Change and the Knowledge Base of Educational Administration*

Jane McDonald

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Note: THIS MODULE HAS BEEN PEER-REVIEWED, ACCEPTED, AND SANCTIONED BY THE NATIONAL COUNCIL OF PROFESSORS OF EDUCATIONAL ADMINISTRATION (NCPEA) AS A SCHOLARLY CONTRIBUTION TO THE KNOWLEDGE BASE IN EDUCATIONAL ADMINISTRATION.

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Abstract

This study investigated one school district's transition from a junior high model to a middle school philosophy. Numerous documents were examined and individual interviews and focus group discussions were analyzed to reconstruct the process and strategies used to facilitate the institutionalization of this complex change effort. Participant voices helped weave a rich fabric of events and provided further insights into organizational change. An understanding of change theories, the process of change, and what facilitates and hinders reform are essential components in the knowledge base of educational administration. By providing practical experiences of change, the abstract process of implementing reform can become more concrete for educators who want to significantly alter the outcome of schooling.

Understanding Change: An Essential Component in the Knowledge Base of Educational Administration

For more than two decades educators have been bombarded with pressures and mandates to change schools. Research reports, state requirements, assessment results, and political verbiage have all espoused a critical need for schools to reform. With the recent passage of the No Child Left Behind federal legislation, the reform agenda for education in the United States continues to expand. Many dedicated educators have

*Version 1.1: Dec 20, 2005 7:17 am +0000
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worked hard to accommodate each request for change. While some school districts may have fallen short in their attempts, others have accomplished their goals.

This paper provides an example of a successful large-scale reform effort of one school district's transition from a junior high model to a middle school philosophy. This qualitative study is relevant for learning about deep levels of change, the process and strategies used to implement change, and how distributive leadership, specifically through the interactions of teams, can assist in the process. The voices of selected participants provide readers with rare insight into some of the personal meaning created by individuals who experienced the change. By providing a framework for the process of change and some useful change strategies, current and aspiring educational leaders, policymakers, and students of educational reform can better understand the complexities of second-order change and the intensity of time that is needed to work through the process. An understanding of the complexities of change and what facilitates and hinders school reform is essential knowledge for educational administration. This manuscript provides both a theoretical grounding and practical guidelines for implementing substantial change in organizations.

Related Research

A number of researchers have indicated that implementing change is a more complicated process than is realized by many practitioners in education. In his 1990 book, The Predictable Failure of Education Reform: Can We Change Course Before It's Too Late? Sarason stated that significant educational change is almost impossible to accomplish because schools are intractable. He claims that deep levels of change will not occur until educators change the power relationships in schools and delve into the tacit assumptions, attitudes and beliefs that shape the thinking and practices of schooling. In other words, tangible changes may occur on the surface level, but if the deeper paradigm of values, beliefs, and actions of a school's culture are ignored, the school may look outwardly different, but remains virtually the same.

Levy (1986) defined surface level changes as first order change. These changes are characterized by minor adjustments that do not change the core of a system and, therefore, leave its fundamental ways of working untouched. Examples of first-order change in schools include revisions in scheduling, adjustments in communication patterns, routine curriculum up-dates, emphasis in assessment results, and revisions in policies and procedures. First-order changes are visible and, although frustrating at times, these reform efforts usually do not threaten educators, either personally or collectively.

On the other hand, when organizations alter their fundamental ways of working, the result is known as second order change (Hillary, 1990; Levy, 1986; Walzawick, Weakland, & Fisch, 1974). Second order change transforms an organization's culture by redesigning the established structures, roles, basic beliefs, values, vision, and ways of doing things. These changes are more tacit than tangible. When second order change occurs within organizations, it "penetrates [so] deeply into the genetic code...that nothing special needs to be done to keep the change changed" (Levy, p.7).

Second order change is risky because its failure to penetrate an organization's genetic code may serve to further strengthen the existing organizational design (Cuban, 1988). Heifetz and Linsky (2002) state that substantive change is a complex and challenging task for leaders because strong resistance is usually present. They state:

To lead is to live dangerously because when ...you lead people through difficult change, you challenge what people hold dear—their daily habits, tools, loyalties, and ways of thinking...People push back when you disturb the personal and institutional equilibrium they know. And, people resist in all kinds of creative and unexpected ways that can get you taken out of the game: pushed aside, undermined, or eliminated (p.2).

