Toward a Theory of Professional Visualization.

Schools are professional work groups requiring the application of professional knowledge to constantly shifting educational challenges as adults work to help students learn. This paper describes a theory of professional visualization through which principals can make their professional practice consistent with their knowledge, values, and intentions. Visualizing or professional theorizing (Schon 1983) provides a means for constructing situational maps that guide principals closer to superior professional achievement. It is a means for creating deliberate structures, theories, or maps for taking action. Four basic building blocks contribute to the quality of principals' expert thinking: professional values, knowledge, processes and behaviors, and intent.

The paper begins with a discussion of these four building blocks, presents a framework for professional theorizing, and describes the steps for professional visualization. The framework is then applied to pressing, current issues in education to illustrate how knowledge can be applied through this process. The issues include choice, vouchers, and privatization; collaboration; parental involvement; cultural pluralism; and access and excellence. Six figures are included. (LMI)
TOWARD A THEORY OF PROFESSIONAL VISUALIZATION

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Schools are professional work groups requiring the application of professional knowledge to constantly shifting educational challenges as adults work to help youth and children learn. This professional work environment makes recipes for appropriate action in all contingencies virtually useless. Experience, empirical research, and theory serve as sources of professional knowledge that are far more useful than any prescriptions for action. Experiential knowledge develops from vivid personal and vicarious experiences; empirical knowledge comes from systematic qualitative and quantitative inquiry; and theoretical knowledge functions as conceptual frameworks or maps explaining and organizing the other forms of knowledge. Principals' platforms, vision, culture building, and instructional leadership provide alternative views of principals' roles that have been popular in recent decades. Each provides insight into the part principals play in marshaling school resources toward the accomplishment of educational goals, but none provides a unified view of practice, research, and theory for principals seeking to maximize their influence on the people who work and learn in schools as they apply the best available professional expertise to their decisions and actions.

In this paper, we describe a theory of professional visualization through which principals can make their professional practice consistent with their knowledge, values, and intentions. Visualizing or professional theorizing (Schon, 1983) provides a means for constructing situational maps that guide principals closer to superior professional achievement. Professional theorizing or professional visualization is a means for creating deliberate structures, theories, or maps for taking action. It is based on research on education in the professions and cognitive psychology and the relationships among experience, research, and theory as they affect actions. Professional theorizing depends on the leader's willingness and ability to systematically integrate new knowledge from experience, research, and theory. The process of reflection-on- and in-action forms the core of professional growth. Principals also can use this framework to visualize not only the change but the processes suggested by each school's needs and steps that will reveal unfolding appropriate actions integrated into the
Aspiring architects and tour guides at Taliesin, home of Frank Lloyd Wright's design studio and prairie school of architecture in Spring Green, Wisconsin, inform visitors that as a child he received from his mother a set of geometric blocks (a circle, square, and triangle). From child's play to creative genius, he became familiar with these basic shapes and used them over and over again in new combinations and for different purposes as he designed new illusions of space. Later these same building blocks appeared as design themes and became distinctive signatures on some of his greatest architectural achievements: the Guggenheim, Fallingwater, the Robey House, and the Johnson Wax Headquarters. Principals are also designers. They rely on basic building blocks and foundational knowledge of leadership as they work to create and nurture positive and highly productive environments for individual growth and learning in schools.

Four basic building blocks contribute to the quality of principals' expert thinking. They include professional 1) values, 2) knowledge, 3) processes and behaviors; and 4) intent. Our theory of professional visualization posits that the building blocks of professional knowledge shape our thinking about leadership, contribute to our understanding of problems and ways of dealing with them, help to define our leadership roles, and inform the actions we take. These foundational materials and the process of professional visualization can guide those preparing for the principalship.

We begin our discussion of professional visualization with a discussion of leadership values and beliefs that shape expert thinking and inform action. Next we describe principals' professional knowledge as an organic mix of experiential, empirical and theoretical knowledge. The third building block is leadership processes and behaviors. We describe these processes and behaviors, grounded in values, professional knowledge, and intentions, as expressions of expert thinking in action. The fourth building block, leader intent, focuses on the principal's role as a communicator of organizational purpose and direction.

**Leadership Values and Beliefs**

That values and beliefs are essential to successful leadership seems self-evident. Yet underestimating their importance diminishes our understanding of what it takes to be an effective principal. Values shape and inform thinking while serving as guides to action. Values influence principals' expert thinking, and by extension their behavior, as lenses for viewing problems of practice and as substitutes for professional knowledge in the face of novel problems (Leithwood, 1994, p. 18).
At least two levels of values shape the thinking and behaviors of principals. The first level of values is preconscious. Values at this level are not articulated or expressed overtly. These deeply imbedded values are basic to the way we view the world. They represent assumptions and beliefs we hold about such things as relationships, organizational structures, the purposes of education in a democracy, human growth and learning, equity, individual liberty, and autonomy. Scholars often examine core values to differentiate among various social and organizational cultures.

A second level of values includes beliefs we talk about openly and use to guide choices and behaviors in our daily work and interactions. Fairness, support, appreciation for cultural diversity, honesty, and what's right and what's wrong are espoused publicly and expressed in actions. Although these values are expressed openly, perfect congruence does not exist between espoused values and beliefs and those values and beliefs by which we live. The challenge is to match our "walk with our talk." If you want to see what a principal values, watch what she does. Leadership behavior over time is a much more accurate measure of principals' actual values than are vision statements, slogans, and faculty pep talks.

As formal leaders principals have many opportunities to express through their leadership existing values of their schools and communities as well to introduce new values. Contrasting traditional leaders from highly successful leaders, Sergiovanni (1987) identified new leadership values articulated and expressed in the behaviors of leaders in highly successful schools. He argues that purposing is an example of an emerging leadership value. As an expressed leadership value, purposing provides a compelling view of organizational purpose to which others in the organization can commit their personal and professional energies and expertise. Other leadership values for schools such as empowering others, patience, eclecticism, and pragmatism can be added to the functional values of school leaders (Bredeson, 1994).

