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ABSTRACT

This document describes the methodology used to carry out the Assessment of School-Based Management Study, which identified the conditions in schools that promote high performance through school-based management (SBM). The 3-year project, sponsored by the U.S. Department of Education's Office of Educational Research and Improvement (OERI), began in 1991. A literature review was conducted during the first year, case-study field research was conducted during the second year, and cross-site analysis was undertaken during year three. The first phase of data collection examined how SBM, when combined with ambitious curriculum and instruction reform, could work to improve the performance of school organizations. The conceptual framework was based on Lawler's high-involvement model (1986), which focuses on increasing employee involvement in organizational decision making. The case studies sought to discover whether the high-involvement model differentiated between schools that were struggling with SBM and those that were successful with SBM. Case studies examined a total of 27 schools from 5 school districts--3 in the United States, 1 in Canada, and 1 in Australia. An average of 7 interviews were conducted per site for a total of 189 school-level interviews with the principal and assistant principal, governance council members, the union representative, a resource specialist, and teachers. A total of 47 district-level interviews were conducted with district administrators and school board members. Cross-site analysis examined data from 17 schools from 8 school districts (7 in the United States and 1 in Australia). Methods included onsite visits; observations and surveys of teachers; analysis of archival data; and a total of 303 interviews with the principal, governance council members, the union representative, department heads, teachers involved in innovative practices, and teachers not involved in innovative practices. Five tables are included. (Contains 8 references and a bibliography of 19 items.) (LMI)

FINAL TECHNICAL RESEARCH REPORT

**VOLUME III:
TECHNICAL APPENDIX**

**Assessment of School-Based Management
Center on Educational Governance
School of Education
University of Southern California
Los Angeles, California 90089-0031**

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Assessment of School-Based Management is one of the twelve projects in the Studies of Educational Reform Program (SERP) funded by the Office of Educational Research and Improvement, U.S. Department of Education (Contract No. RR 91-172002). The other eleven SERP studies are: Assessment of Student Performance; Curriculum Reform; Early Childhood Education; Parent and Community Involvement in Education; Professionalism of Educators; School-to-Work Transition; Student Diversity; Students At Risk; Systemic Reform; Technology; and Uses of Time. For more information about these studies, please contact Carol Chelemer, U.S. Department of Education, Office of Educational Research and Improvement, 555 New Jersey Avenue, NW, Washington, DC 20208.

VOLUME III

PREFACE

PREFACE

The Assessment of School-Based Management study, as it was originally conceived, called for a three-year scope of work:

Year One: Literature Review

Year Two: Case Study Field Research

Year Three: Cross-Site Analysis

The project began in 1991 and the research team proceeded with the literature review phase of the project. Soon after the first year in the fall of 1992, Congress rescinded funding for all studies of education reform. Rather than stop the project, we took action to continue and were able to begin data collection in the Spring of 1993. We employed several strategies to continue the project in spite of the rescission of OERI monies. First, we sought out additional funds from various sources. CPRE-The Finance Center contributed funds and we also competed successfully for a grant from the Carnegie Corporation of New York.

A second strategy was to replace some senior researchers with advanced graduate students. Thus, every team had one senior researcher supported by several graduate students.

One of the benefits of our decision to pursue foundation support was that when the grant was awarded we were able to expand our scope of work by adding a second phase of data collection that built on findings from the first. While the first phase focused on identifying characteristics of school that effectively used SBM for restructuring, the second phase focused on innovations in the classroom and the governance/management strategies that supported those innovations.

In this volume of the Technical Report, we describe our research design and methods. The presentation is organized around the following sections:

Literature Review

Phase I of Data Collection and Cross-Site Analysis

Phase II of Data Collection and Cross-Site Analysis

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**SECTION ONE:
LITERATURE REVIEW**

LITERATURE REVIEW

SCOPE AND FOCUS

Throughout the Assessment of School-Based Management project, our major research question was: How can school-based management improve the performance of both schools as organizations and students as learners? Therefore, the main thrust of the literature review was to investigate the relationship between school-based management (SBM) and high performance. We first began by reviewing the literature on schools but subsequently expanded our review to include research on decentralized management in the private sector. The literature on private sector organizations provided over twenty-five years of research documenting how different types of organizations had successfully employed a decentralized management approach to improve performance. The literature review phase of the school-based management project occurred over the first year and culminated in the Fall of 1992 with a national conference at which findings from the literature review were presented to federal, state and local policy makers and practitioners.

We began the school-based management project by collecting a wide variety of documents, published and non-published, about SBM. These included the following types of documents: (1) published research on SBM; (2) published and unpublished case studies of schools and school districts that had adopted SBM; and (3) general literature on SBM, including advocacy pieces and literature about the theories underlying SBM. Materials were gathered through contacts directly in the field, as well as through library sources. We contacted districts that had been identified in the literature (e.g., Malen, Ogawa, and Kranz, 1990; Clune and White, 1988) as having adopted SBM to request documents that had been produced. Since we were interested in improving school performance in urban areas with diverse student populations, we also telephoned school districts with enrollments over 50,000 students to insure that SBM programs for large districts were identified, and that documentation and case studies for those districts were collected.

Through this preliminary review of the literature on SBM, Wohlstetter and Odden (1992) found that:

- **SBM was everywhere and nowhere;**
- **SBM was limited because authority for change was too restricted;**
- **SBM focused too much on the impact on teachers and administrators and thus was not focused on student learning;**
- **SBM was created without clear goals or real accountability; and**
- **SBM existed in a state/district policy context that often gave mixed signals.**

Additionally, Wohlstetter and Odden concluded that the knowledge base in education research and practice offered very little about how or whether SBM improved school performance.

