

Enhancing Student Motivation: A Schoolwide Approach

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What little motivational research is directed toward the practical world of education is primarily addressed to classroom teachers. We presume to speak to those in school leadership roles. Building on current interest in restructuring schools as well as the recent attention to motivational issues, we suggest how the school as a whole can be redesigned so as to enhance student motivation and learning. Our proposal is based firmly on an established program of research and is framed by goal theory. In addition to presenting a rationale for school change and a process to effect that change, we describe an ongoing project based on the theory and directed toward school change.

Some years ago, David McClelland (1961) wrote a book entitled *The Achieving Society*. In it he described a program of research that was not only massive in scope but rich in insight. McClelland addressed the question of why societies wax and wane—why some tend to be more productive than others. His answer to this question was an elaboration of an answer to the same question given earlier by the renowned sociologist Max Weber (1904/1930). Briefly, McClelland stressed the overwhelming importance of motivation and backed his arguments with a truly prodigious amount of empirical evidence. Not all would agree with the methods he used or accept the validity of the data without question. But most would agree that it was an imaginative and extensive effort and one that focused attention on the role of motivation in achievement. In the years that followed, interest in the creation of an achieving society and in McClelland's ideas diminished somewhat.

But that has now changed. Without question, there is now a strong

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interest in achievement, performance, productivity, and excellence in the world of work as well as in education. One can fairly say that we have returned to an interest in what McClelland termed the "achieving society." There also appears to be an increased recognition that motivation is a critical ingredient in such a society. Indeed, the words of policymakers and opinion setters seem to make this quite clear. One might cite, for example, the comments of Lester Thurow, an economist of some note. In reflecting on the reasons for the economic health of nations in an article in the *New York Times*, he cited motivation as key. He stated that all proposals for economic recovery and viability pale in comparison with the quality of the motivation of those who make up the work force. He cited Japan and Argentina as illustrative cases. Japan flourishes with limited natural resources, whereas Argentina languishes with relative abundance. Thurow's conclusion: "All that counts is the highly motivated workforce, and you'll make it" (Thurow, 1983, p. 1). This opinion is shared by others (e.g., Covington, in press; Inkeles, 1980; Steers, 1981; Yankelovich, 1979).

Societal malaise, of course, is often blamed on the quality of education available in the development of human resources (e.g., Dertouzos, Lester, & Solow, 1989). Concern with the quality of education in today's schools, perhaps ineluctably, turns to the role of motivation in student achievement. And so in the 1990s it is not just motivational psychologists who stress the importance of motivation for schooling. The U.S. Department of Education, Office of Educational Research and Improvement has targeted motivation as a priority research area. In an article in the *Educational Researcher*, Christopher Cross (1990) Assistant Secretary for Educational Research and Improvement, outlined four priorities for educational researchers: assessment, collaboration, dissemination, and motivation. He provided the following rationale:

We know that schools improve one at a time, each according to its own unique circumstances and conditions. Unfortunately, neither Lincoln High School nor King Elementary nor any other school in America will improve unless its teachers want to improve and its students want to learn. That is why this question of teacher, student, and parent motivation is one of the single most important questions we face. Because motivation is a multifaceted issue touching many dimensions of education, we want *each center* to address it. We also want more scholars—both inside and outside the federal education research system—to explore it. (Cross, 1990, p. 22)

Thus not only achievement, but achievement motivation, is back in the limelight. Motivation is recognized as a critical need for a society that is clearly worried about its future. That felt need is visited in a special way on the schools and on those who lead and staff them. There is a growing

demand to rethink, restructure, and reform education (e.g., Cuban, 1990). But no one will be satisfied if structures and functions are changed in a way that largely ignores their influence on student motivation. The *sine qua non* is student change. In particular, there has to be evidence that student's motivation for learning is positively affected. So what can be done? What do we in the motivation business suggest? In this article, we outline a particular approach to the demand for "achieving schools," an approach that is designed to enhance student motivation.

THE ENHANCEMENT OF STUDENT MOTIVATION

A concern with the role of motivation in learning and schooling is not new. Considerable research has provided knowledge on both the antecedents and consequences of student motivation. What we know less about is how to apply this knowledge in a meaningful way in classrooms and in schools. Typically we pass along tidbits of wisdom to future teachers in lectures, textbooks, and popular articles and hope this will influence their practice.

Selected Instances of Programmatic Efforts

Occasionally, attempts are made to design full-scale programs to be used to enhance student motivation. McClelland, and some of his students, for example, were very interested in the development of achievement motivation and worked on the question systematically. Given the era as well as the theoretical orientation which guided their work, it is predictable that these programs focused on effecting enduring change in individuals. Thus, unmotivated students might be enrolled in special programs that operated outside the school or classroom context (e.g., Kolb, 1965). Extensive personal change was the goal. The role of the situation or environment, including school and classroom, may not have been ignored, but it certainly was not the focus.

A distinctly different approach was taken in a study conducted by Richard deCharms (1972, 1976). Like McClelland, deCharms was concerned with individual differences in motivation. But his work derived from a special interest in the perceived source of causation—as within or external to the individual. He believed that whether individuals saw themselves as "origins" or "pawns" was a key influence on their motivation. His concern with the perceived source of causation was an important contribution to the development of a social-cognitive perspective on motivation. Of particular note, he conducted a study to see if motivation could be enhanced by a program aimed at developing an origin perspective in teachers first and then in their students. Thus he aimed to change the situation—the learning

environment—and thereby influence motivation. In other words, a motivation change program was structured within the school context and in terms of schooling processes. Much of McClelland's and his colleagues' early work on motivation change gives the impression that motivation to achieve could be accomplished by reversing the developmental history of individuals through a kind of psychotherapeutic program (Maehr, 1974a; Maehr & Lysy, 1979). Within deCharms's work lay the promise that motivation change was dependent on the situation. Motivation was vested in the meaning of the situation to the individual, especially in the perception of "personal causation." Further, from deCharms's programmatic effort, insights emerged relative to how the design and structure of the learning environment, teaching strategies, and instructional routines might influence such personal meaning systems. Conceptually at least, a first and significant step was taken toward designing teaching and schooling to enhance student motivation.