**Professional Knowledge and Expertise**

A second critical building block is professional knowledge and expertise. The quest for a professional knowledge base in educational administration is not a new endeavor (Culbertson, 1988). For example, in 1943 the Department of Supervisors and Directors of Instruction of the National Education Association (NEA) described the frustration of educators trying to grasp an illusive prey.

To track down *instructional leadership* to its lair, and once having it firmly in hand to nail its hide to the side of the house so that all good educational pilgrims who came
that way in search of this golden fleece could recognize it and benefit therefrom. (DSDI, 1943, p. 1. as cited in Change and Continuity in Supervision and Leadership, Pajak (1993)).

Recent efforts by the National Commission for the Principalship (1990), the University Council for Educational Administration (1993), and the National Policy Board for Educational Administration (1993) are testimony to the enduring quest to capture and codify the grail of professional knowledge for school principals.

Our view is that professional knowledge is an organic mix of theoretical, empirical, and experiential sources of knowledge. The professional knowledge base for principals continues to evolve through individual processes of reflection that provide novel and insightful ways of addressing problems of practice. This view is not an argument for complete relativism nor for idiosyncratically constructed professional knowledge. Rather, it recognizes the active role aspiring principals will take developing an internalized professional knowledge base informed by on-going empirical research, theoretical propositions, personal and professional work experiences, and systematic reflection on them. These sources of professional knowledge form the substrate that supports and informs the expert thinking, situational mapping for practice, and actions of successful school leaders.

**Experiential Knowledge**

Each person learns from experiences. Some are personal experiences while other are vicarious, but nonetheless instructive. Because of their vividness, immediacy of access, and relevance to other experiences that enhance the ability to recall and utilize what has been learned, experiences are a valuable source of professional knowledge. Not all experiences are equally valuable contributors to professional growth and learning. Dewey (1938) argued that some experiences may distort or diminish opportunities for further learning and individual growth. The potential to learn from experience has less to do with whether those experiences are positive or negative and more to do with our capacity to make sense of them, connect them to prior experiences, and to integrate what we have learned from those experiences into our thinking and behavior in future situations. The ability to integrate experiences with prior experiences and knowledge and then link what has been learned from those experiences to future situations is what distinguishes a principal with ten years of administrative experience from another principal who has one year of experience repeated ten times. The former grows and links his experiences to his professional knowledge while the latter continues to repeat
past behaviors and responds predictably, failing to make the connections between past, present, and future situations of practice. (Boud, Keogh, and Walters (1985) describe a three-stage model of experiential learning that includes -- (1) returning to the experienced event; (2) attending to feeling; and, (3) reevaluating the experience.)

Many beginning principals find that their experiences will prove to be valuable contributors to their developing professional knowledge base and expert thinking. As with any source of professional knowledge, its potential to inform principals' expert thinking is dependent on careful reflection and appropriate application, not simply the recounting of administrative "war stories" or passive replication.

The idea of conformance and harmony of expert thinking to situation is an important point. Reflecting on Wallace Stegner's essay, "Striking the Rock", we have come to understand and appreciate the importance of harmony and conformance to effective educational leadership. Stegner writes about an encounter he and his wife had with a daring western architect. It seems this architect regaled the Stegners one evening with a slide show of multi-million dollar houses he had designed for construction in the California desert. The architect boasted that these creations represented imagination, technical know-how, the innovative use of modern building materials, and the endless possibilities that generous financial resources availed the architect, builder, and resident regardless of climate or geographic location.

In that waterless pale desert spotted with shad scale and creosote bush and backed by barren lion-colored mountains, another sort of architect, say, Frank Lloyd Wright, might have designed something contextual, something low, broad-eaved, thick-walled, something that would mitigate the hot light, something half-underground so that people could retire like the lizards and rattlesnakes from the intolerable daytime temperatures, something made of native stone or adobe or tamped earth in the colors and shapes of the country, something no more visually intrusive than an outcrop.

Not our architect. He had built of cinderblock, in the form of Bauhaus cubes, the only right angles in that desert.

Studying that luxurious, ingenious, beautiful, sterile incongruity, I told its creator, sincerely, that I thought he could build a comfortable house in hell. That pleased him; he thought so too. What I didn't tell him, what he would not have understood, was that we thought his desert house immoral. It exceeded limits, it offended our sense not of the possible but of the desirable. There was no economic or social reason for anyone's living on a barren flat, however beautiful, where every form of life sought shelter during the unbearable daylight hours. The house didn't fit the country, it challenged it. It asserted America's never-say-never spirit and America's ingenious know-how. It seemed to us an act of arrogance on the part of both owner and architect.

That desert house seemed to me, and still seems to me, a paradigm - hardly a paradigm, more a caricature - of what we have been doing to the West in my lifetime. Instead of
adapting as we began to do, we have tried to make country and climate over to fit our existing habits and desires. Instead of listening to the silence, we have shouted into the void. (Stegner, 1992, Where the Bluebird Sings to the Lemonade Springs, pp. 77-78)

Lack of conformity and harmony with surroundings, insensitivity to unique features and characteristics of the setting, the hubris of technology and unlimited resources to confront any situation, and shouting into the void resonate with many of the experiences of educators. Stegner's view of this architect's failure to appreciate his natural environment and to work in harmony with it rather than rail against it with the arrogance of a distant technocrat speaks to us. Harmony and situational fit are characteristic of effective professional practice and principal leadership. The expert thinking of principals informed by values, knowledge, leadership processes and behaviors, and intent respond to the unique features within a school and to the specific needs of faculty and students. They do not deny their character and force them into an unnatural conformity within the boundaries of the educationist's model. However, working in harmony does not mean blind acceptance of impoverished conditions, poor performance, and unproductive cultures for individual growth and learning. It does mean that professional visualization and expert thinking interact with the realities of the school setting and are appropriate to its character.