In contrast to the research on schools, there had been decades of research on efforts to improve the performance and productivity of private sector organizations through decentralized management. This literature suggested how various strategies work, in what types of organizations and with what effects. Organizations in the private sector were able to boost performance, as measured by financial and quality indicators, by decentralizing four resources throughout the organization to maximize performance:

- *Power* to make decisions that influence organizational practices, policies and directions;
- *Knowledge* that enables employees to understand and contribute to organizational performance including technical knowledge, interpersonal skills, and managerial knowledge and expertise;
- *Information* about the performance of the organization; and
- *Rewards* that are based on the performance of the organization and the contributions of individuals (Lawler, 1986; 1992).

This research on organizations in the private sector suggested that decentralized management, known as high-involvement management, was most appropriate in organizations where the work (like teaching in schools) was complex; was best done collaboratively or in teams; involved uncertainty in its day-to-day tasks; and existed in a rapidly changing environment (Mohrman, Lawler, and Mohrman, 1992).

In subsequent reviews of the literature, which took place during the first year of the SBM Project, we applied the high-involvement management framework to schools in order to examine: 1) the relationship between school-based management and high performance; and 2) the change process required for creating high performance. To do this, we developed a series on papers on the following topics¹:

- High involvement management in the private sector
- SBM in public schools
- Site autonomy and independent schools
- Models of high performance schools
- SBM and teachers
- SBM in new school organizations
- Managing the change to high performance management
- Change in schools

As noted earlier, all of the papers used the analytic framework of high-involvement management.

PRODUCTS

In September 1992, we held a national conference in Washington, D.C. to share with federal, state and local policymakers and practitioners the results of our review of the literature. The conference, "Building Systemic Reform Through School-Based Management and Professional Development," was sponsored jointly by the Finance and Policy Centers of the Consortium for Policy Research in Education (CPRE) and attracted 250 people representing 33 states. Based on the papers generated from the literature reviews, the conference sessions covered high performance, SBM and the change process. We were interested in soliciting feedback about the papers, which were still in draft form, before they were finalized and also in communicating practical design and management strategies to educators in the field in an effort to help schools increase their performance through SBM.

¹Some of these papers were written by members of the research team and others were commissioned to experts in the field.

The results of our literature review ultimately were issued in a variety of forms. A CPRE Finance Brief, School-Based Management: Strategies for Success (Wohlstetter & Mohrman, 1993), was written based on the commissioned papers and disseminated to over 5000 state and local education and political leaders in 1993. Another important product to come from this phase of the project was the book, School-Based Management: Organizing for High Performance (1994), written by Susan Albers Mohrman, Priscilla Wohlstetter and Associates. Several of the commissioned papers were also included in this volume.

One new research and policy direction to emerge from the literature review was a new, more complex definition of SBM. The evidence suggested a need to go beyond thinking about SBM as a simple transfer of power and to view it as a change in organizational design. Thus, we proposed that in addition to empowering people at the school site, SBM must also include strategies to train, inform and reward participants. Findings from the literature review also confirmed the fact that there was little empirical evidence supporting the link between SBM and improved performance. Thus, we hypothesized that in order for SBM -- a governance reform -- to improve school performance and student learning, it would need to be implemented in combination with curriculum and instruction reforms that could provide direction to improvement efforts.

**SECTION TWO:
PHASE I**

**DATA COLLECTION AND
CROSS-SITE ANALYSIS**

PHASE I

DATA COLLECTION AND CROSS-SITE ANALYSIS

RESEARCH DESIGN

In the first phase of data collection, the research design was structured to examine how SBM, when combined with ambitious curriculum and instruction reform, could work to improve the performance of school organizations. Building on the results of our literature review, we used a theoretical framework derived from research conducted in the private sector -- Lawler's high-involvement model (1986) -- that focuses on increasing employee involvement in organizational decision making. According to this framework, efforts to improve organizational performance are more likely to be successful if employees throughout the system are actively involved in the decision-making process. Furthermore, the requisite employee involvement is more likely to occur if it is supported by a decentralized approach to management and organizations that focuses on four key elements.

The first of these four elements is power. By definition, any mechanism for organizational decentralization entails the shift of power to lower levels of the hierarchy. This is the basic characteristic of school-based management, namely, the shift of some decision making authority from the district administration to the school site. However, Lawler (1986) suggests that the remaining three elements must be decentralized to facilitate the development of meaningful patterns of involvement oriented towards improved performance. These elements are knowledge and skills, information and rewards. To make good decisions, participants need the knowledge and skills to enact their expanded roles in such a way as to improve outcomes and achieve high performance. This includes not only technical knowledge regarding how to do the job, but also business knowledge relevant to managing the organization and interpersonal skills required for working together as a team. Participants also need timely information about organizational performance, especially information regarding organizational goals and objectives and the extent to

which these are being attained. Finally, it is important for rewards to be decentralized such that they are aligned with the behaviors, outcomes and capabilities required for high performance. This provides incentives for employee involvement and holds individuals accountable for their contributions to organizational performance.

The high-involvement model served as a useful framework with which to analyze the conditions necessary for SBM to be utilized as an effective school governance mechanism. Findings from the earlier review of the SBM literature indicated that knowledge, information and rewards are often not adequately decentralized in SBM efforts (Ogawa & White, 1994). Therefore, a primary objective of the first phase of our research was to evaluate the applicability of the high-involvement model for schools: Did the high-involvement model differentiate between schools that were struggling with SBM and schools that were successful with SBM?

