

What Do You Call People with Visions?

The Role of Vision, Mission and Goals in School Leadership and Improvement

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Abstract

Numerous reviews of studies of school leadership, school effectiveness, school improvement and organizational change cite vision, goals and mission as key factors explaining the differential effectiveness of organizations. Thus scholars have frequently called for school leaders to develop “clear school missions” and to exercise “visionary leadership.” Policymakers have mandated school leaders to implement accountability systems based on goal-setting and appraisal.

Yet, despite the predominance of these strategies it remains unclear how to approach this domain of research and practice. Both in research and practice these three related terms are often used synonymously. In this chapter we assert that this tendency ignores the different theoretical foundations and assumptions underlying these constructs. Moreover, we further contend that researchers have unwittingly colluded in this by failing to provide sufficiently clear operational distinctions among the terms.

This chapter seeks to provide conceptual clarity and methodological direction to the topic of “schools goals” by reviewing theoretical and empirical research. The review covers literature on vision, mission and goals from education, public and private sectors. We also provide an illustrative analysis that seeks to show a promising direction for the future study of these constructs. The chapter concludes by reaffirming the theoretical and practical potential of this set of variables, but also calls for more systematic distinction among these constructs in future empirical studies.

Throughout the 20th century, research on organizations focused attention on the role of vision, mission and goals in organizational effectiveness (Barnard, 1938; Drucker, 1995; Gouldner, 1959; Gulick, 1948; Kotter, 1996). During the second half of the century, educational scholars found that instructional outcomes are enhanced when staff have clear goals and maintain a sense of common purpose (Deal & Peterson, 1990; Edmonds, 1979; Leithwood, 1994; Purkey & Smith, 1985). Similarly, studies of successful corporations often report a clear mission--goals that are understood and shared by participants (Deal & Kennedy, 1982; Peters & Waterman, 1982).

At a general level of discussion, these findings are intuitively sensible; however, closer examination suggests that the concept of an organizational goal is not so easily captured (Perrow, 1961, 1968). Indeed, research confirms that organizational goals often do not conform to the image presented by the excellence and effectiveness studies – especially in schools and private sector organizations (March & Olsen, 1976; Weick, 1982).

Scholars operating from alternative frameworks characterize goals, especially in schools, as multiple, ambiguous, unstable, and often conflicting. In an earlier review of the principal's role in school effectiveness and improvement, Hallinger and Heck concluded:

[U]nder the conceptual heading of purposes, researchers included a wide variety of operational measures: teachers' educational expectations, the framing of educational purposes, principal's clarity in articulating a vision, the substance of the school's mission, consensus on goals, and the principal's role in goal- setting processes. . . . Yet, researchers often used vision, mission, and goals synonymously in discussions of leadership. They also tended to operationalize them quite differently in empirical investigation. This lack of conceptual clarity is problematic in that the

terms have different theoretical foundations and point towards alternate conceptualizations of how leaders influence school outcomes. (1996, p. 32)

In this paper, we seek to unpack the alternate conceptual foundations of vision, mission, and goals as bases for understanding school effectiveness and school improvement. Literature from both business and education sectors forms the basis for the review. In addition to examining the theoretical basis for these terms, we also review empirical data in order to better illuminate the different roles these concepts play in efforts to promote school improvement.

Readers are, however, forewarned that the empirical literature is often of limited assistance for the very reason that researchers have not defined the constructs clearly. As part of this review, therefore, we also offer examples of directions in which this research might proceed. In our first example, we use structural equation modeling to re-analyze a study on leadership influence, organizational functions, and outcomes. In our second example, we demonstrate the use of multilevel modeling with longitudinal data in a study where we attempt to link school effectiveness and school improvement research.

Vision, Mission and Goals in School Improvement:

Conceptual Issues

In this section we begin the process of unpacking the conceptual foundations of these related terms. We assert that until scholars distinguish more clearly among these terms and their underlying assumptions, it will be difficult to craft appropriate strategies for either empirical study or practice.

The Role of Vision in School Improvement

What do you call people who have visions? a) insane, b) religious fanatics, c) poets, d) mystics, e) leaders. Depending on your frame of reference, one or all of the above would be correct. After decades of mistrust concerning notions of charismatic leadership, a new notion of visionary leadership crept into popularity during the 1980's and 1990's. This was often termed "transformational leadership" by proponents (e.g., Bass, 1985; Leithwood, 1994). This approach to leadership sought to describe and explain the manner by which organizational and political leaders appeared to profoundly influence their constituencies. Its application has spread beyond the political arena into business and schools. A central facet of transformational leadership is the notion of vision.

Vision as an avenue of influence in school improvement. Personal vision refers to the values that underlie a leader's view of the world, and in this case, education. The use of the word vision is not accidental. A vision enables one to *see* facets of school life that may otherwise be unclear, raising their importance above others.

The foundation of vision is moral or spiritual in nature. For example, the use of vision in religious contexts suggests the notion of a sacred calling from within the individual. While secular education disavows formal religious practice in schools, education itself remains fundamentally a sacred craft in which we offer service to others. Education is a moral enterprise (Barth, 1990; Bolman & Deal, 1992a; Deal & Peterson, 1990; Fullan, 1993; Fullan & Hargreaves, 1992; Hallinger, 1996; Sergiovanni, 1992).

A vision, by its nature is a source of inspiration for one's life work. It is *not* by nature measurable or bound to a timeline. It draws its power as a well-spring of personal motivation that can act as a catalyst to action for oneself and potentially for others.

Roland Barth (1993), among the most articulate proponents of vision as an inspiration for educational leadership, claims that personal visions grow out of the values we hold most dearly. He suggests several questions that may clarify an educator's personal vision:

- In what kind of school would you wish to teach?
- What brought you into education in the first place?
- What are the elements of the school that you would want your own children to attend?
- What would the school environment in which you would most like to work look like, feel like, and sound like?
- If your school were threatened, what would be the last things that you would be willing to give up?
- On what issues would you make your last stand? (Barth, 1996, personal communication)

The power of a personal vision lies both in its impact on one's behavior and its potential to energize others. A clearly formed personal vision shapes our actions, invests our work with meaning, and reminds us why we are educators. When a personal vision is shared by others, it can become a catalyst for transformation (Barth, 1990; Bolman & Deal, 1992a, 1996; Hallinger, 1996).

Empirical study of vision. The inspirational facet of a personal vision received the most attention in the earlier leadership literature, especially in the context of charismatic leadership. More recent scholarship in educational leadership, however, has identified additional avenues through which vision may have an impact on schools. This has focused on the transformational model of school leadership (e.g., Leithwood, 1994; Leithwood et al., 1998; Silins, 1994). For example, research on administrative problem-solving links personal vision to expertise in

problem solving and decision-making (e.g., Hallinger, Leithwood, & Murphy, 1993; Leithwood, Begley, & Cousins, 1990, 1992; Leithwood & Steinbach, 1995).

Teachers and principals make thousands of decisions daily, often without the data needed to make informed choices. Leithwood and colleagues found that leaders with clearly articulated personal values are often more effective problem-solvers. When tackling the messy problems often faced in schools, the *visionary* leader's values became “substitutes for information” (Leithwood et al., 1992). Clearly defined personal values allowed principals to identify important features hidden within swampy problem situations. This provides a sounder basis on which to formulate solutions. It is also enabled the principals to take a more consistent approach to solving diverse problems by linking problem interpretation to core values.

Personal vision has also been identified as an important facet underlying organizational learning (Caldwell, 1998; Hallinger, 1998; Leithwood, 1994; Leithwood, Jantzi, & Steinbach, 1998; Senge, 1990). Within the model of a learning organization, the capacity of a school to learn new ways of thinking and practicing is tied intimately to its capacity to envision a new future. As Leithwood and colleagues note, “This dimension [vision] encompasses practices on the part of the leader aimed at identifying new opportunities for his or her school and developing (often collaboratively), articulating and inspiring others with a vision of the future” (p. 80).