**Empirical Knowledge**

Another major source of professional knowledge for principals is empirical knowledge. Empirical knowledge is formal knowledge based on systematic experimentation, observation, and analysis. Such knowledge often is called scientific or research-based professional knowledge. In the field of educational leadership, where tightly controlled experimental conditions are often difficult to attain, scholars and practitioners rely on systematic investigations conducted in field studies, case studies, and analyses of actuarial data sets, for example, state-wide student achievement scores, financial expenditures, and tax revenue data. Despite assurances of methodological rigor provided by researchers, educational practitioners often eschew empirical research because the findings do not match their experiences or provide insight into circumstances in their everyday practice. In addition, empirical knowledge often fails to provide highly specific information that tells principals what to do in a given circumstance. For instance, a novice principal may want to know what to do if a gun-wielding student comes into the school. The empirical findings on conflict management and effective strategies for dealing with violence in schools may be very descriptive and would likely report the probabilities of success among alternative actions. As a result, new and experienced principals may consider the
empirical findings from studies on violence and conflict in schools interesting, but not particularly useful. The legitimacy of empirical research, however, is not based on a claim of particularized solutions to specific problems, such as full-proof strategies for disarming violent students. However, when these same findings are used as a basis for training and professional development experiences, principals often find them highly salient and valuable to their everyday practice. Principals deal with specific problems requiring highly specific responses in particular contexts. Generalizability of findings and applicability beyond the school are less important to them than are specific ideas and strategies to deal effectively with the problem at hand.

Case studies, using a variety of research traditions, are also a valuable source of empirical knowledge for principals. An excellent example, is a study reported by Reitzug and Reeves (1992). Their observations and analyses of the leadership behaviors of one elementary principal, Steve Sage, provides an excellent description of symbolic leadership in schools.

Symbolic leadership is the hidden dimension of principal's leadership. The tendency of principals (and, indeed, of all individuals) is to focus on the substance and intent of their actions. They are less likely to consider the multiple interpretations that followers construct of the meaning of these same actions.... The implication for principals has less to do with exchanging substance for symbol with it does with becoming sensitive to symbol in substance. (p. 217)

Theoretical Knowledge

Theories and the relationships they posit among variables of interest are a third side to the building block of professional knowledge. In any narrative description of professional knowledge, the danger exists that sources of knowledge might be viewed as separate, distinct, and unrelated to one another. Viewing sources of knowledge as discreet and independent often results in creation of artificial dichotomies and trichotomies of professional knowledge. Such artificial categorizations are common in education. Some examples include theory versus practice, technical knowledge and craft knowledge, administration as an art or as a science, and the familiar trichotomy -- theory, research, and practice.

In schools one may hear colleagues say, "Oh, that's theoretical. Here's what you need to know. Just do this." "Research! Who's got time for research. I've got 25 kids to teach. Research is what they do at the university. Here we work with real problems and real kids." These statements reflect a fundamental misunderstanding of the strengths and limitations of each source of knowledge, its contribution to principals' professional knowledge, and its relationship to practice.
What would a theory-less world be like? One of two possibilities exists. The first is that everything would be known and therefore theoretical frameworks used to help describe, examine, and explain events would be unnecessary. At the other extreme, is a chaotic world in which behaviors, events, and other phenomena are completely idiosyncratic and unrelated. No patterns of behavior would exist, no systems for classifying information, no strategies for organizing and understanding the experienced world. Both possibilities would result in cognitive overload for professional educators.

Leadership Processes and Behaviors

The third building block of expert thinking is leadership processes and behaviors. Leadership processes and leader behaviors are expert thinking in action. Values, professional knowledge, and intentions are building blocks of expert thinking that complement principals' behaviors and leadership processes. In addition to basic administrative processes, the work of principals has been systematically examined in literally hundreds of empirical studies. For example, the works of Peterson (1978), Kmetz and Willower (1982), and Martin and Willower (1981) provide detailed descriptions of principal work and on-the-job leader behaviors.

However, just because someone is busy carrying out elemental administrative processes and behaving like a busy person does not mean that she necessarily is demonstrating expert thinking in action. Leadership processes and behaviors that express expert thinking in action are grounded in values, professional knowledge, and purpose.

Leader Intent

Studying expert thinking and the relationships that exist among leader values, professional knowledge, and leadership processes and behaviors is a bit like trying to configure various shapes from the array of stars in the evening sky. The lines of leader intent provide the outline and reveal the connections that make the constellation of expert thinking visible to others. The literature on leadership abounds with synonyms for intent. Purpose and purposing, aim, direction, vision, goal, meaning, and design are commonly used to describe the importance of intent to successful leadership in organizations. We deliberately use the term leader intent because of its denotative and connotative meanings derived from the Latin word, intentus, meaning attentive to. What leaders pay attention to is an expression of the other building blocks of expert thinking. Sergiovanni (1987) describes leader attention and intent as purposing. Purposing is a continuous
stream of actions, substantive and symbolic, that help to provide clarity, consensus, and commitment to the organization's basic purposes. He concludes.

The leader's behavioral style is less important in reflecting the value of leadership by purposing. Instead, what the leader stands for and communicates to others is emphasized. The object of purposing is the stirring of human consciousness, the enhancing of meaning, the spelling out of key cultural strands that provide both excitement and significance to one's work life. (p. 340)

The fact that principals pay attention to some things in their schools while ignoring or de-emphasizing others infuses the ordinary routines of faculty, staff, and students with meaning and purpose, intent.

