Special Issues in Reforming Middle Level Schools

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In this article, some of the particular issues relevant to changing middle level schools were examined. Recent research has increasingly examined the educational needs of early adolescent students, and school reforms frequently have been called for. Often, these calls for reform have not been accompanied by careful consideration of the many factors, some particular to middle level schools, that can inhibit meaningful, lasting change. Described is a recently concluded 3-year project to produce a task-focused learning environment at both the middle and elementary school levels. Using qualitative data (including interviews, field notes, audio recordings of weekly meetings with the staff at the middle school, and an open-ended survey question), some of the issues are explored that make creating changes in middle level schools a particularly challenging endeavor.

Most American junior high and middle schools do not meet the developmental needs of young adolescents. These institutions have the potential to make a tremendous impact on the development of students—for better or for worse—yet they have been largely ignored in the recent surge of educational reform. (Carnegie Council on Adolescent Development, 1989. pp. 12-13)

For decades, educators have grappled with the question of how to provide an effective learning environment for early adolescent students. Although there have been some efforts to make these schools developmentally appropriate for young adolescents through practices such as block scheduling,

team teaching, and small-house (school-within-a-school) structures, rela-
tively little has changed in the way we educate these students (Cuban,
1991; MacIver & Epstein, 1991; Midgley, 1993). Since the publication of
the Carnegie report (just quoted), several reform movements have been
initiated. However, a recent meeting organized by Carnegie found that
"few . . . had articulated the fundamentals of middle-school reform in
definite policies" ("Bimonthly report on urban middle schools," 1993, p. 7).
Based on a national survey of middle level schools, members of the Na-
tional Association of Secondary School Principals concluded that "best-
practice ideas about educating young adolescent students are still mostly
on paper" ("Bimonthly report on urban middle schools," 1993, p. 2). The
majority of middle level schools still do not adequately meet the develop-
mental needs of early adolescent students.
    One reason for the lack of widespread reform at the middle school
level may be that those who have proposed changes in middle level
schools have failed to consider the special issues that affect change at this
level. Although many educators and researchers have discussed issues
that must be considered in changing schools in general, rarely have they
considered the particularities of middle level schools that affect school
reform efforts (see Cohen, 1992; Hopfenberg, 1991 for exceptions).

The Particularities of Reform
at the Middle School Level

    Few researchers who discuss educational reform distinguish between
elementary and secondary reform efforts. Even fewer focus on the par-
ticulars of reforming schools that serve early adolescent students. The
fact that educators have long struggled with the issue of how to best edu-
cate this unique age group suggests that reforming middle level schools
may pose particular problems not found at the elementary level, and some-
times not even at the high school level. Middle level schools are typically
larger, more bureaucratic organizations than elementary schools. Where-
as most elementary schools have one administrative leader, middle level
schools often have a principal, assistant principal, and chairs of depart-
ments. Requirements for teacher certification differ at the two levels.
Middle school teachers, many of whom are required to major in a particu-
lar academic domain, may identify with their subject matter and their
colleagues in their department rather than with the school as a whole.
Although elementary teachers usually determine how time is allocated in
their classroom (with the possible exception of special classes such as art

and music), middle level teachers must adjust to an externally imposed schedule. There is frequently less parent involvement in middle schools than in elementary schools (Epstein, 1991; Hopfenberg, 1991). Students in middle level schools are more likely to be separated by ability than students in elementary schools. In addition, there are commonly held beliefs about early adolescent students that may uniquely affect reform efforts at the middle school level. All of these factors may combine to make reform in middle level schools a different, and perhaps a more difficult, process than reform at other levels of schooling.

As we address each of these often overlooked issues, we will also describe our experience with a collaborative school change project. This project, based on motivational theory, aimed to change the school in a way that would provide a more developmentally appropriate learning environment for early adolescents. For 3 years, we worked collaboratively with the staff of a local middle school to make changes in school policies, programs, and practices. During this time, we learned a great deal about some of the obstacles to change in middle level schools that are different from those encountered at the elementary school level. Although we can not say that our experiences will generalize to all middle school reform efforts, conversations with other researchers confirm that the issues we faced are not unique to our situation. In this article, we will describe our middle school program and compare it to a similar program at the elementary school level to illustrate the special nature of reform at the middle level.

The Importance of a Guiding Theory

The teachers and administrators that we worked with, as well as many members of the research community, have grown weary of the cyclical nature of school reform efforts (Cuban, 1990). We believe, as do others (Edmonds, 1984; Hopfenberg, 1991), that for meaningful, enduring school change to happen, members of the school community need to have a common set of principles or a vision of how to change the school. School mission statements that are currently mandated in Michigan and other school districts and states often fail to have the desired effect of creating a shared vision and shared goals because the statements are too vague, providing little direction to guide change. What is needed is a clear set of beliefs about education and learning, or a guiding theory, with direct implications for practice that can undergird long-lasting change efforts. We

used a motivational theory, known as a goal theory, to guide our collabo-
rative change project.

Goal Theory and the
Benefits of Task-Focused Goals

Goal theory is based on research that documents the importance of
students' views about the nature and purposes of learning, as reflected in
the goals they value or pursue in an achievement setting. An abundance
of research over the last decade (Ames, 1990; Ames & Archer, 1988;
Dweck, 1986; Dweck & Leggett, 1988; Nicholls, 1984; Nolen, 1988) has
produced consistent evidence regarding the effects on students of endors-
ing two different types of goals. Task-focused goals include working on
a task because of its inherent interest; working for personal improvement;
and working to gain understanding, insight, or skill. Ability-focused goals
include working on an assignment to appear able (or to avoid appearing
unable) relative to others, trying to outperform others, and being con-
cerned with looking successful even if little challenge is involved.