STUDY METHODS

Building on the Lawler high-involvement model, the following questions were developed to guide project methodology during the first phase:

1. What mechanisms exist for decentralizing power, knowledge, information and rewards in schools and how do they work?
2. How do SBM reforms combine with reforms in the areas of curriculum and instruction to improve student learning and school performance in general?
3. What changes result from SBM and how is school performance affected?
4. What factors are important to the successful implementation of SBM?

These questions were used to guide sample selection, fieldwork and data analysis.

SAMPLE SELECTION

We studied school-based management in five districts that would provide answers to these questions. In selecting districts for this research, the aim was to focus on exemplary SBM districts so that the phenomenon we wanted to examine was, in fact, in place. Through a nomination

procedure that involved consulting with university and policy researchers; federal, state and local policymakers; and practitioners, including district and school-level educators, districts were identified and screened. To be included in the sample, case study sites were chosen when:

- School-based management had been underway for at least three or four years;
- Significant budgetary authority had been devolved to schools; and
- There was a strong push (either from the state, district or school) for curriculum and instruction reform.

In four of the districts, we selected six schools -- two elementary, two middle/junior and two high schools.² At each level of schooling, we identified one actively restructuring school that had been successful in making concrete changes in the areas of curriculum and instruction, and one struggling school that was active with SBM but far less successful in making changes. This approach was taken to make it possible to examine what conditions were present when SBM led to changes in teaching and learning. The identification of struggling and actively restructuring schools was by either the district superintendent or the associate superintendent for curriculum and instruction. In most cases, nominations were solicited from area superintendents and/or curriculum specialists in the district office and the following definitions were used:

1. "Struggling schools" had active SBM governance activities in place, but had not made concrete, observable changes in their approaches to instruction.
2. "Actively restructuring schools" had active SBM governance activities in place, and had made concrete, observable changes to their instructional approaches.

More than half of the schools we studied were classified as actively restructuring on the basis of their success in making changes aimed at improving instructional effectiveness; the other schools, classified as struggling, were active with SBM but their classroom practices had not changed much. Initially, we wanted a sample of 28 schools -- 6 from four districts and four from Australia -- evenly divided between "struggling" and "actively restructuring." However, a "struggling"

²In Victoria, Australia, four schools -- two primary and two secondary schools -- were selected.

elementary school dropped out of the study at the last minute, and thus, one district in the sample had only 5 schools represented.

Each of the districts and schools were selected because of SBM and the district-wide focus on improving curriculum and instruction. A total of 27 schools from the following five districts were studied:

- Edmonton, Alberta, Canada
- Jefferson County, Kentucky
- Prince William County, Virginia
- San Diego, California
- Victoria, Australia

To accommodate the study design, we focused our research in large school districts. The enrollment in San Diego was approximately 125,000 students. In Jefferson County, there were about 95,000 students. Prince William County enrolled 45,000 students and students from Victoria, Australia numbered over 535,000 in the government schools. The student population in Edmonton was about 79,000 during the 1992-1993 school year.

FIELDWORK

Fieldwork took place over an eight-month period from January, 1993 through August, 1993. Two intensive training sessions over three days were held to familiarize field researchers with the study's conceptual frameworks; data collection instruments (i.e., interview protocols, school survey and case study outlines); and interview techniques. All researchers attended the sessions which were held February 8 and 9, 1993 and March 15, 1993 at the University of Southern California.

Prior to our site visits, telephone interviews were conducted to gather preliminary information about the district and its reform efforts. These included interviews with the district official overseeing school-based management and the superintendent. Principals were also interviewed to gain an understanding of reforms in the school before and during SBM, the

implementation of SBM and the SBM model at the school. Following these preliminary interviews, arrangements were made to conduct the site visit.

Senior members of the research team created an extensive array of instruments to collect data during site visits. Fourteen interview protocols were developed for the following audiences to collect information about school-based management, the change process and factors impacting the implementation of SBM:

District-Level

- Superintendent
- Associate Superintendent for Restructuring
- Associate Superintendent for Curriculum and Instruction
- Associate Superintendent for Personnel
- Associate Superintendent for Budget
- Teachers' Union/Association President
- Board President

School-Level

- Principal
- Assistant Principal for Instruction
- Governance Council Members:
 - parents/community members
 - administrator
 - council members
- Union representative
- Resource specialist
- Non-council teacher
- Teacher who is an instructional leader with a good perspective on curriculum/instructional changes

High and Middle Schools:

- 1 or more teachers in the two focal subject areas:
 - High School: Math & Language Arts
 - Middle School: Humanities & Science

Each district was visited by a team of three researchers for one week. Fieldwork was conducted in three-person teams by a senior researcher and two advanced Ph.D. students. The research team spent five days in each district -- one to two days at the district offices and one day at each of the schools -- during which data were collected through structured interviews. The district interviews collected information about the state and district context, including district-level aspects of SBM and curriculum change. The school-level interviews focused on the chronology and implementation of SBM, its form and context and its impacts on teaching and learning; on the organization of the school, including mechanisms for distributing power, information, knowledge and skills and rewards; on perceptions of the school district; and on the involvement of various participants and stakeholders. At the district level, a total of 47 interviews were conducted across the five districts. At the school level, we averaged about 7 interviews per site for a total of 189 interviews in 27 schools. Interviews typically lasted forty-five minutes to an hour.

At the district level, the following information was collected (see Table 1). In many instances, respondents were asked similar questions so that we would be able to triangulate the data across sources.

