose

The interview review was undertaken in three categories. These were: school effectiveness research, school climate literature and organizational change/school intervention literature.

The literature on school effectiveness was reviewed to provide a goal focus for the organizational change. The school effectiveness research provided a description of successful, achieving schools and helped answer questions regarding the characteristics of the ideal or most effective learning climate in a school.

The school climate literature was reviewed to provide a specific conceptual focus for the changes undertaken. Basically, in developing an intervention strategy, it was important to understand which processes and programs would have the greatest impact on a school's climate.

The organizational change/school intervention literature provided the process strategies for implementation of the change process. This research became the basis for the intervention strategies utilized in both schools. It also provided the philosophy and rationale for the overall change approach employed.

School Effectiveness Literature

After carefully examining the elementary school research of Edmonds (1979) and Brookover, et. al. (1979), it became necessary to look at studies which identified the characteristics of effective secondary schools in urban areas. Unfortunately, none of the secondary school studies had investigated the characteristics of effective urban secondary schools (Brookover, 1981). However, Brookover (1981) attempted a synthesis of effective schools research which he maintained was generalizable to an urban secondary school situation. He identified three sets of school social system characteristics and a number of variables under each of them. These characteristics were: ideology of the school, social structure and instructional practices. These are not independent variables in the school social system but an overlapping set of variables which interact in various ways in different schools.

The following is a synthesis of the characteristics and variables:

1. Ideology of Effective Schools

   - a belief that students can learn
   - a belief that teachers can teach their students
   - students believe they can learn and be successful in school
   - high expectation for student success and high academic standards
   - clear norms of behavior considered appropriate

2. Social Structure of Effective Schools

   - smaller size student body in the school
   - role of the principal as assertive instructional leader
   - role of the teacher as instructor of all students and responsible for effective student learning
   - role of the student as learner with the stress on academic achievement and appropriate behavior

3. Instructional Practices in Effective Schools

   - school goals and objectives are clarified and pursued
   - reinforcement--rewards and praise for students
   - direct, whole group instruction
   - increased engaged time on task
   - regular monitoring or assessment of student and school effectiveness
   - student team cooperation and learning (Brookover, 1981)

Despite the work of Brookover and Edmonds, there are many issues regarding school effectiveness research that need to be resolved. Methodology, transferability of results and definitions all require further study and refinement (Edmonds, 1981). In fact, school effectiveness research is still in its

infancy. The literature did, however, provide the current study with a goal focus for the proposed organizational interventions and changes. The characteristics of effective schools have given this study a direction. The school effectiveness research has not provided all the answers but a description of where an urban secondary school ought to be moving if it is intent on renewing its climate and improving student outcomes.

School Climate Literature

Over the past 20 years there have been many attempts to develop research tools to measure the climate of a school (Halpin and Croft, 1963; Fox et. al., 1973; Ginsburg et. al., 1981; Moos, 1979; Epstein and McPartland, 1978; Smith and Gregory, 1981).

Others (Howard, 1978; Rutter, et. al. 1979; Brookover, 1979) have attempted to define or describe the climate construct.

A positive school climate has been characterized by:

1. the ways that schools encourage student attendance, attention, commitment and progress (Epstein, 1980)

2. "everyone's focusing on school goals and student outcomes, as well as, on personal relationships and salutary feelings. The ideal school climate engages everyone enthusiastically in achieving the individual and group goals at hand" (Thomson, 1980)

3. the development of an environment where the norms and values of the school are communicated through clear, consistent expectations and appropriate role models and feedback (Rutter, 1979)

Basically, climate permeates all school buildings just as it does any social organization. It is a complex set of interrelated factors, not independent entities, which are not easily defined or studied, let alone changed. Basically, there are a multitude of variables operating simultaneously which become school climate. As a result, climate is not a simple construct but a complex web of interacting threads which affect the total school. In sum, climate is made up by people's norms, beliefs, attitudes and values which impact on the conditions, events and practices of the total school environment (Lezotte, 1980). Climate not only concerns beliefs, feelings and expectations about how people get along, but also how the organization, as a whole, works towards its common goals--how decisions get made, how problems are solved and how people get reinforced within the organizational structure.

Beyond assessing and describing school climate, there is the issue of what climate impacts or affects in the school. In a number of secondary schools across the country, educators (Howard, 1978; Stenson, 1980) have demonstrated that as the school climate becomes more positive, discipline problems, vandalism and violence subside. Attendance and academic achievement improve. The truancy and dropout rate decline. A recent study (Kaminsky, 1978) has shown that affective education and school climate improvement programs can reduce school crime by improving students' self esteem.

Other research (Rutter et. al., 1979) emphasizes the "ethos" or climate of the school as a social institution as the major factor in school outcomes such as attendance, behavior and achievement. Recent publications of research (Moos, 1979) suggest to educators that school environment/climate variables warrant strong consideration when attempting to impact school outcomes. Conversely the norms of academic and other school behaviors appear to play a significant part in the climate or "ethos" of a school (Brookover, 1981).

It was not the intent of this study to define school climate or develop a measure of school climate. Rather, generally accepted school climate variables were selected to be used as indicators for organizational change.

School Intervention/Organizational Change

The school intervention/organizational change literature provided the intervention strategies for implementation of the change process. This research became the basis for the intervention approaches utilized in both schools. The literature also provided the philosophy and rationale for the overall change plan employed.

There are many approaches to producing change in school organizations. Some approaches (Comer, 1980; Urich and Batchelder, 1979) focus on student change. Their assumption is that as the primary citizens of the school community, student change will produce lasting improvement.

Other change models (Kritek, 1976; Kettering Foundation, 1979) focus their educational change strategies on the principal as educational leader and change agent. Programs support a principal's ongoing need for personal and professional development along with goals for continuous school improvement.

Other researchers (Edmonds, 1981; Brookover, 1981) provide support to the notion that to improve schools the entire school organization should be the unit of change. "The discipline of organizational development adds sophisticated process to the substance of the (school effectiveness). . . factors" (Edmonds, 1981).

A project (Corcoran, 1979) developed by the New Jersey Education Association and Research for Better Schools in Philadelphia utilizes organization development (OD) interventions developed by the National Training Laboratories to promote change in urban secondary schools in New Jersey. The focus is on problem solving, consensus building and continuous school renewal.

Continuous school renewal projects (Fullan, 1978; Runkel, 1978; Bassin, 1979) using OD strategies have been implemented and reported on in other parts of the country. Each has attempted to improve schools through the use of organizational change strategies. For the most part, organizational change relates to the conditions, practices, rules, procedures, policies and relationships within the total school community.

Finally, in the largest study to date on dissemination and school improvement undertaken by the National Institute of Education (300 schools in 300 school districts nationwide), the institutionalization of organizational processes was described as vital in supporting a school change/improvement process. The researchers found that school change was successful when ". . . a

large and accessible knowledge base of R & D based educational products [were paired] with a problem solving process that relied on systematic decision making by a broadly based local team" (Rosenau, 1982). This aspect of organizational change, in addition to other processes mentioned in the previous research, became the foundation for the intervention strategies used in the study.

THE SETTING

This section describes the setting and population of the study. Basically, the study was completed in urban secondary schools--a grade 7 to 9 junior high school and a grade 6 to 8 middle school. The junior high was labeled School One and the middle school School Two, to protect their anonymity. Both schools are located in Pennsylvania third class cities and have a metropolitan population ranging from 100,000 to 500,000 people. Both student populations have parents in the lower socioeconomic status. Based on the EQA survey, parental education was at the first percentile at School One and at the thirty-fifth percentile at School Two.

Background School One

School One is an inner city situated in an urban school district of over 10,000 students. The school has a student body of about 620, a faculty of 46, a full-time principal and assistant principal. School One is a neighborhood school serving students in the immediate area in grades seven, eight and nine. About 80 percent of the student body is comprised of minority students, mostly Spanish-speaking.

The School One program offers a varied curriculum, including a choice of general or college preparatory programs in the ninth grade. Adequate industrial arts and home economics facilities exist and are heavily utilized. Although School One is an old building, the cafeteria and library facilities have been renovated and modernized. However, the building was in desperate need of a new roof, storm windows, and repair of floors and walls. A fresh coat of paint is badly needed throughout the school. The roof was repaired and new windows installed during the 1982-83 school year.

Extracurricular activities are limited at School One. Attempts by the faculty to establish clubs and to provide activities have met with general student apathy. Sports are extremely popular with most students and faculty members. The present sports program is instrumental in keeping school pride high and maintaining parent and community support. The sports program is also somewhat helpful in holding student interest in school. Fine arts programs are virtually nonexistent due to lack of equipment and support among the majority of faculty members.

Truancy and absenteeism are generally considered a serious problem. For the 1980-81 school year there were 4,172½ unlawful days of absence and 887½ days of unexcused absences. There was an average absenteeism rate of 11 percent or 69 students per day. Only 32 of these daily absences were excused. The remainder were unexcused. The faculty were absent a total of 314 days during the 1980-81 school year, or 7 days of absence per teacher as an average.

School One's grade eight is low in its Educational Quality Assessment (EQA) scores. Students in 1979 only scored at the first percentile in mathematics and knowledge of human accomplishments. Scores for understanding others were are at the fifteenth percentile. Students scored at the fifth percentile in the basic skills of reading and writing, mathematics, information usage and career awareness. In contrast, they scored at the ninety-fifth percentile on appreciating human accomplishments and surprisingly at the seventy-fifth percentile on interest in school and learning.

On the EQA teacher questionnaire, 58 percent of the teachers expressed dissatisfaction with their relationships with the students' parents and 68 percent felt that students were not interested in learning. In addition, 71 percent mentioned that parent/teacher interaction is too infrequent. A majority of teachers felt that parents showed little or no interest in their children's school work and that their students had poor study habits. Many teachers reported that their students were chronically absent from school.

Background School Two

School Two is a neighborhood school located in the west end of the city. It is, however, not an inner city school in the strict sense of being located in a downtown area. The school contains grades six, seven and eight and students ranging in age from ten to fourteen. There are about 530 students attending the middle school (over 7,000 students are enrolled throughout the entire district). The average daily attendance was 520 for the 1980-81 school year with the average daily membership at 562. Approximately 38 percent of the school population is black, 57 percent is white and 5 percent is Hispanic. The middle school has 36 teachers and 11 aides, one guidance person, a principal and one assistant principal.

The School Two program offers a varied curriculum, including a choice of academic electives and clubs. Adequate industrial arts and home economics facilities exist and are heavily utilized. Although School Two is an older building, some renovation has been completed and a newer addition provides attractive facilities. The maintenance staff does a good job of keeping the facility clean.

Extracurricular activities and sports participation appear strong at School Two. A full music and art program is also available to students. Other facilities, such as the school library, are well maintained and more than adequate. A large school yard is adjacent to the building and includes a variety of sport fields for after school activities and gym classes. These fields are not, however, used during the lunch recess because of complaints from the local community regarding student nuisance.

Discipline is generally considered a serious problem by the faculty. In the 1980-81 district Report of Suspensions, 73 out-of-school suspensions and 94 in-school suspensions were reported. There were 49 student suspensions for fights during the school year. Assaults on teachers numbered three with five assaults on students being reported. Other discipline problems included: cutting class, smoking, theft, leaving school or class without permission, disrespectful acts, destroying school property, carrying a weapon, drugs and threatening a teacher or student.

A look at the Educational Quality Assessment (EQA) results for the eighth grade at the middle school indicates a serious problem when the data are compared to statewide norms. Students only scored at the tenth percentile statewide for achievement in basic skill areas of mathematics and writing, knowledge of law and government and career awareness. They scored at the fifteenth percentile on understanding others and reading. On a more positive note, students scored at the thirty-fifth and eightieth percentile, respectively, on self-esteem and creative activities.

Teachers, too, expressed their frustration. On the EQA survey, 27 percent said they were dissatisfied with their relationships with the parents. Sixty-five percent felt that students were not interested in learning. Seventy-six percent mentioned that there was a problem because of parents taking little or no interest in their children's school work. Eighty-seven percent felt that students had poor study habits.

PLANNED CHANGE PROCESS

Introduction

School organizations, like people, have difficulty renewing themselves. They become mired in their own complacency or overwhelmed by their interpersonal and organizational problems. They have difficulty in sorting out priorities and focusing their work energy. School faculties are asked by superintendents and parents to change/improve their school when the school itself is in a constant state of change. The problem is one of how to bring order to a chaotic state of change. To this end, a school must develop systematic change strategies. Yet, this must be done in an organization that has often experienced a disordered, crisis-reactive change state in the past.

Two Strategies for Change

The primary strategy used to produce basic organizational change was organization development (OD) technology. These OD techniques were applied in two volunteer urban secondary schools--a middle and a junior high school--in two Pennsylvania school districts.

OD in school districts is described as a structured, coherent, systematically planned, sustained effort at system self-study and improvement which focuses explicitly on change in formal and informal procedures, processes, norms or structures, using behavioral science concepts and techniques. The goals of OD include improving both the quality of life of individuals and the quality of organizational functioning and performance (Fullan, 1981). The strategy used in this study was a carefully designed five stage OD change process (Entry, Diagnosis, Skill Acquisition, Implementation and Evaluation and Institutionalization) which enabled each school to increase its adaptability and respond more effectively to the changing demands of its total environment. This process of organizational self-renewal was affected through wide scale involvement in systematic problem solving and decision making within each school community.

The second strategy used to achieve change was to provide each faculty with the knowledge and assistance to be able to choose, adapt/adopt and implement the best educational products available from national research and

development centers. These well validated, carefully researched products and practices had been developed and tested over the past ten years in schools across the country while being evaluated by organizations such as the National Diffusion Network, the National Institute of Education, the National Education Association, Appalachia Educational Laboratories and Research for Better Schools. In addition, educational research universities had developed a number of products which had become nationally validated and available for adoption/adaption.

Based on careful diagnosis/assessment of the needs of their schools, a community could then focus their search for effective products and practices around specific problem or goal areas. Examples of nationally validated products and practices available for faculty to explore included: Student Team Learning, Classroom Management, Assertive Discipline, Mastery Learning, Values Clarification, Drug and Alcohol Abuse curricula, Criterion Referenced Testing packages and Cooperative Learning.