A GOAL THEORY APPROACH

Recently, a number of other investigators (e.g., Brophy, 1987; Weinstein, 1988) have contributed to an increased interest in the development of programs aimed at enhancing student motivation and achievement. Among these, we single out the work of Carole Ames (1987, 1990) and her colleagues (e.g., Ames & Archer, 1987, 1988), because it serves as a precursor to the programmatic effort to be described later in this article.

The Ames effort may be briefly described as composed of four key elements: (a) a focus on goals as a primary antecedent of motivation, (b) a belief that the psychological environment of the classroom determines qualitative differences in the goals adopted by students, (c) the identification of key dimensions in the classroom that are associated with the development of goal stresses, and (d) a systematic attempt to translate these essentially theoretical propositions into concrete strategies for organizing and managing classroom activities.

Goals and motivation. Recent research on motivation and achievement has concentrated especially on the role of goals and purposes in conducting activities, particularly learning activities (Ames & Ames, 1984; Covington & Omelich, 1984; Maehr & Pintrich, 1991; Pervin, 1990). Why is one learning? What is the purpose of doing the task? What goals are operative for the learner? Two contrasting classes of achievement goals have been identified. Labeled variously, we referred to them here as "task-focused" goals and "ability-focused" goals. Briefly, when children adopt an ability focus, they are concerned with being judged able (or

avoiding being judged not able), and ability is evidenced by outperforming others or by achieving success even when the task is easy. In contrast, when children are task focused, the goal of learning is to gain understanding, insight, or skill and to accomplish something that is challenging. Learning in and of itself is valued, and the attainment of mastery is seen as dependent on one's effort. Whether children are oriented to one goal or the other has consequences for whether they develop a sense of efficacy and a willingness to try hard and take on challenges, or whether they select easy tasks and give up when faced with failure (Ames, 1984; Covington, in press; Dweck & Leggett, 1988; Elliott & Dweck, 1988; Maehr, 1989; Nicholls, 1984).

Goals and the learning environment. Concentration on the learning environment as a focus for change makes considerable sense from a utilitarian standpoint. The early work of McClelland and his colleagues that concentrated on personality change simply is not very practical for most educational situations. It is expensive and time consuming. Besides, more recent theory and research indicate that it may be the wrong approach. Early critics of McClelland's motivation enhancement programs pointed out the importance of the immediate situation in determining motivation and referred specifically to motivation change studies (e.g., Maehr, 1974a) derived from McClelland's work that showed the importance of context in determining motivation. With the emergence of social-cognitive theories of motivation and achievement, this focus on the situation has been reinforced.

Although it has often been recognized that concentrating on the nature of learning environments in attempting to affect student motivation makes considerable sense (e.g., Maehr, 1974b; Maehr & Lysy, 1979), it is not always clear how this could and should be done. Certainly, considerable research has been conducted on learning environments per se (e.g., Fraser & Walberg, in press), but until recently that research has not been integrated with motivational research and theory. Current research has suggested that students perceive classrooms as defining the purpose of learning in differing ways and that these perceptions influence the goals that students themselves adopt, thereby influencing their motivation and learning (Ames & Archer, 1988; Meece, Blumenfeld, & Hoyle, 1988; Nicholls, Cobb, Wood, Yackel, & Patashnick, 1990; Pintrich & Garcia, 1991; Powell, 1990). Simply put, students can and do perceive classrooms as emphasizing task or ability goals, and this perception is associated with the quality of motivation they exhibit.

Specification of classroom processes. Critical for designing an intervention strategy is the question of how one changes perceptions of the goals stressed in the environment. More specifically, what instructional

strategies and classroom processes are likely to give rise to different perceived stresses? Generally, the available evidence suggests that a focus on ability is likely to develop when students are provided little choice concerning tasks, competition and social comparison are emphasized, ability grouping and tracking are used, public evaluations of performance and conduct are common, grading is based on relative ability, and cooperation and interaction among students are discouraged.

In contrast, a task focus is likely to develop when students are involved in choice and decision making; there are opportunities for peer interaction and cooperation; grouping is based on interest and needs; and success is defined in terms of effort, progress, and improvement (Ames & Archer, 1988; Maehr, 1991).

A special contribution of Ames and her colleagues (Ames, 1990; Ames & Maehr, 1988; Powell, Ames, & Maehr, 1990; Tracey, Ames, & Maehr, 1990) involves the integration of these findings within categories that embrace six facets of classroom management. Borrowing an acronym from Epstein (1989), these facets are labeled: task, authority, recognition, grouping, evaluation, and time (TARGET). Within each of these TARGET areas, teachers can use strategies that emphasize either a task focus or an ability focus. To illustrate: Teachers can and do define the nature of academic *tasks*. They might make specific attempts to give their students challenging learning experiences and might attempt to select activities that are interesting and intrinsically engaging. Similarly, teachers make significant decisions regarding how they will share *authority* or distribute responsibility. They *reward* and *recognize* students for different reasons—improvement, progress, or comparative performance. They *group* children differently and thereby emphasize or deemphasize interpersonal competition and social comparison. They certainly *evaluate* in various ways and on various bases. Finally, teachers choose to use the *time* allotted to them in certain ways and, of course, significantly control the scheduling of learning. To some degree all of these factors seem to contribute to an overall sense of what learning, in a particular classroom at least, is about. Such strategies as those grouped in the TARGET categories serve to communicate to students the purpose for learning in a given situation.

An operable program. Finally, Ames and her colleagues also took the important step of translating an organized and coherent set of strategies into guidelines for classroom organization and instruction. As important as it may be to provide a working taxonomy of actions that may influence classroom goal stresses, implementation is greatly facilitated by operational detail that guides the classroom teacher in strategy choice and selection. Thus Ames and her colleagues worked with teachers to develop strategies in each of these areas that would enhance a task focus in the classroom. These

strategies were culled from the available literature and the experiences of classroom teachers, organized into the TARGET areas, and compiled in a manual (Ames, 1989) that could be readily used by teachers. Then, Ames's group proceeded to initiate a systematic evaluation of the effectiveness of the overall effort with a sample of more than 700 students in Grades 2 through 6 from 101 different classrooms in 14 different schools. In a quasi-experimental design, classrooms were randomly assigned to "experimental" or to "control" conditions. The experimental teachers were asked to use a set of strategies from each of the categories on a regular basis and to report on such usage.