Vision becomes an especially important condition underlying organizational learning during times of rapid change (Drucker, 1995; Hallinger, 1998; Kotter, 1996; Senge, 1990). Those changes that most influence schools today originate in the environment (e.g., technology, migration trends, system and government policies). This suggests that in the future principals and other school leaders will need to focus at least as much attention outside the schoolhouse as inside. School leaders must be able to discern emerging trends in the environment and link these future possibilities with past traditions within their organizations.

This will become an increasingly necessary function of school leadership as the pace and scope of change quicken in the environment of schools. Moreover, if responsibility for school management continues to devolve to the schoolhouse, principals will need to take on even more of CEO-like functions. Primary among these is visioning: looking ahead to the future and scanning the environment for change forces coming to schools from the outside (Bolman & Deal, 1992a, 1992b; Deal & Peterson, 1990; Hallinger, 1996, 1998; Leithwood, 1994).

Caldwell (1998) draws a similar linkage between the personal vision of a school leader, school learning, and school improvement. He refers to a variety of data—quantitative and qualitative—suggesting the importance of vision, though he emphasizes the need to use a small “v” in referring to the concept. To support this view, Caldwell references research conducted by Johnston (1997) on “learning focused leadership.” In the context of her case study, Johnston described the role of vision.

The principal was clearly influential but, at the same time, was regarded as a team player. She was particularly adept at demonstrating what the current reality was while exposing the school to a vision of what could be. She articulated the creative tension gap and indicated the way forward. In the process the school was infused with an energy and optimism not often seen in schools at this time. The idea that all within the school should be leaders captures the notion of leadership of teams. . . (Johnston, 1997, p. 282; cited in Caldwell, 1998, p. 374)

Caldwell (1998) also notes research conducted by Hill and colleagues (Hill & Rowe, 1996) that provides further support for vision as an important construct in understanding school improvement:

Hill contends that principals have a central, if indirect role by helping to create the ‘pre-conditions’ for improvement in classrooms, including setting direction, developing commitment, building capacity, monitoring progress and constructing appropriate strategic responses” (Hill, cited in Caldwell, 1998, p. 372).

Several other studies have also demonstrated the role of vision in school improvement. For example, Mayronwetz and Weinstein (1999) determined that vision was important in the successful adoption of change. They found that redundant leadership performance by individuals in different organizational roles demonstrated a widely-shared vision for successful change efforts. Moreover, Leithwood and colleagues (1998) determined that vision building affected school culture. More specifically, leadership helped to foster the acceptance of group goals. Kleine-Kracht (1993) also found that one successful means of principal influence on the staff was through building consensus surrounding the school’s program and its goals for improvement.

A vision can also identify a path to a new future, a strategic dimension of leadership. A vision can assist a leader in becoming a more effective problem solver by helping to sort and find the most important problems. Finally, a vision can identify the critical paths for change and organizational learning. Although, this discussion has focused specifically on the vision of the school leader, it is readily apparent that vision connects quite directly to the second related construct, organizational mission.

Organizational Mission in School Improvement

An organizational mission exists when the personal visions of a critical mass of people cohere in a common sense of purpose within a community. Several characteristics of a mission

are notable here. First, like "vision," the word "mission" derives from the religious sector and connotes a moral purpose or sacred quest. The spiritual element of a mission fulfills a human need for meaning and purpose that transcends organizational types. It is the moral character of a mission that reaches into the hearts of people and engages them to act on behalf of something beyond their own immediate self-interest. The power of a mission lies in the motivational force of engaging in a *shared quest* to accomplish something special, not just in having a productivity target. In education, it is not uncommon for teachers to feel a "calling" to their work, again connoting a mission or moral challenge.

Mission as an avenue of influence in school improvement. In the general organizations literature, mission is sometimes referred to as *cathectic goals*. As suggested in the foregoing discussion of mission, cathectic goals are symbolic (Bolman & Deal, 1992a, 1992b, 1996). In theory mission serves as a source of identification and motivation for a group of participants (Deal & Peterson, 1990; Dornbusch & Scott, 1975; Hallinger, 1996).

Cathectic goals stand in contrast to *cognitive goals*, which describe timelines and measurable ends that may be achieved. A mission is first and foremost a symbolic expression of the organization's values (Bennis & Nanus, 1985; Deal & Peterson, 1990; Peters & Waterman, 1982; Steiner, 1979). As a symbolic statement of purpose, the organization's mission is generally articulated in an overarching fashion. By doing so leaders can encompass a relatively wide range of organizational interests and values (Bennis & Nanus, 1985; Bolman & Deal, 1992b, 1996; Deal & Peterson, 1990; Drucker, 1995; Kotter, 1996; Mintzberg, 1998; Perrow, 1968; Weick, 1976, 1982).

The theoretical basis for understanding the power of mission lies in human motivation (Bennis & Nanus, 1985; Bolman & Deal, 1996; Cartwright & Zander, 1968; Drucker, 1995; Handy, 1994). Organizational theorists posit the constructs of compliance and commitment as

contrasting factors in human behavior (Mohr, 1973; Warriner, 1965). It is relatively easy for managers to force staff to comply with simple rules and regulations. However, in the absence of sustained pressure, individual and group behavior often reverts to its previous state or displaces the defined goal in favor of alternative goals (Grusky, 1959; Fullan 1993; Lindblom, 1959; March & Olsen, 1976; Meyer & Rowan, 1977; Perrow, 1968; Raia, 1965; Ridgeway, 1956; Warriner, 1965; Weick, 1976, 1982)

Achieving commitment to group goals, while more difficult, is generally viewed as a key factor in organizational effectiveness (Cuban, 1984a, 1984b; Drucker, 1995; Mohr, 1973; Kotter, 1996; Perrow, 1968; Senge, 1990; Steiner, 1979; Warriner, 1965; Weick, 1976, 1982). Where a mission exists, staff will take greater responsibility for managing their own behavior and making decisions consistent with common norms (Given, 1994; Jacobsson & Pousette, 2001; Jantzi & Leithwood, 1993; Larson-Knight, 2000; Leithwood et al., 1998; Senge, 1990; Silins, Mulford, Zarins, & Bishop, 2000).

This type of commitment to a shared vision of education has been a hallmark of the school effectiveness and improvement literature of the past two decades. For the purposes of understanding school improvement, we are especially interested in how shared vision – mission - - develops and is sustained. An organizational mission may emerge from varying sources. The catalyst may be the personal vision of an individual leader (Bolman & Deal, 1992a, 1996; Deal & Peterson, 1990; Hallinger, 1996). Alternatively, it may emerge over time out of the shared experiences and aspirations of a community of people (Barth, 1990; Fullan, 1993).

Barth (1990) eloquently argues that a mission must symbolize what is in the hearts of the staff, students and parents if a leader is to expect whole-hearted commitment. As an example, he asserts that teachers and principals do not jump out of bed and rush to their classrooms to teach to, practice for, and remediate after standardized tests. In other words, the *cognitive goal of*

raising student test scores, while a legitimate statement of an organizational goal or objective, does not represent a *mission*. It is not a symbolic statement of values that will inspire and motivate the people responsible for its achievement. Thus, Barth stresses the linkage between the source of school goals, the resulting commitment towards shared action, and their subsequent achievement.