Table 1

District-level Information Collected

Topic	District Respondents
District overview and background	<ul style="list-style-type: none"> • School Board • Superintendent • Associate superintendents for Finance, Personnel and Curriculum • Union President • Archival data
District level chronology of SBM adoption and implementation	<ul style="list-style-type: none"> • School Board • Superintendent • Associate superintendents for Finance, Personnel, Curriculum, & Restructuring • Union President

Table 1 (continued)

District-level Information Collected

Topic	District Respondents
Form and Context of SBM	<ul style="list-style-type: none"> • School Board • Superintendent • Associate superintendents for Finance, Personnel, Curriculum, & Restructuring • Union President
Knowledge & Skills Development	<ul style="list-style-type: none"> • Associate superintendent for Personnel • Union President • Archival data
Information sharing	<ul style="list-style-type: none"> • Associate superintendents for Finance, Personnel, Curriculum, & Restructuring
Power Sharing	<ul style="list-style-type: none"> • Associate superintendents for Finance, Personnel, Curriculum, & Restructuring • Union President
Leadership	<ul style="list-style-type: none"> • School Board • Superintendent • Associate superintendents for Finance, Personnel, Curriculum, & Restructuring • Union President
Rewards	<ul style="list-style-type: none"> • Associate superintendents for Personnel & Restructuring • Union President
Impact of School Reform Measures	<ul style="list-style-type: none"> • School Board • Superintendent • Associate superintendents for Finance, Personnel, Curriculum, & Restructuring • Union President

Table 1 (continued)

District-level Information Collected

Topic	District Respondents
Barriers and Facilitators of Effective School Improvement through SBM	<ul style="list-style-type: none"> • School Board • Superintendent • Associate superintendents for Finance, Personnel, Curriculum, & Restructuring • Union President

At the school level, the following information was collected (see Table 2). Like the district level, we asked several respondents the same set of questions.

Table 2

School-level Information Collected

Topic	School Respondents
School overview and background	<ul style="list-style-type: none"> • Archival data • Principal • Assistant Principal • Governance Council Members • Union representative • Resource specialists • Non-council teacher • Instructional leader
School level chronology of SBM adoption and implementation	<ul style="list-style-type: none"> • Archival data • Principal • Assistant Principal • Governance Council Members • Union representative • Resource specialists • Non-council teacher • Instructional leader

Table 2 (continued)

School-level Information Collected

Topic	School Respondents
Form and Context of SBM	<ul style="list-style-type: none"> • Principal • Assistant Principal • Governance Council Members • Union representative • Resource specialists • Non-council teacher • Instructional leader
Knowledge & Skills Development	<ul style="list-style-type: none"> • Principal • Governance Council Members • Teachers • Archival data
Information Sharing	<ul style="list-style-type: none"> • Principal • Governance Council Members • Teachers
Power Sharing	<ul style="list-style-type: none"> • Principal • Governance Council Members
Leadership	<ul style="list-style-type: none"> • Principal • Assistant Principal • Governance Council Members • Union representative • Resource specialists • Non-council teacher • Instructional leader
Rewards	<ul style="list-style-type: none"> • Principal • Assistant Principal • Governance Council Members • Union representative • Resource specialists • Non-council teacher • Instructional leader

Table 2

School-level Information Collected

Topic	School Respondents
Impact of School Reform Measures	<ul style="list-style-type: none"> • Principal • Assistant Principal • Governance Council Members • Union representative • Resource specialists • Non-council teacher • Instructional leader
Barriers and Facilitators of Effective School Improvement through SBM	<ul style="list-style-type: none"> • Principal • Assistant Principal • Governance Council Members • Union representative • Resource specialists • Non-council teacher • Instructional leader

Aside from interviews, faculties at each of the sample schools were asked to complete a short (10-15 minute) survey, which was administered during an already-scheduled faculty meeting. The survey was designed as a broader check on the attitudes of the staff regarding SBM than was possible from the subset of staff who were interviewed. The survey asked respondents to rate how satisfied they were with SBM, the amount of influence campus constituencies had on SBM, how much support existed for SBM and to what extent SBM had influenced campus outcomes. Open-ended questions asked participants to identify factors that facilitated or were a barrier to the application of SBM and the improvement of teaching and learning.

The final element of fieldwork involved gathering archival data from the schools and the district office. Documents collected from the district offices included demographic information about the community, professional staff and students; finance information; formal documentation of SBM; district goal statements; accountability systems information; trend data (i.e., student achievement, dropout/graduation rates, attendance, turnover, percent going to college and student

mobility rates); school board minutes; and any other studies about what had been done in the district. Similar information was collected for each school, including demographic information, finances, council minutes, documentation of the instructional guidance mechanism, staff development information, school accountability systems, trend data and other studies.

DATA ANALYSIS

The study method used was a comparative case analysis. Cross-case analysis began with a debriefing session which was held July 30, 1993 at the University of Southern California. All research team members from USC attended. In line with our research plan, the discussion was organized around the four research questions. Findings from this debriefing session provided an in-depth look at:

- The change process in districts and schools, and how SBM evolved over time;
- Mechanisms used by districts and schools to implement SBM; and
- Changes resulting from SBM and how school performance was affected.

Following this debriefing, two case study outlines were created -- a district-level outline and a school-level outline. These outlines guided the final write-up of the case studies for each of the sixteen schools and three districts. By using a common format for the case write-ups, we were able to conduct systematic cross-site comparisons to aid with the extraction of common themes and generalizable learnings. Researchers wrote rich case descriptions of SBM, school improvement areas and organizational features, including mechanisms for sharing knowledge, information, power and rewards in each school. The cases were then examined to find patterns in which actively restructuring schools differed from struggling schools in these areas.