Whether students pursue task-focused or ability-focused goals has been
shown to have considerable consequences for their approach to learning and
level of engagement on a variety of tasks. When task-focused, students
tend to try hard, pursue challenging tasks, persist in the face of failure,
and have a strong sense of efficacy (Ames, 1984; Elliott & Dweck, 1988;
Maehr, 1989; Nicholls, 1984). Moreover, when task focused, students are
likely to use deep processing strategies, such as discriminating between
important and unimportant information, relating new information to things
they already know, and monitoring comprehension (Ainley, 1993; Nolen,
1988). There is also recent evidence that students achieve at a higher level
when task focused (Ainley, 1993; Wentzel, 1993). When students pursue
ability-focused goals, they tend to give up when faced with difficulty,
avoid challenging tasks, and rely on surface-level strategies like rehearsal
and memorization (Golan & Graham, 1990; Meece & Holt, 1990; Nolen,
1988).

Using Goal Theory to
Guide Schoolwide Change

There is growing evidence that the goals stressed in the learning envi-
ronment influence the goals that students adopt (Ames, 1990; Ames &
Archer, 1988). The purpose of our "Coalition Project" was to determine

whether changes can be made in policies and practices in a way that will shift the school, as a whole, away from a focus on relative ability and comparative performance, and toward a focus on personal improvement, task mastery, and intellectual development. Our goals were to scrutinize all aspects of the learning environment and to make changes within each dimension of the learning environment. These dimensions have been conceptualized in many different ways (Ames, 1990, 1992b; Epstein, 1988; Marshall & Weinstein, 1984; Rosenholtz & Simpson, 1984). We chose the dimensions identified by Epstein (1988) and used by Ames in her work at the classroom level (Ames, 1990, 1992b). These six dimensions are Task, Authority, Recognition, Grouping, Evaluation, and Time, and they are referred to by the acronym TARGET. Ames (1990, 1992a, 1992b) has discussed in detail the way in which task and ability goals are embedded in these dimensions of the learning environment and thus influence students' approaches to learning. Within each dimension, she cites research that confirms the relationship among various principles, strategies, practices, and indexes of student motivation associated with a task- or ability-focused goal orientation. For example, within the academic Task dimension, she cites work by Marshall and Weinstein (1984), Nicholls (1989), and Rosenholtz and Simpson (1984) that indicates that students are more invested in learning and task oriented when academic tasks involve diversity and variety. In support of the importance of challenge, interest, and perceived control as factors that influence the motivation and goal orientation within the academic Task dimension, she cites the work of Brophy (1987), Corno and Rohrkemper (1985), Lepper and Hodell (1989), Meece (1991), and Nicholls, Patashnick, and Nolen (1985).

Having identified specific classroom parameters that are consistent with a focus on relative ability or on task mastery and skills development, Ames and Archer (1988) developed an instrument to assess these parameters from the students' perspective using items such as "Students are given a chance to correct mistakes," "The teacher pays attention to whether I am improving" (from the Mastery [Task] Scale), "Only a few students can get top marks," and "Students want to know how others score on assignments" (from the Performance [Ability] Scale). Adolescents in a secondary school for academically talented students, who perceived an emphasis on task goals in the classroom, reported using effective learning strategies, preferred challenging tasks, had positive attitudes toward the class, and had a strong belief that success follows from one's efforts. Adolescents who perceived an emphasis on performance goals in the classroom had negative attitudes toward the class, lacked feelings of competence, and attributed failure to lack of ability.

Because Ames was concerned about the lack of experimental research examining the relationship among aspects of the learning environment, achievement goals, and motivational profiles in actual class settings, she decided to conduct an intervention study. She worked with elementary teachers to develop specific strategies within each of the TARGET areas that are conceptually consistent with a task or mastery orientation. Strategies were assembled in a large notebook and included, for example, sample report cards that emphasize individual progress and improvement, ideas such as "Teacher of the Day" or "Adopt-A-Class" to give students a sense of responsibility and opportunities for leadership, suggestions for using cooperative learning in various subject matter areas, and examples of contracts to encourage students to set their own goals and monitor their own progress. The purpose of the intervention was not to test the impact of specific strategies, but rather to bring together those strategies that contribute to a classroomwide focus on mastery, improvement, and development.

Ames (1990) found evidence that the intervention made a difference in how students perceived the classroom environment. At the end of one year, at-risk students in the classes in which the strategies were introduced reported that their classrooms were more task focused than did peers in control classrooms. Not only did students' classroom experiences change, the intervention also affected student motivation. At-risk students in treatment classrooms showed a stronger preference for challenging work, had more positive attitudes toward math and school, had higher self-concepts of ability, were more intrinsically motivated, and reported using more effective learning strategies than did peers in control classrooms.

The Need for Intervention in Schools
Serving Early Adolescents

Researchers have commented that the stress on task-focused goals in elementary classrooms is "weak at best" (Ames, 1990, p. 404). Now there is evidence that the goals stressed in middle schools are less task focused and more ability focused than the goals stressed in elementary schools (Midgley, Anderman, & Hicks, this issue). They found that middle school teachers and students perceived the school culture as more ability and less task focused than did elementary teachers and students. In addition, elementary school teachers reported using instructional practices that emphasize task-focused goals more often than did middle school teachers.

The timing of the move to more ability-focused learning environments is particularly unfortunate because of the developmental changes in early adolescents' understanding of the nature of ability. Nicholls (1984, 1986; Nicholls & Miller, 1983) and Dweck (Dweck & Bempechat, 1983) have found that young children believe that ability can be increased through effort, and that high effort signifies high ability. During early adolescence, however, students develop the notion of ability as capacity, and begin to think of effort and ability as being inversely related. Therefore, they are capable of understanding that high effort, without success, is a sign of low ability. By middle school, most students have acquired both concepts of ability (i.e., fixed and changeable through effort).