Other scholars writing on school improvement emphasize the manner by which a shared vision may grow and be maintained over time within the culture of a school (Crandall et al., 1986; Deal & Peterson, 1990; Fullan, 1993; Fullan & Hargreaves, 1991; Larson-Knight, 2000; Leithwood et al., 1994, 1996, 1998; Marks et al., 2000; Seashore-Louis & Miles, 1990; Rosenholtz, 1989; Sheppard & Brown, 2000; Silins et al., 2000; Stoll & Fink, 1992, 1994). For example, Crandall and colleagues (1986) argue that commitment to change often grows through the active engagement of staff in common activities. A shared vision or mission may then emerge out of collegial activity. This observation lies in contrast to the earlier prescriptive literature that assumed that goals must be defined first at the top of the organization.

Internationally, a number of projects have examined the role of shared vision in school improvement. The Effective Schools Project in Ontario (Stoll & Fink, 1992, 1994) began as an attempt to bring in the results of school effective research into schooling practices in Canada. In improving schools, attention was paid to developing clear decision-making structures that emphasized collaborative planning, risk taking, and the development of a shared vision for the school's future (Teddle & Reynolds, 2000).

Similarly, in the early 1990s, the Improving the Quality of Education for All (IQEA) project involved 40 schools in Great Britain (Hopkins & Ainscow, 1993). The project's mission focused on building conditions in schools that can sustain improvement in the teaching-learning process (i.e., building organizational capacity). The project was built around six propositions including

clear vision shared by all and leadership that is distributed to a number of individuals and groups, identified priorities and planning around those priorities, stakeholder involvement, staff development, coordination and communication processes, and inquiry and reflection (Hopkins & Ainscow, 1993).

This emergence of a shared vision about the school's mission may even occur in the absence of "strong leadership" (Deal & Peterson, 1990; Fullan, 1993; Fullan & Hargreaves, 1992; Kleine-Kracht, 1993; Larson-Knight, 2000; Smylie & Hart, 1999). Contrary to the earlier thrust of this literature, personal visions of the future are not the exclusive domain of principals or other formal leaders (Barth, 1993). Fullan and Hargreaves assert, "the vision of the principal should not drown out the voices of the teachers" (p. 32).

Leithwood and colleagues (1998) provide empirical support for the balancing act that leaders play in fostering a shared vision:

This leadership dimension . . . [is] aimed at promoting cooperation among staff and assisting them to work together toward common goals. Although there was at least one teacher comment from every school affirming their principal's role in goal [mission] development, most of the comments simply indicated that the principal initiated the process, was a member of the goal-setting committee, or asked for input. . . One of the teachers in that school said, "we all seem to want the same things. . . we're kind of working towards the same goals." (p. 72)

This same point is also made time and again in the general leadership literature of the past decade. Influential writers such as Bass (1985), Drucker (1995), Hamel (1997), Kotter (1996), and Peters (1987) have all emphasized the linkage between rapid environment change and the limitations this imposes on a unitary conception of leadership. For example, Hamel claims: "In

fact, it's at the top of the organization that people are most blind. One of the challenges is that top management is learning slower than the world is changing. So we have to look to others for that creative spark. It is difficult to predict where it will come" (Hamel, 1997, p. 5)

Empirical study of mission. Research on successful business organizations also notes the importance of a clear organizational mission. Successful organizations have a coherent set of values that are known to members of the organization and its environment. This value set defines the principles for which the organization stands. Peters and Waterman (1982) found that "virtually all of the [successful] companies ... had a well-defined set of guiding beliefs" (p. 281). In successful companies, the mission is broadly defined, allowing room for innovation within a general framework. As they argue, "The power of the value is in large measure that it encourages practical innovation to carry out its spirit to the full" (p. 56). This finding was supported by other work in the corporate sector (Bass, 1985; Bennis & Nanus, 1985; Deal & Kennedy, 1982; Drucker, 1995; Kotter, 1996; O'Toole, 1995; Schein, 1996).

Mission first received emphasis as a fundamental component of the schooling process through publication of the effective schools studies in the 1970's and 1980's (Brookover & Lezotte, 1979; Edmonds, 1979; Edmonds & Frederiksen, 1978; Rutter et al., 1979). The early studies within this literature referred to the school's mission in a variety of terms: establishment of performance standards, clear focus on basic skills, general agreement on program, commitment to student achievement, explicit and recognizable focus on instruction, clearly stated goals and objectives, emphasis on accomplishing reading and math objectives, staff consensus on the values and aims of the school as a whole, general sense of educational purpose, and pervasive and broadly understood instructional focus (Hallinger & Heck, 1996a). In all cases, however, the idea was conveyed that successful schools have an orientation that focuses staff attention on improving student learning.

In more recent years, researchers have continued to study the contribution of mission to school improvement, employing a variety of methods and theoretical assumptions (Hallinger & Heck, 1996a, 1996b, 1998). Thus, a considerable body of empirical studies has accumulated since 1980 which incorporated school mission as a focal variable in effective program implementation and academic improvement (Andrews & Soder, 1987; Bamburg & Andrews, 1990; Brewer, 1993; Caldwell, 1998; Cheng, 1991a, 1991b, 1994; Edmons, 1979, 1982; Edmonds & Frederiksen, 1978; Goldring & Pasternak, 1994; Hallinger & Murphy, 1986; Hallinger, Bickman & Davis, 1996; Heck, 1992, 1993; Heck & Brandon, 1995; Heck et al., 1991; Heck & Marcoulides, 1996; Hill & Rowe, 1996; Janzti & Leithwood., 1993; Krug, 1992; Leithwood, 1994; Leithwood et al., 1990, 1993 1998; Seashore-Louis & Miles, 1990; Marcoulides & Heck, 1993; Pang, 1998; Rosenholtz, 1990; Sammons et al., 1995; Scott & Teddlie, 1987; Silins, 1994; Uline, Miller, & Tschannen-Moran, 1998).

Goldring and Pasternak (1994) found that the principal's role in framing school goals, establishing a clear mission, and gaining staff consensus were stronger predictors of school outcomes than other instructional or managerial activities (e.g., allocation of time, control or influence). Notably, within their framework, goals were conceived more broadly than simply as academic achievement. The important variables included emphasizing good citizenship, personal growth, good work habits and learning skills among students and securing staff agreement about educational goals.

Hallinger and colleagues (1996) found that establishing a clear school mission was a key avenue through which principals influence school effectiveness. In their study principal leadership was significantly related to the presence of a clear school mission. It was through this avenue that principals shaped teachers' expectations and students' opportunity to learn in the school. Both academic focus and staff consensus were conceptualized as part of a constellation

of systemic variables comprising school mission. This path of indirect effects had a measurable impact on the reading achievement at the elementary school level.

Additional supporting evidence for the importance of this component to productivity is provided by Leithwood (1994), Jantzi and Leithwood (1993), Heck (1993), Krug (1992), Bolman and Deal (1992a), Pang, (1998), and Uline et al. (1998). These studies reinforce the key role principals play in coordinating the school's mission, with its goals, its curriculum, and a plan to assess attainment of its goals. Moreover, in the Brewer (1993) and Hallinger et al. (1996) studies, high performance expectations emerged as a potentially potent source of influence on outcomes. These variables were related to the principal's ability to stimulate innovation and flexibility as well as to higher productivity in terms of restructuring the organization's goals and achieving school outcomes.

Similarly, Uline and colleagues (1998) tested a structural model that examined the relationship of leadership to effectiveness and found that expressive activities of school leaders (i.e., sense of mission, goal setting, goal attainment) were positively related to school effectiveness. Krug (1992) also found that mission was one leadership area that was positively related to teacher satisfaction and student commitment to learning. Moreover, Bolman and Deal (1992a) noted that symbolic dimensions of leadership (i.e., focusing in part on leader sense of mission and vision) had the strongest relationship to leadership effectiveness.