In addition, the two school communities were encouraged to use their own internal resources to develop solutions to problems in their environment. Assisting them in this endeavor was the Department of Education's Resource Center which could provide schools with a computer list of ideas, promising practices and human resources on a wide range of topics. Some of these topics included: increasing student involvement, expanding student reward systems, preventive discipline ideas, effective student councils, student contracting, school-within-a-school concept and motivational strategies for students. Resources were provided to teachers upon request.

Thus, by using both a process development strategy to support organizational change and a product availability strategy for organizational effectiveness, the basic foundation for overall school climate improvement was designed.

Basic Principles

The organizational change process was predicated on the following underlying principles about promoting change in complex systems. These assumptions form the basis for most OD work, although they have been adapted in this study to relate more closely to practices in urban schools.

The basic principles were:

1. There must be <u>support from the top</u> for the change effort to be successful. In addition to the superintendent being aware and supportive of the process, the principal must actively promote and model new collaboration and problem solving behaviors. The entire school community must see the new behavioral commitment of the principal, assistant principal(s) and, in some cases, the superintendent, and his/her staff before they may be willing to initiate change.

2. There must be a clear results orientation. Faculties, especially urban ones, need to achieve some concrete successes early in the process. They are not willing to wait in order to be trained in effective communication, conflict resolution techniques or running better meetings. Some problems need to be resolved solidly and quickly to help breed a success orientation.

3. There must be a change in individual behaviors before school norms, expectations and commitment will change. The process of changing people and organizational values will take place when school procedures and interactions are changed and people are willing to try new behaviors. The training process must focus on people in the school actively engaged in solving school problems while learning new skills to improve their personal and group effectiveness.

4. There must be a school wide team building event to initiate the process. To encourage a spirit of real collaboration, hope and commitment, a start-up event must be designed to engage the school community in diagnosis, planning, problem solving and decision making. This initial, intensive training event provides people with a new way of looking at and resolving old school problems.

5. The initial focus of the process is on school capacity building--the ability of the organization to be self-improving--so that it will use all its resources in a positive way. To that end, people spend time learning problem solving techniques, leadership skills, a school-wide decision making process, follow through skills, action planning and dealing with resistance as well as the concept of change itself.

6. The school community must be able to make use of the best educational products currently available. Rather than recreate the wheel, the school should be able to review well validated products and practices, adapt them and integrate them into their system to support the continuous self-renewal of their school.

7. The school community must be able to use their consultants to help them through the beginning and middle phases of the OD process and assist in institutionalizing or internalizing the processes and products in their school.

8. There must be widespread involvement of the entire school community--parents, students, faculty and administrators--for identifying problems and proposing solutions.

9. Organizational arrangements must be made to help implement the process. Planned change fails most often at the implementation stage. Therefore, issues such as planning, time for follow-through, role clarification of individuals and work groups, non-involvement, union contracts and monetary reimbursement must all be adequately dealt with.

10. Change takes place through a planned, systematic process of diagnosis, action planning, implementation and evaluation. Positive change does not happen haphazardly.

11. There must be a clear set of goal priorities. Everything cannot be resolved at the same time. A few priorities must be decided upon and those issues addressed first.

12. The process must be flexible and able to be adapted to the unique environment of a particular school. Since every aspect of the school is in a constant state of flux, the process must be able to change to meet the new needs of a dynamic organization.

13. There should be a practice that issues must be addressed in doable, small, bite-sized pieces. Solutions to problems are often impossible when large scale, general issues become the major focus, e.g. discipline. Every effort must be made to specify smaller areas to be resolved during problem solving, e.g. cafeteria behavior.

14. There must be a maintenance of effort. Changes must remain visible, well monitored and involvement must be kept high. Support must be designed to maintain the resolved problems, otherwise regression to old, comfortable behavior is inevitable.

The previous fourteen basic assumptions thus became the underlying practical philosophy in the development of the change process employed in the study.

The Process

The planned change process developed for this project consisted of five sequential steps which included (1) entry, (2) diagnosis, (3) skill acquisition, (4) implementation, (5) evaluation and institutionalization. Like most OD models, the process was cyclical and repetitive. Figure 2 provides an overview of the entire planned change process as well as showing the interaction with symptoms of poor school climate (delinquency, low achievement, poor behavior and low attendance).

An examination of the OD change processes employed shows the approach used in the study. Before explaining the process in depth, the following outline will provide a narrative overview and further explain Figure 2. (1) Entry. Schools were selected based on Pennsylvania Commission on Crime and Delinquency criteria (high absenteeism, low achievement scores, behavior problems and delinquency in the community). (2) Diagnosis. A needs assessment was conducted in the selected schools which included teacher, student and administrator interviews. Also, a school climate assessment instrument was administered, and data were collected on delinquency, achievement, behavior, attendance and other school conditions. (3) Skill Acquisition. School capacity building skills for administrators and teachers were developed through a series of workshop training sessions. The training was on problem solving processes, decision making procedures, organizational structure, action planning and leadership capability. (4) Implementation. Continuous school renewal was implemented. Ongoing skill training and consultation were provided. There was an effort to use research, internal resources and external products in the schools' efforts to become self-improving and to impact on the school climate. (5) Evaluation. An evaluation was conducted at the end of the first year of the project. Part of the evaluation included collecting data on delinquency, achievement, behavior, attendance (school climate symptom variables) and other school conditions. The school climate assessment instrument (post-test) was

administered to teachers, administrators and a student and parent sample. Finally, the process was repeated, beginning at the diagnostic phase, several times during the school year to help internalize and eventually institutionalize the process in the schools.

The following is an in-depth step-by-step narrative of the process used to effect organizational changes in two Pennsylvania urban schools.

Entry

In February of 1981, once funding for the project had been received, the school selection criteria for involvement in the project study was put into place by the staff of the Pennsylvania Commission on Crime and Delinquency and the Pennsylvania Department of Education. The following criteria became the basis for school selection:

1. the superintendent, principal and faculty were motivated and committed to change and improving school climate;

2. the schools were in an urban setting;

3. there was below average achievement in basic skills;

4. there were high levels of delinquency, and;

5. there were discipline and attendance problems serious enough to warrant attention.

Data used to choose the schools to be contacted included area delinquency data, absentee and discipline reports filed in the Department of Education and Educational Quality Assessment (EQA) reports on all urban districts. Because of political constraints, the consultants were asked not to consider Philadelphia or Pittsburgh as school sites during the first project year. Thus, 16 Pennsylvania urban districts remained to be assessed for potential selection.

In March and April of 1981, schools were selected based on the previously mentioned criteria. Five school districts were formally contacted. The other 11 urban districts were not contacted because they did not meet one or more of the above stated criteria. An initial series of meetings were held with each district superintendent, union leadership and building administrators from each district. The project and proposal were presented to these groups by the authors and questions were answered.

After these initial meetings, one district superintendent withdrew his support because of other commitments. One principal, although he was urged to participate by his superintendent, made it quite clear to the authors that he was interested in working on curriculum. He was not at all interested in organizational change in his school. By the end of these meetings, the administration and union at three school districts remained interested and supportive of the concept.

The next step was to provide the faculty in the three schools with a description of the project and allow them to vote, by closed ballot, whether they could actively support such a process in their school. A minimum

two-thirds positive vote was needed to begin work in a particular school. At each school, the principal and union leadership spoke in support of the process.

The first faculty voted for the project with a 79 percent majority. The second faculty rejected the project with a 49 percent vote. The third faculty voted 98 percent to begin the process of planned change in their school. In follow-up conversations with the principal in the school that voted 49 percent, it was evident that the faculty was not ready to take on a planned change process. The principal suggested that the faculty was involved in several new programs, they did not trust the current district leadership and they did not want to take on anything new until their building, which housed 1,700 students in an open space arrangement resembling an oversized aircraft hangar, was modified to provide a real teaching/learning environment. Thus, two schools were selected which met all the previously mentioned criteria.

Diagnosis

In May and June of 1981 the diagnostic or needs assessment phase began. First, every faculty member, administrator and three percent of the student populations in each school were interviewed. Question one in the interview was: "What do you as a school do well (in the classroom, among grade levels, in the school as a whole and between the school and community)?" Question two was: "What do you as a school need to do more of (or start)?" Question three was: "What do you as a school need to do less of (or stop)?"

Second, the School Climate Profile, adapted from the Kettering Foundation instrument, was administered to all school faculty, all building administrators and a three percent student sample in each of the schools.

Third, school symptom or condition data were collected for the school year. This included data on attendance for students and teachers, vandalism and violence data, discipline problems and suspensions and achievement tests and EQA results.

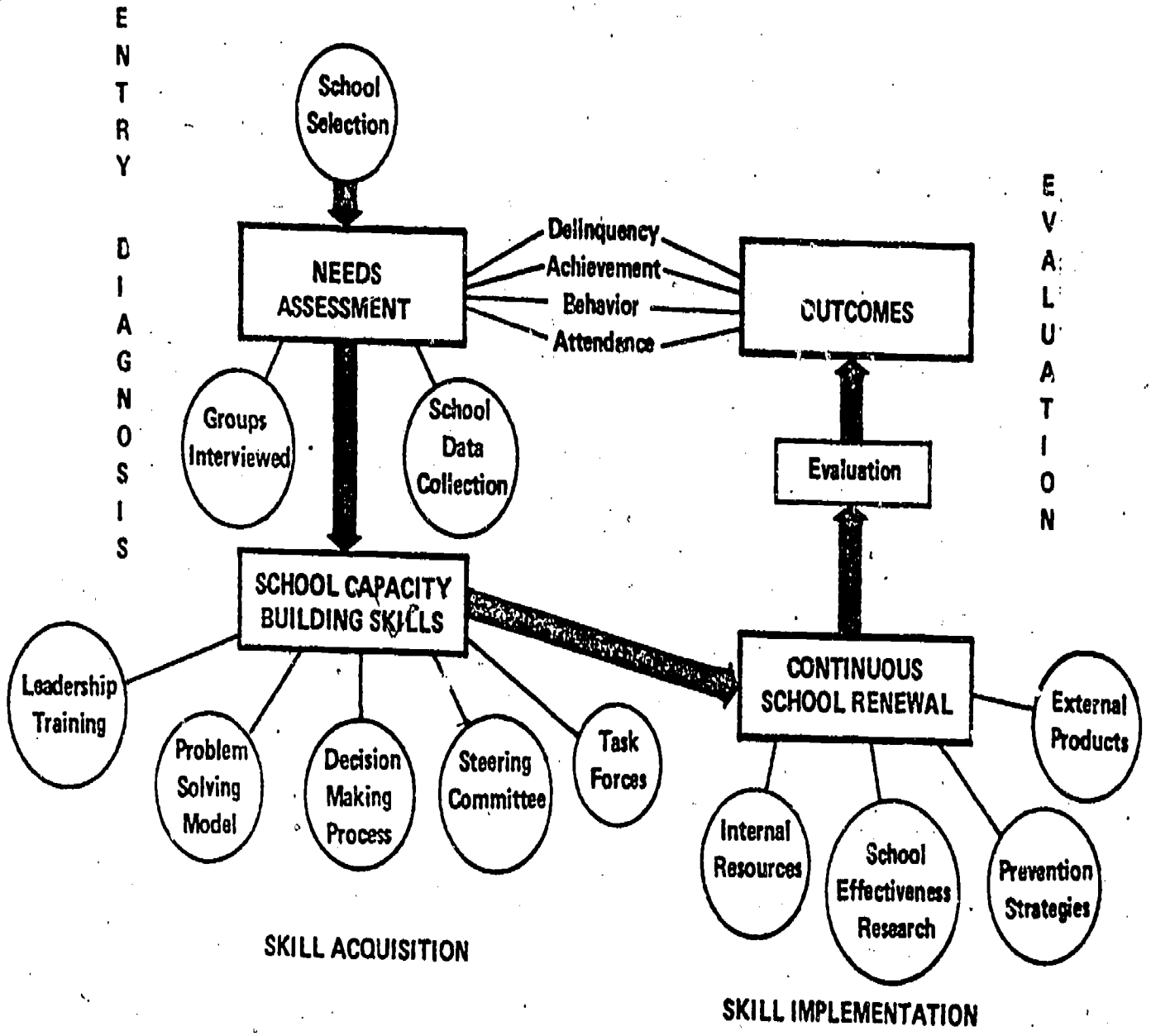
The collected data were shared with both faculties in early June before the end of the school year. This initial feedback session was designed to make them aware of issues on a school-wide basis, to begin to use a data-based approach to planning and prepare them for the summer training in leadership, problem solving, decision making and action planning.

Skill Acquisition

In mid-August 1981, the administrators from both schools and two faculty members from each school were taken on a four-day retreat to begin to build the base for the school wide planned change process to be initiated in early September. Basic planned change concepts were presented to the participants during almost 34 hours of intensive training. Concepts presented included: team building, supervision and achieving results, leadership styles, situational leadership, dealing with resistance, running effective meetings, problem solving processes, a decision making procedure, action planning and organizational planned change.

Figure 2

SCHOOL CLIMATE IMPROVEMENT MODEL



The participants looked at their own group process and how to facilitate change. They examined in-depth team building, problem solving and a decision making process. They also assessed their personal leadership styles using the results from three instruments they received prior to the session which were to be completed and brought to the seminar for use as a data base. These were the Effective Supervision Survey, Leader Effectiveness and Adaptability Description and the Life Orientation Survey (LIFO).

It was hoped that this group would become the core of an effective change cadre who would then model and support the process for others on the faculty, in the student body and in the community.

During the first week in September, each faculty participated in 12 hours of skill acquisition training. The concepts and skills presented were: prioritizing goals, developing a collaborative problem solving process, agreeing to a school-wide decision making procedure, understanding planned change concepts, developing action plans, dealing with resistance to change and data-based problem clarification. The two-day capacity building workshop was highly experiential in format. That is, the faculties, in learning the skills, participated at the same time in resolving actual school problems. The skill training was real; it was not theoretical or hypothetical. The faculties learned new skills by actually dealing with their own organizational and interpersonal issues.