The work is still in progress. However, there is already evidence of the merit of the program. First, it is clear that teachers have a high degree of control over the strategies they use in these various areas of classroom functioning. Different teachers choose to use different strategies in each of these domains. Of special relevance, Ames's early results suggest that as teachers use TARGET strategies designed to enhance a task-focused classroom environment, they not only change the psychological climate of the classroom but also influence the motivational orientations of their students, especially high-risk students (Powell et al., 1990; Tracey et al., 1990).

In summary, the Ames program has provided a systematic approach to introducing classroom environment change that appears to be not only practical but also effective. Other approaches to operationalizing change in the psychological environment of the classroom could be envisioned, and work in this regard needs to continue. But a sound beginning has been made. It is a beginning that can serve as a paradigm for other intervention efforts.

The Need for a Schoolwide Approach

The Ames program is a noteworthy example of an attempt to work with individual teachers to create motivational change programs at the classroom level. However, as Ames herself pointed out, efforts at the classroom level can be undermined by schoolwide policies and procedures. Thus, a given classroom teacher can be working hard at making learning intrinsically meaningful only to have the principal announce the establishment of a schoolwide academic contest associated with extrinsic rewards. Or a teacher's effort to evaluate students on the basis of progress and improvement can be subverted by a schoolwide honor roll system based on relative ability. In short, the classroom is not an island. It is part of a broader social system, and it is difficult to develop and sustain changes in the classroom without dealing with the wider school environment.

Moreover, teachers alone cannot carry the burden of significant school

change; one must also engage school leaders in school change if the deepest structure of teaching and learning is to change. This basic fact may seem obvious to anyone who works in schools on a day-to-day basis. Still, it is strikingly evident in studies of schools as organizational entities (e.g., Baden & Maehr, 1986; Deal & Peterson, 1990; Owens, 1981). Yet seldom, if ever, do educational psychologists speak directly and at length to those who view the school as a whole, to those who are critical in the process of rethinking and restructuring not just a given classroom or select program, but the larger context of student learning. In a word, we seldom speak to school leaders. Rarely do we see an article by a major researcher that speaks to policymakers, principals, and school leadership teams about changing the school environment to enhance student motivation and achievement. This is not to suggest that a whole-school focus should be the only focus. It is only to suggest that there is a place for such a focus. Further, we believe that it is a timely focus. The current wave of reform seems to revolve in a special way around restructuring schools. The focus is on broad structural change in the way schooling is undertaken.

We argue that reconstituting current motivation theory/research for ready application to the school level is desirable, maybe even necessary, if enduring school reform is to occur. More than merely arguing the point, we have dared ourselves to undertake a theory-based collaborative program in selected schools aimed at changing the school psychological environment. A description of the theory and the program follows.

A FRAMEWORK FOR RESTRUCTURING THE LEARNING ENVIRONMENT OF SCHOOLS

If the classroom environment can be changed in a way that enhances student motivation and achievement, is there then the basis for expecting that similar changes can be put into effect at the school level? There are at least three issues that must be addressed. First, is there really such a thing as a school learning environment? More specifically, do schools tend to stress different purposes for learning? Second, are these differences in school goals related to the motivation and personal engagement of students? Third, can emphases in the school environment be shifted in a way similar to Ames's work at the classroom level?

The School as a Learning Environment

Not only does it seem intuitively plausible that a given school has a character or "personality" of its own, but there is a growing body of evidence to reinforce that feeling. Early work on educational environments

by Stern (1970), among others, certainly provided initial justification for this belief. More recently, the interest in "school culture" has given rise to a plethora of studies, descriptions, and data (e.g., Deal & Peterson, 1990). This work, however, has not always concentrated on the effects of the school environment on student outcomes, including most especially motivation. Moreover, it often has not conceptualized the school environment in a way that would allow one to observe systematically how action taken by school leaders might eventuate in change, particularly change that could enhance student motivation and achievement. Research and development activities of this nature have been undertaken, however.

First, in a series of studies, Braskamp and Maehr (1985; Krug, 1989; Maehr & Braskamp, 1986) attempted to operationalize the concept of "organizational culture" and later school culture in a form that allowed for ready assessment using standard questionnaire techniques and psychometric analyses. This work built heavily on goal theory and is, generally speaking, conceptually parallel to the aforementioned work of Ames. School culture was defined as the stress that the school is perceived to place on certain goals. The first efforts considered an array of possible goals, including two that were similar to task and ability goals defined at the classroom level. Briefly, the underlying assumption was that not only could one describe a school (or any organization) in terms of the goals that are stressed, but also that such description would prove useful in predicting the motivation and learning patterns of students.

Initial efforts essentially supported the validity of this assumption (Krug, 1989; Maehr, 1987). First, it proved possible to develop reliable assessments of student perceptions of school goal stresses that could be used in describing and comparing different schools. Moreover, evidence was found that schools indeed may be characterized by different goal stresses. Some schools are not only more likely to be characterized by a sense of purpose than others but are also likely to stress different goals. Some stress learning more for its own sake; others put special emphasis on extrinsic rewards and competition.

In summary, this early work indicated that just as the environment of the classroom can be defined in goal theory terms, so can the school be defined. Similar goal dimensions seem to exist for these two different "psychological environments" (Maehr, 1991). Just possibly, the psychological environment of the school is different from the sum of its classroom counterparts.

Relation Between School Learning Environment and Student Motivation

The identification of dimensions of the school as a learning environment was a first step. The next step was to determine whether these dimensions

relate to anything that might be viewed as student motivation and achievement. In this regard, Maehr and Fyans (1989; Maehr, in press) conducted a comprehensive analysis of the relation between students' perceptions of schools and their motivation and achievement in approximately 880 schools in Illinois. The perceptions of schools were obtained using an early experimental version of a measure designed to assess perceived goal stresses. Motivation was assessed through a questionnaire that incorporates an array of items commonly used in the indexing of various dimensions of motivation, for example, attributions (Weiner, 1980, 1986), "continuing motivation" (Maehr, 1976), and evaluation anxiety (Hill, 1980; Hill & Wigfield, 1984). Achievement across four content areas (mathematics, English, natural science, and social studies) was assessed through the results of standardized achievement tests.