Because children can invoke either of these conceptions of ability during early adolescence, the learning environment plays a critical role in determining which view students will endorse. In an ability-focused environment, where social comparison information becomes a salient feature, students are likely to think of ability as a trait that is fixed. When task goals are stressed in the school, students are likely to focus more on task mastery and improvement rather than on their standing relative to their peers, and an incremental view of intelligence is fostered.

Dweck and colleagues (Dweck & Bempechat, 1983; Dweck & Leggett, 1988) have demonstrated that students with an incremental (malleable) view of intelligence are more likely to pursue task-focused goals than are students with an entity (fixed) view of intelligence. Covington (1984, 1992) has theorized that young adolescents in an ability-focused environment develop self-defeating strategies to protect their self-worth. Many of these strategies (procrastinating, making excuses, exerting little or no effort, devaluing school) that enable children to attribute failure to causes other than lack of ability are the same strategies that middle school teachers say they see too often in their students, and that lead to school failure. By stressing ability goals at a time when students have acquired a more differentiated understanding of the nature of ability, we may be undermining their motivation and predisposing them to use self-defeating strategies. Thus it may be particularly important to promote task-focused goals at the middle school level.

Unfortunately, at the same time young adolescents are experiencing an increased emphasis on ability goals, they are also undergoing developmental changes in their understanding of the nature of ability. As the work of Nicholls (1984, 1986; Nicholls & Miller, 1983) and Dweck (Dweck & Bempechat, 1983) has demonstrated, early adolescents develop the cognitive capacity to think of ability and effort as covarying, making increased

effort without success a sign of lack of ability. This differs from the ability perceptions of younger children, who see greater effort as a sign of higher ability. Because early adolescents view effort and ability as inversely related, school practices that promote social comparison pose threats to their self-worth (Covington, 1984). Therefore, it may be particularly important to promote task-focused goals, rather than ability-focused goals, in middle level schools.

The Need for a Schoolwide Approach

In a replication of the Ames (1990) study, Maehr and Midgley noticed that, in some cases, the efforts of elementary school teachers to create a task-focused environment in their classrooms were undermined by contradictory school-level practices. For example, teachers' efforts to encourage students to take on challenging work were seen to conflict with a schoolwide program to provide extrinsic rewards to students who read the most books, regardless of the difficulty of the material. In addition, they recognized that when students move to the middle school level, they often have several different teachers during the school day. If a student has one teacher who is trying to create a task-focused environment and other teachers who are promoting an ability-focused environment, the student will be less likely to develop task-focused achievement goals. Moreover, the influence of school administrators on the goals stressed in the school (Maehr, Midgley, & Urdan, 1992) was not addressed by the classroom-level intervention. Therefore, they designed the Coalition Project to create a task-focused learning environment at the school level in addition to the classroom level.

The same dimensions that Epstein (1988) identified, and Ames (1990) manipulated at the classroom level, can affect the motivational climate of the school. Maehr and colleagues (Maehr & Anderman, 1993; Maehr & Midgley, 1991; Maehr et al., 1992) have described in detail the likely influence of school-level policies, practices, and programs on task and/or ability stresses within each of these dimensions. Like Ames, we believe that a task-focus is conveyed through the totality of the learning environment. Just as Ames and her colleagues identified classroom factors that influence the saliency of different goals, we are identifying the broad range of school policies, practices, and procedures that define learning and thus influence students' motivational orientation. Policies and practices at the school level often dictate which materials and textbooks are used, how students are grouped, which students are recognized and on what basis, whether students compete or cooperate academically, if and

TABLE 1: Strategies for Moving Toward a Task-Focused Middle School

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Academic Tasks
  Provide inherently interesting, relevant work
  Design tasks that are novel and diverse
  Provide challenging tasks for students of all ability levels
  Use thematic, interdisciplinary approaches to instruction
  Build on students' backgrounds and experiences

Student Authority
  Provide opportunities for choice and decision making
  Involve students in self-evaluation

Recognition
  Recognize students for products, not relative performance
  Allow all students an opportunity to gain recognition for academic work
  Provide open-ended, not limited, opportunities

Grouping
  Encourage cooperative learning, peer tutoring
  Avoid ability grouping, tracking
  Group students by interest rather than ability

Evaluation
  Allow students to redo work or tests
  View mistakes as part of the learning process
  Use student effort, improvement, and progress as basis for evaluation
  Avoid normative standards
  Make evaluations frequent, private, and informative

Time
  Allow students to work at their own pace
  Encourage flexible use of time across subject areas

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how student autonomy is encouraged, what methods are appropriate for assessing and evaluating students; in this way, they provide strong messages to students about the purpose and meaning of schooling. Table 1 presents several strategies for change within each dimension to move toward a task focus in the school. For example, schoolwide recognition practices, such as the posting of honor rolls based on high grades, establish an ability-focused goal orientation in the school, whereas the recognition of effort and improvement contribute to a task focus. Similarly, schoolwide grading policies and practices, such as basing students' grades on their performance relative to others, can reinforce ability goals,

whereas portfolios and other attempts at more *authentic* assessment may promote a task focus. Assigning students to classes on the basis of their ability is another common practice that is associated with an ability-focused climate. School policies regarding scheduling, such as breaking the day up into 45-minute periods, may inhibit the design of more stimulating, task-focused lessons. The point is that there are school-level policies and practices in each of the six dimensions that can promote either a task or ability focus in the school. Therefore, attempts to promote a task-focused environment for early adolescents need to focus on both the school and classroom levels (Maehr & Midgley, 1991).