More specifically, the faculties were taken through the following structured processes over the two-day period to learn the skills they would need to develop an ongoing process of school renewal and organizational change within their school.

A. Data Presentation

1. teacher interviews from April and May were summarized

   a. teachers reviewed, edited and ranked items from the interviews

   b. areas to consider for work were selected

2. school climate profile data were analyzed by faculty

   a. summaries were provided in graph form for teacher, administrator, parent and student results

   b. discrepancies were examined between the ideal and actual scores using graphs

B. Problem Solving Approach or Solution Identification and Group Consensus Building (see Appendix C for a more detailed explanation of the problem solving process) (Napier, 1980)

1. problem recognition through the use of previous data

2. identify ideal conditions

a. focus on the real problem

b. determine the ideal or perfect condition

c. determine the present condition

d. use the ideal as a standard for comparison

3. identify blockages to the ideal

4. blockages become goals to work on

5. goal prioritization

6. redefining the problem or further specifying the goals

7. identify blockages to the ideal being as behaviorally specific as possible

a. blockages identified

b. benefits of not changing identified

c. recall failures -- what's been tried before

8. creating alternatives

a. brainstorm as many solutions as possible

b. examine a wide range of solutions

9. exploring the consequences of alternatives

a. reality test the various ideas

b. explore how impractical solutions might be adapted or combined with other ideas

10. planning for implementation

a. develop strategies to insure that organizational resistance does not prevent success

b. a timeline is laid out

c. specific role responsibilities are defined.

d. persons responsible (accountability) are clearly determined.

11. monitoring and evaluating the implementation process

a. keep plans at the center of attention

b. adjustments are made if needed

c. measures of results (success) are developed

C. Decision Making Procedure

1. Clearly define principal's area of authority

a. legal

b. financial

c. philosophical

2. Principal and faculty agree to a double vote system

a. each proposed solution must receive a two-thirds positive faculty vote in order to be placed on the second ballot

b. all proposed solutions making the first two-thirds faculty voting cut must survive another two-thirds positive faculty vote before they can be implemented

c. agreement to try this new decision making system received about an 85 percent positive vote in each school

D. Action Planning

1. teachers received a short lecture on how to write action plans

2. the goal was to implement or modify school programs, policies or procedures

3. action plans specify the activities, timeline, persons responsible and measures of results for each solution accepted by the faculty (see Appendix D for examples of two actual action plans developed by faculty)

E. Steering Committee Roles and Functions

1. selection was based on teachers being selected by their peers to function on a school-wide oversight committee

2. the functions of the steering committee was to act as a clearinghouse for task force proposals

a. to encourage and support program maintenance

b. to edit and put in final form all proposals

c. to set up the double vote for faculty-wide involvement

d. to assist in resolving task force problems

e. to assist with data collection on school issues

f. to communicate the work of the task forces to the entire school community (teachers, parents, students)

g. to distribute the sign-up sheet for task force volunteers

h. to work closely with the principal and keep him informed of progress

F. Task Forces Roles and Functions

1. faculty serving on ad hoc task forces are the implementers of solutions

2. once a task is completed and results are in, the task force disbands or gathers additional data to check for unresolved needs in that particular area

3. parents and students may be asked to participate on a task force

Faculty were encouraged to get assistance eventually from students and parents as well as community members. This was seen as a primary element for producing change in schools. It was assumed that increased public awareness, parent involvement and student projects would help improve school image and, subsequently, school climate.

Skill acquisition was continued with faculty in-service meetings prior to the start of the 1982-83 school year. Problem solving and decision making processes were refined at this meeting. Also, plans were made for the 1982-83 school year along with a review of the 1981-82 activities.

Implementation

By the third week in September 1981, both schools had generated solutions, double voted, established a steering committee, task forces and action plans. Thus, they were involved in the implementation phase of the planned change process. An explanation of the interventions which took place between September 1981 and June 1982 and from September 1982 to June 1983 are the subject of the next section titled, Basic Interventions. Specific changes in each school during this phase were discussed.

It is sufficient to mention here that the following set of factors summarized the goals of the implementation phase between September 1981 and June 1982 and from September 1982 to June 1983.

The Project:

1. established a planned, assessment-based process for developing an ongoing school-wide problem solving attitude

2. developed a new decision making structure in each school

3. developed a long-term commitment to the change plan through the establishment of action-oriented task forces and a coordinating school-wide steering committee

4. used the "best" state of the art educational products and practices

5. made every effort to build on the principal's strengths and personality

6. developed self-renewing, self-improving groups (in each school) capable of making positive school changes to benefit students and teachers

7. developed faculty to work as an effective collaborative team

8. requested assistance from parents, students and community to help gather data to set goals, work on task forces and provide support for one another

9. developed real collegial working relationships between administrators and faculty

10. archived some immediate success as well as impacting on the school for long-term results

Evaluation and Institutionalization

During May and June of 1982 along with May and June of 1983, evaluation was the final phase in the planned change process. Evaluation was ongoing throughout the project study. First, there was evaluation of task force results by faculty. For example, did a task force succeed in setting up a school-within-a-school or did they complete their criterion-referenced tests or did they impact on absenteeism the way they expected they would by implementing a particular program? The questions were asked as part of the action plans developed.

Second, another part of the evaluation components were the process evaluations used to monitor and steer the course of the project while helping to determine the appropriate interventions at the appropriate times. Process evaluations conducted by the writer determined the levels of involvement, current attitudes toward the project, training needs, problems with time and money, potential serious problem areas and levels of satisfaction. Three formal process evaluations were conducted in each school between November 1981 and May 1982. Many informal process observations were made during bi-weekly school visits. This entire area will be discussed in more detail in the following section titled, Basic Interventions.

Third, an evaluation of the entire project's impact on each school was conducted in May 1982 and May of 1983. Pre- and post-data from interviews, the school climate profile, school symptom data and EQA were compared to see whether and which school climate variables would be impacted on by organizational changes.

Institutionalization was also an integral part of the planned change process since its inception. From the beginning, the very cyclical nature of the process attempted to help the school community become a self-renewing problem solving system. As the project progresses into its third year, more and more of the work done by the external consultants will be turned over to

the principal and faculty. The external consultants will gradually decrease their involvement and transfer more of the responsibility to members of the school. To that end, internalization of the process has already begun in the schools. Problem solving groups have met on their own, the decision making process was conducted by the full faculty and more faculty members have begun to take leadership responsibility for moving the process forward.

Basic Interventions

Both formal and informal interventions were utilized by the external consultants to keep the process on course and moving forward in a positive way. Formal interventions by consultants consisted of training sessions, product and practice distribution, assessments-evaluations with feedback, process and role consultations, and meetings with the central office. Informal interventions by consultants were considered to be general encouraging statements, dropping by the school or a task force meeting, developing commonly shared interest areas with faculty (family, hobbies, activities, etc.) and going out to eat and drink with the faculty as a whole and with individuals.

Interventions, during the first year, were aimed primarily at faculty and building administrators although other groups were involved in the diagnostic phase. Faculty and principals were chosen as the initial change group mainly because they wield the most power in a traditional school. Faculty were also chosen as the recipients of major interventions because it was felt that this would create the least dependency within the school community on external consultants. First, teachers and principals were accustomed to consultants coming in and leaving. Second, teachers were encouraged to include students and parents in their work; thus, allowing faculty members their own autonomous interventions with forces they often feel are beyond their control. Third, students and parents tend to be more transient than teachers. As a result, interventions were made on the person(s) who would have the greatest longevity and stability for establishing a process of organizational renewal in the schools.

Training interventions were primarily used to develop common process skills in problem solving, goal setting, communication, action planning and decision making among the faculty and principals. Training took place in August, September, October and November during the first half of the school year and was followed by training in January, March and May of 1982. Each training session helped towards solving school-wide problems. Training was continued in August and September of 1982.

New product distribution provided the faculty with a large variety of well-validated educational ideas and practices which they could review and pilot test to see if it met their needs. Information was distributed to task forces and the steering committees regarding assertive and preventive discipline, student reward practices, in-school suspension models, effective school newspapers and student councils and instructional strategies for improving basic skills. The product distribution intervention was not utilized to any great extent by either faculty. Although information was requested, only a few practices were adapted into the school. The majority of solutions came from their own problem solving and internal resources.

Figure 3

Summary of the Planned Change Strategies

Entry	. School selection criteria . Acceptance of project by superintendent, school board, principal, union and two-thirds of faculty
Diagnosis	. All faculty and percentage of students interviewed . School Climate instrument completed by faculty, administrators and students . Symptom data gathered related to attendance, student achievement, delinquency and behavior
Skill Acquisition	. Leadership training was provided to administrators and core faculty group . School faculty training on prioritizing goals, planned change, problem solving, decision making and action planning . Learnings reinforced that change can occur and collaborative planning should be data-based . Organizational change was the focus of the school climate efforts using the concept of task forces and a school-wide steering committee
Implementation	. Teachers used problem solving, prioritizing and group consensus building skills to implement targets for change . A participative decision making model was integrated into the school . A steering committee was formed to supervise and monitor the task force work . New products and procedures were adapted/adopted into school setting through task force structures . Consultants were made appropriate interventions during the implementation phase
Evaluation and Institutionalization	. Project employees served as process evaluators and helped monitor the process . Teachers collected data on the results of changes to steer the course of the process and measure the results . Process was institutionalized and the diagnostic phase repeated

Assessment and process evaluation interventions provided faculty with the chance to stop for a moment to see how they were doing, where they were going and what seemed to be stopping them from getting there. These interventions were especially helpful as a reality test to general negative statements raised at a faculty meeting like, "Well, no one is working the project anymore." or "No one believes we've made any changes." This constant reality testing kept the faculty moving ahead in most instances while keeping them from becoming bogged down with the generally negative members of the staff.

Process and role consultations were especially useful in clarifying the functions of the task forces, the steering committee and the principal. Process consultations were used to help improve communication at a task force meeting, clarify the issues in steering committee and resolve conflicts as they arose. Role consultations with the principal of School Two were extremely helpful in keeping the project on track since he was experiencing some difficulty with some of this faculty regarding his "new" role.

Finally, meetings with the district offices tended to solidify "support from the top". Release time was granted, classrooms were painted, a parking lot was blacktopped and a bell system was repaired. These interventions helped faculty see the commitment that the superintendent had for the process.

FINDINGS

Introduction: Impact at School One

During the faculty problem solving event in September 1981 before school began, teachers and administrators spent the first morning deciding on the goals of the school for the 1981-82 year. The goals chosen using the concensus process were: (1) increased student self-concept, (2) improved school media image, and (3) increased academic standards. This first step of issue prioritization was important because faculty energy needed to be focused around a common set of goals. The faculty, as a whole, then, became committed to a few priorities. School resources were channeled in a clear direction rather than diffused in many areas. The three goal priorities became the basis for problem solving to develop solutions.

By the end of the four-hour problem solving process on the second day, eight task forces had been created to implement the solutions generated around the goal areas. These were:

1. A task force to examine school-wide standards for homework and written work in order to recommend improvements.*

2. A task force to develop better school-community relationships by bringing community resource persons into contact with the school through a variety of methods.

* By January 1982, the faculty expanded the role of this task force to study and then implement ways to increase academic achievement among students on a school-wide basis.

3. A task force to study and develop new programs to reward student success in individual classrooms as well as in school-wide functions.

4. A task force to develop programs that place students in more visible leadership roles.

5. A task force to develop a seventh grade orientation program that would continue throughout the year.

6. A task force to develop a more positive image of the junior high school through the use of mass media.

7. A task force to create a school newspaper as well as a monthly calendar of events.

8. A task force to improve the articulation of work between the junior and senior high schools.

The previous eight task forces, involving over 80 percent of the faculty, became the primary change force in the school. The task forces carried out their concensus built action plans with the prime goal being to impact school climate--satisfaction and productivity improvement for students and teachers. The results of those structural and organizational changes and their impact on climate follow.

A similar procedure was employed in September of 1982 to establish goals for the 1982-83 school year at the same time those goals that were to be continued from the 1981-82 school year were selected.

Organizational Change and Improved School Climate

Question one stated: Will an organizational change process implemented in a school improve overall climate? Three types of data collection devices were used to answer the previous question: a paper and pencil questionnaire, the Educational Quality Assessment survey, and personal interviews.

School Climate Description Profile

The School Climate Description Profile (SCDP) was completed by 30 teachers in 1981, 25 teachers in 1982 and another 27 teachers in 1983. Total responses numbered 38 in 1982 and included administrators, parents, students and staff, in addition to teachers. Teachers made up the largest response group (66 percent). They were also the group which received the majority of direct change interventions by the consultants. Thus, their responses were analyzed for impact.

Of the 26 climate conditions measured on the SCDP in Table 1, teachers showed improvements or no change in 20 factors when 1981 teacher perceptions were compared to 1983 perceptions of climate conditions.

Of the General Climate Conditions, there was a 10 percent increase in respect, a 13 percent increase in trust, a 13 percent increase in morale, a 1 percent increase in input, no increase in growth, an 8 percent increase in cohesiveness, a 7 percent increase in renewal, and a 1 percent increase in caring scores.

Of the Program Determinants, there was a 2 percent decrease in the amount of active learning, a 5 percent increase in teacher expectations for students, a 4 percent increase in varied learning environments, and a 4 percent decrease in flexible curriculum. There was, however, a 10 percent increase in support and structure for students, a 1 percent increase in rules collaboratively determined, and a 5 percent increase in visible rewards for students beyond academic and athletic.

In looking at the Process Determinants, there was an 11 percent increase in problem solving, a 4 percent increase in cooperative goal setting, a 1 percent improvement in handling conflict, an 8 percent increase in communications, an 8 percent decrease in shared decision making, a 6 percent increase in instructional strategies and a 17 percent increase in planning for the future. There was, however, a 12 percent decrease in school-wide autonomy for teachers and students.

In general, the larger increases appeared in the General Climate Factors and Process Climate Factors. Whereas, the smaller increases or decreases appeared in the Program Climate Factors. Since little actual work took place in substantive areas of curriculum, learning structures and environments, this finding was not unexpected.