A series of path analyses was conducted to determine the conceptual viability of a causal model that proposed that goal stresses in the school were related to motivation and subsequently to achievement. In general, across all age levels and groups, motivational variables were found to account for a significant share of the variance in the achievement variables. In general, perceptions of school goal stresses collectively accounted for a significant share of the variation in motivation. However, it is interesting that the importance of these perceptions of school goal stresses, or "psychological environment" (Maehr, 1991), increased with grade level. Indeed, there was evidence that whereas the family may play the important role at earlier grade levels, the psychological environment of the school increases in importance at the upper grade levels. Also of interest, the influence of the school psychological environment appears to be least important for White and upper socioeconomic status (SES) students and most important for students from ethnic and lower SES backgrounds. Moreover, it is noteworthy that, although each of the goal stress dimensions contributed to the variation in motivation, accomplishment (here termed *task focus*) contributed the most. In summary, through this early work confidence was increased that the psychological environment of the school is not just an interesting curiosity, but perhaps a variable that is importantly associated with student motivation and achievement. Thus the possibility emerged that the psychological environment of the school might be a viable target in effecting changes in student motivation. However, it should be noted that motivation was treated in a global fashion, and the global motivation variable was associated with one particular index of achievement: performance on standardized achievement tests. In these early efforts we did not consider how goals influence the quality (Ames & Ames, 1984) of student motivation. As a result, the findings indicate that goal stresses might be important, but reveal little regarding how variation in goal stress affects not just the degree but also the nature of motivation.

(Manipulable) Antecedents of the School Environment

For researchers as well as for practitioners, it is important to determine whether the school environment can be changed in such a way that motivation and achievement are positively influenced. Thus, an attempt to intervene and change the school psychological environment is the next step in the process. That is indeed a big step. It involves, first of all, identifying facets of the school environment that are amenable to change. Just as Ames (1989, 1990) identified classroom instructional and organizational strategies that influence the psychological environment of the classroom, so is it desirable to identify procedures, policies, and practices that have schoolwide effects. Once these are identified, one has to consider processes for change. This twofold task defines our current efforts. A progress report is presented here.

Preliminary work on school culture and climate (Baden & Maehr, 1986; Maehr, 1991) as well as the large literature on school effectiveness (e.g., Good & Weinstein, 1986) strongly suggested that school policies, practices, and procedures define what the school is about, what students are to do, and how the activities of students are to be organized and managed. Through inaugurating, promoting, or subverting policies, school leaders are likely to have effects that are roughly comparable to those seen at the classroom level. Decisions, practices, and actions that have schoolwide effects are likely to symbolize the purpose and meaning of time spent in a particular school. Table 1 presents an outline of how school-level policy possibly relates to the determination of a schoolwide psychological environment. Note that this outline is also structured within the TARGET paradigm used by Ames at the classroom level, primarily for reasons of convenience. In fact, the TARGET-defined options might prove to be too limiting and might at best be only a starting point for policy considerations. Although Table 1 suggests key policy and procedural areas to be considered in effecting the school environment change we envision, some elaboration is desirable. Our illustrations of how school policy and procedure might influence student motivation and learning are largely based on extrapolations from research at the classroom level and on qualitative observations we have made in the course of our work, and necessarily so. Identification of school policy and procedures that influence student motivation is at an initial and exploratory stage, awaiting more systematic analysis and study, which, of course, is a major goal of our current effort.

Task. Certainly, schools have some degree of influence over what children do in school settings. Curriculum committees translate state and local mandates into expectations and guidelines. Whether learning is to be

TABLE 1
General Framework Employed in Development of a Schoolwide Stress on Task Goals in Learning

<i>TARGET Area</i>	<i>Focus</i>	<i>Goals</i>	<i>Strategies</i>
Task	Intrinsic value of learning	Reduce the reliance on extrinsic incentives Design programs that challenge all students Stress goals and purposes in learning Stress the fun of learning	Encourage programs that take advantage of students' backgrounds and experience Avoid payment (monetary or other) for attendance, grades, or achievement Foster programs that stress goal setting and self-regulation/management Foster programs that make use of school learning in a variety of nonschool settings (e.g., internships, field experiences, and cocurricular activities)
Authority	Student participation in learning/school decisions	Provide opportunities to develop responsibility, independence, and leadership skills Develop skills in self-regulation	Give optimal choice in instructional settings Foster participation in cocurricular, and extracurricular settings Foster opportunities to learn metacognitive strategies for self-regulation
Recognition	The nature and use of recognition and reward in the school setting	Provide opportunities for all students to be recognized Recognize progress in goal attainment Recognize efforts in a broad array of learning activities	Foster "personal best" awards Foster policy in which all students and their achievements can be recognized Recognize and publicize a wide range of school-related activities of students

Grouping	Student interaction, social skills, and values	<p>Build an environment of acceptance and appreciation of all students particularly of at-risk students</p> <p>Enhance social skill development</p> <p>Encourage humane values</p> <p>Build an environment in which all can see themselves as capable of making significant contributions</p>	<p>Provide opportunities for group learning, problem solving, and decision making</p> <p>Allow time and opportunity for peer interaction to occur</p> <p>Foster the development of subgroups (teams, schools within schools, etc.) within which significant interaction can occur</p> <p>Encourage multiple group membership to increase range of peer interaction</p>
Evaluation	The nature and use of evaluation and assessment procedures	<p>Increase students' sense of competence and self-efficacy</p> <p>Increase students' awareness of progress in developing skills and understanding</p> <p>Increase students' appreciation of their unique set of talents</p> <p>Increase students' acceptance of failure as a natural part of learning and life</p>	<p>Reduce emphasis on social comparisons of achievement by minimizing public reference to normative evaluation standards (e.g., grades and test scores)</p> <p>Establish policies and procedures which give students opportunities to improve their performance (e.g., study skills and classes)</p> <p>Create opportunities for students to assess progress toward goals they have set</p>
Time	The management of time to carry out plans and reach goals	<p>Improve rate of work completion</p> <p>Improve skills in planning and organization</p> <p>Improve self-management ability</p> <p>Allow the learning task and student needs to dictate scheduling</p>	<p>Provide experience in personal goal setting and in monitoring progress in carrying out plans for goal achievement</p> <p>Foster opportunities to develop time management skills</p> <p>Allow students to progress at their own rate whenever possible</p> <p>Encourage flexibility in the scheduling of learning experiences</p>