THE COALITION PROJECT

In the fall of 1990, Maehr, Midgley, and a group of graduate students (including Urdan and Wood) began a three-year project to work collaboratively with the staff of a middle school to examine and change policies, procedures, and practices to create a more task-focused environment. We chose to make this a collaborative change project, rather than imposing change in a "top-down" manner, because we wanted to take advantage of the wisdom and knowledge of the staff, and we also wanted them to develop a sense of ownership so that the changes would persist after the project ended. At the same time, Maehr and Midgley launched a similar project at the elementary school level.

Description of the Site and Staff

The elementary and middle schools were in the same school district in a small midwestern city. The population was estimated to be 90% blue-collar, with most of the families supported by the auto industry. In the middle school, there were approximately 750 students equally distributed between sixth, seventh, and eighth grades. Twelve percent of the students were African American. There were 45 teachers, a principal, an assistant principal, and a counselor. The district had another middle school (which served as our control school for research purposes), six elementary schools, and one high school.

The Middle School Coalition

For five semesters, we met weekly after school for 60-90 minutes with a "leadership team" from West Middle School (not the real name) to dis-

cuss changes that could be made to create a more task-focused learning environment. During the first year and a half of the project, the composition of the team fluctuated somewhat from week to week. Approximately one half of the teachers in the school attended one or more of our meetings. The core group consisted of seven to ten teachers, the assistant principal, and one parent. The university group consisted of two faculty members and six graduate students. The university and school teams were collectively referred to as the "Middle School Coalition."

Sources of Data

We made audio tapes of each coalition meeting and supplemented these with field notes. We interviewed the assistant principal, a parent, and nine teachers. We asked the respondents a number of questions about the school change process and the nature of the theory that provided a framework for change. The interviews lasted between 60 and 90 minutes. They were conducted in the fall of 1991, after 6 months of coalition meetings. In addition, in the spring of 1992, approximately 18 months after the project began, we interviewed the four administrators who had a hand in shaping what happens in the school. We interviewed the assistant principal, the principal, the district curriculum director (Mr. Black), and the district superintendent (Mr. Jones). Leaders were asked to reflect on their role in shaping the direction of change in the middle school, their "vision" for the school, and the role that other people played in inhibiting or facilitating changes in the school.

We also examined teacher responses to an open-ended question on a survey administered in February of 1991. The question asked, "Do you think children's attitudes about learning change at this stage of life (i.e., when they become teenagers and move into the middle school)? Why? Can you describe these differences?" Documents written by members of the leadership team, which described the process to the staff as a whole, were examined and are reported on briefly here. We use these data to enrich our discussion of middle school reform in general, and special issues in reforming middle level schools in particular.

The Process of Change

As mentioned earlier, the purpose of the project was to work with the school staff at West to alter the policies and practices within the six TARGET dimensions to create a more task-focused environment. The project

was designed to be collaborative, with our university group providing the theoretical guidance but no prescriptions about what specific policies or practices to change. Decisions regarding what to change were reached jointly by the university and school coalition teams. Our meetings with the leadership team at West quickly made it apparent that to create a schoolwide, task-focused environment, certain fundamental school structures and practices would have to be altered first. For example, before it was possible to create more interesting, relevant school tasks, the school schedule needed to be changed so that lessons could extend beyond the existing 45-minute periods. In addition, interdisciplinary approaches to the curriculum would be facilitated if teachers worked together in teams, sharing a common group of students and allowing for the more flexible use of time. Although these changes would make it easier to create a taskfocused environment, they do not guarantee that this will happen. Therefore, we have come to think of these changes as "enabling mechanisms" that facilitate the creation of a task-focused environment (Beck, Urdan, & Midgley, 1992).

Throughout the coalition project, most of the efforts of the coalition team were focused on creating these enabling mechanisms. At different times, we met as a large group or in smaller "task forces" to discuss various changes, including the elimination of "tracking," the creation of teacher teams, the move to a "block" schedule (rather than having six discrete 45-minute periods), and the creation of a "small-house" system and interdisciplinary instructional units. In addition to these changes, coalition team members spent some time discussing changes to the existing recognition and evaluation systems to make them reflect task-focused goals. It is interesting to note that many of the changes that we tried to make at West (elimination of tracking, creation of teacher teams with common planning time, creation of a small-house structure, promotion of interdisciplinary instruction) are all practices promoted by proponents of middle school change (Carnegie Council on Adolescent Development, 1989; Wheelock & Dorman, 1988).

We soon learned that it was difficult to systematically examine and change the policies and practices in each of the TARGET areas before the enabling structures were in place. Although some of our change efforts reflect specific TARGET areas (e.g., eliminating tracking, encouraging interdisciplinary instruction, altering the recognition and evaluation systems), for the most part, our efforts at West became less of an effort to change specific TARGET elements and more of an effort to create an

environment (by altering the existing organizational structures) in which the staff could more easily begin to stress task-focused goals. It was in trying to change these fundamental structures so commonly found in middle level schools that we first became aware of the numerous impediments to change at the middle school level. We believe, on the basis of our reading and discussions with middle school educators, that most of the roadblocks we faced were similar to those encountered by others struggling to improve middle level schools.

