Principal-preparation programs require students to take research courses; however, principals are often unprepared to apply research skills in school settings. This paper discusses approaches to using data for decision making in a site-managed school. It describes one high school's efforts to apply research and recommends that principal-preparation programs find ways to make research a practical skill for principals. During the 1993-94 school year, the new interim principal at University High School in Normal, Illinois, conducted an inventory of the school's climate. The results led to the engagement of graduate students and faculty to gather information in three areas of concern: staff perceptions of the organizational working processes, staff workloads, and resource allocation among extracurricular programs. Data for the staff-perceptions study were collected through interviews with a total of 68 teachers and staff, and resulted in collaborative planning to address problems. The workload study involved interviews and task analyses, which led to the revision of staff compensation, evaluation, and workload. In the third study, a quantitative comparison of extracurricular-program funding raised issues of financial inequality and opportunities for male and female students. In each case, findings were made available to staff, who provided feedback, which was then used to clarify issues and address problems.
SITE-BASED MANAGEMENT: USING DATA FOR DECISION MAKING

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Abstract

Site-based management is more than a redistribution of resources and power. Site-based management tests our assumptions about the skills and relationships necessary for effective schools. Principal preparation programs require students to take research course, yet principals are unprepared to apply research skills in school settings in order to collect and analyze data which could be critical to the school's (and so the principal's) success.

This paper discusses approaches to using data to make decisions in a site-managed school. This paper describes one school's efforts to apply research and recommends that principal preparation programs find ways to make research a practical skill for principals.
SITE-BASED MANAGEMENT: USING DATA FOR DECISION MAKING

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Site-based management is a significant change in the ways decisions are made at school. "Site-based management" is easy to say and difficult to do. "Site-based management" is easy to discuss in graduate classrooms, but difficult to prepare graduate students to implement. Centralized school systems represent relatively clean-cut systems to analyze, describe, and discuss. The seat of power is clearly identified, the chain of command and communication is clearly understood, and members of the organization know (for sure) only what they need to know to do their jobs. Centralized school systems keep most parents, students, teachers, and administrators a safe distance from critical decisions, limiting their individual responsibility. Inherent in limited responsibility is even more limited knowledge about and control over resources necessary to an effective educational organization. At least in part because decisions about instruction, staffing, and budget occur far from classrooms, top-down systems base decisions about change on popular innovations rather than on professional and moral knowledge about what is right for schools (Glickman, 1992). Innovations become answers to some-times ill-defined problems, rather than beginnings of new ways of doing business. Principals, fingered as one of the most critical of multiple measures of effective schools (Levine & Lezotte, 1990), must learn to develop and work in systems which operate very differently from these highly bureaucratic systems with which they are more familiar.

Site-based management requires significant changes in the ways decisions are made in schools. Site based management assumes that the closer decisions are made to the
classroom, the more likely decisions will actually be in the interest of what goes on in those classrooms (Clune & White, 1988). Principals in site-based systems find themselves accountable for the decisions of groups of parents, students, and teachers who are uncertain about their new roles and the extent of their responsibility for historically administrative decisions. Effective principals will learn to get work accomplished through groups filled with people of varied understandings, skills, and experiences (Asayesh, 1993; Gresso & Robertson, 1992). Principals' jobs become the conscious creation of new ways for staff and community to communicate about and collaborate on decisions important to the essence of schools.

Site-based management puts faith in the ability of teachers and principals, aided by parents and students, to get the schoolhouse in order (Barth, 1990). In order for this faith to be justified, principals and their staff members must develop new skills. Much of the literature about site-based management quite rightly emphasizes establishment of new relationships among the participants in site-based systems. Although teachers and administrators learn a great deal in their preparation programs about working with and motivating children, they learn very little about working with other adults as partners. Getting the schoolhouse in order requires not only new relationships with people, but new relationships with information. Teachers and administrators learn in their preparation programs to assess student learning, evaluate textbooks, and align curriculum. They also need to learn strategies for identifying problem areas and using data to define and solve the problems.

Site-based planning groups need strategies for using data to make decisions.