challenging and meaningful or simply work can be expressed in a number of different ways at the school level. Resources can be invested in activities that challenge students, such as developing projects for education fairs, or these can be considered frills. Schools and school policy can stress strict adherence to textbooks or encourage hands-on experience by providing resources and supporting flexible scheduling that facilitate field trips. Schools can express concern about animals in classrooms and thereby inhibit teachers in the establishment of contextualized learning designed to elicit student engagement. School janitorial policy can inhibit project-based science teaching that engages students in sometimes messy science experiments. Teachers can be given (and expected to use) teacher-proof materials, such as certain texts, worksheets, and preplanned exercises, or they can be given the freedom to design and use tasks that are action oriented, flow from the interests of the students, and are challenging and creative (e.g., Meece, 1991).

Blumenfeld and her colleagues (e.g., Blumenfeld, Mergendoller, & Swarthout, 1987) repeatedly suggest that it is important that we regularly ask, What are students asked to do in school? The point is that teachers alone do not decide what students do in the classroom. These decisions are also made in direct and subtle ways at the school level when curricular issues are discussed, excellent-teacher awards are presented, news reports are filed, textbooks are chosen, and resources are allocated. School leaders can become obsessed with providing teacher-proof materials, or they can raise issues about the nature of tasks: Are they meaningful, challenging, interesting, important?

Authority. Our preliminary work strongly suggests that the issue of authority may well be as important at the school level as at the classroom level. School administration, through schoolwide rules and guidelines, can focus on controlling behavior by putting limitations on students or can develop ways to give students more responsibility. Providing a safe and orderly environment for learning can drift into becoming mere control of students without concern for the development of self-regulation and independent judgment. Long ago, John Dewey (1916/1966) emphasized that the classroom can be an important precursor for participation in a democratic society. That is doubtless correct, but to that we add that participation by students leads to views of the nature of the school's mission, its relevance to their lives, and the intrinsic worth of learning (e.g., Nicholls, 1989). One can make a point of finding opportunities for students to participate in school governance. Discipline procedures can reflect sheer force or attempts to develop critical thinking about the implications of one's behavior. School leaders can engage students in values clarification or lay a

point of view on them. In sum, policies can be viewed in terms of how they seek to transfer increasing authority and responsibility to students.

Recognition. It was in this domain that we first became especially aware of the particular influence of the school. As we worked with classroom teachers to provide recognition on the basis of progress, improvement, and effort, teachers pointed out to us that recognition at the school level was often based on relative ability (e.g., school honor rolls). In one school, the teachers were developing and employing classroom strategies that minimized social competition and extrinsic rewards for output and that stressed progress in accomplishing individualized student goals. As this effort was being undertaken, the principal announced that the school would participate in the Pizza Hut program. This well-meaning effort rewards students for the number of books they read. Students compete with each other, recognition is on the basis of relative ability, and the difficulty or challenge inherent in the task is ignored. Teachers tell us that some students don't even try, some cheat, and most read the easiest, shortest books they can find.

Recognition consists of at least two parts. One part is what is recognized. The other part, of course, is who is recognized. When one recognizes academic achievement in a socially competitive fashion, there are some who will seldom, if ever, be recognized. Research at the classroom level has repeatedly called attention to the problems created by such a unidimensional, indeed misplaced, attention to recognition and reward (Maehr, 1976; Ryan & Stiller, 1991).

Grouping. Students and parents are given explicit messages about the meaning and purpose of learning through the grouping practices that are endorsed by and used in the school (e.g., Ames, 1984, 1987; Cohen, 1986). Ability grouping and tracking are often decisions made at the school level. Textbook selection, often undertaken at the school or district level, can also influence the nature of grouping. Whether or not teachers undertake cooperative learning can depend on the stand taken by school leaders and the resources made available to them.

In a discussion of grouping, attention must be called to the fact that as students are grouped, different resources are assigned. Consider a specific example. We have often observed that computer usage is not broadly distributed across students. Who gets to use the computers and for what purpose may effectively communicate what the school thinks about who can achieve and what that achievement is worth. Similarly, project-based science may be reserved for those in the "advanced" groups. Again, there is a message here. All children can presumably profit from seeing the

relevance of science and technology in their daily lives. Opportunities to use science in the course of learning science should not be the province of an elite few, not if learning, as opposed to competitive performance, is the goal of the school.

Evaluation. Teachers are often not free to evaluate students in accord with their own preferences or goals. School policies may dictate the nature of evaluation and thereby affect the psychological environment. Within achievement theory, of course, there is a long history of interest in this question (e.g., Covington & Omelich, 1987a, 1987b). There also seems to be broad awareness that schoolwide evaluation practices may affect the nature and quality of student motivation and learning. From time to time, school policies on grading come under review. The arguments for and against various grading systems are seldom based on motivation theory; however, there is at least some recognition that how the school chooses to evaluate student performance is crucial. There is currently a widespread interest in the role of assessment in determining the nature of the learning environment. Most teachers have little or nothing to say about the nature of standardized achievement tests or statewide testing programs and how the results will be interpreted and used. There are few areas of school activities that have a greater potential for redefining the meaning and purpose of school for students than evaluation.