IMPEDIMENTS TO CHANGE AT
THE MIDDLE SCHOOL LEVEL

Given our invitation into the school, we expected smooth sailing. (Weinstein et al., 1991, p. 340)

This statement by Weinstein regarding her efforts to make changes at the high school level reveals the initial naiveté of researchers who aim to collaborate with practitioners to make change; we would have made a similar statement at the beginning of our collaboration. The complexities of secondary schools and the dynamics of school change are underestimated by many researchers who form partnerships with schools. Many calls for school change are made in the absence of practical considerations, or at least without an understanding of the difficulties inherent in changing the regularities of schooling. Although we were familiar with the literature on changing schools, we were unaware of the particular difficulties that would face us at the middle school level. Like Weinstein and colleagues, we were not fully prepared to meet such a wide array of challenges. We will discuss some of the issues we encountered that impede change, paying special attention to those that we believe are particularly relevant to schools serving early adolescents. Our discussion of these impediments to change at the middle school level will be organized around five broad issues: (a) educators' beliefs about early adolescent students, (b) educators' beliefs about approaches to instruction, (c) middle school organization, (d) parental involvement, and (e) school leadership. Because we were also engaged in a similar change effort with an elementary school in the district, we will compare, on occasion, the change process at the two levels.

Beliefs About Early Adolescents

Many of the middle level teachers and administrators with whom we have worked over the years have spontaneously mentioned that young adolescents are "victims" of their changing hormones, and thus are unable to behave and learn as well as children of other ages. One junior high school principal told us that they are all "brain dead." During public interviews to select a new superintendent in a nearby school district, one of the finalists for the position described the early adolescent years as "happily psychotic" (*Ann Arbor News*, February 28, 1993), a characterization that did little to hurt his chances of getting the job. The very first time we met the assistant principal at West, he referred to the "happy hormones" of middle school students and expressed his belief that "their hormones interfere with brain growth." One of the teachers, when asked why he would rather teach seventh graders than eighth graders, explained that "eighth graders are ruled by their hormones." In their responses to the open-ended question about whether children's attitudes toward learning change on entering middle school, several teachers referred to physical, psychological, and emotional changes associated with puberty. This perception is so widely held, it is usually not seen as an inhibitor to school reform.

Another commonly held belief about early adolescent students is that they are already too old and set in their patterns of learning by the time they reach middle school to be influenced positively by change. Several teachers at West endorsed, in principle, moving toward a task-focused environment, but they tempered this by saying that it would be difficult to do with middle school students because they have already had years of experience in elementary schools and at home, where relative ability and competition among students is the norm. In an interview, one teacher said that 3 years in middle school is not enough time to offset the previous years of socialization toward competition that the student brings to the middle school:

> I don't think in the three years that we see these students we're going to change their way of thinking against that. It's got to come from the home-front, it's got to start at home if you want to change that. And we're not going to change it.

The point we want to make is not that these attributions are completely unfounded. We agree that early adolescence is often a time of great change for children, and that it may be more difficult to change the beliefs

and behaviors of older students than younger students. Our argument is that although these are important factors, the school environment also plays an important, possibly larger role in influencing student motivation and performance. Of all the teachers and administrators at West who responded to the survey question about students' changing attitudes toward school at early adolescence, only three specifically mentioned the nature of the middle school learning environment, and these three teachers deal with chronically underachieving students (two special education teachers and the coordinator of the program for at-risk students). If a teacher or administrator attributes student failure or lack of motivation to factors beyond their control (e.g., hormones or age), there is little incentive to change policies and practices (Weiner, 1986). Therefore, these attributions can undermine efforts to make changes in the school, particularly changes based on the belief that an inhospitable school climate is a main contributor to student underachievement and lack of motivation. Because stereotypes about early adolescent students are widely and strongly held, those who seek to change middle level schools may need to challenge these assumptions if the change effort is to succeed.

Beliefs About Approaches to Instruction

Elementary and middle school teachers differ in their beliefs about the best way to educate students. These differing philosophies are reflected in two features more commonly found in middle schools than in elementary schools: departmentalization by subject matter and grouping students into separate classes according to ability level (tracking). Each of these practices makes creating change more difficult at the middle school level than at the elementary school level.

Subject matter departmentalization. Many of the changes that the Middle School Coalition was trying to produce at West, and which are recommended by middle school reform advocates, were hindered by the departmentalized organization at the middle school level. Most of the teachers at West were trained as specialists in a particular subject matter, and this made some of them reluctant to teach more than one subject or use interdisciplinary approaches to the curriculum. One science teacher, for example, resisted some of the changes proposed because she felt that it would harm her efforts to be the best biology teacher she could be. She had been recognized beyond the district for the quality of her teaching of biology. Understandably, she felt that if she was to team teach in a

way that required her to teach another subject matter, she would be forced to "start all over again." Such resistance is less likely to occur at the elementary school level, where teachers usually teach all subjects. We found it interesting that sixth-grade teachers were at the forefront of change at West. Many of these teachers had been trained as elementary school teachers (with elementary certification) and some had taught at that level. Most seventh- and eighth-grade teachers were trained to be subject matter specialists, and they often had a less "child-centered" educational philosophy. Almost all of the changes that were made after the first year of the project involved sixth-grade teachers and students, with little change at the seventh- and eighth-grade levels. As the project continued, changes at the sixth-grade level (including elimination of tracking in all subjects and the development of two self-contained classrooms, where one teacher is responsible for teaching all academic subjects to 30 students) outpaced changes made at the other two grade levels. This combination of elementary and secondary philosophies is unique to middle level schools, and is an important factor to consider in attempting change at this level.

This difference in educational philosophies between elementary and middle school teachers has been noted by parents and central administrators as one of the reasons change is more difficult at the middle school level. The superintendent put it this way:

> Middle school teachers are trained to be specialists. They view each domain separately instead of in a wider fashion. They have more allegiance, a more strongly held view, as to how it is best to approach education from a discipline standpoint as opposed to an independent teacher standpoint. These teachers meet by discipline, creating more similarity among teachers which can form a block against change if they disagree with it. If I teach five social studies classes a day, I may be less open to change than if I have all subjects during a day. My day is less regimented in elementary school, and more rigid in middle school. This makes (middle school teachers) less open to change. When somebody suggests change, it's less easy than in elementary school, where teachers are more flexible.