During change efforts a number of problems arise and need to be solved. Heifetz and Linsky (2002) instruct leaders of the distinction between two types of solutions: technical and adaptive. Technical solutions are those that can be understood and addressed with current, available knowledge. Adaptive solutions are more challenging because the solutions lie outside the current way of operating. Therefore, when addressing issues of first order change, leaders will use a more technical than an adaptive approach to solving problems. Solutions to problems that occur in second order change are adaptive challenges because they "require difficult conversations and demand experimentation and learning" (p.75).

Fullan (2005) agreed that changing school cultures for the better is difficult but not impossible. He suggested that one way to increase the chances of system transformation and the sustainability of change

efforts is to select effective leaders and focus all educators on student achievement as a tool for ongoing improvement. Change naturally produces questions and disagreements. Because reform involves many people in many different positions within the usual bureaucracy of schools, conflict is a predictable by-product of complex educational change. Although some commitments are non-negotiable, "successful districts are collaborative, but they are not always congenial and consensual" (p. 72).

Duffy (2004) suggested that leading system change is challenging because the path of complex change is not a straight line. Therefore, the old concept of managing change is obsolete. Today, "change needs to be navigated, not managed" (p. 22). Duffey also expressed the importance of creating a network of teams to increase participation and accountability and to help leaders facilitate change. However, he advised against abdicating complete control to teams because when bottom-up actions are thwarted, top leadership needs to intervene with its authority to keep the process moving along.

When individuals are involved in either first or second order change, they learn best from peers, if there are opportunities for purposeful exchange (Wheatley 1992). Giving information a "public voice" and reflecting on varying perspectives serves to "amplify" the learning (p. 115). Through dialogue and its collective reflection, personal meaning evolves into shared-meaning and then into collective activity and finally to organizational renewal where generative learning keeps the process evolving.

According to Schwahn and Spady (1998) significant change happen in organizations if five overlapping principles are present. These principles include: (1) a compelling reason to change, (2) ownership in the change effort, (3) leaders that model they are serious about the change, (4) a concrete picture of what the change will look like for them personally, and (5) organizational support for the change.

To assist with the implementation of these highly complex principles, leaders need to identify and develop other leaders who are capable of "reculturing and restructuring" the educational landscape (Fullan, 2005, p. 10). Argyris (1990) warned of the defensiveness in organizations and how defensive behaviors are hindrances to organizational change. He suggested teaching leaders to be open to learning from criticism so they can model that behavior with others.

Ultimately, leadership is a key to the preparation, implementation, and sustainability of significant change. It takes powerful strategies for leaders to build a learning environment in which educators are willing to question their values and beliefs and alter them. How leaders build a trusting environment in which these behaviors are present is illustrated in this article through the comprehensive education and other support provided to participants in preparation for the change.

Methodology

This study examined the history of how one district changed from a junior high model to a middle school philosophy for educating young adolescents in a district of 18,000 students. An analysis of the transition highlights the process of change and the organizational strategies that fostered the evolution of middle schools in this district. An historical account is important in educational research because "organizations cannot be understood apart from their history (Miles & Randolph, 1980, p. 72). Kimberly and Miles (1980) remind researchers that:

In every organization, there is a rich fabric of norms, values, and myths that help to shape and determine the behavior of the organization. Focusing on the questions of where those structures came from and how they developed has implications for an organization's present and future structure and performance. (p.4).

Three major questions guided the inquiry: (1) What change process emerges from the district's journey through second-order change? (2) What strategies facilitate and hinder the process of change? (3) What insights into organizational change can be learned from the perspectives of individuals who participated in the transition from junior high schools to a middle school model?

The school district selected for this study had successfully implemented and institutionalized the middle school philosophy in schools across the district. Numerous documents were examined and individual interviews and focus group discussions were analyzed to reconstruct the process and strategies used during this district's transformation to middle schools. Semi-structured interviews allowed us to probe deeper into participant responses if additional data were needed. By including the voices of participants, we were able to weave a rich, historical fabric of past events and gain insight into what facilitates and hinders the process of comprehensive school reform.

After data were collected and transcribed, each interview was coded by research questions. Responses that were frequently and consistently evident in the data were identified as themes. To ensure confidentiality, the identity of participants and the district in which they worked remains anonymous (Creswell, 1994, p. 148).