Time. The final component of the TARGET system is time, the component about which we probably know the least. However, theoretically oriented work (e.g., Amabile, 1983) indicates the importance of time constraints in influencing the nature and character of motivation. Moreover, our own preliminary efforts in identifying school policies and procedures that may be critical in structuring the nature of motivation and learning in schools underscores the importance of this particular dimension. An example may help to make the point. Few things are less flexible in school than schedules. Science teachers who wish to engage students in challenging projects quickly learn that the 40- or 50-min hour may interrupt activities at the point of real insight. Much of the period may be spent gathering together, and cleaning up, materials. Any teacher who wishes to move instruction beyond school walls to a museum or to a garden on the edge of the school grounds will be bound by scheduling policies to some significant degree. Such time constraints likely affect the nature of tasks that are presented to students. In most secondary schools and in many elementary schools, the division of the day into periods is mandated at the school level. In addition, elementary school teachers may be required to provide a certain number of minutes of mathematics instruction per day. Perhaps the teacher would prefer to devote a whole day to mathematics, to

integrate mathematics and science instruction, or to capitalize on some current event or phenomenon that is in the news but is restricted by schoolwide mandates. The 40- to 50-min hour is well designed to conform to the teacher lecture format and to preprogrammed group activities. It is not particularly well suited to a project approach to learning, to instructional approaches that minimize teacher talk in favor of student participation, or to an interdisciplinary curriculum.

We have used the TARGET domains, as Ames has done, to illustrate how the purpose of learning can be conveyed to students through a broad range of school decisions. Not all school policies or management strategies fit neatly into one of these categories. The easily remembered acronym, at best, serves to suggest a variety of areas in which both classroom and schoolwide policy and procedures are operative.

TOWARD A PROGRAM OF SCHOOLWIDE CHANGE

On a theoretical basis, schoolwide policies and procedures likely convey the purpose and meaning of schooling. They probably define not only the nature and worth of learning but also the worth of the learners. Theory (Maehr, 1984) suggests further that such meanings are associated with student motivation for learning. The question is, then, can those in leadership roles change the psychological environment of the school?

We are currently collaborating with school leaders at both the elementary level and the middle school level in 3-year programs aimed at answering this question. To assess the efficacy of our approach, we are using a demonstration school/comparison school design. Baseline data have been collected from four schools (demonstration and comparison schools at the elementary and middle school levels) from students, teachers, and parents. We have not only developed measures of the psychological environment of the school, but also designed measures to assess changes in student motivation. Qualitative impressions are also being recorded. If the program is successful in terms of moving the demonstration schools toward an emphasis on learning, task mastery, and effort, and if there is evidence that students are more personally invested in learning as a result, we will put our efforts into developing a way to communicate this change process to other schools and school leaders. Even though these programs are in their initial stages, we believe there is merit in describing the process we envision, as well as sharing some of our experiences thus far.

A Proposed Process

These projects are truly collaborative. Working together, researchers and school leaders examine and revise a wide range of policies and practices in

order to move toward a task-oriented learning environment in the school. In advance of actually working with school leaders, we developed a 3-year plan. That plan is outlined in Table 2.¹ Additional explanatory information follows.

Selecting a leadership team. Before the program begins, a team from the university meets with the entire school staff. The program is described as a collaborative effort to review and revise school policies and procedures in order to enhance the motivation of all children, particularly those at risk for school failure. The staff is asked to suggest members of a leadership team to take primary responsibility for initiating and sustaining the program. Membership on the leadership team is determined by the principal and the university team from a list of staff volunteers and nominees. This leadership team works closely and continuously with the team from the university.

Providing the framework. A series of meetings is held with the leadership team to provide the framework for the coalition. The roles of the university team and leadership team are described. The leadership team decides what policies and practices they wish to examine. The team from the university works with the leadership team to determine how the policies and practices can be changed to reflect a task orientation.

Developing awareness. Developing awareness is a continuing process throughout the collaboration, but is of particular importance during the initial stages. Developing awareness is crucial to bringing about long-term change. Too frequently, programs are imposed on schools without any concern for communicating the underlying rationale. Then, when the implementation team leaves or the incentives are withdrawn, the program dies from lack of support. One of the goals of the present program is to develop awareness in future advocates for the program who will sustain it and educate others as to its merit.

Part of the awareness process involves a discussion of policies and procedures that enhance students' motivation and engagement. In particular, policies and practices are examined in terms of their contribution to a focus on relative ability and performance or to a focus on mastery and learning. Both school- and classroom-level practices are discussed, and the origins of, and rationale for, these practices are examined. There is a broad

¹This plan and Table 2 are taken, with minor revisions, from the proposal that was submitted to the U.S. Department of Education Fund for Improvement and Reform of Schools and Teaching (FIRST) Program, which is funding the elementary school coalition. Funding for the middle school coalition is also from the Department of Education through a subcontract with the National Center for School Leadership, The University of Illinois at Urbana-Champaign.

TABLE 2
Steps in the Process of Change

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1. Select the leadership team
 - A. Describe the purpose of the program to the school staff.
 - B. Solicit volunteers and nominees from the school staff.
 - C. Select the members in consultation with the principal.
 2. Develop leadership team awareness
 - A. Discuss the type of school environment that will allow all children to experience success, to be challenged academically, to feel efficacious and engaged, and to be a part of the total school community.
 - B. Provide the framework of the demonstration in terms of task-focused goals and ability-focused goals.
 - C. Develop awareness of policy and procedure antecedents of a task-based school environment.
 - D. Analyze school policies/procedures in terms of compatibility with task-based goals.
 3. Develop school improvement plans
 - A. Identify specific school policies/procedures to be reinterpreted or revised.
 - B. Specify alternative tactics/strategies to bring about reinterpretation or revision.
 - C. Include staff as a whole in the planning.
 - D. Include parents and community in the planning when appropriate.
 4. Implement school improvement strategies
 - A. Implement specific strategies to bring about change.
 - B. Include parents and community in the implementation when appropriate.
 - C. Monitor the success or failure of implementation efforts.
 - D. Communicate the nature and rationale for change to relevant constituencies.
 - E. Solicit support from relevant constituencies.
 5. Apply principles and strategies to home and community
 - A. Work with school staff to improve communication with families.
 - B. Work with school staff to design strategies to encourage a task-based focus at home.
 - C. Identify opportunities in the community for task-based experiences.
 - D. Work with community groups to make task-based experiences available to students.
 6. Evaluate school improvement strategies
 - A. Describe strategies and programmatic activities that occur over the course of program development and implementation.
 - B. Engage project and school staff in regular dialogue concerning the relative success of the implementation of various strategies.
 - C. Conduct analyses of all data gathered over the course of the demonstration in order to determine its efficacy.
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range of policies and practices that can be examined, including grouping, grading, homework, grade retention, use of achievement test data, discipline, attendance, counseling, schoolwide contests, the nature and level of academic tasks, the creative use of technology, recognition of students, cocurricular activities, opportunities for student interaction and cooperation, interdisciplinary learning, teaming, collaborative activities for special and regular education teachers, communication with parents, use of

community resources, the nature of incentives, and enabling students to meet higher standards. These are but a few of the policies and practices that can be discussed in terms of their contribution to a task- or ability-focused school climate.