In their study of effective and typical elementary schools, Hallinger and Murphy (1986) discovered that even within the instructionally effective schools, there were differences between how principals employed goals. Some used explicitly defined school goals as instruments for coordination and control. Other principals sought to establish and maintain a general direction for the school, but they employed goals in a more generative manner building upon and reinforcing important purposes that emerged from the staff and community. These observed

differences appeared to be related to contextual characteristics of the school such as the socioeconomic status of students.

Notions of shared vision that have gained currency in recent years posit an explicit linkage between mission, commitment and an increased capacity for organizational learning and change (e.g., Bass, 1985; Bennis & Nanus, 1985; Kotter, 1996; Leithwood et al., 1994, 1998; Senge, 1990). Within an organizational learning model, the mission-building function of the leader takes on a slightly different flavor. Here the leader seeks to stimulate people to arrive at new (and higher) goals for personal and professional development. In fact, Leithwood et al. (1998) suggested that the strongest influence of principal leadership on outcomes is through vision building and fostering commitment to group goals. These in turn lead to an increased capacity for innovation.

Leithwood and colleagues (1993) provided evidence of small effects of principal behavior in this domain. They found that principal vision, group goals, high expectations, individual support have effects on several in-school processes such as goal formulation, school culture, teachers, policy and organization. In turn, these influence school improvement outcomes including commitment to professional change, achievement of school reform goals, policy and organizational change.

Finally, Wiley (1998) investigated the relationships among principal leadership, professional community and school improvement using multilevel modeling. Her results are of special interest because they derive from a particularly sophisticated modeling of leadership effects. She found:

This evidence suggests that transformational leadership with minimal professional community is influential in facilitating improvement of student achievement in mathematics in a school,

while professional community is an influential factor only in combination with above average transformational leadership.

(Wiley, 1998, p. 14)

Wiley's analysis is interesting in two respects. First, her findings reinforce the importance of vision as a behavioral attribute of successful school leadership. Leaders who were able to articulate their visions for learning were able to contribute to learning even where the degree of professional community was not high. Second, leaders who were able to foster shared vision via development of a professional community created a synergy that had even greater effects. The conceptual and methodological frameworks laid out in this study are good examples for other researchers in this domain.

Goal Setting in School Improvement

A goal represents the gap between the current status and a desired future state. It is something one would like to accomplish, or a state of being that he or she would like to attain. American sport legend, Yogi Berra once remarked, "If you don't know where you're going, you probably won't know when you get there." Goals clarify where people intend to go, *and how they will know when they have gotten there.*

In contrast to vision and mission, a goal is a functional, and more narrowly drawn target. Points are scored when a football is kicked between the goal posts or a hockey puck passes into the goal. As used in education, goals may describe the state that a school wishes to achieve by the end of the year in relation to student learning, attendance, graduation rates, school climate, or community satisfaction. In the workplace, success is often defined by whether or not the school's functional goal has been achieved (Honig, 1984).

Consequently, organizations often specify goals in measurable terms. This fosters accountability, as goals indicate what will be measured and rewarded. The classic example of a

goal-oriented approach in organizations is management by objectives (Carroll & Tosi, 1973; Crown & Rosse, 1995; Honig, 1984; Hoy & Miskel, 1982; Kimpston, 1982; Mali, 1975; Odiorne, 1965). Unlike a vision or mission, the power of a goal or management objective lies not in its inspirational power but in its ability to focus the attention of people on a limited frame of activity (Dornbusch & Scott, 1975; Hoy & Miskel, 1982; Jacobsson & Pousette, 2001; Steiner, 1979). Goals do not derive their motivational power from spirit but from focus, reward and sanction.

A distinction between the school effectiveness and school improvement research traditions is apparent with respect to the investigation of goals. In school effectiveness research, goals have often been operationally defined in general terms such as “clear goals” and “high expectations.” As noted earlier, publication of the effective schools identified a “clear academic mission” as a key component of school effectiveness.

Policymakers came to view this as a key point of leverage for school improvement and devised ways of conveying this to school leaders through training and policies (Barth, 1990, 1993; Edmonds 1979, 1982; Honig, 1984; Purkey & Smith, 1985). Scholars and practitioners subsequently translated this work into school improvement programs and practices that drew widespread attention and dissemination during the ensuing period (e.g., Brookover et al., 1982; Edmonds, 1982; Honig, 1984; Lezotte & Bancroft, 1984; McCormick-Larkin & Kritek, 1982). It is not inaccurate to say that developing a clear school mission soon became a new leadership mantra for superintendents and principals.

Notable critiques of this approach were forthcoming (e.g., Barth, 1990; Cuban, 1984a, 1984b). These critiques focused in part on the assumptions of rational organization behavior made by proponents of the “goal-setting” strategy. These critics questioned whether educational

organizations really met the assumptions of rational embedded in the goal transmission approach to improvement (Cuban, 1984a).

In contrast, school improvement research has been more focused on how schools can move toward greater productivity over time (Barth, 1990; Cuban, 1984a; Fullan, 1993; Seashore-Louis & Miles, 1990; Ouston, 1999; Stoll & Fink, 1992, 1994; Teddlie & Reynolds, 2000). Outcomes have been generally conceptualized more broadly, for example, as “increased academic performance,” or included perceptions such as “teacher commitment to,” “agreement with,” or “resistance to” proposed changes. Within the British context, a debate ensued over the “possible” goals of education against the limited “official” goals as part of the process of implementing improvement (Teddlie & Reynolds, 2000).

As Ouston (1999) argued, there was no reason for the theory and practice of changing and improving schools to be related to the research on school effectiveness--in fact, many theories of change were built on quite different foundations. Where the effectiveness literature emphasized “clear mission” and “clearly-defined goals,” the school improvement literature also included the importance of vision, school culture, leadership, and pedagogy. These were examined in somewhat different ways, however. In the school improvement literature, greater emphasis was placed on how school leaders facilitated staff planning, goal setting, and self-evaluation. Unfortunately, there was rarely any attempt to develop a dynamic model of school processes that might indicate how improvement would be accomplished within differing school contexts. Moreover, the focus was often the school, despite knowledge of the importance of classroom effects and the need to change teacher practices (Creemers, 1994; Marks, Seashore-Louis, & Printy, 2000; Teddlie & Reynolds, 2000).

Goal-setting as an avenue for school improvement. Earlier it was noted that a theory of human motivation provides the logic for understanding the impact of *cathectic* goals and mission

on school improvement. Proponents of goal-setting, as the term is used here, start from a different theoretical premise, often called a rational-bureaucratic model (Bolman & Deal, 1992b; Scott, 1983). From this perspective, cathectic goals lack the specificity necessary to guide the behavior of participants (Dornbusch & Scott, 1975; Honig, 1984; Kimpston, 1992). They only represent "general conceptions" of desired end states.

In this view, the overall aim of the organization is goal attainment. In order to influence organizational behavior, these theorists contend that a leader must translate the mission (i.e., cathectic goals) into *cognitive goals*. These specify desired outcomes for organizational participants and activities (Carroll & Tosi, 1973; Crown & Rosse, 1995; Deniston, Rosenstock, & Getting, 1968; Dornbusch & Scott, 1975; Hoy & Miskel, 1982; Kimpston, 1982; Mali, 1975; Steiner, 1979). Organizational goals in turn are developed into sub-goals for organizational units (e.g., schools, departments or classrooms).

Specificity, clarity, and measurability in goals make it easier to translate intentions into activities and evaluation criteria (Carroll & Tosi, 1973; Dornbusch & Scott, 1975; Latham & Wexley, 1981; March & Simon, 1958; Odiorne, 1965; Steiner, 1979). Thus the general organizational goal is transmitted down through the organization in the form of an accountability system.