Overall, then, the questionnaire data showed an increase or no change in 20 of the 26 school climate conditions. This indicated an improving trend based on teacher perception of the school climate. Generally, other groups in the school also noted this improving trend. Parents and students perceived positive changes in the General, Program and Process Climate Conditions.

Educational Quality Assessment

The Educational Quality Assessment survey was completed by 31 out of 42 teachers. It provided an unobtrusive assessment of the perceived school climate based on seven major condition variables measured in the school in 1978, 1982 and 1983.*

* EQA data were considered highly unobtrusive since the EQA survey was not connected with the current project but was seen as a separate state assessment by teachers.

Table 1

School One

School Climate Description Profile

Teacher Data - What Is

Area	Raw Score 1981	1982	1983	Changes in Percentage
General Climate Factors				
Respect	8.9	9.7	9.8	10
Trust	7.1	7.5	8.0	13
High Morale	6.1	6.2	6.9	13
Opportunity for Input	6.9	7.7	7.0	1
Academic and Social Growth	6.6	6.6	6.6	0
Cohesiveness	8.6	9.0	9.3	8
School Renewal	6.9	7.3	7.4	7
Caring	9.2	9.3	9.3	1
Program Determinants				
Active Learning	6.3	5.8	6.2	-2
Individualized Performance Expectations	7.5	7.4	7.9	5
Varied Learning Environments	7.6	7.1	7.9	4
Flexible Curriculum	7.9	7.7	7.6	-4
Appropriate Support and Structure	7.3	8.0	8.0	10
Rules Cooperatively Determined	7.7	7.8	7.6	-1
Varied Reward Systems	6.4	6.6	6.7	5
Process Determinants				
Problem Solving Ability	5.6	6.4	6.2	11
Improvement of School Goals	5.5	5.6	5.7	4
Identifying and Working with Conflicts	8.4	8.8	8.5	1
Effective Communications	9.5	9.7	10.3	8
Involvement in Decision Making	4.9	4.9	4.5	-8

Table 1 (Continued)

Teacher Data - What Is

Area	Raw Score 1981	1982	1983	Changes in Percentage
Process Determinants (Continued)				
Autonomy with Accountability	6.6	6.1	5.8	-12
Effective Teaching-Learning Strategies	6.3	6.9	6.7	6
Ability to Plan for the Future	5.4	6.5	6.3	17
Materials Determinants				
Adequate Resources	5.1	6.4	6.3	23
Supportive Logistical System	5.7	6.7	7.0	23
Suitability of School Plant	7.2	6.7	6.3	-12

1981 n = 30, 1982 n = 25, 1983 n = 27

The theoretical score range for each area was from three to twelve.

Generally, teachers perceived an improvement or little change in the basic conditions of the school as seen in Table 2. Teachers noted the largest positive change (reflected in the school's percentile rank) from the 25th to 70th percentile, occurred in activities external to the classroom.* There was a significant improvement in staff interpersonal relationships (50th to 90th percentile) and in teacher influence upon classroom decisions (20th to 35th percentile). Also improving was the discipline problem category (5th to the 15th percentile) and teacher/student/parent relationships and factor disruptive to classroom management both going from the 1st percentile to the 5th percentile. Remaining constant at the 5th percentile was teacher satisfaction with relationships with parents.

Overall, the EQA data provided support for the school-wide improving trend noted in the previous data. More specifically, those areas which teachers had some control over (discipline, extracurricular activities and staff relationships) showed an improving trend. Whereas, those areas which are somewhat beyond the traditional influence of teachers (student/parent relationships and outside disruptive factors) were more difficult to impact.

It was of interest to note that students scores improved in self-esteem from the 25th to the 55th percentile, interest in school and learning from the 75th to 95th percentile and creative activities from the 70th to 95th percentile. The first two affective areas may reflect teacher-student relationships and the school operation.

Interviews

Another method of documenting impact was to ask the faculty and students about the changes in the school and the consequences of being involved in this project. All teachers, staff, and administrators were individually interviewed at the conclusion of the 1980-81, 1981-82 and 1982-83 school years. In addition, a random sample of about 8 percent of the students was interviewed. Students were asked what they liked and disliked about their school and how school had changed during the last year. Faculty were asked to describe successful activities at the classroom, school and community level. They were also asked to describe what was working well and what improvements were still needed.

Comparing 1980-81 and 1982-83 interview responses faculty generally perceived fewer uses of experiential learning activities with students. They noted, however, that more students were involved in the life of the school with more student aides and announcers performing new roles. Both students and teachers mentioned the positive impact of the new school newspaper on the school community. However, there was a need expressed to have more student involvement in the paper. The area of curriculum remains an issue with the need for curriculum revision and update mentioned several times.

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* Percentile ranks were based on statewide norms comparing all other Pennsylvania junior high schools taking the EQA survey in a given year.

Table 2

School One

Teacher Perception of School Conditions 1978, 1982, and 1983

School Condition Variable[1]	School Raw Score			School Percentile Rank[3]		
	1978[2]	1982	1983	1978	1982	1983
Teacher Satisfaction with Relationships with Parents	1.21	1.23	1.25	5	5	5
Activities External to the Classroom	10.13	11.06	11.52	25	55	70
Teacher/Student/Parent Relationships	8.34	9.71	9.03	1	5	5
Factors Disruptive to Classroom Management	13.89	15.32	15.32	1	5	5
Teacher Influence Upon Classroom Decision	17.71	19.58	19.13	20	40	35
Staff Interpersonal Relationships	7.50	8.06	8.26	50	80	90
Discipline Problems	5.66	7.32	8.00	5	10	15

[1] Detailed information on the items that were used to construct each school condition variable can be found in Appendix E.

[2] Because of the EQA testing sequence, the only data available for comparison was a 1978 baseline.

[3] School Percentile Ranks for 1978, 1982 and 1983 were calculated based on 1983 Pennsylvania EQA norms.

Faculty were quick to note perceived improvements in student achievement, discipline and attitudes. There was still a need expressed for continued emphasis on academic achievement and the ways to make that achievement happen for students. Teachers, in mentioning improved discipline, also indicated that there seemed to be higher standards and expectations for students among the faculty, although work needed to be continued to maintain those standards.

One of the strongest areas in the school was extracurricular activities. Both students and teachers noted a very positive attitude about the carnival, dances, sports and recreation day. This area continued to be one of the strengths of the school.

The greatest improvement indicated by the interviews was shown in the areas of problem solving, conflict resolution and decision making. Teachers saw more cohesiveness, successful task forces, increased involvement, more faculty support and cooperation, greater teacher satisfaction and increased enthusiasm. Students perceived that there was less fighting and more cooperation with the teachers. Faculty expressed a need for more ways to involve students and set aside time for school improvement activities. Teachers, generally, noted that they were more aware of the goals in their school and that they had higher standards for themselves and their students than the previous year.

The area of communication also showed improvement in the interviews. Teachers perceived that teacher-student relations had improved. There was improved and increased publicity to the community and the school's public image improved markedly. Finally, teachers saw parents and parent groups as being more involved in the life of the school. Teachers noted, however, that there was still a long way to go. They needed to implement more ways to involve parents and bridge the parent-teacher cultural gap that had kept them apart.

Of special note was the attitude and statements of teachers during the interviews. Instead of focusing on the problems and complaining about meetings, paperwork and reports, the teachers spoke of future priorities, activities and hopes. The time and effort spent in committees doing extra planning and supporting extracurricular events with no financial rewards were seldom mentioned. But the satisfaction of better relations within the faculty, of having increased input into administrative decisions and of planning for the future rather than reacting to present problems became the overriding theme. All teachers agreed that these improvements were brought about by participation in this project.

Overall, the interviews supported the data collected in the SCDP and the EQA surveys. SCDP process factors in the school showed a genuine improving trend with problem solving, communication and planning for the future leading the indicators. General climate factors such as respect, trust, cohesiveness and morale also showed consistent improvement. Program factors which dealt with curriculum, determinig rules and active learning did not fare as well. The program climate area showed minimal improvement to slight declines. Generally, the program suggested mixed results among all the data collection devices. As mentioned earlier, this finding was not unexpected based on the areas that the project empbasized.

Student and School Community Outcomes and Results

Question two stated: do schools that make changes in their organizational process show improvement in student achievement, attendance, behavior, delinquency and faculty absenteeism?

Student suspensions at School One decreased overall by 17 percent between the 1980-81 and 1981-82 school years. For the 1982-83 school year the number of suspensions was down by only one from the 1981-82 school year. The suspensions for each year were as follows: 1980-81 school year 193, 1981-82 school year 144 and 1982-83 school year 143. Thus, although there was a decrease in suspensions for the first year of the project the number of suspensions remained about the same for the second year.*

Additional school symptom data collected showed the following changes between 1980-81 and 1981-82:

1. Student attendance remained at 89 percent.

2. There was a reduction in teacher absence from 6.8 days per year for 1980-81 to 5.8 days for 1981-82 to 3.4 days for 1982-83. This was a 50 percent reduction in teacher absenteeism over the two years.

3. Parents attending teacher-parent conferences increased by 400 percent, from 60 to 240 parents arriving for a conference.

4. The dropout rate decreased from 21 students in 1980-81 to 17 students in 1981-82 and to three students in the 1982-83 school year, a decrease of 85 percent.

5. There was a slight improvement in student achievement test scores for the 1982-83 school year. For example, mathematics and reading percentile increased by 2 to 10 points from 1981-82 to 1982-83 in each grade level.**

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* When asked to comment on the reduced number of suspensions, the assistant principal mentioned that suspensions were clearcut and automatic. Certain behaviors (fighting, truancy) always warranted suspension. There was little in the way of a judgement call. The assistant principal noted that there was actually an increase in the amount of office referrals by teachers. The office referrals, however, were described by the assistant principal as minor. It appeared to him that faculty standards and expectations for students had risen as a result of their problem solving work. Faculty were not willing to accept certain inappropriate behaviors by students that they had ignored in the past.

** This finding was not unexpected since the faculty, through their task forces, completed limited work in this area during the 1981-82 school year. Most work in the achievement area was conducted during the 1982-83 school year. At that time, work on contract classes, team teaching, increased engaged time on task and a criterion-referenced testing program was initiated. If this work continues over several years, then significant improvement on achievement scores should occur.

6. There was a decrease of student delinquency in the surrounding community. In 1980-81 there were 58 separate arrests. This compares to 29 arrests during the 1981-82 school year and 22 arrests for the 1982-83 school year.

7. Vandalism costs were unable to be reported because of incomplete data collection procedures at the school.

In summary there was a positive change in the objective indicators of school conditions. Attendance, behavior, delinquency and faculty absenteeism showed a trend towards improvement; whereas achievement remained much the same. This results-based approach seemed to indicate that School One received some benefits from instituting an organizational change process in the school.

Introduction: Impact at School Two

During the faculty problem solving event in September 1981 before school began, teachers and administrators spent the first morning deciding on the goals of the school for the 1981-82 year. The goals chosen using the consensus process were: (1) improved teacher communication and (2) improved discipline. This first step of issue prioritization was important because faculty, as a whole, then, became committed to a few priorities. School resources were channeled in a clear direction rather than diffused in many areas. The two goal priorities became the basis for problem solving to develop solutions.

By the end of the four-hour problem solving process on the second day, task forces* had been created to implement the solutions generated around the goal areas. These were:

1. A task force to promote increased and positive teacher interaction in a wide variety of school settings.

2. A task force to examine and recommend changes in the in-school suspension system.

3. A task force to study and recommend changes in the hiring of special assignment teachers.

4. A task force to study and implement changes in the school's discipline system.

The previous four task forces, involving 70 percent of the faculty, became the primary change force in the school. The task forces carried out their consensus-built action plans with the prime goal being to impact school climate satisfaction and productivity for students and teachers. The results of those structural and organizational changes and their impact on climate are presented in the remainder of this section.

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* By January 1982, additional task forces were developed for increasing positive rewards, increasing parent involvement and increasing the number of positive messages sent home to parents.

Organizational Change and Improved School Climate

Question one stated: will organizational change processes implemented in a school improve overall school climate? Three types of data collection devices were used to answer the previous question: a paper and pencil questionnaire, the Educational Quality Assessment survey, and personal interview.

School Climate Description Profile

The School Climate Description Profile (SCDP) was completed by 29 teachers in 1981, 20 teachers in 1982 and 22 teachers in 1983. Their responses were analyzed and the data placed in Table 3.

Of the 26 climate conditions measured on the SCDP teachers noted improvement in all 26 climate conditions when 1981 teacher perceptions were compared to 1983 perceptions of climate conditions.

Of the General Climate Conditions, there was a 23 percent increase in respect, a 32 percent increase in trust, a 29 percent increase in morale, a 26 percent increase in input, an 11 percent increase in growth, a 51 percent increase in cohesiveness, a 32 percent increase in renewal and a 21 percent increase in caring.

Of the Program Climate Conditions, there was a 16 percent increase in active learning, a 22 percent increase in expectations, a 3 percent increase in varied learning environments, a 6 percent increase in flexible curriculum, a 31 percent increase in support and structure for students, a 20 percent increase in rules collaboratively determined and a 21 percent increase in rewards for students beyond academic and athletic.

In looking at the Process Climate Factors, there was a 40 percent increase in problem solving, a 20 percent increase in goal setting, a 15 percent increase in handling conflict, a 29 percent increase in communications, a 46 percent increase in shared decision making, a 24 percent increase in school-wide autonomy for teachers and students, a 19 percent increase in instructional strategies and a 44 percent increase in planning for the future.

Basically, the data showed that there was a positive change in the perception by teachers of climate conditions measured by the SCDP. This indicated an improving trend based on teacher perception of the school climate.

Generally, other groups in the school also noted this improving trend. Staff and administrators perceived positive changes in the General, Program and Process Climate Conditions. Students saw positive changes only in the Program and Process Conditions. They perceived no change in the General Conditions.*

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* Unfortunately, students, staff, administrators and parents comprised only 35 percent (11 people) of the total respondents. Thus, it was felt that such a low response did not warrant an in-depth analysis.