Professional Visualization: Building Action from Knowledge Blocks

Schools are professional work groups requiring the application of professional knowledge to constantly shifting educational challenges. This professional work environment makes recipes for the right action in every contingency virtually useless. As stated in a recent study of leadership apprenticeships in educational administration:

Research findings may very well be isomorphic with theory, but they are often not isomorphic with practice. Because traditional research findings are more likely to be generalized than situated, they may even promote artificial perceptions of uniformity among school organizations and false images of homogeneity within school leadership roles. Most prescriptions for expert school leadership simply do not ring true for administrators who must work in specific contexts. (pp. 17-18)

In the following discussion, we describe a method through which principals can make professional practice more consistent with their knowledge, values, and principles. Visualizing or professional theorizing provides a means for constructing situational maps that guide principals closer to approximations of superior professional possibilities. They may utilize an ideal or profile of the principal they would like to be within a context, visualizing that ideal and the "amount of change required ... into incremental steps leading towards some ideal image of the role" (p. 20). They also can use this framework to visualize not only the amount of change but the processes suggested by a particular school's needs and steps that will reveal unfolding appropriate actions as part of the outcome of previous actions.

The process we call professional theorizing, then, is a means for creating deliberate structures, theories, or maps for taking action, this action will lead toward successfully meeting educational leadership challenges and the structuring your principal leadership career. It depends on your willingness and ability to systematically integrate new knowledge from experience, research, and theory as principals grow and develop.
professionally. Their professional vision and the visualization that help them construct actions as principals will change over time, but the process of reflection-on- and in-action forms the core of their professional growth.

We begin with a description of what we mean by professional theorizing, lay out a process of professional theorizing and visualizing, and enumerate steps for professional visualization. We then apply this framework to pressing current issues in education and illustrate how knowledge can be applied to action through this process.

Framework for Professional Theorizing

One of the most frustrating realities all professional school students face is the transition from student to practicing professional. The systematic application of knowledge to action for the most expert professionals has become tacit and automatic, so practitioners find it difficult to convey the process to the novice (Schon, 1983, 1987). Figure 1 presents a framework for professional research and theorizing in the practice context in the form of a theory of professional visualization.

[INSERT FIGURE 1 HERE]

It portrays the relationships among elements in a theory of professional visualization for principals. We propose that an input stimulus, opportunity, or problem triggers the principal to draw on her building blocks for expert thinking. These stimuli can either present themselves from the internal or external environment of the school, or they can be found and deliberately brought to the school by the principal or by others. The building blocks of expert thinking are laid on a foundation of the antecedent conditions. Knowledge includes the principal's strengths and weaknesses relative to the challenge at hand, and intentions include espoused theories and theories in action developed over the course of the principal's education career. The particular combination, emphasis, and role of building blocks used depends on the stimulus opportunity, and they are bonded together by the mortar of expert thinking.

With this resource of building blocks and processes, the principal constructs situational maps of practice or theories in the practice context and begins to construct a series of professional actions appropriate to the practice theory embodied in the situational map. She may move to establish a decision-making or ad hoc committee of teachers, draw on a particular governance structure or repository of expertise among the professional staff or parents, or apply specific expert knowledge of her own about finance and budgeting,
instruction, law, or any number of other sources of knowledge. She may turn to an experience related to her earlier practice and contact a colleague, peer, or previous supervisor.

These options are as varied and numerous as education problems are complex. The result of this process is a visualization of actions, people, and resources fitted together toward desired ends. During principal professional visualizing, it produces intermediate outcomes at the school level focused on stimulating student learning and growth at the final level of performance. These school level outcomes may be such things as a professional norm of experimentation and instructional innovation in the faculty (Little, 1982); high and achievable expectations (effective schools literature); teacher professional efficacy (Ashton & Webb, 1986); reduced student alienation and drop-out rates (Wehlage, 1989); a school culture which celebrates diversity, tolerance, and growth (Kozol, 1991). Throughout this process (professional visualization), the principal integrates feedback, incoming information, and the results of her expert thinking into the growing theory of practice she is developing. She also engages in reflection-in- and on-action, feeding new interpretations and information into her theory development. The results produce ongoing stimulus for input into more theory-building and visualization. Visualization permits principals to move from expert thinking and theorizing to concrete behaviors in the world of daily practice. Through this process, the expert professional brings her espoused theories and theories-in-action into greater congruence and raises her professional practice to higher levels of expertise. Like the architects in the design studio we referred to earlier, the professional principal turns ideas and conceptual building blocks into principles of design and action and then takes action. The elements of this framework are simple:

**KNOWLEDGE FROM EXPERIENCE, RESEARCH AND THEORY => Visualization => Professional Theorizing => Situational Map Construction => Expert Thinking => Expert Practice Plan => Action**

Throughout this process, the expert practitioner visualizes the model of expert action she aspires to and visualizes herself performing the actions likely to bring about desired results.

The abstract theory building of scholarship and the theory building of practice are complementary.
Each is more important in its particular environment, and each affects the other when professional practice advances. The standards of rigor by which we judge theorizing in practice and theorizing in scholarship are different, however. Theorizing in scholarship requires that the scholar design systematic, abstract, and discipline-based maps among the critical variables. These abstract maps are used to explain and predict outcomes in multiple settings and to design and conduct further inquiry and theory building. Theorizing in the practice context requires concrete and visible outcomes emerging in a particular setting out of the use of appropriate situational maps of practice. Theories of practice require that the theorizer (the principal in this case) deal with particular problems in specific contexts, whether he is functioning as problem solver, facilitator, designer, teacher, steward, and/or coach, for example.

The standards of adequacy for practice and scholarly theories are very different. While the scholar examines social phenomenon and constructs comprehensive and inclusive maps for inquiry and prediction, practitioners look within settings and construct situational maps that guide appropriate and promising actions that in turn lead to desired outcomes. Motivation theory provides one example of these different standards of adequacy. A principal seeking to motivate teachers, students, and staff to work together and to improve the relationships, collaboration, and school-wide efforts in a school measures successful motivation by whether people to choose to interact or not, by the utility of emerging interactions, and by the outcomes of that interaction. A scholar measures success of motivation theory in interaction analyses by the statistical significance of the measured relationships among variables or, in other paradigms, by the vivid rendering of social reality and the adequacy of description and goodness of fit to the setting studied. Theories built by scholars are one of the many sources of inputs into the building blocks of expert thinking. Professional practice is grounded in expert theorizing and in expert practice, not in one or the other.