Ability grouping. Assigning students to separate classes on the basis of ability, or tracking, is a more common practice in middle level schools than in elementary schools (Coldiron & McDill, 1987; Reuman, MacIver, Eccles, & Wigfield, 1987). Researchers have noted repeatedly the negative consequences of tracking (Cohen, 1992; Oakes, 1985, 1992; Oakes & Lipton, 1992), and the Carnegie Task Force on the Education of Young Adolescents called ability grouping "one of the most divisive and damaging school practices in existence" (Carnegie Council on Adolescent De-

velopment, 1989, p. 49). Many of the teachers we worked with at West also pointed to tracking as a damaging practice. Tracking affects the way teachers think about instruction. We have learned that years of experience in a tracked system can make it difficult for teachers, particularly math teachers, to conceptualize teaching in an untracked system. We also learned that the practice of ability grouping makes the entire school schedule considerably less flexible, thereby inhibiting other changes (such as block scheduling and creation of a small-house system). Because tracking is a practice that makes relative ability a very salient feature of the learning environment, and one that many of the teachers at West wanted to eliminate, we spent considerable time discussing ways to move away from this practice.

Our efforts to eliminate tracking were met with considerable resistance from the math department at West. Although all other departments have moved to heterogeneous grouping, students at the seventh- and eighth-grade levels remain separated by ability due to tracking in math. As Cohen (1992) noted, tracking in one subject matter has a "cascading effect" that produces de facto tracking in all classes. Oakes and Lipton (1992) also discussed the ineffectiveness of detracking schools in pieces rather than adopting a systemwide approach.

Middle Level Schools as Organizations

Over the course of the project, it became clear to us that middle schools are very different organizations than elementary schools, and that some of these differences affect the likelihood of school reform. Middle level schools are generally larger, more bureaucratically complex organizations than elementary schools, and this increased size and complexity make change more difficult. We have identified three organizational features that typically make middle level schools more difficult to change than elementary schools: (a) the complex schedule, (b) teacher certification requirements, and (c) size. These three organizational features are discussed separately from the issues of departmentalization and tracking (just described) because the schedule, school size, and certification requirements are less reflective of teachers' beliefs about appropriate instruction and more likely to be perceived by teachers as being determined by factors beyond their control.

The schedule. Of the many roadblocks raised during our project, none was more frustrating or difficult to overcome than the dominant role the

schedule played in all decisions. At the elementary school level, the daily schedule is relatively simple. For the most part, students are under the supervision of one teacher throughout the day. In the elementary school where we were working, classes such as art and music were taught by specialists in the regular classroom. At the middle school level, the daily schedule requires the complex assignment of hundreds of students and all of the teachers to six different class periods. Special programs, such as band or the Gifted and Talented Program, may serve only a fraction of the school's students, yet have the power to dictate how each teacher's schedule is arranged.

We first learned of the power of the middle school schedule in inhibiting school change at the beginning of the second year of the project. At the end of the first year, the teachers in the coalition had suggested a number of changes to be implemented the following school year. These changes included forming some teacher teams and having some teachers use a block schedule, keeping the same group of students for 2 hours. In addition, there was a plan to eliminate the problematic "supervised study" program (in which teachers spent 25 minutes with a group of students that they did not see during the rest of the day) and replace it with a "Home Base" program in which teachers would spend time with students that they had in other classes during the day. These schedule changes would allow teachers to know their students better and to plan more interesting and meaningful tasks than the 45-minute period allowed.

When the teachers returned to school in the fall, they found that most of the changes they had proposed had not been implemented. The reason given to them was that the schedule could not be arranged to meet their needs. For example, the Home Base program was abandoned because the building administrators felt that male teachers were needed to supervise the lunchroom. Those who supervise the lunchroom are "compensated" by not being given a home room or a supervised study section at midday. Similarly, the block-scheduling system was not implemented because the principal and assistant principal could not figure out a way to provide access to band for all students who wanted it and, at the same time, support block scheduling for the teachers who requested it. Time after time, sound educational decisions were undermined by exigencies of the schedule. Developmentally appropriate innovations that would have facilitated the promotion of task-focused goals were sacrificed due to scheduling and other peculiarities not found at the elementary school level.

Teacher certification. Teacher certification is a particularly complex issue at the middle school level because this is the only level of schooling that often has teachers with certification at either the elementary or secondary levels. Many middle level schools house sixth-, seventh-, and eighth-grade students. In many states, including Michigan, teachers are certified to teach kindergarten through sixth grade, or Grades 7 through 12. This has been a problem at West on occasion. One of the proposed changes at West was to create a small-house system, including students and teachers at the sixth-, seventh-, and eighth-grade levels. According to this plan, four teachers at each grade level would work together to teach the core academic subjects to approximately 120 students. Unfortunately, none of the math teachers at West were interested in participating in this program at the eighth-grade level. One teacher in the school, who was not certified to teach math at this level but had taught math to sixth graders, volunteered to participate in this innovative program. Because of her lack of certification in math, however, she was not allowed to participate in the program. In this instance and in others, state and district requirements kept teachers who were willing to take risks and try new things from doing so.