Table 3

School Two

School Climate Description Profile

Teacher Data - What Is

Area	Raw Score 1981	1982	1983	Changes in Percentage
General Climate Factors				
Respect	7.7	8.4	9.5	23
Trust	6.0	7.2	7.9	32
High Morale	6.3	7.7	8.1	29
Opportunity for Input	6.9	8.7	8.7	26
Academic and Social Growth	6.9	7.6	7.7	11
Cohesiveness	6.1	8.2	9.2	51
School Renewal	6.8	8.5	9.0	[illegible]
Caring	8.4	10.4	10.2	21
Program Determinants				
Active Learning	5.5	6.7	6.4	16
Individualized Performance Expectations	7.1	8.2	8.7	22
Varied Learning Environments	8.0	8.9	8.2	3
Flexible Curriculum	8.1	8.6	8.6	6
Appropriate Support and Structure	7.2	8.6	9.4	31
Rules Cooperatively Determined	6.8	8.6	8.2	20
Varied Reward Systems	6.7	7.8	8.1	21
Process Determinants				
Problem Solving Ability	5.0	7.2	7.0	40
Improvement of School Goals	6.0	6.5	7.2	20
Identifying and Working with Conflicts	8.2	9.1	9.4	15
Effective Communications	8.3	9.9	10.7	29
Involvement in Decision Making	4.6	7.1	6.7	46

Table 3 (Continued)

Teacher Data - What Is

Area	Raw Score 1981	1982	1983	Changes in Percentage
Process Determinants (Continued)				
Autonomy with Accountability	7.0	8.4	8.7	24
Effective Teaching-Learning Strategies	6.4	7.7	7.6	19
Ability to Plan for the Future	5.5	7.7	7.9	44
Materials Determinants				
Adequate Resources	6.7	7.3	7.5	12
Supportive Logistical System	7.0	8.3	8.6	23
Suitability of School Plant	7.5	9.4	9.8	31

1981 n = 29, 1982 n = 20, 1983 n = 22

The theoretical score range for each area was from three to twelve.

Educational Quality Assessment

The Educational Quality Assessment survey was completed by 32 out of 36 teachers. It provided an unobtrusive assessment of the perceived school climate based on seven major condition variables measured in the school in 1981, 1982 and 1983.*

Teachers perceived an improvement in six of the seven basic conditions of the school as seen in Table 4. There was, however, one condition variable which showed a marked decrease.

Teachers perceived a large positive change which was reflected in the school percentile rank changing from the 20th to the 50th percentile for factors disruptive to classroom management. There was a significant improvement (30th to 65th percentile) in teacher influence upon classroom decisions. Also improving was the discipline problem category (15th to 40th percentile) and staff interpersonal relationships (35th to 85th percentile). Teacher satisfaction with relationships with parents improved from the 20th to 75th percentile. Also improving (15th to 30th percentile) was teacher/student/parent relationships. Decreasing from the 45th to the 25th percentile was the category activities external to the classroom.

Overall the EQA data provided support for the school-wide improving trend noted in the previous data. As was the case for School One the student scores on self-esteem and interest in school and learning improved in School Two. Specifically, self-esteem increased from the 35th to 50th percentile while interest in school and learning increased from the 35th to 75th percentile.

Interviews

Another method of documenting impact was to ask the faculty and students about the changes in the school and the consequences of being involved in the project. All teachers, staff and administrators were individually interviewed at the conclusion of the 1980-81, 1981-82 and 1982-83 school years. In addition, a random sample of about 8 percent of the students were interviewed. Students were asked what they liked and disliked about the school and how school had changed during the last year. Faculty were asked to describe successful activities at the classroom, school, and community level. They described what was working well and what improvements were still needed.

Comparing 1980-81 and 1982-83 interview responses, teachers generally perceived fewer uses of experiential learning activities in the classroom and recommended a need for more academically oriented activities. In the area of performance activities and varied rewards, faculty observed improved student decorum and dress. Of special note is the area of student rewards. Teachers mentioned the need for expansion of this area during the 1981 interviews. In 1982 they noted that they had instituted a number of successful reward programs during the school year although more were needed.

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* EQA data were considered highly unobtrusive since the EQA survey was not connected with the current project but was seen as a separate state assessment by teachers.

Table 4

School Two

Teacher Perceptions of School Conditions

1981, 1982 and 1983

School Condition Variable[1]	School Raw Score			School Percentile Rank[2]		
	1981	1982	1983	1981	1982	1983
Teacher Satisfaction with Relationships with Parents	1.81	1.84	2.20	20	25	75
Activities External to the Classroom	10.78	10.00	10.20	45	20	25
Teacher/Student/Parent Realtionships	12.78	13.09	14.31	15	20	30
Factors Disruptive to Classroom Management	17.49	19.06	18.74	20	55	50
Teacher Influence upon Classroom Decisions	18.41	19.97	20.94	30	50	65
Staff Interpersonal Relationships	7.05	7.31	8.14	35	45	85
Discipline Problems	7.49	8.50	9.97	15	20	45

[1] Detailed information on the items that were used to construct each school condition variable can be found in Appendix E.

[2] School percentile ranks for 1981 and 1982 were calculated based on 1983 Pennsylvania EQA norms.

In the area of extracurricular activities, Spirit Week in the school was considered a great success, yet more assemblies and alternative forms of educational programs were seen as needs. Very little was mentioned about modifications or improvements in curriculum.

Almost half the teachers noted that the in-school suspension program was working well and had improved since 1981. Generally, discipline was improving in the school with administrators providing better support for teachers. On the other hand, a need was seen for more consistent applications of rules by everyone in the school.

The greatest improvement indicated by the interviews was noted in the areas of problem solving, conflict resolution and decision making. Teachers perceived more faculty cooperation, improved cohesiveness, more faculty support and togetherness and improved student/teacher relationships. More parent/community involvement was seen as needed as was more follow-through on faculty commitments for change.

Both teachers and students agreed that the newly developed student council was a positive improvement in the school. They noted, however, that the council's role should expand beyond social projects in future years.

School communication was also seen as one of the more improved areas in the school. There was more positive interaction among faculty, parents and students than in previous years. Additional need was seen in the area of teachers communicating on what they are doing in the school. Several faculty also mentioned improved cafeteria and hallway behavior by students as an example of improved student accountability and responsibility.

Despite a large quantity of statements providing support for positive changes in the school, there was an undercurrent of disenchantment after one year with what had been accomplished and/or how it had been accomplished. Statements such as the need for more openness from the principal, honesty from teachers about the project, more teacher involvement and input, restraint on open hostility among teachers, and follow-through on commitments, indicated an underlying problem with the perceptions about positive school outcomes. Teachers felt that there were still some basic issues among some of the faculty which hampered continued improvement. It was interesting to note that teachers did not mention the task forces, steering committee and problem solving, per se, as being successful.

The interviews, along with the data collected in the SCDP and the EQA surveys, indicated that considerable progress had occurred in many areas by the end of the second project year. A major program had been launched and this was noted in the teacher interviews at the end of the 1982-83 school year. Teachers noted there have been positive changes and there were indications of an improving trend in the school.

Student and School Community Outcomes and Results

Question two stated: do schools that make changes in their organizational processes show improvement in student achievement, attendance, behavior, delinquency and faculty absenteeism?

Student suspensions at School Two increased in total by three from 167 suspensions in 1980-81 to 170 suspensions in 1982. In-school suspensions showed an overall increase from 94 to 103 occurrences, whereas out-of-school suspension exhibited a slight decrease from 73 to 67 occurrences. The total number of suspensions increased in 1982-83 to 290. The number of suspensions indicated a problem that was unresolved by the end of the 1982-83 school year.

Additional school symptom data collected showed the following changes between 1980-81 and 1982-83:

1. Student attendance improved from 92 percent to 93 percent despite the furloughing of the school's attendance-truant officer.

2. There was a reduction in teacher absence of 3 percent, from 6.8 days per year to 5.0 days per year.

3. There was slight improvement in student achievement test scores for the 1982-83 school year.

4. There was a slight change in student delinquency in the surrounding community. The figure is rather low and inconsequential with 2 student arrests during the 1980-81 school year, no student arrests during the 1981-82 school year and two student arrests in the 1982-83 school year.

5. Vandalism costs were unable to be reported because of incomplete data collection procedures at the school.

In summary, there was an indication of an improving trend in the objective indicators of school conditions. Student attendance, achievement and delinquency showed a slight, but not a dramatic improvement; whereas behavior may have deteriorated. Teacher perceptions of the school improved on both the EQA survey and the SCDP. Teachers did indicate in interviews that they were making positive changes in the school.

STRENGTHS AND LIMITATIONS OF THE PROCESS

Introduction

Throughout the two years of the change process' implementation, a tremendous amount of process evaluation data were collected from the two schools' faculties, students, and administrators. These data dealt with the strengths and limitations of the approach at particular moments in time. The data were used to prepare for in-service training sessions, fine-tune or modify the process, make appropriate interventions with resources or process consultations and, in general, help to guide the course of the change effort over the normal pitfalls of an innovation. Formal and informal feedback sessions were held with faculty and students to share the data and provide some follow-up to implement the modifications.

The data were collected using the following method:

1. Three paper and pencil process evaluations were completed.

2. Continuous process observations were noted and discussed by the consultants.

3. Teachers were asked, in groups, to record the problems in implementation and in the process itself.

4. At the end of the first year, faculty completed a role clarification assignment where they made changes or adaptations that they felt would improve their organizational processes.

5. At the end of each year, administrators were interviewed regarding their perceptions of the successes and shortcomings of the process.

The Framework

Question three states, what are the strengths and limitations of the organizational planned change process?

Because of the massive amount of process data generated and compiled, it was felt that a framework should be used to discuss the findings on the strengths and limitations of the approach. This framework was developed to organize the various anecdotal process data in a systematic method. The framework was gleaned from several researchers (Fullan, 1982; Rosenblum and Louis, 1981; Berman and McLaughlin, 1979) who studied implementation and change factors in school organizations.

The following are the factors or characteristics of implementation which provided the framework for this discussion of strengths and limitations. Implementation was characterized by:

1. Need
2. Clarity
3. Complexity
4. District Administrative Commitment
5. Staff Development
6. Time and Money
7. Information
8. Role of the Principal
9. Teacher-teacher Relationships
10. External Assistance
11. Visibility and Involvement

In the following discussion, the relative strengths and limitations of the process will be explored without separate discussion of the two schools. However, when the schools differ markedly in their perception of strengths and limitations, each school's viewpoint will be represented.

Need

The need factor was defined as a formal recognition within the school of unresolved issues.

During the course of the project, consultants used a wide range of assessment tools -- interviews, pencil and paper instruments and a problem solving,

goal setting and decision making process. Coupled with continuous feedback sessions, these processes helped school members examine areas of perceived need.

A majority of the faculty rated the decision making procedures and problem solving process effective most of the time. The faculty also rated the steering committee and task force process as extremely effective (75 percent and 67 percent, respectively). Some faculty, however, complained that it was difficult to meet during the school day because of differing schedules. They also expressed a need for more communication because the progress of individual task forces was not always shared and the steering committee appeared to be getting too powerful.

In the end, however, issues and needs were addressed. They may not have been the number one issue on each teacher's agenda but there was enough agreement to support the achievement of results in the identified goal or need areas. For example, the number one identified need at School One was improving the school's image. By April 1982, every teacher surveyed agreed that this had been accomplished. The community in the space of eight months had begun to support and respect the school community at School One.

At School Two, the change appeared to be somewhat more mysterious to faculty. Although the school members attained 75 percent of their goals, they continued to insist that they did not quite know why things had gotten better. This perceived sense of confused satisfaction was best described by several faculty who said, "I'm not sure what's changing but the kids are better and we're (teachers) talking to each other more."

Clarity

The characteristic of program clarity was described as the ability of the change agents to provide a clear goal focus and a specified means of implementation.

The consultants discovered soon after the first process evaluation that there were problems in this area. The notion that this was a program which stressed a "process" of organizational renewal supported by a statewide data bank of products was extremely confusing. Outcomes were confused with the process, the roles of the task forces, steering committee and principal were very unclear. Parts of the approach were clear and understandable but as a whole program, it didn't seem to fit within the participants' perspective of what a "program" ought to be.

This issue became a major decision point for the consultants. On the one hand, the project director knew that broad guidelines allow for greater adaptation which fosters greater commitment by the participants. Rigid prescriptions by consultants result in overdependency. Thus, modifications were one goal expected in the process. On the other hand, overly broad (unclear) guidelines produced frustration and lack of implementation. There needed to be a balance between absolute prescriptions by the consultants and the evolutionary development of a school community's own process.

Through the use of process consultations between October and March of 1981-82, consultants began to facilitate the emergence of clear task roles for

the steering committee, task forces and principal. These sessions were descriptive rather than prescriptive. They explored possible alternatives with participants. At the end of the year, faculty in both schools also met to clarify the various roles for the following year. This role clarification session served to increase understanding of group tasks as well as allow for the adaptation of the process and internalization as a basic norm of the schools. Teachers now have their own written, clear process of how they resolve issues in their schools.

Complexity

The characteristic of complexity was defined as the level of sophistication of the change -- from a relatively simple, straightforward change of a complicated difficult and multi-faceted change.

The change undertaken in the two schools was considered by both participants as a highly complex approach to school change. A great deal was attempted including changing procedures, policies, structures, norms and interactions among faculty, students and administrators. Part of the change approach also fostered a sense of acceptive new educational research, products and practices.

The outcome of this approach was different in each school. At School One, the school community accomplished a great many changes and, very quickly, adapted the process and product orientation to their school -- utilizing outside consultants, research and validated products. At School Two, however, the school community, although they accomplished most of their goals, noted that they were confused, during the first year, as to what they were supposed to do. The complexity of the change effort, combined with a lack of complete task clarity served to delay the School Two perception of success until the second year of the project. It should be noted, however, that a simpler, more direct approach would probably have accomplished less in terms of satisfaction and productivity among the staff.

District Administrative Commitment

The change factor of district administrative commitment refers to the type and level of central office support -- whether it is general endorsement or demonstrated, concrete support.