Responses from the surveys were tabulated into means for each question. The open-ended questions were coded into general categories about the barriers and facilitators to SBM. These data were integrated into the case studies to enhance the qualitative data from the interviews. Similarly, archival data were also incorporated into the case studies. Examples of these data include school vision statements, student demographic information and curricular program descriptions.

CONCLUSION

Data collection activities for Phase I culminated in the debriefing session held with researchers from the University of Southern California. Building on this session, cross-site analyses were written up into 9 conference papers presented at the 1993 research conferences for the American Educational Research Association, the American Educational Finance Association and the Association for Public Policy Analysis and Management. Publications based on these data include an article published in Educational Evaluation and Policy Analysis (Wohlstetter, Smyer, & Mohrman, 1994) and a second CPRE Finance Brief entitled School-Based Management: Promise and Process (Wohlstetter & Mohrman, 1995). Complete references for these publications are included in the bibliography to this volume.

**SECTION THREE:
PHASE II**

**DATA COLLECTION AND
CROSS-SITE ANALYSIS**

PHASE II

DATA COLLECTION AND CROSS-SITE ANALYSIS

RESEARCH DESIGN

The first phase of data collection was primarily exploratory and led to the generation of a set of hypotheses for use during the second phase of research. In the prior phase of data collection, the distinction between actively restructuring schools and struggling schools was intended to reflect differences in the level of reform activity, as assessed by district administrators and principals. We tried to verify the classification of schools through interview questions that elicited brief descriptions of changes in their approaches to curriculum and instruction. However, we did not focus in any detail on the nature of the changes and the extent of change. Therefore, a key emphasis in the second phase of data collection was to explicitly investigate new practices in curriculum and instruction. The primary purpose of assessing these reforms was to investigate how their implementation was linked to the use of school-based management.

Many SBM schools have not been able to implement significant changes in how they operate, even though such reforms seem critical for improving school performance and student achievement. Therefore, we wanted to identify the conditions that facilitate or inhibit schools' use of SBM to implement major curriculum and instructional innovations. We built on the findings from our earlier research by further investigating the factors theorized and/or found to be relevant to the effective use of school-based management as a governance mechanism. However, rather than adopting an exploratory stance as in the previous phase of this research, the second phase focused on hypothesis testing with the school as the primary unit of analysis.

Generally speaking, we hypothesized that schools would be more likely to implement reforms in curriculum and instruction to the extent that supportive conditions associated with four factors were present -- power, knowledge, information, and rewards. In addition to these elements of the high-involvement model, our data from the first phase of research suggested three

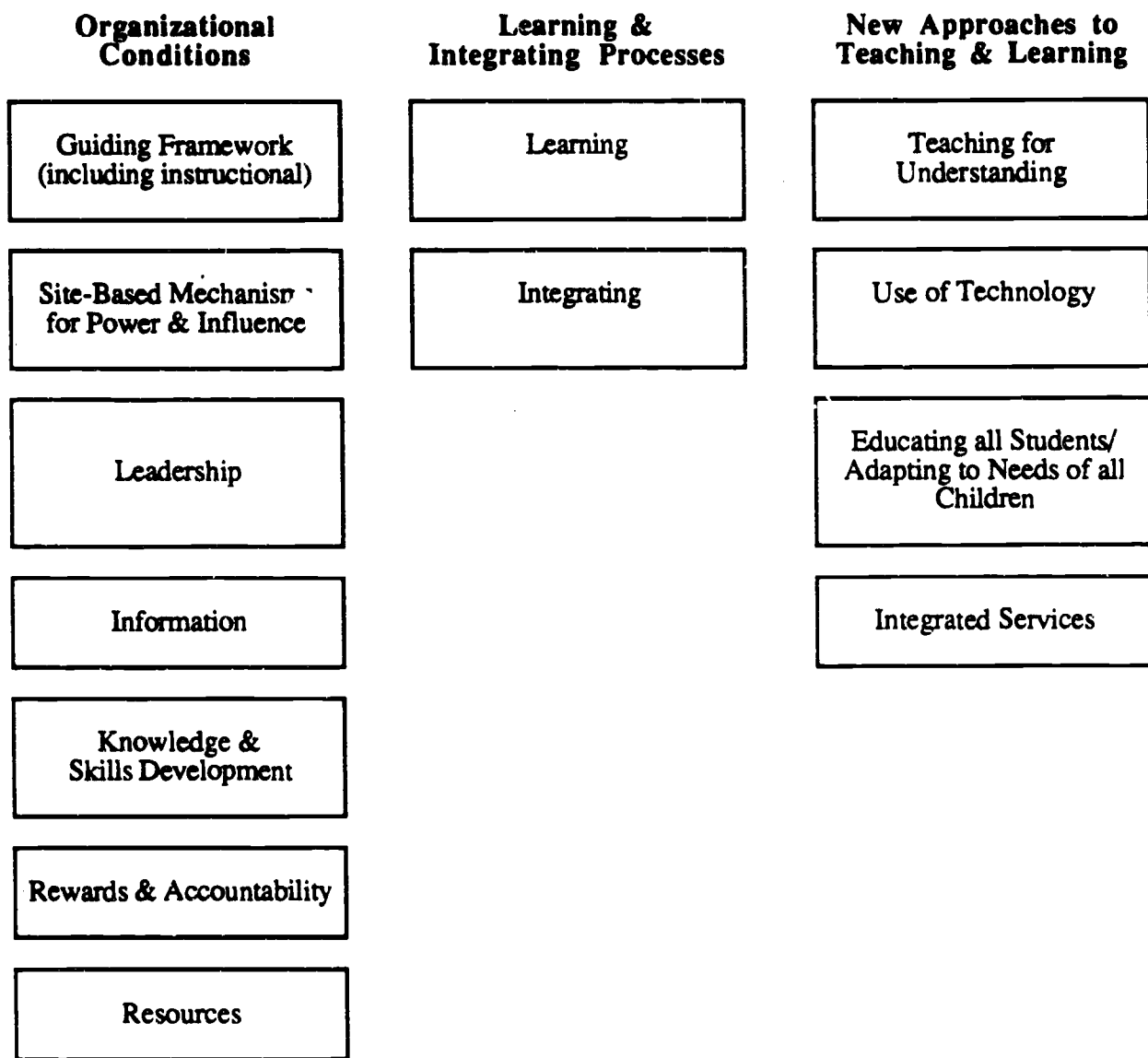
more conditions that seemed to be associated with the effective use of school-based management. One is the presence of an "instructional guidance system," i.e., an articulation of the school's teaching and learning objectives and the means by which the members intend to accomplish them. The second condition has to do with the nature of the school principal's leadership role. Finally, we included an assessment of the importance of outside resources as a factor influencing the reform process at a school. Furthermore, these seven supportive conditions would need to be accompanied by learning and integrating processes at the school in order for curriculum and instruction reform to be maintained. These hypotheses generated the following framework (see Figure 1) for the second phase of data collection:

Thus, we expected that the possibility for meaningful reforms consistent with curriculum and instruction innovation would be enhanced when:

1. The school had significant influence over key decision areas and a greater range of stakeholders were actively involved in the decision-making process.
2. More individuals participated with greater frequency in a broad range of professional development activities oriented toward building school-wide capacity for improvement.
3. A broad range of relevant information was disseminated both internally and externally and the school acquires information regarding stakeholder satisfaction.
4. Individual and school evaluation was based on performance in terms of goals or outcomes and rewards and/or sanctions were tied to performance.
5. There was agreement among staff regarding the instructional direction of the school, which was guided by a state or district framework and/or a school vision or mission.
6. The principal ensured widespread involvement, shared information broadly and took on more of a managerial role, and a broader range of leaders emerged at the school.
7. The school had increased its resource base through the acquisition of outside funding and/or partnerships with the community.
8. New approaches to teaching and learning were maintained and evolved with the presence of an organizational learning system in the school.

Figure 1

Guiding Framework of SBM



These various factors together served as an interconnected set of conditions that provided a systemic design in which innovation was more likely to occur. They are interconnected in the sense that they support and reinforce each other toward the objective of developing a learning community at the school that facilitates the process through which new practices can be identified, introduced and institutionalized. Therefore, our basic hypothesis was that the number and breadth

of new approaches to teaching and learning introduced at a school would be positively related to the number of these supporting organizational conditions and learning and integrating processes that were in place at the school.

STUDY METHODS

Based on the first phase of data collection, the following questions were developed to guide fieldwork during the second phase:

1. What mechanisms exist for decentralizing power, knowledge, information and rewards to help schools learn and improve classroom practice?
2. What governance and management changes are needed to support new approaches to teaching and learning, and to support the innovation process itself?
3. What innovations in classroom practice have been introduced through school-based management and how is school performance affected?

SAMPLE SELECTION

To inform these questions, districts and schools were selected that were actively engaged in curriculum and instruction reforms. To identify a sample, experts in the area of school-based management and restructuring were consulted. The following screening criteria were used in selecting districts:

- Significant responsibility in the areas of budget and personnel had been decentralized to schools;
- Schools had begun to restructure classroom practice in the areas of curriculum and instruction; and
- "Hot spots" of restructuring efforts were underway in some of the following areas: math, science, language arts or social studies.

For each nominated district, telephone meetings with the district's associate superintendents for curriculum and instruction and for restructuring were held. The purpose of these conversations

was to ascertain the degree of decentralization and the extent of curriculum and instructional reform in the district. We were most interested in districts where school-based management had been underway for three or four years; where schools had significant budgetary and personnel authority; and where there had been significant restructuring in the areas of curriculum and instruction. Our intent was to examine schools in site-based managed districts that were successfully restructuring to improve classroom practice in order to determine how school-based management can support new approaches to teaching and learning.

For districts which met our criteria, the associate superintendents nominated schools, an elementary school and a high school, and we contacted the school principals. From the principal, we obtained more information about school reform and requested their permission to study the school. The following questions were asked when selecting schools:

1. Size of the school?
2. When was SBM implemented?
3. Budget Power:
 - a. How much of the budget is decentralized to the school?
 - b. Can the school get the roof fixed on its own?
 - c. Does the school pay for its own utilities?
 - d. Can the school staff pick what types of staff development are needed?
 - e. Can the school hire help from outside of the district?
 - f. Is the carry-over of funds allowed at the school?
4. Personnel Power:
 - a. Does the school have the ability to hire and fire its own staff?
 - b. Can the school control the mix of employees?
5. Curriculum and Instruction Changes:
 - a. Are teachers team teaching?
 - b. Does the school have tracking?
 - c. Is interdisciplinary work occurring?

- d. Are teachers emphasizing Higher Order Thinking Skills?
- e. Are teachers trying to engage students in learning?

6. Restructuring:

- a. What do classrooms look like? (i.e., organization of chairs, learning centers)
- b. How is the school organized?
- c. How are things managed?