Several decades ago, Raia (1965) suggested that goal-setting systems are based, "upon the belief that performance in an organization is directly related to the extent to which its objectives are understood and accepted by the individual members" (see also Barnard, 1938; Deniston, Rosenstock, & Getting, 1968; Gulick, 1948; Haberstroh, 1965, Huse & Kay, 1981; Kimpston, 1982; Likert & Seashore, 1963; Odiorne, 1965; Peters & Waterman, 1982). Strategic planning and goal-oriented accountability systems are termed "rational" because they assume a "means-end" relationship between organizational goals, behavior, and outcomes (Davis &

Stackhouse, 1977; Deal & Celotti, 1977; Deniston, Rosenstock, & Getting, 1968; Dornbusch & Scott, 1975; Etzioni, 1960; Gross, 1969; Haberstroh, 1965; March & Olsen, 1976; Mintzberg, 1994; Ponder, Ogawa, & Adams, 1995; Scott, 1981; Simon, 1947; Warriner, 1965).

Zald (1963) provides a synopsis of how goals are *intended* to influence organizational performance from the rational-bureaucratic perspective:

First, goals limit the attention of members of an organization to a certain object by defining what action is organizationally relevant. Second, the practices or technological processes that are required to achieve specific goals impose restrictions on the activities of personnel and on the distribution of resources. They thus affect such basic social phenomena as the division of labor, communication patterns, and authority structures. Third, goals are centrally involved in the adaptation of organizations.

Whether or not goals are achieved affects the ability of the organization to command resources and legitimization from the larger society, and thus, by providing rewards, affects the motivation and commitment of personnel. (p. 207)

Thus, goals originate at the institutional level and filter down through the organization. In the rational model, the task of management is to ensure that goals are tightly coupled to activities. Managerial and organizational effectiveness are measured by the degree to which goals are achieved (Deniston, Rosenstock, & Getting, 1968; Etzioni, 1960; Friedlander & Pickle, 1968; Georgopoulos & Tannenbaum, 1957; Haberstroh, 1965; Kimpston, 1992; Latham & Wexley, 1981; Mintzberg, 1994; Likert & Seashore, 1963; Lotto, 1983; Mohr, 1973; Parsons, 1960; Ponder et al., 1995; Price, 1968; Steers, 1975; Zald, 1963). This scenario reflects the

rationale behind the state-driven approach to school improvement that has predominated in the U.S, the U.K. and several other nations since the early 1980's.

Empirical studies of organizational goal-setting. The role of goal setting and attainment in organizations has drawn considerable attention from researchers. Over the past several decades, school researchers have applied a variety of organizational frameworks to the study of goal processes (Blase, 1993; Bolman & Deal, 1992a; Cheng, 1991a, 1991b; Griffiths, 1999; Gunn & Holdaway, 1986; High & Achilles, 1986; Hoy, Tarter, & Bliss, 1990; Kelley & Protsik; 1997; Maehr, Midgley, & Urdan, 1992; Pounder, Ogawa, & Adams, 1995; Snyder & Ebmeier, 1992; Uline, Miller, & Tschannen-Moran, 1998). Several studies (e.g., Hoy et al., 1990; Pounder et al., 1995; Snyder & Ebmeier, 1992) examined school leaders' role in goal setting and goal attainment as part of several organizational functions based on Parsons' (1960) work.

Parsons' (1960) organizational framework focused on adaptation (the ability to control relations with the environment), goal achievement (defining objectives and mobilizing resources toward attainment), integration (level of existent social solidarity and coordination), and latency (cultural patterns, motivations and commitment). This model was applied to schools by Hoy and Miskel (1987). Other studies utilized portions of the general framework and investigated its relationship to school leadership (Cheng, 1991a, 1991b; Gunn & Holdaway, 1986; High & Achilles, 1986).

For example, in one preliminary use of this model in school settings, Hoy et al. (1990) investigated the relationship between organizational climate and aspects of school health (principal influence, support, academic emphasis, morale) on school effectiveness. They determined that acceptance of organizational goals and commitment was related to aspects of the school's overall health. Snyder and Ebmeier (1992) also used the Parsons' (1960) model to

investigate empirical linkages among the organizational functions, principal leadership, and a set of intermediate school process variables.

Pounder and colleagues (1995) also used Parsons' (1960) framework in examining relationships among the leadership influence of individuals (i.e., principals, secretaries, teachers alone, teachers in groups, people in the school community) the four organizational functions, and several measures of school effectiveness (i.e., student achievement, perceived organizational effectiveness, student absenteeism, and staff turnover rates). Their results of their series of proposed path models (i.e., consisting of direct and indirect effects but without corrections for measurement error) suggested first that overall leadership influence varied across schools. Perceptions of leadership influence were invested in different sets of individuals and groups to varying degrees and the amount of leadership influence also varied.

Second, leadership was associated with school performance in an indirect sense in their model (i.e., primarily through its relationship to goal achievement and latency). In these models, they determined that latency had a direct relationship to perceived effectiveness. Goal achievement and integration significantly affected student achievement and goal attainment also significantly affected student absenteeism. Moreover, leadership influence was indirectly related to achievement and absenteeism through goal attainment.

Third, the roles that people were in made some difference in how leadership affected organizational processes and outcomes. The authors concluded that organizational leadership affected organizational performance by shaping the organization of work and by building commitment.

The authors also noted a couple of puzzling findings with respect to their framework. First, while leadership was positively related to social integration (i.e., organize, coordinate, and unify the school's work), integration was negatively related to student achievement in their path

model. Because integration should also measure the extent to which the school shares a common sense of purpose, it would seem that social integration and goal attainment should be positively related to outcomes. For example, integration and goal attainment were positively correlated in their correlation matrix. Another puzzling finding was that the leadership of individual teachers was not related to organizational conditions or measures of school performance. For this finding, the authors argued that it might have been due to unit of analysis problems—that is, the analysis was conducted at the school level and not the individual teacher level. We re-visit some of these puzzling findings in a re-analysis of their work later in the chapter.

As is apparent from this discussion, many more of these previous empirical studies using a quantitative approach to data analysis have adopted a technical-rational perspective on organizations (Ogawa & Bossert, 1995). With respect to the goal setting aspect, for many years, the *logic* behind so-called rational, systematic procedures for goal-setting was considered unassailable. It reflected the dominant paradigm within the field of management and went largely unquestioned.

However, over the past half-century, this model has been on the receiving end of numerous critiques in the organizational literature for the assumptions it makes about human behavior (e.g., Lindblom, 1959; March & Olsen, 1976; Mintzberg, 1994; Perrow, 1961, 1968; Ridgeway, 1956; Warriner, 1965; Warner, 1967), as well as in the educational management literature (Cuban, 1984a; Davis & Stackhouse, 1977; Kirst, 1975; Meyer & Rowan, 1977; Ogawa & Bossert, 1995; Pounder et al., 1995; Snyder & Ebmeier, 1992; Weick, 1976, 1982). Still more recently, empirical investigations of transformational leadership such as those conducted by Leithwood and his colleagues (1993, 1994, 1998), have begun to test alternative frameworks concerning the avenues by which leadership may influence school organizations.

In general, empirical studies of organizational goal-setting in action reveal that the assumptions of rationality embedded in this chain of logic do not hold up in the behavior of people and organizations (March & Olsen, 1976; Perrow, 1968; Thompson, 1967; Weick, 1976). In practice, there is considerable slippage between the intent of managers—as formulated in cognitive goals—and the actions of people in the organization (e.g., Lindblom, 1959). Moreover, goal-setting has a number of unintended consequences that can further limit their impact or even create dysfunctional outcomes (Cuban 1984a; Drucker, 1995; Gouldner, 1959; Grusky, 1959; Kirst, 1975; Mintzberg, 1994, 1998; Perrow, 1961; Ridgeway, 1965; Weick, 1976).