Overall, the change process was well supported at the district level. In one district, the superintendent and a board member attended two problem solving sessions. In the other district, faculty were given 1.5 hours release time each week to work on the project. In addition, classrooms were painted, a faculty parking lot, which had been a mud hole, was paved, a new school-wide bell system was installed and faculty were released form district-wide duties.

These concrete demonstration of support served to bolster commitment among the school community. Principals, in interviews, expressed their feeling of support and said that they discussed the specific kinds of central office support with faculty. Thus, it was critical for the districts to provide more than lip service to the change and this, clearly, was done.

Staff Development

The change factor of staff development deals with the level, intensity and duration of staff workshops, meetings, and training sessions during implementation.

In general, this factor was one of the strengths of the project. Faculty and administrators expressed their appreciation to the consultants for the number and type of follow-ups which included process consultations and product presentations made to the school community. In addition, all interventions were made on the basis of on-going process evaluations in each school. Thus, the school community participated in the assessment and, in some cases, the development of the staff training sessions. As a result, there was frequent interaction with the school staff for the provision of concrete, practical technical assistance and training. As one consultant remarked, "The training constantly stressed how we can all work together as a cohesive unit to solve problems and make the best use of resources."

Although this aspect of the change process was time consuming and, at times, the assessment of what was needed, difficult, the benefits in the long run were worth the time and energy invested.

Time

The factor of time refers to the establishment or lack of deadlines by program consultants, school administrators, or the teachers themselves.

Basically, the consultants found that the process was weakened when unrealistic deadlines were expected. Strict deadlines only added to the normal burden of implementation. Open ended timelines were also problematic because they created a sense of ambiguity about what was expected by when, as well as a lack of clarity about what constituted progress.

The factor of time was finally resolved by having all faculty task forces develop written action plans with realistic timelines chosen by the task force itself. This compromise also began to resolve the general faculty complaint, "We don't have enough time," which was noted in every process evaluation as a blockage to implementation.

Information

The change factor of information deals with the type collection and use of implementation concern (process) information and student achievement information.

Throughout the two years, process evaluation data were fed back to administrators and faculty. At the beginning and end of the year, student achievement information was also presented to faculty. Attempts were made by consultants to help the faculty accept, internalize and develop specific action plans for the data. This factor had mixed success. Both schools used portions of the information to identify areas to impact. For example, although student fighting and achievement levels were identified in the data as critical issues for both schools, only one school chose to convene a task force to impact the achievement issue.

Process data, however, which reflected implementation concerns, were used slightly more often by the school community. Issues such as meeting time, the steering committee becoming too powerful, lack of visibility of the changes, lack of involvement, etc. were dealt with by the school community and, in some cases, resolved for the time being.

Thus, consultants had found, first, that information on implementation concerns (process data) could be very effective in facilitating change provided it was linked to a system for acting on it and provided it was agreed by the school community that the data should be used. Often, the data were ignored. Second, student achievement information directed at the classroom must be linked to concrete instructional improvement procedures. Unfortunately, these data were not used to any great degree during the first year of the project although one school, as mentioned previously, did begin to examine possible alternatives for impacting achievement during the second year.

Role of the Principal

The factor of the principal's role refers to the kind and level of support for a change provided by the school principal.

Generally, the consultants found that the process was dependent in both schools on the active, visible support of the principal. If the principal was seen only as an administrator and technician, and teachers rated them as uninvolved in the change, the outcome of the change process was less successful than if the principal showed his commitment and support for faculty implementing the change. This does not mean that the principal must control the change. On the contrary, a collaborative working relationship with faculty was seen as more important than absolute control of the process.

Teacher-Teacher Relationships

The change factor of teacher-teacher relationships deals with the concept of the working relationship among teachers -- the level of collegiality, communication, trust, help, interaction and morale.

Overall, it was found that the more stable and positive the school was, in terms of its staff interaction, curriculum and organizational structure, the better the outcome for internalizing a collaborative organizational change structure. Teachers, working as isolated individuals, appeared to hamper the implementation process. Teamwork enhanced implementation success.

Teachers rated the process high in improving communication, solving problems, dealing with important building issues and improving decision making. But the school staff which had internalized a higher level of cohesiveness before the start of the process and were in a relatively stable state had fewer implementation problems and adapted the process much more quickly.

This was the case at School One where a teacher, in front of the entire faculty, compared the present positive working relationship of the staff to the MASH unit on television. In addition, the school was currently experiencing a relatively calm time in its history. No major upheavals were present. Staff respect one another and were psychologically ready to make change.

Unfortunately, this kind of environment did not exist at School Two. Faculty relationships were at an extreme low point. One teacher had not spoken to other faculty members in four years. In addition, the school had just undergone a leadership change, a change in the grade organization and a general upheaval in central office and school board relations. As a result, change was difficult for the school community to achieve although some improvements were effected.

External Assistance

This change factor reflects the ability of the school community to utilize outside consultants for process and product assistance related to implementation.

Both schools expressed appreciation for the external assistance of the consultants. The actual use of consultants, however, differed markedly between schools. School One staff availed itself of all the process and product services that the consultants had to offer. School Two staff did not readily utilize the resources that were available. This difference in the use of resources probably had an impact on the level and outcomes of the change process.

In order to measure the relative success of this factor in the implementation process, consultants asked teachers and administrators informally whether they saw this project, at the end of the first year, as belonging to the consultants, the principal or the school itself. This "who does the program belong to" question was asked to assess the relative dependency of the staffs on the consultants and the principal. It was felt that if teachers felt that the program was theirs, they would be more likely to have internalized the process, thus becoming committed to making it work. At School One teachers generally perceived it to be their program. At School Two teachers insisted that it was the principal's or the consultants' program, or in one case "the Federal government's" program. Thus, the success of the external consultants was mixed in terms of the utilization of technical assistance by staff and the level of dependency on the consultants after the first year. By the end of the second year both School One and School Two faculty generally perceived School Climate to be their program.

Visibility and Involvement

The factors of visibility and involvement refer to the active ongoing participation of implementers as well as the observable nature of the change's progress or lack of it.

The strengths and limitations of these factors were extremely difficult to assess. They seemed to shift on a weekly basis. Of greatest interest to the consultants were the regular statements, both verbal and written, in which faculty insisted that no work was being done or no progress had been made or no one was doing anything. This was mentioned despite the fact that the principal or steering committee may have released an update of progress the previous week. It appeared that in both schools, teachers had difficulty recognizing success despite the level of involvement and visibility of the changes. As one consultant noted, "It's almost as if they (the faculty) are focusing on the

huge amount of work that needs to be done rather than what they have already accomplished."

Faculty, however, expressed support for continuous updates from the principal, information releases from the steering committee and notices on bulletin boards and in the faculty room. This, they felt, helped keep people involved and the process visible during implementation. Yet, despite the amount of progress information, these factors were weakened by a refusal on the part of some staff members to believe that any progress was taking place.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The following section is based, in large part, on the data presented in the findings section. However, using both the data and personal experience, a number of prescriptive conclusions and suggestions for future organizational change efforts in school will be presented.

Conclusion One

The planned change process actively engaged faculty and administrators in addressing their perceived building level problems.

A school community becomes committed to improvement and changes when real building level issues are addressed. There must, however, be follow-through by all involved. Lip service to change by principal or faculty members accomplishes little and tends to frustrate people who want to make the school a better place.

A norm must be established early in the project which states that everyone is part of the solution to problems. No staff member can sit back and expect others to improve the school. In order for an organizational change process to work, faculty, administrators and students must be actively involved in promoting and making positive change -- both personally and organizationally. Unfortunately, the usual approach to school improvement often develops from a central office, may not be based on the perceived building level needs, and is promoted only by a small, committed band of teachers. Thus, every effort must be made to foster and support the norm that everyone, administrators, students, and faculty, actively engage in addressing building level problems to produce positive progress.

Conclusion Two

The planned change process gives faculty a feeling of influence over their destiny. It provides them with an increased sense of personal and group efficacy -- a feeling that they can make a difference in their situation.

Faculty members often feel powerless. They perceive they are caught between non-supportive administrators and unruly students who have lost all respect for authority. They express their anger and frustration through their unions, passivity, or open resistance. The statement, "Hey, I just teach here," is symbolic of the general feeling. There was a general malaise summed up in the phrase, "Nothing I do makes any difference." Students, parents and

the school administration are blamed for the sad state of affairs of the educational system.

The organizational change process, however, empowers a faculty, creates some excitement, and provides a glimmer of hope. Perhaps the situation can be changed. Faculty members begin to feel a new sense of personal and organizational efficacy once they are all working together towards common goals. There is a growing sense of control. People are once again creating their environment -- the way they want it to be. The change happens slowly but as it builds, people begin to believe that they can, indeed, make a difference.

Conclusion Three

The results based planned change approach often impacts student outcomes, i.e., behavior, attendance, delinquency and achievement.

As people in school organizations begin to experience positive changes and begin to work on basic productivity issues in a school, outcome conditions can change. As problems are resolved and as structures and procedures change, there is a concomitant change in the norms which support inappropriate behavior, inadequate attendance and poor achievement. These productivity or school condition factors are the most difficult to impact. Thus, it often takes three to five years to see results in these areas. Improving trends, however, may be noted during the first and second years.

Conclusion Four

The basic satisfaction of people in the life of the school organization can increase.

People working together to solve problems, set goals, communicate more effectively and implement action plans tend to elicit a more positive feeling about the school organization and the people in that organization. There is a greater perception of cohesiveness, of team spirit and a clearer sense of "weness."

Satisfaction in the life of the school is as crucial as the productivity issue. Both are intricately interwoven to create a successful school. Neither productivity nor satisfaction should be worked on in isolation. Rather, they must both be dealt with simultaneously. They are not separate concepts, but opposite sides of the same concept -- quality and excellence.

Conclusion Five

The planned change process is generic and can be adapted and modified for different school situations, i.e., small, large, urban, rural, etc.

The school renewal process teaches people basic organizational and personal effectiveness skills and concepts. These learnings work in all situations if they are structured correctly. To this end, a working knowledge of the planned change process is extremely helpful. This knowledge will help in the overall design and implementation of the process. The issues or content may change from school to school but the basic process remains the same with only slight modifications needed.

Conclusion Six

Well validated school products and practices should be available in addition to the planned change process. This provides scope and substance to the change process.

An organizational change process is not sufficient, in and of itself, to promote substantive student outcomes. Practical, well-validated products with strong technical assistance can help the improvement of schools by increasing clarity and improving faculty and administrator capabilities.

Individuals usually start off with some idea of how to translate an idea into practice, only to discover a few weeks later that their notions of new practice are not firm enough to help them agree on the actual changes. A good idea on paper may mean nothing in practice.

Yet, even when people have a clear notion of what educational products are relevant and appropriate, they may not feel quite capable of employing them. A faculty may believe that, in theory, a mastery learning approach will offer more students a chance to learn and to belong, but may not have any idea how to go about organizing the curriculum for its implementation. Thus, educational products should be concrete, practical and deal with how to implement the new practice in addition to describing the product or practice.

Conclusion Seven

The planned change process is a cyclical and developmental approach to change. It is a continuous process for seeking improvement.

Change is seen as an ongoing process, not a one-time event. There are not easy answers, just constant striving for improvement and excellence. Change takes time and is seen in this project as incremental in nature. There is no notion of change for change's sake, only fine-tuning and modifying -- a movement towards quality throughout the school organization. Major upheaval is eschewed; while steady change, built upon each new success, is the norm. The project firmly adheres to the notion that if something is working well it should not be tampered with or changed just to create something new.

Overall, there is the constant goal of school renewal operating in the project. Improvement begets improvement. As soon as project participants complete a series of changes, the process is recycled and begins again, looking for new areas to improve. This is the basic belief of the planned change process: without growth and renewal, there is only stagnation and decay.

Conclusion Eight

The process is very dependent on the support of every group in the school.

The principal, assistant principal, faculty, union, and faculty council can help the process succeed or fail through their organizational and personal support. Failure can be precipitated by incomplete action plans, circumventing the decision making process, not taking time for meetings, ineffective yearly goal setting, refusal to change procedures, norms and interaction points and a principal overcontrolling the process or being passive or hostile to it.

These failure factors or resistances to change must be dealt with at the start of the process and continually addressed throughout the implementation phase. In addition, blaming behavior, focusing on negative outcomes only and being consistently negative about the process in general also causes the planned change process to falter, and, in some cases, fail. Ongoing consultations and training sessions with participants are needed to keep the project on track and to overcome negativism and normal resistance to change.

Conclusion Nine

Faculty may choose to deal with surface symptoms and not with underlying causes to problems.

In many cases, it always seems easier to hire more teachers to impact behavior or change the curriculum to improve achievement. Schools often do not look beyond the easy, quick, surface solution. In one of the schools, a decision was made to increase the number of guards in the hallway to control unruly students. This solution only dealt with the symptoms of deeper problems -- lack of respect, inconsistent enforcement of rules and a feeling that the problem could not be solved anyhow, so why even try.

The real causes to many of an urban school's problems are difficult for people to accept and deal with. They include lack of trust among all groups, low levels of professional respect, low expectations among teachers and students, socially ostracizing certain students from the mainstream group in subtle ways, poor communication and interaction, inappropriate or inadequate instructional strategies, low sense of teacher efficacy, lack of cohesiveness/ team spirit and low academic task focus.

As a result, the only way real improvement can take place is when the basic norms, expectations, interactions and procedures in the school organization change. There is a need to impact the underlying culture and philosophy of the school before positive, lasting and continuous improvement can take place. This is a most difficult approach. It is usually bitterly resisted by a school community; but it may be the only way a school organization will really change and improve.

Conclusion Ten

The process is a voluntary one. People may choose to be involved or not.

It is evident that people cannot be forced to change. Or, if they are forced, the change becomes somewhat less than ideal. As a result, a positive climate can be developed only if people freely choose to work within the process. Voting, discussion, modeling behavior and gentle encouragement should be used to gain the voluntary commitment of individuals. No one ought to be pressured to become involved.