Size. Another organizational feature of middle level schools that makes change difficult is the large size of these schools. Middle schools are typically much larger than elementary schools. Because West was a large school housing 45 teachers and 750 students, schoolwide changes were more difficult to accomplish. There were more teachers to resist the changes, more students and parents who may have been affected, and basically more complexity in dealing with a larger school. The superintendent, the curriculum director, and teachers all indicated that this makes changing middle level schools more difficult than changing elementary schools:

> There are fewer people to sell the notion of change to in elementary schools. (Mr. Black)

> There will be changes made here [at West], but it will be tough because you're working with 50 different personalities as teachers that have to facilitate the changes to 800 students. It's just not something that you can do. (teacher)

A psychological consequence of the large size of West that may have inhibited change efforts was the impersonal feel of the school. Because the school was large, and because students moved to a different class every

45 minutes, it may have been difficult for teachers to come to know their students well. Many of the proposed changes (creating a school-within-a-school, keeping students together as a group across subject matter areas, instituting an advisory program) were designed to increase the familiarity and closeness of teachers and students. Some teachers resisted these changes, possibly because they had become comfortable with the more impersonal teacher-student relationships created by the large, departmentalized middle school. When discussing the possibility of beginning an advisory program in the school, one teacher said "I don't want to be a counselor to my kids." When contemplating the designation of teacher teams that would reduce the number of students a teacher would interact with in the course of a school day, one teacher wrote "I am a secondarily trained teacher and do not want to teach the same students for more than one hour. I feel that I am more effective, enjoy teaching more, and can reach more students if I have more students." This type of sentiment was rarely found in the smaller, more child-centered elementary school.

Because middle level schools are generally larger than elementary schools, if a small group of teachers are willing to participate in a change effort, even on an experimental basis, the large number of teachers who are not involved can play a role in undermining their efforts. For example, ten teachers interested in trying something innovative may have an easier time in an elementary school where they represent one half of the entire teacher population, whereas in a middle school, they are only one fourth of the total number of teachers. At West, a relatively small group of teachers was actively involved throughout the change process. Because many of the other teachers did not attend our coalition meetings, it was easy for them to separate themselves completely from the change process and to form a sizable opposition to the change effort.

Parent Involvement During the Middle School Years

Parental participation in school-related functions typically falls off when children move to middle school (Accelerated Schools Project, 1993; Epstein, 1991). James Comer described his own experiences as a parent with elementary and middle schools this way:

> When we went off to the PTA meeting or to the open house every year (in elementary school), we had to go very early or you could not find a parking space. It was just packed.

> When we went to middle school, you did not have to go early because there were plenty of spaces. (Carnegie Corporation, 1992, p. 4)

The teachers at West perceived this to be true, and some said that their change efforts would not be fruitful because there was little they could do if the parents did not care about their child's education. "Good kids come from good parents, or at least parents who care." Teachers at the elementary school talked about personal interactions with parents, whereas discussion at the middle school often centered on the lack of parental interest and involvement.

Unfortunately, we have reason to believe that parental involvement was not encouraged at West as strongly as it was in the elementary school with which we were collaborating. One parent we worked with, who had children in both schools, said that she had not been invited to work in West, whereas at the elementary school she was encouraged to help out as much as she could. "I could spend all day, every day there [at the elementary school] if I had the time." This parent believed that the resistance at West to her offers of help is due to a number of factors:

> The teachers at the middle school are not as involved with the students, so they are not as involved with the parents either. The middle school teachers deal with parents when they have to as opposed to allowing them to become involved. There is an unspoken rule that as kids get older, they [parents] are less involved with school. And it's a shame because we could help. The middle school is not as user-friendly as the elementary school.

Mr. Jones, the superintendent, suggested that middle school teachers may feel less positively than elementary teachers about parent involvement because they believe that parents become more critical of teachers as their children get older.

> When their kids are in second and third grade, parents all think their kids will grow up to be doctors and lawyers. But as they get older and realize this may not be realistic, they become more critical of the school and the teachers.

With parents less involved, either by their own choice or because they perceive the school to be less interested in their participation, middle school teachers may find it difficult to develop a personal relationship with families and thus be more likely than elementary teachers to endorse negative stereotypes of parents, stereotypes which can produce a sense among some teachers that change efforts will be futile. Some teachers we worked with repeatedly expressed the belief that there was little they could do to help

their students succeed because the students' families did not care about academic achievement. To counteract these stereotypes that may inhibit innovation, it may be particularly important to involve parents in school change efforts at the middle school level.

The Role of Leadership in Middle School Change

One of the differences we noticed between the elementary and middle schools was in the area of leadership. At the elementary school, there was only one person in a position of assigned leadership: the principal. When this leader was inclined to make a change, she was free to do so without resistance from other leaders in the building. At the middle school level, change efforts must be endorsed both by building principals (typically a principal and an assistant principal) and department chairs. One of the middle school principals in our project was much more involved in the Coalition meetings and planning for change than the other principal. A variety of circumstances made it difficult for one of the principals to participate as actively as he had planned. Unfortunately, the differential involvement of these two administrators inhibited the change process at times. For example, at the end of the second year, specific plans were in place to make changes at the seventh-grade level. A team of teachers had volunteered to work together to implement task-focused strategies in their classrooms. The plan was scuttled when the principal, who was less involved in the planning, was unwilling to give top scheduling priority to this seventh-grade team. Although the other principal, who had participated in the planning of this team all year, supported the changes, he was unable to convince the less-involved principal to adjust the schedule to make it happen. This inability to carry through with changes that the teachers had spent much of the year discussing proved to be very demoralizing.

Any changes at West must be approved and supported by both building administrators and, therefore, communication between them is essential. This point was made clear at a Coalition meeting. When one principal mentioned that he had not yet discussed the changes we had been planning with the other principal, one teacher became angry and said, "That's a real problem. We're trying to make changes and the principal and assistant principal aren't talking to each other about it." We agreed that this was a problem—one that had to be resolved before meaningful changes could be made at West.