While it is not the purpose of this chapter to provide an extended analysis of this issue, a brief explication of this critique is necessary. Organizations, especially those that operate in the public sector, find it difficult to narrow their focus down to a single goal (Davis & Stackhouse, 1977; Deal & Celotti, 1977; Mintzberg, 1994; Lindblom, 1959; Simon, 1964; Warriner, 1967; Weick, 1976, 1982). In education, even the generally accepted emphasis on student achievement is only “generally” accepted (Weick, 1982). The exceptions are many and varied as achievement represents only one of a number of important educational goals.

Efforts to create a clear mission may succeed at the level of cathectic goals, but the process of transforming this into specific statements of measurable outcomes can distort intent and create conflict over priorities. As we have suggested, the operationalization of mission and goals has also differed within the research traditions focused on school effectiveness (e.g., behavioral items such as the principal establishes clear, narrowly-focused academic goals) and school improvement (i.e., where the translation of goals into activity may be viewed as a process that unfolds over time).

Organizational goals, especially in the public sector, shift over time as a result of trends in the environment and the changing interests of an ever-changing group of stakeholders (Cohen &

March, 1976; Davis & Stackhouse, 1977; Deal & Celotti, 1977; Meyer & Rowan, 1977; Perrow, 1968; Thompson, 1967; Thompson & McEwen, 1958). Changing student populations, uneven and changing participation among parents, and shifting priorities at the government level all complicate a school's attempts to define a stable set of goals.

Public sector goals are often so difficult to measure that the very attempt to measure them creates dysfunctional consequences (Ridgeway, 1956; Warner, 1967; Zald, 1967). Larry Lezotte summarized this last criticism as applied in schools: "The good thing about goals and measurement is that what gets measured, gets done. The bad thing about it is, what gets measured gets done" (personal communication 1990). There is a long history inside and outside of education that verifies the human tendency to reduce one's expectations after a goal has been reached. This was a valid criticism of minimum competency testing and also applies to goal setting. This tendency lies in contrast with the notion of the "quest" that underlies the vision construct.

School improvement programs often promote goal setting as a vehicle for action planning. This responds to the desire for a rational process that can be clearly conveyed, delivered, and monitored. While goal-based approaches meet the organization's need for accountability, goal setting often fails to inspire people to meet a more fundamental need--to act.

This suggests that influence imposed from the top down is most powerful when formulated within a mission statement that focuses attention on the values the organization hopes to promote. The specification of objective measurable goals, though theoretically facilitating linkage to activities, can impede as well as promote attainment of the organization's overall mission. This recalls our earlier discussion of the dysfunctional consequences of goal specification: goal displacement, distortion of job priorities, inconsistent standard setting, ignoring goals that are less easily quantified.

Other Directions

Our review of the literature on vision, mission, and goals suggests that researchers have not yet been able to distinguish clearly among these concepts. Moreover, they have not been able to integrate this in as well with other types of process variables. There are also a number of methodological problems that have made these efforts more difficult. Recently, we provided analyses of quantitative and qualitative methods used in studying school leadership (Hallinger & Heck, 1996b; Heck & Hallinger, 1999). We encourage the use of qualitative approaches in defining and clarifying differences between these concepts, as well as in studying how vision, mission, and goal-setting processes may unfold over time in schools (see Dillard, 1995 for one recent example).

With a more complete set of tools at their disposal, future quantitative researchers should attend to the problems associated with measurement error and the multilevel nature of schooling. While there are several advantages to using these techniques, there have been few investigations that actually demonstrate their advantages over several practical difficulties (e.g., obtaining the data, using the correct computer software). In this section, we demonstrate possible applications of two newer quantitative techniques (structural equation modeling, multilevel modeling) to the investigation of how leadership may impact school processes and outcomes.

Structural equation modeling (SEM) has a number of advantages over multiple regression. Most importantly, it allows the investigation of more complex theoretical formulations including those with direct, indirect, and reciprocal effects. This allows the incorporation of mediating effects, such as those between leadership and school outcomes. Because many organizational processes such as leadership, goal setting, commitment, and satisfaction cannot be directly measured, we must define them indirectly through measuring a set of their observed

manifestations. Through this technique, researchers can retain sets of correlated indicators in the model (e.g., several measures of organizational processes or outcomes). Moreover, because measurement error can be included in defining a construct such as goal setting, the accuracy of the model's structural parameters are improved (Muthén, 1994; Raudenbush & Simpson, 1999). A limitation, however, is that most SEM software currently available was designed for single-level analyses (e.g., student level or school level), making the testing of multilevel models with SEM more difficult.

Multilevel modeling encourages the investigation of theoretical models where variables can be specified at different levels of a data hierarchy (e.g., students within classes within schools). This allows the researcher to examine variation both within and between units and provides a framework for specifying variables that explain this variation at their correct levels. The multilevel specification therefore results in estimates of model parameters that have been corrected for any similarities that exist among individuals in the same organizational setting. Failure to adjust for these similarities can produce significant parameters in the model where there should not be any. This is because when these similarities among individuals exist, in single-level analyses the standard errors associated with the model's parameters will be underestimated. Because the significance level of a parameter is tested with a t-test (i.e., the ratio of the parameter to its standard error), underestimation leads to the calculation of a larger t-ratio than would be produced in a multilevel analysis.

An Illustration and Elaboration of Pounder, Ogawa, and Adams (1995)

For illustrative purposes, we draw on data from Pounder et al. (1995) to demonstrate how SEM might be used in research on goal-setting. As the reader may recall, Pounder et al. (1995) estimated a series of path models involving the leadership influence of various individuals and groups, organizational processes, and outcomes. Their results suggested several puzzling

findings. First, while principal leadership influence was positively related to social integration, integration was negatively related to student achievement. This suggested to the authors that principal leadership was indirectly but negatively associated with the performance of students on standardized tests. This was contrary to the theoretical framework, which hypothesized that leadership should enhance the social integration of schools, which enhances their performance. Second, the leadership of individual teachers was not related to any organizational conditions or measures of school performance. The authors argued that this may be due to unit of analysis problems—that is, the analysis was conducted at the school level and not the individual teacher level.

Another possible explanation for some of the puzzling findings might be the nature of the analytic technique used. A significant limitation of path analysis is that it does not incorporate measurement error into the model. Researchers have suggested that incorporating measurement error into the analysis of organizational processes through the use of latent (underlying) variables can result in more refined views of the relationships between hypothesized constructs (Heck & Thomas, 2000; Muthén, 1994). Another explanation for their findings might be that variables that could be theorized to belong together (i.e., the four organizational functions) were treated as separate variables in separate path models. In a structural equation model, for example, these separate functions (e.g., adaptation, integration, latency) could be defined in one model as an latent organizational process variable consisting of the four separate variables. To demonstrate this possibility, we reconstructed Pounder et al.'s (1995) leadership model using structural equation modeling (SEM), as opposed to path analysis.

Consistent with their theoretical model, we specified three latent variables--a leadership influence variable (i.e., the amount of influence each individual or group possessed), a school process variable consisting of Parsons' four dimensions (i.e., adaptation, goal achievement,

integration, latency), and an outcome variable (i.e., perceived effectiveness, student achievement, absenteeism, staff turnover).¹ The proposed model was tested with LISREL 8.3 (Jöreskog & Sörbom, 1999). The model fit the data reasonably well (GFI, CFI = .90).

Insert Figure 1 About Here

The parameter estimates are summarized in Figure 1. For the measurement model, the outcome and process indicators all loaded significantly on each latent variable. For leadership influence, the amount of principal influence (Prin) and the secretary's influence (Sec) did not load substantively on the leadership influence variable; however, teacher influence alone (Teach), a group of staff members (Group), and a parent-community group (Parent) substantively defined the leadership influence dimension.