Although the voluntary nature of the process is helpful in establishing a norm of cooperation and trust, there is another side to the issue of volunteerism. A great deal of energy can be focused on the 10-20 percent of a school staff who do not want to become involved in the process. Time can be wasted in attempting to encourage recalcitrant staff to become part of the improvement effort. A school community must realize that there will always be

a "negative force" on any organization. These individuals will always fight any kind of change. It is often better, when everything has been tried, to finally ignore the uninvolved minority and focus energy on the committed, the semi-committed and the neutral majority. The process should remain open to all, but only if they eventually come forward to participate.

Conclusion Eleven

The process is most effective in relatively stable schools.

Where schools are in flux -- undergoing multi-level changes in curriculum, instruction, leadership and structure -- this process of organizational planned change may not be an appropriate approach. There should be a relatively stable environment free from major upheavals for the process to be most successful.

Lack of stability, however, does not mean that a school cannot benefit from engaging in the process. It does mean, rather, that an unstable environment will make it more difficult for the process to move forward and become institutionalized in the school. Success will take place more slowly and people will struggle with the process while becoming easily side-tracked or blocked. Yet, in the end, participants in unstable school situations will report positive changes. In fact, the very approach of establishing a structured change process may be instrumental in promoting a more stable environment in the school situation.

Conclusion Twelve

The planned change process is most successful when a principal shares decision making with the faculty and has the requisite skills to promote the process. Many principals will not share decision making. Some principals find collaborative decision making incompatible with their leadership style. When this happens, the organizational change process may be in jeopardy. Without shared decision making, the process becomes an empty shell devoid of cooperation, trust, respect and sincerity between the faculty and principal. It may lead to the same old problem of an adversarial relationship between labor and management. The school, then, is back where it started. Nothing has really changed. This potential pitfall must be avoided at all costs. Both the principal and faculty should agree to a common shared decision-making procedure. If neither party will agree, the process should not be started in the school.

In addition, the interpersonal and group process skills level of some administrators does not lend itself to effective group leadership. Principals must possess skills in data collection, feedback, action planning, implementation and result achievement strategies. Yet, these skills are rare among administrators. Care must be taken to provide administrators with the training necessary to give them the skills and techniques for succeeding as leaders of the change process.

Recommendations

Colleges of Education

Colleges should explore the idea of training more organizational (process) consultants for schools.

Colleges should focus their resources and energy on training teachers to improve classroom practices and processes.

Colleges should consider training principals in leadership skills which include interpersonal and group process technologies.

Research

More comparative research on comprehensive school change strategies is needed. The level of the planned change processes' effectiveness must be studied using control schools in urban, rural and suburban settings.

State Educational Agencies (SEA)

SEA's should consider retraining a portion of their service staff to provide process consultation technical assistance to schools and districts to help with organizational, structural and procedural changes in those systems.

The Pennsylvania SEA should continue to study the longitudinal effects of the change process in the two urban secondary schools in the Commonwealth.

The Pennsylvania SEA should study the relative effects of different parts of the change process -- process consultations, product adaptability, leadership training, process skill development -- to see which aspects provide the greatest positive impact on the project schools.

REFERENCES

Asner, M. R. and Broschart L., eds. Violent Schools-Safe Schools: The Safe School Study Report, Volume 1. Washington, DC: National Institute of Education, U.S. Government Printing Office, 1978.

Bassin, M.; Gross, T.; and Jordan, P. "Developing Renewal Processes in Urban High Schools." Theory into Practice. April, 1979, pp. 73-81.

Bermen, P. and McLaughlin, M. W. An Exploratory Study of School District Adoption. Santa Monica, CA: Rand Corporation. R-2010 NIE, 1979.

Brookover, W. B. and Lezotte, L. W. Changes In School Characteristics Coincident with Changes in Student Achievement. Occasional Paper No. 17. East Lansing, MI: The Institute for Research on Teaching, Michigan State University, 1979.

Cichon, D. and Roff, R. The Teaching Events Stress Inventory. Paper presented at the Annual Meeting of the American Educational Research Association, Toronto, Canada, March 1978.

Coleman, J., Campbell, E., Robson, C., McPartland, J., Mood, A., Weinfield, F., & York, R. Equality of Educational Opportunity. Washington, DC: U.S. Government Printing Office, 1966.

Comer, J. "The New Haven School Intervention Project." Strategies for Urban School Improvement Workshop Series. Washington, DC: U.S. Department of Education, 1980.

Corcoran, T. "School Effectiveness Project." Research for Better Schools Regional Report. Philadelphia: Research for Better Schools, November, 1980.

D'Amico, J. An Analysis of the School Effectiveness Research. Philadelphia Research for Better Schools, 1980 mimeographed.

DPW (Department of Public Welfare), Office of Children, Youth and Families. Data provided on expenditures to maintain youth in correctional institutions, 1983.

Edmonds, R. The Characteristics of Effective Schools: Research and Implementation. Michigan: Michigan State University, October, 1981.

Edmonds, R. "Schools Count: New York City's School Improvement Project." Harvard Graduate School of Education Association Bulletin, 1980.

Edmonds, R. and Frederiksen, J. R. Search for Effective Schools: The Identification and Analysis of City Schools That Are Instructionally Effective for Poor Children. Cambridge, MA: Center for Urban Studies, Harvard University, 1979.

Emrick, J. A. and Peterson, S. M. A Synthesis of Findings Across Five Recent Studies of Educational Dissemination and Change (Educational Knowledge Dissemination and Utilization Occasional Paper Series). San Francisco, CA: Far West Laboratory for Education Research and Development, 1978.

Epstein, J. L. Secondary School Environments and Student Outcomes. Research for Better Schools, Inc., Philadelphia, PA 19180.

Epstein, J. L. and McPartland, J. M. The Quality of School Life Scale and Technical Manual. Boston: Houghton Mifflin, 1978.

ERIC Clearinghouse on Educational Management. School Climate. Research Action Brief. Eugene, OR; the Clearinghouse (ED 150-673), 1978.

Fox, R. S. et al. School Climate Improvement: A Challenge to the School Administrator. Bloomington, IN: Phi Delta Kappa, Inc., 1973.

French, W. L. and Bell, C. H. Organization Development. New Jersey: Prentice-Hall, 1978.

Fullan, M. Implementing Educational Change: Progress At Last. Paper presented at a Conference on the Implications of Research on Teaching for Practice. February, 1981 mimeographed.

Fullan, M., Miles, M. and Taylor, G. OD in Schools: The State of the Art, Vol. IV: case studies (final report to the National Institute of Education) Toronto: Ontario Institute for Studies in Education, 1978.

Ginsburg, M., Buckley, P., Preilberg; Townsent, K. Two Year Study of Changes in School Climate in Four Urban Schools: Findings and Participants' Theories. Los Angeles, CA: AERA, April 1981.

Halpin, A. W., and Croft, D. B. The Organizational Climate of Schools. Chicago: The University of Chicago, Midwest Administration Center, 1963.

Howard, E. R. School Discipline Desk Book. West Nyack, NY: Parker Publishing Co., 1978.

Jencks, C.; Smith, M.; Acland, H.; Bane, M.; Cohen, D.; Gintis, H.; Heyns, B.; and Michelson, S. Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books, 1972.

Johnson, G., Bird, T. and Little, J. W. Delinquency Prevention: Theories and Strategies. Washington, DC: U.S. Department of Justice, April, 1979.

Kaminsky, K. "Affective Education - A Positive Approach to School Crime." Theoretical Perspectives on School Crime. Volume 1, 1978.

Kelley, E. A. Improving School Climate: Leadership Techniques for Principals. Reston, VA: National Association of Secondary School Principals, 1980.

Kerman, S. "Teacher Expectations and Student Achievement." Phi Delta Kappan, September, 1981.

Kettering Foundation. The Principal's In-Service Program. Dayton, OH: I/D/E/A, August, 1979.

Kline, Caryl. Prevention of School Disruption Bill. Official testimony presented to the Pennsylvania Senate and House, 1978, mimeographed.

Kritek, W. The Implementation of a Program for the Professional Development of Urban Secondary School Principals. San Francisco, CA: AERA, April, 1976.

Lezotte, L.; Hathaway, D.; Miller, S.; Passalacqua, J. and Brookover, W. School Learning Climate and Student Achievement: A Social Systems Approach to Increased Student Learning. Florida: Florida State University, 1980 manuscript.

Lightfoot, A. Education in Social Perspective. Chicago: Rand McNally, 1978.

Little, J. W. Delinquency Prevention Technical Assistance. Washington, DC: Westinghouse National Issues Center, March, 1980.

Logan, William. Report to the Commissioner of Basic Education. Task Force on Violence and Vandalism, Harrisburg, PA, Department of Education, 1977, mimeographed.

McDill, E. L., and Rigsby, L. C. Structures and Process in Secondary Schools: The Impact of Educational Climates. Baltimore: The Johns Hopkins University Press, 1973.

Miles, M. B. OD in Schools: The State of the Art. Volume III: OD consultants and OD programs in school districts. New York: Center for Policy Research, 1978.

Milstein, M. "Developing a Renewal Team in an Urban School District." Theory into Practice. April, 1979, pp. 106-116.

Moos, R. Evaluating Educational Environments. San Francisco, CA: Jossey-Bass, Inc., 1979.

Napier, R. Solutions: Effective Ways People Solve Problems. 1980, mimeographed.

Phi Delta Kappa. Why Do Some Urban Schools Succeed? Bloomington, IN: Author, 1980.

Pincus, J. and Williams, R. "Planned Change in Urban School Districts." Phi Delta Kappan, June 1979, pp. 729-733.

Rist, R. C. The Urban School: A Factory for Failure. Cambridge: MIT Press, 1973.

Runkel, P. J. Transforming the School's Capacity for Problem Solving. Eugene, OR: Oregon University, 1978.

Rutter, M., Maughan, B., Mortimore, P. and Ousten, J. Fifteen Thousand Hours: Secondary Schools and Their Effects on Children. Cambridge, MA: Harvard University Press, 1979.

Schmuck, R.; Francisco, R., and Bell, W. "Renewing Urban Schools: Some Recommendations." Theory into Practice, April, 1979.

Schmuck, R. and Runkle, P. The 2nd Handbook of Organization Development in Schools. Palo Alto, CA: National Press Books, 1977.

Sloan, E. The Expectations Project. Philadelphia: Philadelphia School Board, 1979, mimeographed.

Smith, G. and Gregory, T. A Comparison of School Climate in Alternative and Comprehensive High Schools in Pennsylvania. Research Proposal, April, 1981.

Stenson, W. School Climate Improvement Project. Colorado: Title IV-C Final Report. August, 1980.

Thomson, S. D. Improving School Climate. Reston, VA: National Association of Secondary School Principals (Forward in Kelley) 1980.

U.S. Department of Education. The School Team Approach: Preventing Alcohol and Drug Abuse by Creating Positive Environments for Learning and Growth. Washington, DC: U.S. Government Printing Office, 1980.

Urich, T. and Batchelder, R. "Turning an Urban High School Around." Phi Delta Kappan. November, 1979, pp. 206-209.

Rosenblum, S. and Louis, K. S. Stability and Change: Innovation in an Educational Context. New York: Plan Press, 1981.

Rosenau, F. Two Large Scale Studies: Dissemination and School Improvement. San Francisco: Far West Laboratory for Educational Research, 1982, mimeographed.

Walberg, H. J. (Ed.). Educational Environments and Effects: Evaluation, Policy and Productivity. Berkeley, CA: McCutchan Publishing Co., 1979.

Ward, B. and Tikunoff, W. "The Relationship Between In-Service Training, Organizational Structure and School Climate." In-Service. September, 1981, pp. 7-8.

Westinghouse, Inc. The School Enhancement Project. Washington, DC: Westinghouse National Issues Center, 1981, mimeographed.

Williams, R. C.; Wall, C. C.; Martin, W. M. and Berchin, A. Effecting Organizational Renewal in Schools: A Social Systems Perspective. CFK Foundation Program, New York: McGraw-Hill, 1974.

Wilson, S. An Introduction to the Reform Strategy Which Stresses the Development of Urban Capacities for Problem Solving. Toronto: AERA, March, 1978.

APPENDIX A

TEACHER/ADMINISTRATOR INTERVIEW FORM

TEACHER/ADMINISTRATOR INTERVIEW FORM

1. What do you, as a school, do well?

   A. In classrooms?

   B. Among grade levels or academic disciplines?

   C. Within the school as a whole?

   D. Between the school and community?

2. What do you not do, as a school, that you ought to do? (do more of or start)

3. What do you, as a school, do that you really shouldn't do? (do less of or stop)

Interviewer _____

Time _____

Teacher Data: Male Female

Grade: 7 8 9 other _____

Years teaching _____

Years at this district _____

Highest degree attained _____

APPENDIX B

SCHOOL CLIMATE DESCRIPTION PROFILE

Part A General Climate Factors	What is: Almost Never Occasionally Frequently Almost Always 1 2 3 4	What Should Be: Almost Never Occasionally Frequently Almost Always 1 2 3 4
1. Teachers treat students with respect.		
2. Teachers from one subject area or grade level respect those from other subject areas.		
3. Teachers in this school are proud to be teachers.		
4. Students feel that teachers are "on their side."		
5. Students can count on teachers to listen to their side of the story and to be fair.		
6. Teachers trust students to use good judgment.		
7. Students are enthusiastic about learning.		
8. Attendance is good; students stay away only for urgent and good reasons.		
9. Teachers like working in this school.		

Part A General Climate Factors (Continued)	What is: Almost Never Occasionally Frequently Almost Always 1 2 3 4	What Should Be: Almost Never Occasionally Frequently Almost Always 1 2 3 4
10. I feel that my ideas are listened to and used in this school		
11. Important decisions are made in this school with representation from students, faculty and administration		
12. When all is said and done, I feel that I count in this school.		
13. Teachers in this school seek better ways of teaching and learning.		
14. Students feel that the school program is relevant to their future needs.		
15. The school supports parent involvement. Opportunities are provided for parents to be involved in learning activities and in examining new ideas.		
16. Students would rather attend this school than transfer to another.		
17. There is a "we" spirit in this school.		