Examining policies and procedures. During this phase, the policies and procedures that are currently in place in the school are examined in terms of their effects on students, particularly those at risk for school failure. Discussion centers on how existing policies and practices can be reinterpreted or revised so that all children can become involved in the total school community, can learn and be successful, and can feel efficacious and engaged. For example, the leadership team may decide to examine the use of computers in the classroom. They may find that in many classrooms computer use is restricted to children who finish their work within a certain time frame. They may find that computer-generated newspapers and graphics are generally produced by students in the higher ability groups. They may find that underachieving students are given low level remedial work to do on the computer whereas higher achieving students are given more complex, inherently interesting problems to solve.

Developing school improvement strategies. The next step involves developing and implementing school improvement plans. Again, using the example of the quantity and quality of computer time, alternative strategies and tactics can be examined to bring about change. Perhaps teachers need to be made aware of computer programs, suitable for students of all achievement levels, that elicit higher level thinking skills. People from local businesses might be recruited to introduce suitable computer programs to mixed-ability groups. Perhaps older students from upper grade levels can work with younger students of all achievement levels to produce a school magazine or to design signs, flyers, or newsletters. If teachers are unaware of the ways that computers can be used collaboratively by students, perhaps an inservice could be organized to demonstrate this highly successful approach. The leadership team may decide that more computers are needed if all children are to have access and agree to approach the central administration with their request. The leadership team may decide to involve parents in an appearance before the school board. The strategies that are devised depend on the situation in that school, but the objective is to move toward an emphasis on mastery, learning, and challenge, and away from an emphasis on relative ability and relative performance.

The leadership team should consider how resources can be provided for teachers who are responding to the change effort. In the hypothetical examination of computer use and availability, both parents and community

people are recruited to obtain resources. Teachers who come to see the value of providing all students with more challenging materials may need considerable help identifying, purchasing, and using these new materials and in learning new ways of delivering these tasks.

Over time, a wide variety of policies and procedures can be examined using the task and performance goal framework, and many different change strategies can be implemented and evaluated. The expectation is that the leadership team and the school staff as a whole will continue to examine and revise school policies and procedures using the same framework after university participation concludes. It is extremely important for the school faculty as a whole to take ownership of this program so that the likelihood of real change is maximized. Moreover, the goal is to create a program that can be transferred to other schools, quite apart from a collaborative relationship with university researchers.

Involving the home and community. The university team works with the leadership team (and the leadership team works with the staff) to involve parents in both the examination of school policies and procedures and the development of complementary experiences at home. (Note the involvement of parents in the preceding hypothetical examination of the use of computers.) There is widespread agreement that involving parents in their children's education is of the utmost importance (e.g., Epstein, 1989; Epstein & Becker, 1982; Marjoribanks, 1979). The leadership team and staff decide the nature of the contacts and the specific strategies that are suggested to parents.

Provisions are made to examine community resources in terms of their potential for providing task-oriented learning settings for underachieving children. (Note the involvement of persons from the community in the preceding hypothetical examination of the use of computers.) Involving the community in a way that emphasizes relative ability or performance (as in the previously cited case of giving pizza to the children who read the most books) is counterproductive. The intent is to work with the community to give students experiences in which they have clear evidence of the positive results of their efforts and progress is the basis for evaluation. Although the exact nature of community involvement will depend on the practices being examined, effective involvement of both parents and community people is an ongoing goal.

The Process in Practice

It is one thing to propose and another thing to put into practice what is proposed. In this section we describe the beginnings of our interactions with

the leadership teams, particularly in the elementary school, and share some early successes.

A school district with a large at-risk student population, within reasonable commuting distance from the University of Michigan, has agreed to participate in this project. An elementary school and middle school within that district are serving as demonstration sites.

A school improvement team was established at the elementary school 5 years ago and has met regularly during that period. This team has initiated various programs over the years aimed at school improvement; many of these efforts have a different focus from the approach we espouse. One of the accomplishments they cite is setting up a process by which a folder goes home with each child every Wednesday to provide parents with information about the school and about their child. They have also set up an assertive discipline program (rewarding students for not misbehaving), and adopt-a-child program (so that every at-risk child has an adult friend), and a program to increase self-esteem. The principal is a strong leader who is admired by the staff and school community, and she is a dynamic member of the team. This school improvement team has become the leadership team selected to work with the university team to change the psychological environment of the school, that is, to move the school away from an emphasis on relative ability and toward an emphasis on task mastery and learning. Together the leadership team and the university team are known as the "coalition."

This coalition now meets regularly, usually each week for about an hour and a half. During the first two meetings the theory on which the project is based was discussed and explained. At the outset, the school leadership team seemed convinced that we had a hidden agenda and that at some point we would tell them what they really needed to change—after all, why else were we there? We emphasized (and continue to emphasize) that the school leaders must decide what should be changed and the precise form the change should take. We do make a point of interpreting to them how any change may affect student motivation, as suggested by the theory. Using examples and anecdotes to illustrate the theory is particularly helpful. For example, to distinguish between a task-focused child and an ability-focused child, we gave the example of a child coming home from school and telling her mother she had a great day because she got an A, did better than her best friend, or because she won the spelling bee. We contrasted that with a child saying she had a great day because she finally mastered long division, read a wonderful story about India, or tried to solve a really difficult problem. When we discussed how one orientation or the other might influence a person's behavior, the school leaders identified with the example of choosing not to take a course in college because it might lower one's grade point average. They had all experienced this and gave examples. One

teacher said, "I've always wanted to learn chemistry – but I didn't take it. Wouldn't it be wonderful if we could just think about what we want to learn and not worry about how well we'll do." That said it better than we could. At the end of one meeting a teacher said, "I'm beginning to get the idea. You are helping us to think about things differently so that the children will think about them differently." These were very positive moments of insight. Not everything has been positive. At the meeting after this one, teachers said they were too tired to talk about theory and wanted to get on with it – to do something more concrete than just talk about theory. This need to move quickly is a recurring theme.