Turning to the structural effects (which are corrected for measurement error), organizational leadership affected organizational processes directly and significantly (.58), and the process variable affected outcomes significantly (.66). It is important to note that all of the organizational process indicators (e.g., goal achievement) contribute to explaining outcomes. Leadership did not significantly affect outcomes directly, but there was a significant indirect relationship (.38), through organizational processes (not tabled). We caution, however, that the relationship between the organizational process variable and the outcome variable is likely a bit weaker than indicated in the figure, owing to the specific relationships among the observed indicators adaptation, goal achievement, and perceived effectiveness. Finally, the coefficients in

1

It should be noted that in Pounder et al.'s data, the goal achievement and adaptation variables were defined as subsets of the perceived effectiveness variable. Hence, there is some multicollinearity present that likely inflates the relationship between organizational process and outcome latent variables to some extent. Our primary concern in presenting the analysis, however, is demonstrating the potential for examining leadership, organizational processes such as goal achievement, and outcomes in one simultaneously-estimated structural equation model.

parentheses represent variance in the constructs that is unaccounted for by the variables in the model. This suggests the indirect influence of leadership and the organizational process variables do a good job of accounting for variance in the outcome measures.

Perhaps our new analysis can help resolve some of Pounder et al.'s puzzling findings. First, their results indicated that integration was negatively related to student achievement. This suggested to the authors that principal leadership was indirectly, but negatively, associated with the performance of students on standardized tests. In contrast, our modeling of their data shows that after incorporating measurement error into the model, social integration contributed positively to defining organizational processes and, hence, to explaining outcomes. However, it was the weakest of the measures of organizational processes (.20). Thus, our results indicated that leadership was positively (and indirectly) related to outcomes, as the theoretical model hypothesized.

Second, Pounder et al. (1995) determined that the leadership of individual teachers was not related to any organizational conditions or measures of school performance. In contrast, our analysis shows that the influence of individual staff members alone had a positive and significant relationship in defining leadership influence, although the size of the loading was small (.24). This suggests that leadership influence of individual teachers (as well as groups of faculty and parents) indirectly affected school outcomes.

From our analysis, we can conclude that Pounder et al.'s (1995) data are congruent with theories suggesting that both task performance and relations among organizational members are important in influencing outcomes. Leadership's influence on outcomes is mostly indirect (Hallinger & Heck, 1996a). In this example, the structural model provides a more complete test of the theory by providing simultaneous estimation of a series of equations that Pounder et al. estimated separately. The analysis also reveals a way in which goal attainment might be

integrated with other types of process indicators (i.e., adaptation, integration, latency). As we suggested previously, there is a need for continued effort to determine how goal setting (and subsequent attainment) might relate to other types of school processes. Parsons' (1960) conceptualization provides one model of organizational processes that might be useful in this regard. A final advantage is that the structural paths between the constructs are corrected for measurement error, allowing a more accurate appraisal of the effects of leadership influence on the intervening and outcome variables.

A Single-level and Multilevel SEM Comparison

In the next case, we examine a structural model of variables comprising student background, academic experiences, school context and processes, and outcomes in a multilevel framework. In particular, we were interested in determining how the quality of school processes such as goal setting, academic expectations, and school climate affect school outcomes and school improvement. To demonstrate some of the conceptual and technical advantages of multilevel modeling, we first analyze the data at a single level, choosing in this case the individual-student level.

In this study, data about the quality of school processes in their school were collected from parents, teaching staff, and students in 122 elementary K-6 schools. The six indicators used were conceived as defining Parsons' (1960) four organizational processes. Adaptation was defined by several items measuring the school's relationship to the home (Home) including, for example, communication, parent involvement, and parent decision making). Integration focused on the academic emphasis of the school (Academics), for example, classroom teaching processes, instructional techniques, student time on task, and teacher collaboration. Latency was defined by items measuring school climate (Schclim); for example, safety, caring attitudes, and staff cohesiveness.

The final domain, goal attainment, was defined through three indicators. Leadership and goal setting (Leadgoal) included the items that measured the process of goal setting, resource utilization, and evaluation of progress toward meeting goals. Example items were focusing on student achievement as the school's top goal, having a shared understanding of the school's mission and goals, having administrators who work with teachers, students, and parents to develop the school's improvement plan, sharing leadership roles between administration and staff, having sufficient resources that are utilized for effective instruction, and creating an effective ongoing system for evaluating the school's progress toward its goals. Monitoring student progress (Monprog) included, for example, feedback, effective diagnosis of learning problems, and types of assessments used. High expectations for student achievement (Highexp) included staff expectations, school standards for achievement, the range of curricular skills presented, and teacher communication. The information collected for each process indicator was found to be quite reliable across the groups of respondents (see Heck, 2000, for further discussion).

To develop the single-level structural model, the process data were combined with other information about schools (i.e., teacher background, school size, school socioeconomic indicators, student academic improvement between grades 3 and 6, and student composition (i.e., background, academic success, standardized test scores). It is important to note that a forced-choice over the unit of analysis (e.g., individual student or school level) creates a number of conceptual and technical problems. For example, features of schools and their processes must be ascribed to individuals. To illustrate this problem, while there are 123 schools, the size of each school is entered into the analysis as a variable for the 6970 students in the sample.

The school contextual indicators retained in the final model presented in Figure 2 were school SES (S-SES) and large school size (Lsch, defined as having over 600 students). The

student background variables were age, minority status, gender, low socioeconomic status (Low SES), special education status (Sped), and previous academic experiences (i.e., students' scores in reading, language, and math in third grade). The outcome variables were student achievement in grade 6 (i.e., total reading, math, and language standardized test scores) and student improvement gains between grades 3 and 6 (i.e., represented as read G, math G, and language G in Figure 2). These two outcome variables were conceived of as correlated, but not causally related (i.e., through a single-headed arrow) because the improvement variable contained slope coefficients that describe the improvement students made on the three standardized tests (i.e., reading, math, language) between grades 3 and 6.

Insert Figure 2 About Here

For comparative purposes, we tried to define the single-level and multilevel models to be as similar as possible in terms of the structural relationships between variables in the model. For the single-level model, the fit indices suggested that the proposed formulation did not fit the data well. One commonly used index to describe model fit is the chi-square, which describes the discrepancy between the observed and model-implied covariance matrices (i.e., with larger coefficients indicating ill-fitting models). In this case, the chi-square coefficient was large for the number of model-implied constraints (10,827.9 for 161 degrees of freedom). Moreover, the ratio of chi-square to the degrees of freedom was 67.3 to 1 (i.e., from a practical standpoint, these ratios should be considerably below 5 to 1).

As summarized in Figure 2, the observed indicators all were substantively related to their latent variables (with loadings ranging from .29 to .97). This suggests that the indicators represent adequate measures of the factors. Turning to the structural relationships, the school

process variable was almost entirely unrelated to school outcomes (.02) in the single-level model. Even though it was still significant ($p < .05$), because its significance level was determined from the large sample size of individuals ($N=6970$) as opposed to the number of schools, the substantive effect of the school process variable was almost entirely lost when the analysis focused on the learning of individual students. The process variable was weakly found to be related to school improvement gains, however (.29). The effect of school SES on outcomes was also quite small (.10), most likely due to multicollinearity between school SES (S-SES) and individual student SES (Low SES) within the same single-level model. School size was unrelated to outcomes (.01). These results underscore that contextual relationships may be considerably underestimated (or entirely washed out) when they are disaggregated to a lower unit of analysis. We mention these contextual variables specifically because their impact can be noted to be very different when a multilevel model is formulated. Finally, by examining the coefficients in parentheses in Figure 2 we can determine that the variables in the model accounted for 74 percent of the variance in student achievement (with 26% due to other sources and random error).