Partnerships among educators and others invested in the schools, defined by mutual respect and productive working relationships, are not ends in themselves. The purpose of these partnerships is to improve schools for the benefit of children. Many site-based schools provide structure to improving the newly autonomous school through some
type of strategic or futures planning process. In the worst of cases, this becomes a new version of the old process of filling-in-the-blanks about problems everyone recognizes and no one ever solves. In the best of cases, this becomes a dynamic process which changes the ways in which all partners view the school. Success in planning and implementing improvement processes rests in the ability of the partners to use their new relationships and planning processes to identify problems, collect relevant data, and use data analysis as the basis for creative solutions.

School administrators who are not prepared to facilitate on-going improvement efforts rely in the short-term on contracted experts to get staff and community members enthused about controlling the destiny of their schools. In order for site-based management to be institutionalized as a way of doing business, administrators must be prepared to act as their schools' experts. Principals, in particular, must assume responsibility for maintaining commitment to participatory decision-making and constant change (National Leadership Network, 1991). Decisions, made in concert with others or behind the principal's desk, will only be as sound as the data on which they are based. Principals must see a link between the skills they learn in preparation program research classes and preparing to make systems-changing decisions in their schools.

Using data should be a practical approach to making site-based decisions.

Too many educators fear the word "research." Limited knowledge of design, anxiety about statistics, and memories of high pressure research courses combine to construct educators' resistance to engaging in limited scope research so that problem solutions can be based on data about the problems themselves. Following is a description of one school's efforts to make practical use of skills and knowledge acquired in graduate level research and organizational development classes to improve decision-making in a site based management school.
University High School (U-High) is a secondary school in Normal, Illinois. U-High is a component of a pre-K through 12th grade laboratory school system for Illinois State University. The laboratory school system has a four-part mission handed down by the University: instructional program for students, teacher preparation, research, and service. U-high includes grades nine through twelve. Fifty teachers and 15 support staff serve approximately 600 students. Those students come from 19 different schools from the communities of Normal, Bloomington, and the surrounding area. U-High operates as a public school of choice, charging no tuition and admitting a varied student population.

U-High programs include typical academic classes for sophomores, juniors and seniors, as well as a wide variety of Advanced Placement courses. For freshmen a new program, FIRST, incorporates a multidisciplinary team teaching approach during the morning for the core subjects, with regular electives during the afternoon. In addition, a low-incidence special education program operated by a special education cooperative association is located at U-High and serves children from several counties. U-High features a wide variety of student activities, in which approximately 80% of the students participate.

During the 1993-94 school year, the school had a new, interim, principal charged by the university to study operations at U-High and to make recommendations regarding ways to improve the "laboratory" aspects of U-High. The charge included clearly defining the school's mission. The principal began this task by examining the climate of the school. As a preliminary step the staff completed a survey, the Instructional Climate Inventory (1988), to assess the school climate prior to start of the school year. The principal also interviewed the staff. Staff varied in their reaction to the change in leadership and the charge to make some changes in the school. It was not clear whether or not staff had the skills to function effectively as partners in making a new future. It was clear the staff was insecure, divided, and anxious for clear direction. Based upon that preliminary data, the principal concluded the school climate was not positive and that a great deal of
intervention was needed to improve the climate so that the school could move forward in its efforts to redefine itself and plan a vital future.

The principal used the existing faculty advisory committee as the core members of a collaborative planning effort which involved all U-High staff members, university personnel, parents, other community members, and student leaders. In order for the core planning team to direct the collaborative planning effort, the principal "opened the books," sharing all available data regarding budget, salaries, curriculum, extra-curricular offerings, student demographics and achievement, teacher education student load, and university relations. Unavailable was data regarding three reoccurring themes of dissatisfaction running through the preliminary climate work: staff perceptions of the working processes of the organization, staff work-load, and equity of resources among extra-curricular programs.