Historical Context for Change

In 1909-1910, the junior high school emerged in America to provide schooling for adolescents in grades seven through nine. The "junior" high school was designed as a downward extension of high schools rather than a continuation of the academic and social foundations developed by students in the elementary grades 1-6. School structures were similar to those found in high schools: academic departments, specialized electives, and rigid grouping and promotion standards for students. Course instruction was closely linked with students' future educational and occupational goals. Teachers individually taught in classrooms and students moved from class to class throughout the school day. For fifty years the junior high school model dominated the school experiences of young adolescents in the United States. "By 1960, junior high schools had increased to the point where about four of every five high school graduates in the United States had attended a junior high school" (Alexander & McEwin, 1989, p.1). Today, the number of junior highs remains plentiful.

In 1961, the Association for Supervision and Curriculum Development (ASCD) joined the growing number of educators who opposed the organizational structure, practices, and philosophy of junior high schools and supported educational experiences that were developmentally responsive to the needs of 10 to 15 year old learners. Advocates of the developmental approach proposed the establishment of schools in the middle, with purposes and structures distinctively unique from those found in high schools. The proposed middle school model was designed around interdisciplinary teams of teachers who collaboratively instruct a shared group of students throughout the day. The new model also included a flexible grouping pattern for students and a variety of exploratory electives (George, et al., 1992).

Over the next three decades, the number of middle schools rapidly increased across the nation. Some schools attempted the change to middle schools but soon retreated to familiar practices and abandoned the idea of reform altogether. Some proclaimed they had changed but, in reality, were altered only on the surface and the junior high philosophy remained embedded within the school's culture. Many other schools were successful in their attempts at reform. This article examines an example of the latter.

Local Context for Change

Within the national context of rapid middle school reform, the district under study hired a superintendent from Ohio, one of the birthplaces of the middle school movement. His experience served as an incentive to study the middle school concept as a possibility for school reform in the district. The school board established an exploratory committee to provide a comprehensive report about middle schools and a proposed plan for implementing the model in the district. After reading the report and implementation plan, the board approved the educational design and value of the middle school for adolescents but decided to delay its implementation.

Finally, after a 7-year delay and three superintendents later, the board approved a two-phase implementation plan. Phase One involved moving all of the district's seventh and eighth graders into schools designated for middle schools and expanding the grade configuration of all high schools to grades 9-12. During Phase Two, the sixth graders would be added to the middle school. Because student enrollment levels in the district had declined from 33,000 to 18,000 students, there was space available to establish middle schools without closing other schools or changing school boundaries. The board designated the next 2 years as a preparation time for the transition and designated the Director of Staff Development as the Middle School Coordinator. Concrete implementation plans began the following summer.

For some parents the change to a middle school structure was welcomed. There were elevated rates of suspensions in the existing junior high schools, and parents increasingly were transferring their children into private schools in the district. For some educators, the addition of ninth graders to the high schools was a solution to a growing athletic dilemma. One study participant explained:

We were scared to death about the athletic program in the high school. High school enrollments were getting so small. You had a small pool of talent and you also had the threat of being dropped down to

Double A. That wasn't discussed publicly, but it was discussed privately. And, if you get the ninth grade into the high school, you get a bigger pool [of talent].

Preparation for Implementation

The two-year preparation period prior to opening the district's middle schools was filled with numerous activities, including the (1) resurrection of the approved middle school design, (2) selection of staff, (3) additional education requirements for participants, (4) visitations to neighboring middle schools, (5) community education, and (6) committee work. These activities were required in addition to each individual's existing responsibilities.

Design

The original philosophical design, approved by the school board seven years earlier, was resurrected for implementation. An examination of the document showed that 9 foundational components were in the middle school design. These components were: (1) teams of teachers working with small groups of students; (2) all teachers teaching reading to all students; (3) exploratory courses in the fine and practical arts; (4) a student advisory program conducted daily by team teachers; (5) instructional time divided into big blocks for flexibility in scheduling; (6) teams of teachers sharing a daily period for instructional planning; (7) interdisciplinary curriculum and teaching; (8) provisions for safety and security; and (9) replacement of an interscholastic sports program with intramural sports.

Staffing

All teachers who wanted to transfer could make a request. Ninth grade teachers were given the option of moving with their students to the high schools. All ninth grade teachers did move to the high school and 75 percent received their choice of assignments. Study participants commented on the impact of these transfers:

We lost a lot of those who really didn't want to be there in the first place. And, I think that was very significant...We asked for elementary teachers who would like to be involved and we were able to get some elementary people to come in as seventh and eighth grade teachers to help us in that area.