The multilevel version of this model was then specified. The between-level model consisted of the two previous contextual indicators (S-SES, large school size). In addition, it included two additional school variables that can be defined through the multilevel technique (i.e., percent of minority students and percent of special education students). These variables are computed from the numbers of students within each school as part of the multilevel SEM analysis. They allow more refined investigations, for example, of the effects of being a low-SES student in a high-SES versus a low-SES school. The school process variable and the school improvement variable

were also defined at the school level.² The within- school model consisted of the set of student composition variables defined in the previous single-level model.

Insert Figure 3 About Here

The proposed model was determined to fit the data much better than the single-level analysis (chi-square = 265.3 for 192 degrees of freedom). For example, the chi-square to degrees of freedom ratio was only 1.38 to 1. Readers may notice the difference in the number of degrees of freedom in the two models (161 in the single-level versus 192 in the multilevel model). Positive degrees of freedom (which are required to test a model's fit to the data) result from having more than enough available variances and covariances in the data matrix than the number of model parameters to be estimated (a model-fitting condition called over-identification). Even though the structural paths are basically the same in the two models, the larger number of degrees of freedom in the multilevel model results from the greater number of over-identifying constraints in the multilevel model relative to the number of parameters estimated.

The model parameters are summarized in Figure 3. First, notice that the variables were easily defined at their proper level of the data hierarchy. For example, the school six process indicators (measured at the school level) all loaded substantively on the process latent variable, suggesting the indicators serve as good measures of the construct. These ranged from .56 (leadership and goal setting) to .97 (high expectations for achievement).

2

Currently, it is not possible to model random slopes that measure the effect of 3rd grade learning on 6th grade learning across schools with SEM. These effects can be assumed to vary across schools; that is, some schools are more effective in raising students' performance in the three academic areas measured. We addressed this problem by first estimating the 3-6 grade achievement slopes for each school with multilevel regression and then entering the slope residuals into the between-group portion of the multilevel SEM. Positive slope residuals represent schools where students are making better-than-expected progress, or gains, between grades 3 and 6, given the set of student composition variables.

Second, it is important to note that in this formulation, the school-level effects tend to be larger, and the significance of the school-level parameters can be calculated correctly on the proper sample of 123 schools. For example, we found that organizational processes were significantly (and moderately) related to school student-improvement gains (.48) between grades three and six (as opposed to .29 in the single-level analysis), and more substantially related to school outcomes (.21). Recall that in the single-level model this latter coefficient was only .02. School SES had a relatively large effect on outcomes (.70). In contrast, in the single-level model its relationship to individual-level outcomes was only .10, in part related to multicollinearity with other variables in the model (e.g., student SES). School SES also affected school improvement gains (.57) and exerted a smaller effect (.31) on school process (i.e., schools with higher SES communities had stronger school processes). Importantly, therefore, we can also note a small, but significant, indirect effect (.15) of school SES on improvement (through the mediating school process variable). This finding suggests that students in higher SES settings had greater outcomes and improvement gains between grade 3 and grade 6 than their counterparts in low SES schools, even after controlling for individual student background within schools. The effect of socioeconomic status, therefore, compounds within more complex model formulations.

Finally, it should also be noted that the standard errors for the school parameters were much larger (and, therefore, more accurate) in the multilevel model than in the single-level model. This is because the standard errors in the school part of the model are calculated on the sample size of 123 schools instead of 6970 students.

Overall, our proposed model provides a demonstration of how separate within- and between-school models can be combined in one simultaneous multilevel analysis to assess direct and indirect effects of variables measured at different levels of the data hierarchy. This can begin to reveal how these separate sets of variables affect a range of processes and outcomes. As we

suggested, the multilevel specification provides an analysis that yields more accurate parameter estimation because it overcomes several technical (and conceptual problems) associated with single-level analyses (e.g., variables defined at improper levels, incorrect standard errors owing to incorrect sample sizes, multicollinearity). Despite the difficulty of obtaining the needed data, multilevel techniques may hold significant benefits for researchers interested in the investigation of organizational processes such as leadership and goal setting.

Toward Future Research on Vision, Mission and Goals in School Leadership and Improvement

This chapter was envisioned as a first step in extending findings from a previous review of research on principal leadership and school improvement (Hallinger & Heck, 1998). The focus was on how schools translate purposes and intentions into practices that influence school effectiveness and improvement. The ideas presented in this paper are by no means complete. Rather, the goal was to begin to lay out a conceptual framework that might guide future studies of goals and school improvement.

While the focus of the chapter was conceptual, not methodological, we have also noted the potential of methodology to help untangle some of the conceptual issues presented here. To date, the conceptual muddiness of investigations of goals has made the issue of methodology almost irrelevant. Conceptual clarity must be achieved first. Allow us, however, to identify some useful methodological directions that have emerged from this literature and would prove fruitful in exploring the issues identified in this review.

In the literature reviewed in this paper, the closest any researchers have come to untangling the effects of a rational model of school improvement as compared to a cultural systems model (i.e., vision and mission-oriented) is the work of Leithwood and colleagues at

OISE (1993, 1994, 1996, 1998) and Silins (1994). These researchers have compared leadership processes in school improvement using transactional (a variant on a rational model) and transformational (a variant on a symbolic model) leadership perspectives.

Wiley's (1998) research studying transformational leadership and professional community offers another useful approach that could be adapted for exploring the issues in this paper. While the purpose of the latter studies differ somewhat from the focal variables in this paper, their findings suggest interesting interactions between these styles of leadership. They conclude that leadership styles in school improvement are not simply an either/or phenomenon. Moreover, these studies provide examples of how researchers might empirically study such interactions (see also Hallinger & Heck, 1996a and Heck & Hallinger, 1999 for discussions of relevant methods).

The analysis presented in this chapter leads towards the belief that successful organizations are driven by their sense of common mission more than by clear goals. Gross (1969) suggests, the open system theorists "may underestimate the contribution that rational decision-makers within organizations make in choosing the goals of organizations rather than being limited to the demands of the market" (p. 279). Or as Goldsmith and Clutterback (1997) observe, "Values are a great help in establishing relationships. They provide a cohesion of identity for distant operations. But values on their own are like a fly-wheel without a shaft--they need to be attached to the engine of the organization. Operating principles provide the link" (p. 42).

Both theoretically and practically, there is bound to be some interaction between the goal-setting function and mission building, even if one does not necessarily depend upon the other. As Milbrey McLaughlin (1990, p. 13) of Stanford University has observed: "You can't mandate

what matters to people, but what you do mandate does matter.” Brian Caldwell (1997) has described the approach taken to goal setting in the Australian state of Victoria:

There is a curriculum and standards framework for all primary and secondary schools, local selection of staff, and an accountability scheme that calls for the preparation of annual reports to the community. . . Each school has a charter that reflects commitments to meeting local needs and priorities as well as those of the state as a whole. (p. 2)

There is potential for increasing the impact of school improvement in this domain. A firmer understanding of the relationship of goal setting to mission building will enable practitioners to gain more from the time spent on school improvement. This is a theoretically rich and practically viable avenue that warrants continued exploration. There are a variety of perspectives to take toward research production and coordination in this area. These include not only different methodological perspectives, but also considerations of the relationship of researchers to practitioners (and the subjects themselves) in studying how mission building may contribute to school improvement. We believe that the next step is to further define the mission and goal indicators as part of these leadership and school processes, as well as to determine how school communities engage in these processes and how this engagement may influence school improvement.

Figure 1

Figure 2

Figure 3

References

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