Because these leaders sometimes disagreed about the direction and pace of change, those teachers who were resisting change could play one against the other. One principal described just such a scenario:

> The teachers feel that if I'm pushing too hard or too fast, they can go to Mark [the other principal] and he'll say 'Yeah, you're right, we should slow down and do this' because that's more his pace. I think that's had a detrimental effect on not only how the staff perceives the relationship that Mark and I have, but also the whole position of where school improvement is.

We do not know whether the differences between the principals at West are common among middle school leaders, or particular to this school. We do know, however, that because middle level schools have multiple leaders and elementary schools typically have one, the issues of open communication between leaders and agreement about the pace and direction of change are more likely to be confronted at the middle school level than at the elementary level. Other researchers involved in middle school reform efforts have noted the importance of communication and similarity of purpose among the school leaders (Accelerated Schools Project, 1993).

We also noticed striking differences in how the administrators at the two school levels spent their time. At the elementary level, the principal was often in classrooms and spent considerable time and energy promoting better teaching, finding resources and workshops for her teachers, and distributing information about promising practices. At the middle school, both principals spent considerable time on discipline problems, were often on the phone with unhappy parents, and were continually dealing with issues regarding the schedule. These differences in the day-to-day involvement of elementary and middle school administrators cannot be discounted. They have an important influence on whether change will be supported or rejected.

In addition to having two principals at West, there were also department heads, leadership positions not found at the elementary school level. The chairman of the math department was strongly opposed to many of the changes that were proposed. Because he was in a position of leadership, he had influence over the other math teachers in the school. Although the school was departmentalized, the departments were still interdependent. Therefore, if one department was solidly against a change, they could effectively block teachers in the rest of the school from making changes. For example, the initial unwillingness of any teachers in the math department to join a small house made the establishment of such a program very difficult because all subject areas need to be taught in the house.

Implications for Middle School Reform

Although the primary purpose of our project was to produce a task-focused environment in one middle level school, many of the changes that the Middle School Coalition tried to make (elimination of ability group-ing, creation of a small-house structure and teacher teams, promotion of interdisciplinary instruction) are recommended by middle school reform advocates (Carnegie Council on Adolescent Development, 1989). In ad-dition, many of the inhibitors that we encountered when trying to make these changes were not specific to West, but are typical of conditions at many middle level schools. Although not all of the issues we have raised apply *exclusively* to middle level schools (e.g., tracking and departmen-talization are common in high schools as well), all of them need to be considered by those interested in making changes in these schools.

What do our experiences at West imply for other middle school change efforts? A number of things. Some of these implications, such as the need for open communication among the various leaders within the school and the importance of a guiding theory to unify the purpose and vision of school staff, have already been discussed. The willingness of school lead-ers to be flexible in their enforcement of regulations (e.g., teacher certifi-cation requirements) and daring in their endorsement of new ways of organizing teachers, students, and the school schedule, have been dis-cussed by other researchers involved in middle school reform efforts (Clark, 1992). Other implications, such as the particular importance of in-service training for teachers at middle level schools who try to teach in new and challenging ways (e.g., developing lessons that encompass dif-ferent subjects or teaching to heterogeneously grouped students), need to be considered as well. In addition, teachers at West made it clear to us that time to think and plan is a critical yet lacking commodity in many schools. When the sixth-grade teachers were given release time to plan an interdisciplinary unit together, many commented that the time had been invaluable and had rekindled their enthusiasm.

CONCLUSION

After years of neglect in the educational literature and in discussions of educational reform, schools serving early adolescents have recently come under increasing scrutiny (Carnegie Council on Adolescent Devel-

opment, 1989; Eccles et al., 1993), as evidenced by this special issue of the *Journal of Early Adolescence*. This scrutiny has led to numerous calls for change in middle level schools. Unfortunately, calls for change are often made in the absence of realistic considerations about the factors that influence the *process* of change. This article represents an attempt to fill that gap by reflecting on our own efforts to bring about change in a middle school.

Those who have discussed the process of school change at any level have raised some of the same issues we have addressed. Certainly, developing a clear vision for the direction of change, fostering open communication, promoting a sense of ownership among teachers, and providing opportunities for staff development have been mentioned by several researchers as important facilitators of school change (Accelerated Schools Project, 1993; Edmonds, 1984; Hopfenberg, 1991; Maehr et al., 1992; Muncey & McQuillan, 1993; Weinstein et al., 1991). Similarly, many researchers have warned about such roadblocks to change as dissension among staff members, lack of adequate resources to make some changes, and general bureaucratic inertia (Clark, 1992; Muncey & McQuillan, 1993; Perkins, 1992; Sizer, 1992).

Our purpose has been to discuss some additional factors that are particularly relevant when considering change at the middle school level. As others who have worked in middle level schools can attest (Accelerated Schools Project, 1993; Clark, 1992; Cohen, 1992; Hopfenberg, 1991), there are difficulties encountered in changing middle level schools that are not found in elementary schools. Most of these issues will be true in secondary schools in general, although stereotypical beliefs about early adolescents and mixed teacher certifications within a school are certainly unique to middle level schools. Practices that are more common in middle level schools than elementary schools, such as tracking, departmentalization by subject area, inflexible schedules that divide the day into 45-minute periods, and multiple leaders who may differ in their vision for the school, all affect school change efforts and need to be considered when trying to change middle level schools.

Despite the numerous difficulties encountered when trying to produce meaningful change in middle level schools, we believe reform is desperately needed at this level. Understanding the special issues that must be addressed when considering change at the middle school level will hopefully be of some help in facilitating reform.

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