Thus, each school was selected because of SBM and its efforts to introduce curriculum and instruction innovations in the school. A total of 17 schools from the following eight districts were studied:

- Bellevue, Washington
- Chicago, Illinois
- Denver, Colorado
- Jefferson County, Kentucky
- Milwaukee, Wisconsin
- Rochester, New York
- Sweetwater Union High School District, National City, California
- Victoria, Australia

FIELDWORK

Fieldwork took place over a seven-month period from November, 1993 through May, 1994. One intensive training session over a 2 day period was held to familiarize field researchers with the data collection instruments. Researchers from both USC and the University of Wisconsin at Madison working on the project attended the session which was held November 4 and 5, 1993 at the University of Southern California. Topics discussed during the session included the study's conceptual frameworks; data collection instruments (i.e., interview protocols, teacher surveys and classroom observations); and interview techniques.

Prior to our site visits, telephone interviews were conducted to gather preliminary information about the district's SBM plan, and the school and its reform efforts. These included several interviews with district officials to get an overview of school-based management in the district and of district support for restructuring curriculum and instruction. Principals were also interviewed to get an understanding of how wide-spread the reforms were. Based upon these preliminary interviews, two subject areas for each school were identified as places where significant curriculum and instructional reforms were occurring.

The senior research team devoted a considerable amount of time developing an extensive array of instruments to collect data at the sites on school-based management, and teaching and learning practices. Ten interview protocols were developed for the following audiences to gain qualitative information about the school's management and governance, and its areas of innovation:

District-Level

- Associate Superintendent for Curriculum and Instruction
- Associate Superintendent for SBM

School-Level

- Principal
- Governance Council Members
 - parent
 - teachers
 - council chairperson
- Union representative
- Department Head/Lead Teacher
- Teachers involved in innovative practices
- Teacher not involved in innovative practices

A classroom observation instrument was also developed for the project to provide a systematic way of assessing curriculum actually taught to students.

Fieldwork was conducted in two-person teams: one member focused on school governance and management; the other on curriculum and instruction innovations. With the exception of Sweetwater (which is a high school district), the research team spent four days in each district -- two days at the elementary school and two days at the high school -- during which data were collected through structured interviews. Within the two areas of innovation, a sample of teachers were identified as leaders of the reforms, receivers of the reforms and uninvolved in the reforms. These teachers were interviewed and most were observed teaching; the observations were conducted by the team member who had expertise in curriculum and instruction. The number of interviews conducted at the schools ranged from 13 to 24, with an average of 18. Interviews typically lasted forty-five minutes to an hour. Overall, the number of interviews conducted at each school was as follows:

Table 3

Number of Interviews

School District / School	Number of Interviews
Denver, CO	42
Elementary School	18
High School	24
Chicago, IL	39
Elementary School	20
High School	19
Jefferson County, KY	41
Elementary School	24
High School	17
Rochester, NY	27
Elementary School	15
High School	12
Bellevue, WA	40
Elementary School	20
High School	20
Milwaukee, WI	34
Elementary School	13
High School	21
Australia	63
Primary School	18
Primary School	15
Secondary School	13
Secondary School	17
Sweetwater District, CA	17
High School	17
TOTAL	303

At the district level, a total of 11 interviews were conducted across the seven districts (excluding Australia). These interviews were telephone interviews and lasted approximately forty-five minutes to an hour. The following information was collected (see Table 4). In many instances, respondents were asked similar questions so that we would be able to triangulate the data across sources.

Table 4

District-level Information Collected

Topic	District Respondents
Historical information about SBM	<ul style="list-style-type: none"> • Associate superintendent of SBM
Site-based mechanisms for power and influence	<ul style="list-style-type: none"> • Associate superintendent of SBM
Guiding Framework (including instructional)	<ul style="list-style-type: none"> • Associate superintendent of SBM • Associate superintendent of Curriculum & Instruction
Integrating Processes	<ul style="list-style-type: none"> • Associate superintendent of SBM
Information Sharing	<ul style="list-style-type: none"> • Associate superintendent of Curriculum & Instruction
Knowledge & Skills Development	<ul style="list-style-type: none"> • Associate superintendent of SBM • Associate superintendent of Curriculum & Instruction
Rewards & Accountability	<ul style="list-style-type: none"> • Associate superintendent of SBM
Leadership	<ul style="list-style-type: none"> • Associate superintendent of SBM • Associate superintendent of Curriculum & Instruction
School-based management	<ul style="list-style-type: none"> • Associate superintendent of SBM
Outcomes	<ul style="list-style-type: none"> • Associate superintendent of SBM • Associate superintendent of Curriculum & Instruction
Impact of SBM	<ul style="list-style-type: none"> • Associate superintendent of SBM • Associate superintendent of Curriculum & Instruction

At each school site, respondents (see Table 5) were asked the following:

Table 5

School-level Information Collected

Topic	School Respondents
Guiding Framework (including instructional)	<ul style="list-style-type: none"> • Principal • Department Head/Lead Teacher • Teachers involved in innovative practices • Teacher not involved in innovative practices
Site-Based Mechanisms for Power & Influence (Structures & Processes)	<ul style="list-style-type: none"> • Principal • Governance Council Members • Union representative • Department Head/Lead Teacher • Teachers involved in innovative practices • Teacher not involved in innovative practices
Leadership	<ul style="list-style-type: none"> • Principal • Governance Council Members • Union representative • Teachers involved in innovative practices • Teacher not involved in innovative practices
Information Sharing	<ul style="list-style-type: none"> • Principal
Knowledge & Skills Development	<ul style="list-style-type: none"> • Principal • Governance Council Members • Union representative
Rewards & Accountability	<ul style="list-style-type: none"> • Principal • Governance Council Members • Union representative
Resources	<ul style="list-style-type: none"> • Principal