Some educators who elected to be involved with the middle schools remembered their apprehension because the transition would demand a change in their ways of thinking and working. Study participants recalled some of their initial thoughts:

...in the beginning it was something new and we were not sure if we could really handle this revolutionary change because [in junior high] we were isolated according to departments. Now we would have to learn to work with three more people in groups. I had fear of the unknown after doing something a certain way for so many years. And, I was really uneasy about having to teach reading.

In junior high you know exactly what you are going to do at every moment. I mean, everybody left at a certain time. The ball rang. Then I had to get that out of my head and so it's like, I had to be retrained.

It was a mind set for teachers. Changing from junior high into a curriculum of a middle school. It wasn't something that I was looking forward to at the beginning, and then we had some training to let us know about the curriculum itself as to why we needed to switch over.

The responsibilities and expectations for middle administrators also would be different from the junior high model. Only principals and assistant principals who embraced the middle school philosophy were selected. A high priority was placed on those individuals who were collaborative with their peers, demonstrated the skill of listening, and felt comfortable working closely with and learning from teachers and parents. Study participants commented on the selection of middle school administrators:

The leadership in the building is the most important thing. If any one of the principals had been pro-secondary rather than middle school, I don't think the school would look the same. If you were prejudiced against middle school and brought that image back to your faculty, then you didn't last.

Additional Education

The district hired 3 consultants who had worked in school districts that recently had adopted the middle school concepts. Throughout the two-year preparation period, the consultants conducted extensive workshops for teachers and administrators. The first workshop was in September and focused on interdisciplinary teams. Another two-day workshop was conducted the following February. This session had an extensive agenda. Topics included the nature of the middle school learner, how to run a team meeting, how to plan for interdisciplinary instruction, how to alter instructional techniques, the role of the team in managing student

behavior, and the development of a strategic plan for opening the middle schools. One of the consultants remembered the reaction of the teachers during the workshops:

I saw all kinds of facial expressions. When we were talking about how the middle school child is, I saw some people smiling, like yeah, that's what I see [among kids]. And some others that either were skeptics or they were just simply dealing with their own anxieties and uncertainties, and a few gave the impression that 'this too shall pass and I won't be involved.' But, what I also sensed was a willingness to listen. I saw the majority of the people at least willing to entertain that there may be something to this.

In the year prior to the opening of middle schools, teachers were required to enroll in district-funded college courses on middle school curriculum and instruction, diagnostic reading, and reading in the content area. The learning requirement, coupled with the consultants' educational sessions were shared by everyone and served to imprint a common vision of the middle school concept. One of the participants described these requirements:

I think that one of the most difficult things that we did was one of the best things we did. That was to say that everybody was a teacher of reading. That's the only time that the school system actually mandated that teachers complete six hours work of reading courses. I think that helped the overall program. I know some people who wanted to be in the middle school were not happy with that. I think that [taking reading courses] was a plus in making the transition.

School-Site Visits

Teachers and administrators visited middle schools in their state and elsewhere during the year prior to opening the middle schools. They spent several days at different sites, talking with middle school teachers and principals. They observed the operation of the schools, classroom routines, and middle school students in the context of middle school environments. According to the study participants, these visits resulted in a clearer understanding of the middle school concept in operation:

I think there was uneasiness at first about being a junior high teacher and going to a middle school. But when we got there, we talked to students and teachers and saw what a typical day was like. I mean, I think those experiences helped erase some of those feelings.

I don't know how many visits we made to the schools. Some of it was very exciting in that we saw some things going on in middle school that gave us a concept that we didn't have before. I was geared to a junior high concept.

Community Education

A strategic public relations effort, to educate the parents and community about the transition to middle school, was planned and implemented. Study participants recalled the format and parent concerns in the following ways:

We did presentations in the community...to anybody who would have us. That was interesting. We did some presentations in churches, civic groups, flower garden clubs. I mean, it was the strangest mixture you've ever seen. We did presentations to hundreds and we did presentations to nine or ten.

I think it served to alleviate or displace some of the fears and anxieties that all of us had about what was going to transpire—teachers and parents. Especially in the area of transportation. And, especially what was going to happen in the locker room. Parents were very, very concerned about physical education. Whether the kids had to strip and go take a shower and this sort of thing. It dispelled some of that.