Part A General Climate Factors (Continued)	What is:				What Should Be:			
	Almost Never	Occasionally	Frequently	Almost Always	Almost Never	Occasionally	Frequently	Almost Always
	1	2	3	4	1	2	3	4
18. New students and faculty members are made to feel welcome and part of the group.	____				____			
19. When a problem comes up, this school has procedures for working on it.	____				____			
20. When a student comes along who has special problems, this school works out a plan that helps that student.	____				____			
21. New programs are adapted to the particular needs of this community and this school.	____				____			
22. There is someone in this school that I can talk to about problems	____				____			
23. The principal really cares about students.	____				____			
24. I think people in this school care about me as a person; are concerned about more than just how well I perform my role at school (as student, teacher, parent, etc.).	____				____			

Part B Program Determinants	What is:				What Should Be:			
	Almost Never	Occasionally	Frequently	Almost Always	Almost Never	Occasionally	Frequently	Almost Always
	1	2	3	4	1	2	3	4
1. Students help to decide learning objectives.	____				____			
2. Teachers are actively learning.	____				____			
3. This school's program stimulates creative thought and expression.	____				____			
4. Each student's special abilities (intellectual, artistic, social, or manual) are challenged.	____				____			
5. All students are not held to the same standards.	____				____			
6. Teachers know students as individuals.	____				____			
7. Individual and small-group settings, as well as classroom-sized groups, are used in this school.	____				____			
8. Teachers use a wide range of teaching materials and media.	____				____			
9. Teachers and administrators attend inservice education programs to support their own growth.	____				____			
10. Students are given alternative ways of meeting curriculum requirements.	____				____			

Part B
Program Determinants (Continued)

	What is: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4	What Should Be: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4
11. Teachers are known to modify their lesson plans on the basis of student needs.								
12. Extracurricular activities appeal to students.								
13. The school's program encourages students to develop self-discipline and initiative.								
14. The administration is supportive of teachers.								
15. Faculty and staff want to help every student learn.								
16. Teachers and their students together work out rules governing behavior in the classroom.								
17. Discipline (punishment) when given is fair and related to violations of agreed-upon rules.								
18. Most students and staff members obey the school's rules.								
19. Students know the criteria used to evaluate their progress.								
20. Teachers are rewarded for exceptionally good teaching.								

Part C
Process Determinants

	What is: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4	What Should Be: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4
21. Most students get positive feedback from faculty and staff.								
1. People in this school do a good job of examining alternative solutions before deciding to try one.								
2. Ideas from various community groups are sought in problem-solving efforts.								
3. People in this school solve problems; they don't just talk about them.								
4. Community involvement is sought in developing the school's goals.								
5. The goals of this school are used to provide direction for programs.								
6. The goals of this school are reviewed and updated.								
7. There are procedures open to me for going to a higher authority if a decision has been made that seems unfair.								
8. This school believes there may be several alternative solutions to most problems.								
9. When we have conflicts in this school, the result is constructive, not destructive.								

Part C Process Determinants (Continued)	What is: Almost Never / Occasionally / Frequently / Almost Always 1 2 3 4	What Should Be: Almost Never / Occasionally / Frequently / Almost Always 1 2 3 4
10. I feel the teachers are friendly and easy to talk to.		
11. The principal talks with us frankly and openly.		
12. Teachers are available to students who want help.		
13. Parents help to decide about new school programs.		
14. I have influence on the decisions within the school which directly affect me.		
15. The student government makes important decisions.		
16. Teacher evaluation provides useful information for improving teacher performance.		
17. Teachers or students can arrange to deviate from the prescribed program of the school.		
18. Teachers are held accountable in this school for providing learning opportunities for each of their classes.		
19. The teachers in this school know how to teach as well as what to teach.		
20. Inservice education programs available to teachers help them keep up-to-date on the best teaching strategies.		
21. The school encourages students to help other students with their learning activities.		
22. In this school we "look ahead;" we don't spend all our time responding to daily problems.		
23. Information is collected and used to help make decisions at this school.		
24. Priorities for this school are set by several groups, such as teachers, parents and community leaders.		

Part D Material Determinants	What is: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4	What Should Be: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4
1. There is sufficient staff in this school to meet the needs of its students.								
2. The instructional materials are adequate for our school program.								
3. Current teacher salaries in this community give fair recognition of the level of professional service rendered by teachers to the community.								
4. Teachers and students are able to get the instructional materials they need at the time they are needed.								
5. Teachers recommend and make judgments about priorities for resources needed in their program.								
6. The support system of this school fosters creative and effective teaching/learning.								
7. The building is kept clean and in good repair.								
8. This school building has the space and physical arrangements needed to conduct the kinds of programs we have.								

Part D Material Determinants (Continued)	What is: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4	What Should Be: Almost Never 1	Occasionally 2	Frequently 3	Almost Always 4
9. Students and staff are proud of their school plant and help to keep it attractive.								

APPENDIX C

A STEPWISE APPROACH TO PROBLEM SOLVING

A Stepwise Approach to Problem Solving

I. Problem Recognition

A. Identify sources of stress or tension in the organization.

B. Through informal inquiry:

1. Focus issues into specific statements.

2. Identify what needs attention before it becomes a crisis.

II. Ideal Condition

A. Focus on the real problem:

1. Determine the ideal or perfect condition.

2. Determine the present condition.

3. Use the ideal as a standard for comparison.

III. Build a Plan

A. Identify the discrepancy between the ideal and the present condition.

1. Does the discrepancy warrant attention?

B. Determine what additional items are required.

1. Information

2. Resources

3. Personnel

C. Who will be responsible?

D. How will the project be monitored?

E. Who will make various action decisions?

IV. Data Gathering

A. Reasons for gathering data:

1. Reduces biases, stereotypes, and personal prejudices of those involved.

2. Expands the view of the problem.

3. Reduces preconceived notions.

4. Tests the degree to which the problem exists throughout the organization.

B. Problem may be legitimized by asking opinions.

1. Utilize interviews or questionnaires.

V. Discrepancy Analyses and Redefining the Problem

A. Explore the critical differences between the desired ideal and the present condition.

B. Define the actual problem in more specific terms.

VI. Blockages to the Ideal

A. Blockages identified in the organization which work against change.

B. Benefits identified to the system of the status quo. What maintains the problem?

C. Recall previous efforts to change and why the failed. What have people done before?

VII. Creating Alternatives

A. Brainstorm as many solutions as possible.

B. Examine a wide range of solutions.

VIII. Exploring the Consequences of Alternatives

A. Reality testing of the various ideas raised.

B. Answer how an impractical solution might be adapted or combined with other ideas.

C. Weight the consequences of each potential solution in terms of impact on all groups effected.

IX. Planning for Implementation

A. Strategies were developed to insure organizational resistance does not prevent success.

1. Timeline is laid out.

2. Specific role responsibilities defined.

3. Measures of accountability determined.

B. Help to make what is supposed to happen actually happen.

X. Monitoring and Evaluating the Implementation Process

A. Keep the plan at the center of attention.

1. Hold meetings on implementation and effectiveness of the process.

B. Adjustments made to help make the change occur.

C. Measures of success are taken.

1. [illegible]es maintenance of what is happening.

[illegible]ulates a new problem solving phase.

BRAINSTORMING

1. No criticism or evaluation of an idea.

2. Free wheeling and open...the wilder the better

3. Quantity is most important

4. Wide participation. Build freely on each other's ideas

5. "Air time"

   -No dominance by one
   -Less vocal encouraged to speak up

DEVELOPING SOLUTIONS

Who is the solution for

How is it to be implemented

What is the cost of the solution in time and money

What is the potential impact of the solution toward solving the problem

Who has the responsibility for accountability for the groups and their members in implementing and following through on the solution.

APPENDIX D

ACTION PLANS

WORK PLAN

Name of Task Force: Varied Reward Systems

Chairperson: _____ Members: _____

Objective: To explore the implementation of Varied Reward Systems for academic and non-academic activities.

ACTIVITIES	TIMELINE	PERSON(S) RESPONSIBLE	MEASURE(S) OF RESULTS
1. Get recommendations from teachers and student council members.	September 15		
2. Ideas:			
a. Most congenial	O	Schaeffer	
b. Outstanding citizenship	N	DeHerrera	
c. Honor roll	G		
d. Extra-curricular recognition	O		
e. Morning announcer			
f. Most improved	I		
g. Students caught being good - print citations (weekly and monthly recognition)	N G		
3. Get the space on the school wall and in the school and town paper.		Romo	
4. Spirit week activities to recognize a wide variety of student achievement in and out of school (student voting among several categories)	March	Wise	

WORK PLAN

Name of Task Force: Academic Achievement Task Force

Chairperson: _____ Members: _____

Objective: Design and implement strategies to improve academic achievement throughout the school

ACTIVITIES	TIMELINE	PERSON(S) RESPONSIBLE	MEASURE(S) OF RESULTS
1. Find out what will impact on achievement. a. Bring in experts b. Read research studies c Do item analysis in reading and math Iowa's	Nov.-Dec.	Bill with subject area teachers doing the item analysis.	All research has been reviewed; all experts have presented their approaches. Item analysis is complete. Information is shared with staff.
2. Experts in school within a school, contract classes, student team learning, team teaching, basic skills instruction and criterion reference testing are brought in to present.	Jan.-March 30	Entire task force plus assistant principal.	All presentations have been completed; all task force members (9) were in attendance: three strategies are chosen for presentation to entire faculty.
3. Present recommendations for strategies to impact on achievement.	1st week in April.	Bill and assistant principal	Faculty understand the recommendations and vote (2/3) to accept and support the strategies.
4. Set up and ready the school for the changes.	April - June	Entire task force; principal, assistant principal.	Organizational changes are made; staff in-service training is designed: tests are developed.
5. In-service and assessment tests are developed.	Summer	Task force and selected faculty.	Inservice and test development are complete.

APPENDIX E

EQA ACTION VARIABLES

CONDITION VARIABLES

No.	VARIABLE AND COMPUTER CODE	MEASURE	WEIGHTING	INDEX DESCRIPTION
1	GRENROLL (Grade enrollment)	The school administrator reported enrollment of the grade under consideration.	Actual number of students in the participating grade.	A higher value indicates a larger grade enrollment.
2	PCTTILI (Percentage of (Title I) low income students)	The percent of students by school reported to the Department that are from low income families. **(DEBE-1169)**	Expressed to nearest tenth of a per cent.	A higher value indicates a higher per cent of students from low income families.
3	TUITION (Tuition rate)	The tuition rate established for the school districts was obtained from Department records.	Expressed to nearest whole dollar for **1981-82.**	A higher value indicates that the district claims to expend relatively more funds per student.
4	TLOCALE (Teacher locale)	The teachers reported where they graduated from high school.	0= 100 miles or more from boundaries of the school district 1 = More than 30 miles but less than 100 miles 2= In or within 30 miles	A higher value indicates that the school teaching staff is more often drawn from local areas.
5	TSATPAR (Teacher satisfaction with relationships with parents)	The teachers reported how satisfied they were with their relationships with parents and and parent groups	3 = Very satisfied 2 = Somewhat satisfied 1 = Somewhat dissatisfied 0 = Very dissatisfied	A higher score indicates a greater satisfaction of the teaching staff with the cooperation and contacts they have with parents and parent groups.
6	TEDUC (Teacher education)	The teachers indicated the level of formal education they have attained.	4 = Doctor's degree 3 = Master's degree plus 1 year 2 = Master's degree or equivalency 1 = Bachelor's degree 0 = No degree	A higher value indicates that the school's instructional staff reported a higher level of formal education.
7	TEXPER (Teacher experience)	The teachers reported the total years of service in teaching including the current school year.	Expressed as average years' experience.	A higher value indicates that the teachers of the school have relatively more years of teaching experience.
8	CLSIZE (Class size)	The teachers reported their average class size excluding supervisory duties such as study hall.	Expressed as average class size for all teachers.	A higher value indicates a greater average class size.
9	READTIME (Teacher estimation of reading instruction time) (Grade 5 only)	The teachers reported how many hours the average student spent in direct reading instruction in a typical week.	Expressed as average hours spent.	A higher value indicates a greater amount of time spent in direct reading instruction.
10	MATHTIME (Teacher estimation of mathematics instruction time) (Grade 5 only)	The teacher reported how many hours the average student spent in mathematics instruction in a typical week.	Expressed as average hours spent.	A higher value indicates a greater amount of time spent in mathematics instruction.

No.	VARIABLE	MEASURE	WEIGHTING	INDEX DESCRIPTIDN
11	EXTRACT (Activities externa the classroom)	The teachers indicated the degree to which each of five statements about their interactions with students constitute a problem in their school.	3 = Not a problem 2 Moderate problem 1 = Serious problem 0 = Critical problem	A higher score indicates that the teaching staff is more satisfied with their interactions with students.
12	TRELATE (Teacher/Student/Parent relationships)	The teachers indicated the degree to which each of nine statements about the interest of the students and the support and interaction with the parents constitute a problem in their school.	Same as EXTRACT	A higher score indicates that the teaching staff feels that the students and parents support and interact with the school more.
13	DISRUPT (Factors disruptive to classroom management)	The teachers indicated the degree to which each of eight statements about factors that affect classroom management in the school constitute a problem for them.	Same as EXTRACT	A higher value indicates that the teaching staff is more satisfied in classroom management situations.
14	INFLUENC (Teacher influence upon instructional decisions)	The teachers indicated the degree to which each of nine statements about their influence on learning conditions constitutes a problem in their school.	Same as EXTRACT	A higher value indicates that the teaching staff has a greater influence on decisions which affect the instructional processes.
15	TSTAFF (Staff interpersonal relationships)	The teachers indicated the degree to which each of three statements about staff interaction and support constitute a problem in their school.	Same as EXTRACT	The higher value indicates that the teaching staff and other school staff interact better.
16	DISCPROB (Discipline problems)	The teachers indicated the degree to which each of five statements about the discipline procedures of the school constitute a problem for them.	Same as EXTRACT	The higher value indicates that the teaching staff is more satisfied with the way discipline is handled in the school.