The principal engaged graduate students (because of the availability of University resources) and faculty to gather information regarding the three reoccurring themes so that recommendations of the collaborative planning team regarding these issues could be based on data rather than on emotion or assumed knowledge. The first issue, staff perceptions of the working processes of the organization, was an emotionally charged and subjective issue, so the interview method of data gathering was used to help draw out feelings of the staff. The interview method, though somewhat inefficient and yielding data awkward to code and quantify, was selected as a means of gathering rich data and flexibly working with school staff. The interview questions were developed based on Weisbord's Six Box Model, which "provides a framework for diagnosing what goes on in organization....Within each box there exists a formal and an informal system. That is, what people say that they do and what they actually do" (Weisbord, 1976). This model incorporates the following six areas for inclusion in a diagnosis: purposes, structure, relationships, rewards, leadership, and helpful mechanisms. Opening statements, leading and probing questions, and closing strategies were based on recommendations from
Manzini (1988). Minor revisions in wording of the questions were made following four pilot interviews. Each interview lasted approximately 20-30 minutes, with a few lasting nearly an hour. Although staff expressed eagerness to participate when the process was explained at a faculty meeting, they failed to self-schedule for interviews and, for the most part, had to be contacted individually for a meeting time. A total of 68 staff members were interviewed. This included 48 teachers, 10 support staff, and 10 classified staff. All full-time and some part-time staff were included. The interview responses were recorded on a question sheet for each individual, and an ID number was assigned to each one.

Responses for some of the questions were grouped as on a Likert scale to determine the strength of positive and negative responses. These data were then entered into an SPSS/PC+ Studentware Plus (1991) computer program. Responses for each question were studied for major concepts, with individual comments coded within these major concepts. Responses which crossed questions were counted to see the strength of some concepts such as feelings of being overworked and under paid or of wanting closer personal and professional relationships among the staff.

Results of the analysis, shared with the entire staff, revealed keen awareness of changes caused by new leadership as well as some distinct problems to be solved. By mid-term of the first semester, staff were used to the new, participatory, site-based management style. Staff viewed support by parents, community, and university as strengths. Resources, including communications among the general school population, were viewed as adequate. Staff saw the school as lacking in a shared purpose, which resulted in other problems, such as a lack of staff unity. A majority of the people interviewed complained that the merit pay system encouraged competition, not collaboration. Division of work, lack of priorities, and multiple duties were sources of dissatisfaction with the structure of assignments at U-High. Tangible rewards (salary) were viewed as inadequate. Overall climate, however, was positive to mostly positive, a
big change over the climate survey data collected by the principal prior to the beginning of the year.

Feedback of this data to the entire staff as well as the core collaborative planning team resulted in some interventions designed to solve the problems. The collaborative planning effort forged ahead to develop a mission, series of belief statements, and action items agreed upon by consensus of the entire staff. The merit pay system for the laboratory schools is under review by a joint committee of laboratory school and university personnel. As planned (and described below), a study of faculty work to determine actual load was engaged. Faculty meetings became forums for communication and department chairs assumed more responsibility for communicating among faculty. As communication improved, celebrations of individual achievements and group accomplishments began to creep into the setting, improving social relations (nearly everyone attended a holiday party).

Faculty work load, another emotionally charged issue, was studied using a combination of interviews and task analysis. The study began with developing labels and definitions for various types of faculty work. As a laboratory school, U-High required faculty to engage in service and research, as well as teaching four classes each day. Many faculty also sponsored or coached extra-curricular activities as a means of supplementing their salaries. A model for classifying professional work used by the university was adapted for use in gathering data about the work of U-High faculty. Work was classified as direct instruction, indirect instruction, departmental research, student services, organized research, public service, and institutional support. Direct instruction and parts of indirect instruction could be calculated based on records of teaching assignments and supervision of clinical experience students. Other indirect instruction categories, organized research, departmental research, public service, student services, and institutional support data were gathered from a mix of faculty interviews, administrative reporting, and records of committee assignments and extra-curricular contracts.
Data recording and manipulation were straightforward. Data for each faculty member were recorded on an activity analysis form developed for this purpose. Data were then entered into an Excel spreadsheet, allowing analysis by individual, as an entire faculty, by categories of work, by paid and unpaid assignments, by gender, and relative to the mission and beliefs developed via collaborative planning. Data confirmed general feelings of discontent with work load: 82% of the faculty worked more than 40 hours per week due to the nature of their assignments, 56% worked more than 60 hours per week. Interesting data included the revelation that 54% of faculty time was spent on direct instruction; only 4% was spent on research. The majority of extra-pay assignments were for athletics, not for support of academics. Significantly more men than women received extra pay. A comparison of paid and unpaid workloads with U-High's newly developed mission and beliefs revealed startling mismatches of the most precious and available resource, faculty time, with the purposes of the school.