As a natural consequence of the field's development, educational administration moved from exclusive reliance on craft knowledge to a commitment to apply social science theory to educational leadership practice. The theory movement in educational administration may have become separated from its original purpose — the improvement of educational administration as a discipline — when it was interpreted as different from and isolated from the professional practice of school administration. The result is a theory-practice debate constructed as a set of false dichotomies.

Similarly, a reification of the firefighter view of management occurs when educational administrators
rely on descriptions of uncritically chronicled activities a la Mintzberg. Unexamined acceptance of observed behavior creates a picture of school principals and other managers careening through a chaotic world. Everything is viewed as idiosyncratic and new with no culture, no patterns, no definitions, no history, and no explanation. This view of the principalship becomes mired in a short-term memory syndrome in which the principal learns from neither experience nor scholarship.

Many thoughtful principals and writers seek alternatives to these extremes. Interest in the moral dimensions of leadership, strategy and politics, and contextualized thinking and learning (Prestine and LeGrand, 1991, Greenfield, 1985, Sergiovanni, 1992), as well as the other thoughtful views of school leadership, abound as testimony to the desire of scholars and practitioners alike to respectfully and accurately portray the rich dimensions of leadership in schools.

**Theorizing About Pressing Current Issues**

The theory of professional visualization grew out of our dissatisfaction over the artificially heroic implication of other attempts to capture principals' impacts on schools through images based on philosophy and vision. We have worked as school administrators and university professors during eras of professional platforms, principals' philosophies of education, and principal vision statements. Each of these movements captured a facet of the subtle relationship between leader and school and addressed a strongly felt need among practitioners, but each failed to provide a mechanism for including the knowledge, aspirations, and goals of other members of the school social group and failed to systematically move from abstract visioning to action in real schools.

Sports psychology provided us with the additional action and interaction components we saw missing from these attempts to capture the spirit of idealism and commitment common to educators. Visualization provides athletes with three key components for enhancing performance: 1) detailed knowledge of the physiology, physics, and psychology of their sport and the contexts in which they compete, 2) a process for imaging their performance, for seeing themselves achieving their ideal action outcomes, and 3) procedures for assessing their performance and refining their skill. Other human endeavors requiring action also take advantage of the visualization process. For example, pilots preparing for their turn to compete in stunt flying competitions can be seen quietly walking through their maneuvers, often with their eyes closed, rehearsing their actions and planning the adjustments needed to wind and weather conditions and the condition and flying
characteristics of their airplanes.

The press of problems in schools to which our framework for professional theorizing can be applied is so diverse that we hesitate to single out any particular examples. Many problems receive close scrutiny at the state or policy levels, but our focus is on the actions of principals as school level leaders and your preparation for this important role. The following examples are, therefore, only illustrative and we confine the discussion to the way a school principal might approach his professional theorizing and visualizing toward actions to address these problems at the level where teachers and students work to teach and learn. Our examples include problems that require multi-agency collaboration; the need for community involvement versus a tidal wave of competing pressures in turbulent times (pluribus vs. unum); school choice, vouchers, and privatization; cultural pluralism; access and excellence (who gets what and why). Our hope is that these five examples of current, pressing issues will illustrate the processes of professional theorizing.

**Collaboration**

The American Educational Research Association chose collaboration as its conference theme for 1995. In its call for paper proposals, the association stated that its call was based on a:

> growing acceptance of the need for interdependence among the human service professions (e.g., education, social work, school psychology, public health administration) in order to effectively serve children, adults, and families in America. It is apparent that partnerships of this nature will transform schools and their relationships with families and community agencies. [The annual meeting] will focus on pioneering research and scholarly efforts associated with interdisciplinary partnerships and the resulting interprofessional collaboration. (Educational Researcher, May, 1994, p. 36)

This year's theme is grounded in growing acceptance of the need for interdependence among the human service professions (e.g., education, social work, school psychology, public health) in order to effectively serve children, adults, and families in America. It is apparent that partnerships of this nature will transform schools and their relationships with families and community agencies.

The problems of youth, children, and families, increasingly complex, stimulate increasingly serious attempts by social service agencies, government, and education to find ways to provide children and youth the health, nutrition, emotional and psychological support, and learning resources they need in a single setting — the school. The Readers' Digest-Dewitt Wallace Foundation is supporting a major consortium of social work
and educational agencies and colleges aimed at finding ways to address the combination of social and intellectual problems that currently limit the educational and personal achievement of so many young people. Other initiatives abound, yet principals, teachers, parents, children, university and college students and faculty, and social agency professionals face daunting challenges when they apply this commitment to collaboration to the everyday work in schools. Figure 2 illustrates how a school principal might go about orchestrating the collaboration of social work and educational professionals to serve children and families in a school setting. The specific individual and contextual examples we use in this figure are fictional and illustrative, but they are in harmony with our personal experiences and with experiences shared with us by our students (as do all descriptive factors used in subsequent illustrations). They also are highly abbreviated and include only a sampling of the factors one would actually use in such a process.

Much of the dialogue surrounding collaborative arrangements emerging from accounts of school dropout rates, violence at school, and poor academic achievement attributed to the interaction of social, economic, and educational factors. As stimulus inputs or problems, these conditions have already triggered a great deal of talk about the need for interventions. An opportunity related to collaboration arises when various agencies, including schools, see a chance to achieve shared goals by pooling their resources in a single setting in which children can be served.