In response, at the next meeting we suggested they might want to do some brainstorming – listing on the board the policies, procedures, and practices they might want to examine. We described the TARGET categories in some detail in order to stimulate thinking about a wide range of school practices. We also suggested that to further understand the theory, they might want to select one of the areas and examine it in relation to how it emphasized relative ability or task mastery. They were eager to do this and came up with a number of ideas. They decided to use their education fair as an example. This fair, similar to a science fair, is held annually and is a major school event. Parents are strongly encouraged to help their children develop a project but not to do the work for them. Projects are judged and those deemed best are placed in the hall; the remaining projects are displayed in the classroom. Teachers began by discussing the strengths and weaknesses of the fair. Teachers talked about the role of parents and noted that some parents did the work for their child, because they wanted the child to win, whereas other parents did not become involved in any way. Thus, some children were unable to participate. Teachers spoke about the disappointment many children experienced when they didn't win and the tendency of parents to view only those projects that were judged to be the best. Even though a consideration of the fair was suggested only as a way to examine the theory, teachers began to propose changes. They decided to eliminate the judging and to give all participants a ribbon. One teacher offered to contact the high school to see if students could be recruited to help students whose parents were unable to participate. Other ideas were suggested for making parents feel more comfortable in getting involved and providing support for students who needed it. They decided to put the fourth- and fifth-grade students' projects in the hallways, and the other projects in the classrooms. At that point we pointed out that although this review of the education fair was initiated for illustrative purposes – to articulate how the theory might work – the leadership team reacted by proposing action. They wanted to make these changes now and confronted the principal pointedly: "Well, can we do this or not?" At the next meeting the university team suggested that it might be good to discuss the changes that had been

proposed at the last meeting: Who would be responsible for various tasks that needed to be done? How did the changes relate to the theory? What might result from this change in practice? We also asked the leadership team to think about how this decision might be viewed by the rest of the staff and by the parents. They began to express some impatience, saying that the rest of the staff and the parents would be no problem and they knew how to handle them in any event. This worried us, and we have raised this question since, but the answer remains the same.

Pleased that this major change, so in keeping with our desire to move the school away from a focus on relative ability and toward a focus on task mastery, had been undertaken so quickly, we were shocked at the end of the fourth meeting when one teacher said she was feeling extremely frustrated. "This is taking so long. How are we going to make all those changes we listed on the board if we move this slowly? We talked about the education fair last week. Why are we talking about it again this week?" We soon learned that this feeling was shared by the school leadership team, particularly by the principal. One of the teachers said that she had a lot of at-risk children in her classroom who needed help immediately. Because it has been our experience that teachers are frequently wary of university "experts" and how much they know and can accomplish, we were very surprised at these teachers' beliefs, expressed quite literally, that we had all the answers, and if we would just give them the answers, we could move ahead quickly and save these children from failure. We talked about these perceptions and about the process of school change, but they remain dissatisfied with the pace of change. While we were focusing on their understanding and acceptance of the theory, they seemed to be focusing on the need for action.

At one of the meetings the principal asked us if we could find tutors for some of the children and if we ourselves would serve as tutors. This precipitated a discussion, first on the focus of change attempts. A member of the university group mentioned that the goal of the process is not to change children so that they fit schools, but rather to change schools so that all children fit. That was accepted, but there also ensued a discussion of what the university group's role, besides gathering evaluative data, is or should be. An attempt was made to describe the larger purpose of creating a program that was of general use; the university group wanted to codify a workable process and collaboratively identify strategies that might work for schools in changing environments. That role definition was more or less accepted, but the school leadership team continues to press the university team to get involved in a hands-on way with the day-to-day activities of the school, at least for the purpose of better understanding them and their students. Suffice it to say that a kind of tension exists between the university group's goal of creating a generalizable model for school change and the

leadership team's needs to deal with the problems of a specific school right now.

At our last meeting, the teachers agreed that the policy they want to examine next is retention or, as they phrased it, alternatives to retention. They seem convinced by the research evidence they have read that retention is not helpful. When we suggested that everything we will be doing together and changing together over the next few years is, in a sense, an alternative to retention, they seemed skeptical. The next few meetings promise to be stimulating as the coalition discusses these issues and decides if specific changes can be made in the school environment so that retention is seen as unnecessary.

The Process Thus Far: A Reflective Comment

When we began this coalition with the leadership team in the elementary school, we did not know whether it would be possible to work together productively to make changes in the school environment using a goal theory framework. We are optimistic now that changes will be made and that they will be enduring. For too long we have told schools what to change, based on the latest educational fad. Teachers have often felt uninvolved and uncommitted. Too frequently those changes have been implemented in a way that undermines their purpose. As a result, suggestions for reform have a way of recycling (Cuban, 1990). Ours is a very different approach. It focuses on changing the school environment and not on changing the child, it centers on teachers' deciding what they want to change, and it deals with the very important issue of how changes are made by providing an overarching theory to guide decisions. But the program is still in development. We can at this point promise only a regular reporting of what ensues.

CONCLUSION

We described a plan for collaborating with school leaders to bring about changes in policies and practices using a goal theory framework. It is important to reiterate the rationale and perspective that prompted us to leave our ivory tower and engage in action we believe will be helpful. There is a present concern not only to create an achieving society, but to create that society by developing achieving schools. There are currently widespread and diverse efforts to "restructure" schools. We believe that there is implicit in current motivation theory a workable framework for guiding such restructuring. To date, however, motivationists have not seen their role as speaking to those who set policy and guide practice in the schools. We submit that the issues discussed in forums on school reform inevitably

embrace motivational issues, but they characteristically use models and modes that motivation theory has cast aside as unwieldy, unworkable, or downright wrong. Now is perhaps the time to think big and apply what we know to organizational change. Such is the nature of the effort in which we are engaged. We propose that it might serve to make a difference in schools and expand our knowledge of human development as well.

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