Table 5 (continued)

School-level Information Collected

Topic	School Respondents
Learning Processes	<ul style="list-style-type: none"> • Principal • Governance Council Members • Union representative • Department Head/Lead Teacher • Teachers involved in innovative practices • Teacher not involved in innovative practices
Integrating Processes	<ul style="list-style-type: none"> • Principal • Governance Council Members • Union representative • Department Head/Lead Teacher • Teachers involved in innovative practices • Teacher not involved in innovative practices
Teaching for Understanding Innovations	<ul style="list-style-type: none"> • Principal • Teachers involved in innovative practices • Teacher not involved in innovative practices
Use of Technology	<ul style="list-style-type: none"> • Principal • Teachers involved in innovative practices
Educating all Students/ Adapting to Needs of all Children	<ul style="list-style-type: none"> • Principal • Teachers involved in innovative practices
Integrated Services	<ul style="list-style-type: none"> • Principal • Teachers involved in innovative practices

Aside from interviews and observations, all teachers within the two innovation areas at each of the sample schools were asked to complete a 30 minute survey about their instruction. These surveys, which were based on the work of Reform Up Close: An Analysis of High School Mathematics and Science Classrooms (Porter, Kirst, Osthoff, Smithson & Schneider, 1993) were administered to obtain data on the enacted curriculum. Such surveys have been found to be a good

measure of actual classroom practice (Smithson & Porter, 1994). In total, eight survey instruments were developed and administered that spanned subject matter and school level:

Elementary Schools

- Language Arts
- Mathematics
- Science
- Social Studies

High Schools

- Language Arts
- Mathematics
- Science
- Social Studies

In the surveys, teachers were asked to report information about student demographics, use of materials (other than textbooks), beliefs about teaching and learning, instructional activities, the influence of outside organizations (e.g., professional networks) or documents (e.g., district curriculum frameworks) on their teaching, involvement with reform, coverage of various topics within their subject matter (e.g., language basics or literature for language arts teachers) and their satisfaction with the school and various reforms. Teachers who completed the survey were paid for their time.

The final element of data collection involved gathering archival data from the schools and the district. Documents collected from each school included the school calendar; demographic information about the students; community influence patterns; finance information; formal documentation of SBM; council minutes; school goal statements; accounts of innovations; staff development information; trend data (i.e., student achievement, dropout/graduation rates, attendance, turnover, percent going to college and student mobility rates); master schedule of classes; and any previous studies about the school. Within each teacher interview (when the focus was on curriculum), information (i.e., lesson plans, tests, assignments) representative of their teaching was requested. Similar information was collected at the district, including demographic information about the community, professional staff and students; official documentation of SBM; district goals or vision statements; accountability systems; trend data; and previous studies.

DATA ANALYSIS

Cross-case analysis began with a two-day debriefing session which was held June 16 and 17, 1994 at the University of Southern California. All research team members both from USC and the University of Wisconsin-Madison attended.

Our intent with data analysis was to assess the organizational conditions that produced innovations in teaching and learning. To facilitate analysis across sites, a series of matrices were developed to capture data on three sets of variables:

Organizational Conditions

- Participation Mechanisms (structure and processes)
- Instructional guidance framework
- Leadership
- Information
- Knowledge and skills development
- Rewards and accountability
- Resources

Learning and Integrating Processes

- Dialogue among school participants
- Team learning
- Systemic thinking
- Examination of organizational functioning
- Connections to the environment
- Processes for developing personal mastery
- School learning processes

New Approaches to Teaching & Learning

- Teaching for understanding
- Use of technology
- Educating all students/Adapting to the needs of all children
- Integrated services

In addition to interview data, data from the teacher surveys were shared to profile classroom practices in selected areas of innovation -- math, science, language arts and social studies. The survey data, along with classroom observations, provided in-depth information about instructional strategies and student activities used by teachers at the sample SBM schools. Survey response rates from the elementary schools were near 100 percent and at the high school averaged about 75 percent.

To facilitate cross-site analysis, a qualitative data base consisting of all interview responses from this phase of data collection was constructed. The data base allowed for manipulation of interview responses and facilitated hypothesis testing and pattern analysis. Thus, interview data could be sorted by question, role of interviewee, school or district for purposes of analysis. Most publications have drawn on data that is organized by question for each school. The construction of this data base has facilitated cross-site analysis of over 300 interviews in 17 schools.

CONCLUSION

Data collection activities for Phase 2 culminated in the debriefing session held with researchers from the University of Southern California and the University of Wisconsin. Building on this session, cross-site analyses were written up into 16 conference papers presented at the research conferences for the American Educational Research Association, the American Education Finance Association and the Association for Public Policy Analysis and Management. Publications based on these data include articles published in Educational Administration Quarterly (Robertson, Wohlstetter, & Mohrman, 1995), Educational Leadership (Odden & Wohlstetter, 1995), Principal

(Wohlstetter & Briggs, 1994), Phi Delta Kappan (Wohlstetter, 1995), School Business Affairs (Odden, Wohlstetter, Odden, 1995), and a policy brief from the Center for Organization and Restructuring of Schools (Odden & Odden, 1994). A second book entitled Reforming Schools through School-Based Management: Lessons from Research authored by Mohrman, Wohlstetter and Robertson is currently being written. Complete references for these publications are included in the bibliography to this volume.

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