The building blocks held together by expert thinking in this collaboration case would include values, processes, knowledge, and intentions related to the stimulus inputs. Values could include a commitment to democracy in the workplace and sharing is good. Process, skills, and behaviors could include diverse professional processes such as counseling, reading instruction, and group conflict management processes. Knowledge about decision-making techniques and theories, the time-consuming nature of collaborative agreements, and diverse knowledge about the social, emotional, and physical development of children and instructional techniques, cognitive psychology and development, and content acquisition could be used as those involved examine their situation and problem. A complex set of intentions, some of which are conflicting, would be included in the mix of factors to be considered. A social worker would be charged as part of his professional obligation to intend improvements in family relationships and emotional health while a teacher would be obligated to focus on the child's acquisition of knowledge. (This conflict can play out as competition...
for the child's time during the day -- a counseling session on family processes versus the reading group.)

Antecedent conditions might range from past cooperation among agencies (or competition for resources) to the number of families with telephones in their homes and the proportion of children who move in and out of the school each year to the availability of conference rooms and office space for social workers and counselors in the school.

The situational map of practice constructed from these inputs would present a rendering of the integrated emotional, physical, and intellectual work of these children and youth in this neighborhood, family, and school context. Even at this stage, the map takes on the abstract qualities of a scholarly theory, because it generalizes characteristics in order to convey a systemic view of the school level challenges. Although this theorizing in the practice context does not necessarily represent the actual reality of any child's, teacher's, or family's life, it provides a general framework of the group members' shared experiences and challenges.

As the map of practice emerges, the principal and other professionals, family members, and community members begin to develop actions in harmony with the knowledge, values, intentions, antecedent conditions, and other factors included in the visualizing process. At all stages of this process, the visualizing or theorizing changes and evolves; it is not static.

Actions taken as a result of professional visualizing begin to yield outcomes (or, less linearly, are associated with the interventions), observations interact with the visualizing process and also emerge and new stimulus inputs. For example, if teachers and social workers discover that neither their counseling nor their instruction sessions function well when some children miss portions of each, a new stimulus challenges them to use their knowledge informed by their values and goals to reorganize a portion of the situational map and revise an action. Conversely, those involved may see a conflict arise but judge other alternatives as less desirable than the observed effects of the designed actions and choose deliberately to retain practices, even when they have some negative trade-off side effects. Other intermediate school level outcomes might include such things as absentee rates, student arrests, school vandalism, or attendance at parent/teacher meeting. Eventually, student learning and growth measures that affirm positive effects on individual student's lives should be observable, but they may take time.
Through this process, the principal develops a theory of practice related to interagency collaboration and the purposes of schools and schooling that becomes part of the building block array she brings to future experiences. As years of experience accumulate characterized by careful and deliberate professional theorizing shaped by reflection-in and on-action, a strong and complex system of professional expertise results. The process is never static and continually contributes to a dynamic professional career characterized by increased knowledge and prowess as an educational leader.

In the following examples, we provide more abbreviated illustrations of several current educational problems. Again, we caution that these illustrations are pale and incomplete portrayals of the real problems they represent.

**Involvement versus Competition between Factions**

Another issue, closely related to social agency collaboration, forming the subject of intense debate, even ideological fervor, is parent involvement in schools. Both of our states, Wisconsin and Utah, have governors or legislators who believe that parent involvement in site-based decision-making councils will improve schools, schooling, and student achievement. In 1994, Utah's Legislative Strategic Plan for Education and Governor Michael Leavitt's Centennial School Program, as well as funded projects through the Utah State Office of Education and the ten-year-old Teacher Career Ladder Program, all rely on the participation of parents in decision making in schools as a core feature of school improvement initiatives. Such initiatives as the Wisconsin Educational Standards, A Blueprint for Excellence, A New for Education in Wisconsin, the School Tech-Prep Initiative in the 1990s enlist the support and involvement of parents in planning, implementing, and evaluating programs to meet new educational challenges for individuals and their communities across the state. Other states have similar programs.

We use Wisconsin and Utah as illustrations only. Other examples that have received more national publicity abound. These include the Dade County, Florida schools, the Chicago School system, and Kentucky. The person most responsible for facilitating, nurturing, and building on these parent involvement initiatives -- the school principal -- faces many challenges. Figure 3 illustrates some of these challenges using the professional visualization model.

[INSERT FIGURE 3 HERE]

Stimulus inputs for parent involvement currently spring from academic, vocational, and moral/ethical
criticisms of schools. Students are failing to meet performance expectations, disagreements over the nature of work young people will face in the 21st century divide beliefs about the appropriate structure of "vocational" education, or parents disagree over prayer in the schools, AIDS education, sex education, or the moral lessons conveyed by fairy tales or literature. Values related to democracy, parental and student rights; processes of conflict management and compromise; decision-making theories, dispersed knowledge among parents, power and control; and intentions may include increased empowerment, sharing, or "quality". Antecedent conditions in the school such as equating professionalism with control over the school also come into play.

The situational map constructed would include, among other things, the political and professional structure of the school, the nature of the content students were expected to master, and prevailing mores and values. Professional actions could include new governance structures, new legal arrangements and contracts, and revised curriculum. Intermediate outcomes would by necessity focus on the ideology of participation and include things like more parents involved, the function of the new governance structure, parent and teacher understand (or conflict). Eventually, the professionals and parents involved should ask questions about the democratic citizenship values of students, academic achievement, vocational achievement, and other factors related to the issues at hand. A theory of practice resulting from this process might be "broad participation yields better outcomes" or "buffer and protect the school from unsympathetic and uninformed parents". Through the processes of professional visualization, principals connect the purposes and structures (bureaucratic and altered) of the schools to the aspirations and energies of parents to enhance teaching and learning outcomes. The image of an orchestra director suggests the professional skills that successful educational leaders use to transform a cacophony of opportunities and seemingly discordant opportunities and obstacles into educational compositions that are in harmony with their context and achieve their greatest potential. The conductor knows what to exclude as well as what to include!

Choice, Vouchers, and Privatization

Like issues of parent involvement, the questions surrounding school choice, vouchers, and privatization challenge long-established practices in American schooling. Unlike European parents who long have been free to select from among private and public schools that receive state support, Americans have chosen an egalitarian philosophy that all children who live within the boundaries of a neighborhood school should attend that school. When parents and children reject that value, the stimulus opportunities and problems
involve issues such as desire to improve through quality schooling, government subsidy for religious or racially-based schools, or failing support for public schools.