As a result of this data being shared with the entire staff and administration of the laboratory schools, staff compensation, evaluation, and load will undergo significant revision over the next two years. In addition, the principal and staff will be forced to make some hard decisions in order to put adequate resources behind addressing their mission.

The third study addressed equity of the resources dedicated to extra-curricular activities, an issue not far removed from the previous two issues of organization and workload. The primary purpose of this study was to develop an understanding of which students participated in extracurricular activities, the extent of human, financial, and other resources expended for each activity, and the cost per participant. The study was performed by a teacher and an assistant principal. Numerous charts were developed using the Excel program to manage and display the data for administrators, extracurricular coaches and sponsors, and teachers in general. Participation was analyzed by sport, by season, by class level (freshman, sophomore, junior, senior), by cost, and by general
descriptors such as levels of competition (junior varsity, varsity), numbers of contests, gender of coaches, and pay of coaches.

The study found that overall participation in the athletic program steadily increased since the 1985-86 school year. Male involvement increased at a greater rate than female participation. However, the recent addition of a new cross country program for females contributed to increased female participation in the last two years. Upper classmen participated less than did freshmen and sophomores. Fewer students participated in athletics during the winter seasons than during fall and spring (19% v. 39%). Males were found to be offered a wider variety of activities throughout the winter season and one more offering than females during the spring. Females had one more activity than males during the fall. Males competed at 20 different levels; females competed at 13 levels.

Assigning meaning to expenditures per individual per sport were difficult to interpret due to the unique nature of each sport. Coaches salaries appeared to be equitable and unaffected by the gender of participants or of coaches. All coaches of the same level of sport were found to be paid equally. Differences in expenditures for male and female sports reflected higher costs of equipment for football, currently a male sport at U-High. Cost data may be most useful to University High School because, like so many other schools, it must make difficult decisions affecting the financial health of the entire educational program. The need to make these decisions was reflected, in part, in the faculty work load study described above.

The study of equity of resources by gender for extracurricular activities led to many new questions worthy of exploration so that administrators can make data based recommendations regarding this highly visible and sometimes emotionally charged part of the school. What do University High School athletes do in the winter when they are not participating in athletics? Why do fewer upper classmen participate? Why do males typically play more than one sport, while females typically play only one? What impact does cost per student have on each sport?
Principals need to be prepared to make practical use of data for decision-making.

Today's principals are accountable for incredibly important decisions regarding not only the daily operation of the school within a larger school system, but for decisions which determine the future viability of the school as a quasi-autonomous subsystem of a site-based management organization. Each site must develop the capacity for self-scrutiny. Principals must be able to link the content of graduate school research and organizational development classes to using data as a basis for continual improvement of the system.

Each of the studies undertaken at University High School this past year are within the creative capacity of other schools (though, admittedly, most schools would have difficulty engaging all three during the same school year). Each study required graduate level understanding of school organizations, administrative theory, and sound data gathering and analysis. Each study also required time and working knowledge of common data management software. No specialized equipment or highly paid consultants were necessary. Time is the big ticket item; schools with access to administrative interns should use them to assist in designing and implementing data gathering strategies relative to identified problems. Schools without access to administrative interns should find ways to make time available (using substitute teachers, alternative scheduling, class sharing) so that important decisions can be based on data.

Site based decision-making requires engaging multiple constituencies in the serious planning of the long-range future of schools. Principles must take charge of the decision-making processes. One way to shape the school's destiny is to see that decisions are driven by data as well as by personal and professional judgments.
References


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