These inputs trigger value conflicts; require political and group process skills; depend on social and behavioral science knowledge about groups and group processes, academic knowledge about the "canon" of Western knowledge, and draw from memories of exclusive or public education experiences; and challenge the access and excellence intentions (individually illustrated in Figure 6) of participants. Antecedent conditions from the earliest era of American common schools to the present shape commitments to conflicting values, and the deterioration of inner-city public schools that many argue are becoming racial enclaves of deprivation contribute to antecedent conditions, as do parents' fears for the academic futures and physical safety of their own children (as sometimes opposed to all children).

The situational maps of practice developed from these inputs can represent several different levels, even for the individual school principal. A map can involve state finance formulas, district policy, and individual school commitments, and it can have major implications for the way the principal's work is shaped. Kerchner, for example, argues that principals will become fund raisers and entrepreneurs in an era of choice, garnering resources and recruiting students much as the presidents and officials of exclusive private colleges do now. The professional actions warranted by these maps differ dramatically. Fund raising, school closures, specialized schools, and new transportation systems could result. Intermediate outcomes -- redistribution of children across communities, exacerbated divisions among schools on economic bases, -- could be intermediate outcomes. Increases in average achievement on standardized tests, specialized rather than generalized education for young people, and decreased budgets for all-public schools and reduced learning opportunities for the least advantaged might be measured as student learning outcomes. The results could be greatly modified theories of practice for American education. As in the previous examples, modifications of the visualization and professional theory based on cycles of input throughout the process will occur.

1 The presence of access versus excellence within this debate and illustrated later with its own professional theorizing figure illustrates the complexity and interactivity of professional theorizing in the practice context and the importance of attending to this process for professionals seeking to expand their expertise.
The effects of choice, market mechanisms, and privatization would also affect the dynamics and social interactions within schools. Principals would need to balance competing values of choice, equity, the needs of individual children and groups of children (which often conflict), and the concerns and needs of this professional staff. This will be especially important in providing access and inclusion to children with disabilities. Choice and privatization operationalized through the currency of vouchers may serve parents' rights and political goals more than they do the needs of some children. Principal professional visualization provides a mechanism for assessing and choosing among competing values and good within the school in service of children and youth.

[INSERT FIGURE 4 HERE]

**Cultural Pluralism**

Diversity of students, faculty, administrators, neighborhoods, curriculum, and instructional methods dominates much current debate in education. Cultural pluralism raises educational issues grounded deeply within cultures and values. Unlike the previous examples, values play a central part in the stimulus, building blocks, and choice of intermediate and student-level outcomes sought and measured. Differential valuing of different forms of knowledge, citizenship principles, appropriate roles for men and women, academic freedom and norms of expertise, and secular/moral dimensions of education illustrate the complexity of cultural pluralism pressures on principals and schools. And an intervention to rectify the lack of cultural reinforcement for one ethnic or racial group in a school may be seen to create problems for other groups. Pluralism per se versus the "best" or "right" culture dominates many of the diversity debates (even in state legislatures). When William Jennings Bryant asserted that the people who pay for the schools should have the right to determine what is taught in them during the Scopes evolution trial in Tennessee, he foreshadowed many of the educational debates currently faced by principals. Decisions about the intermediate school level and student learning and growth outcomes chosen for measurement flow directly from the maps of practice developed (See figure 5).

[INSERT FIGURE 5 HERE]

The principal's roles as celebrant and mediator suggest the potential for pluralism and diversity to either divide or unify in schools. As a celebrant, the principal role focuses on legitimating the value of differences to enrich educational experiences of all learners. However, the principal also is a mediator who
reconciles sources of conflict imbedded in coexisting values, traditions, and mores. Through processes of professional visualization, principals work to nurture a positive teaching and learning environment that balances "pluribus" of unreasoned diversity with "unum" for a unified service to children and youth.

**Access and Excellence**

Like cultural pluralism, access and excellence debates highlight our beliefs about the purpose of education. The back to basics movement, the school improvement initiatives springing out of the *Nation at Risk* report in 1983, and work redesign and school restructuring plans seeking to redefine and reshape teachers' careers and school structures all reflect a general dissatisfaction and disagreement over excellence in schooling and the relative success and failure of the public schools as the great levelers of American society.²

The stimulus input triggering questions of access and excellence immediately draw building blocks of knowledge about issues such as social and economic inequality, access to educational opportunities, and definitions of excellence. Western philosophy, commitment to individualism, and political ideology also come into play (Hodgkinson, 1983).

Equality of access and equality of outcomes as competing values shape the economic policies and school finance formulas developed as part of the general policy, but these issues also emerge at the school level. Drawing on available building blocks, for example, a principal might construct a map of practice that completely restructures her system for allocating funds to support different programs in a school. For example, when I examined the budget and expenditure records of one school to which I was assigned, I found that the department chairs traditionally met and allocated the materials, supplies, and textbook budgets and snack bar and vending machine profits were supposedly set aside for student activities. In reality, however, the wood and metal shop teachers had routinely overspent their "budget" by thousands of dollars every year, and the principal had simply covered the deficit from instructional funds, thus limiting the resources available to other academic programs (authors, personal communication). While adequate wood and metal supplies were available to the shop classes, the mathematics and English departments were unable to replace outdated

²See *The Great School Legend* (Cremin), *Anti-intellectualism in American Life* (Hofstadter), and *Schooling in Capitalist America* (Bowles and Gintis) for interpretations of the American school tradition.
textbooks and supplemental materials. An intermediate outcome of a situational map that allowed one group of teachers to quietly limit the resources available to others had major intermediate and student learning outcomes.

[INSERT FIGURE 6 HERE]

The principal's theory of practice in the above example could be described as "principal as matriarch". Regardless of planning and symbolic access to decision making, the principal knew best and should control outcomes. This particular principal sometimes described her interactions with students as motherly and recounted her successes giving motherly advice to students when they had problems in school. However, she would be shocked that a systematic examination of the theory of practice emerging from this chain of events suggests a visualization of this school as one bordering on patronization.


The preceding illustrations demonstrate how a new principal can use visualizing and professional theorizing to develop his own professional theories in action and rely on professional action structures that purposively apply what they know to what they do. Experienced principals build on and expand this process as their knowledge from experience, research, and theory grows.

We caution that this systematic framework for applying knowledge to action does not guarantee that a principal will develop a repertoire of simple, repeatable solutions to educational problems. However experienced a principal becomes, critical incidents are unpredictable, and the mix of contextual, personal, and professional factors is fundamentally unique. Any model such as ours also tends to overrationalize the world and make it seem more dependable than it ever will be. Part of the knowledge that feeds into this process comes from phenomenological traditions that assert and describe the fundamentally unique and perceptual nature of human experience, and each principal draws on personal values and a paradigm of the social world of the school as part of his building blocks for expert thinking. The professional visualization model provides a means through which principals can apply their own values and paradigms and their experiential, empirical, and theoretical knowledge more consciously, capitalizing on their strengths and compensating for their weaknesses or gaps. A hallmark of professional work, this unique combination of factors in each problem faced by the professional, includes the gaps and missteps that are an inevitable feature of human life and imperfect
human knowledge.

Conclusion

Theoretical scholars and theorizing principals are equally uninformed if they eschew and see as unconnected the contributions of each other's work. A theoryless world would mean that every event and stimulus would be idiosyncratic and would demand a unique response structure without previous information. We would be paralyzed by cognitive overload. Professionals must check their own selective inattention because this filtering by past experiences is characteristic of human thinking not a character flaw. We may construct theories that are situationally inappropriate because we define the problems based on past experience using the wrong building blocks and without systematic checks on our own theory building. Interagency collaboration arises from understanding problems previously labeled school problems as problems requiring interagency collaboration -- societal problems. Our past reliance on the school may have prevented us from seeing solutions that do not depend entirely on the school.

The Theory of Professional Visualization reconciles the unnatural separation of practice from theory. Just as the family physician is more significant to his patients' immediate health than is the medical researcher, so is the principal more critical to the immediate health of the school than is the educational researcher. However, were medicine to have developed independent of research and to be unappreciative of the contributions of the medical researcher, we would still be treating gravely ill patients with camomile tea and leeches.
REFERENCES


Educational Researcher, May, 1994, p. 36.


FIGURE 1
A THEORY OF PROFESSIONAL VISUALIZATION

Stimulus
Input/problems
Opportunities

Situational map of practice
Intermediate outcomes
Student learning and growth
Theory of practice (Theory in action)

Intermediate outcomes
(school level)
Student learning and growth

Process, Behavior, Skills
Values
Experiential, empirical knowledge

Reflection-in-action

Reflection-on-action

External conditions
Antecedent conditions

FIGURE 2
COLLABORATION

Sharing
Time consuming
Improved commitment
Conflicting values
Increased collaboration

Dropout rates
Violence at school
Poor academic achievement

Student self-concept and esteem
Academic performance
Resilience

Conflict management and compromise

Literacy
Moving from home to home

University social work interns at school
Parent governance group and participation
Counseling and families

Student attendance at school functions
More homework completed
Lower turnover rates among teachers

Conflict management and collaboration on resources for children's services delivery

Integrated emotional, physical, intellectual work of children and youth

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FIGURE 3
PARENT INVOLVEMENT

School criticism
Quality

Democracy
Parental rights
Student rights

Conflict
management
Compromise

Decision-making outcomes
Dispersed knowledge among parents
Power and control

Sharing
Quality

Political and professional structure of school

Discover sources of knowledge and map out legal, political, and professional actions

More parents involved
Understanding for teachers
Parental conflict

Academic achievement
Democratic citizenship values

Professionalism = control

FIGURE 4
CHOICE, VOUCHERS, PRIVATIZATION

Choice/Improvement;
Secular/nonsectarian
government money
Falling support
for public schools

Choice/Improvement;
Religious/sectarian
money

More parents involved
Understanding for teachers
Parental conflict

Access/equality
Racial diversity
control

Legislative
skills, lobbying

Political,
group processes
Academic freedom
and expertise
Private versus public experience

Access/excellence

Common school,
Inner-city schools

Magnet school; the best comprehensive;
Coalition of Essential Schools (Boyer)

Fundraising; school closures;
specialized schools, transportation systems

Specialization; tracking;
diversity enhanced;
variety; pockets of homogeneity

Student achievement; loss of
egalitarianism; narrowed and enhanced expertise

Parents as clients

Specialization; tracking;
diversity enhanced;
variety; pockets of homogeneity

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Student achievement; loss of
egalitarianism; narrowed and enhanced expertise

Parents as clients
Growing diversity among school population

**FIGURE 5**

CULTURAL PLURALISM

- Cultural anthropology, music, art, history
- Self-esteem, respect, tolerance, preservation
- Right culture, pluralism

No one right way: the egg carton school

Curriculum changes; social activities; teacher hiring practices

Increased or decreased diversity; school reflects community features

Self-esteem; confusion; fragmentation; tolerance

Education for preservation; Education for change

**FIGURE 6**

ACCESS AND EXCELLENCE

- A nation at risk College entrance by under-represented groups
- Equality of outcomes
- Social theory
- Political philosophy
- Content knowledge

- Budget & finance; Process for allocation
- Equality and competitiveness in global economy
- Antecedent conditions

- Excellence and equity—Map of tradeoffs
- Gender, ethnic, racial, economic interventions

- Decreased educational supplies; Growth of favorite programs

- Limited forms of student learning
- Principal as patriarch or matriarch

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