Parents didn't have too many questions about curriculum. They'd have questions about instructional needs. That was right interesting. Parents would address a concern—my child is identified gifted in language arts, but is not doing well in math—will the middle school accommodate instructional needs? That was a "biggee" with parents.

Committee Work

During the 2-year preparation year, the teachers and administrators formed committees with different responsibilities. Participation in these groups was voluntary. One committee designed the new student advisory program, and one was responsible for a system to report student progress to parents. Other teachers divided into nine-week writing teams in each subject area, and another designed the interdisciplinary curriculum. Study participant had this to say:

But I think one thing happened that really made a difference. Teachers on committees had to come back and sell their ideas to the rest of us. Now and then, these teachers had more influence than the principal did because teachers would listen to them because they were involved and could say what was going on.

The involvement of the teacher and administrative staff in the process was critical. We were all in this thing together. The administration had to change. We had to change. Everybody had to change.

Another participant gave a perspective on the impact of the preparation activities on the future middle school teachers. It seemed that the blending of "top-down" and "bottom-up" involvement created an emerging sense of shared ownership as the district transitioned into the middle school model.

We were allowed to go out and visit and see things in action. We had people come in to talk to us about it. We read about middle schools and shared about them and I think that by people at the top not just making all the decisions, we were more a part of the decision making and not just the principals. I think that the teacher involvement was important at that time because there was an emphasis from the central administration that we understood what the change was going to be. They wanted us to study it and understand it before we went into middle schools. They allowed us to develop the program and set the structure that we felt would function in the school.

Final Preparations

In the summer, two months before the opening of middle schools in the district, the consultants conducted a two-day workshop to prepare teachers for that fast-approaching and important fall event. Two workshop topics centered on the immediate, practical concerns of teachers and administrators: getting ready for the first day of school and planning the orientations for parents. Other topics, such as using different instructional strategies in the middle school and organizing a team, were the extensions of earlier workshop sessions.

As September approached, the spotlight was on the middle schools. One study participant spoke about the mixed feelings expressed among teachers across the entire district about the impending openings of the middle schools and their operational success:

People's feelings were half and half. Half were confident. They believed the middle school would work and the other half were skeptical and wanted to wait and see what was going to happen.

Opening the Middle School with Grades 7 and 8

When the first students walked across the lawns and stepped off the buses on that bright September morning, the district's middle school concept became a reality. Study participants reported there was a general sense of excitement among the teachers, administration, support staffs, parents, and students at the middle schools. At a school board meeting in early November, the Middle School Coordinator delivered the first official report on the conditions of middle schools in the district. He reported positive results of the transition, with teachers characterized as enjoying their new settings and school climates described as excellent. The Coordinator expressed particular pride that "no other school system had initiated the middle school concept with a developmental reading program, a home-based advisory program, and an interdisciplinary instructional program in place from its inception."

Everyone tried to remain flexible in adjusting to the new middle school learning environment. The two-year preparation time prior to implementation was paying off. Soon the first year was over, without any instructional glitches or discipline challenges. At the end of the first year the Middle School Coordinator again reported to the school board that the district was satisfied with the progress. He acknowledged the hard work of teachers and attributed the success of the transition to the reading program and the flexible blocks of time where teachers were able to help with the social and emotional development of children as well as with their academic needs.

Teachers reported their perceptions of the first year:

It wasn't until you got working in the middle school that you realized what that meant and how to do it. Even though we weren't told, the worst pressure that first year was thinking we had to do everything right. There was so much thrown at us at once and we were professionals and wanted to do it right. We put the pressure on ourselves...And, I remember that last day of the first year in middle school, turning everything in, getting that last paycheck, going home, getting in bed, and crying, because of the pressure. It finally, the relief, it was finally over and just all that pressure of doing everything we wanted to do perfectly.

In the middle school that first year, it was like all the problems stopped. I mean, in the junior high we

were dealing with discipline situations where students were paralleling high school. Then, middle schools opened and like overnight the problems stopped. We had had a monster and the monster was gone.

I think immediately parents felt that kids were in a safer environment. With the ninth graders out, there were fewer problems associated with that age group, such as smoking, aggressive behavior, drugs, and those kinds of things. I think parents were very happy about what was going on in middle schools. And, parents also saw a change in teachers' attitudes. There was a big increase in parent contact and teachers had time during the day to call parents. Working as a team with parents made the parents more cooperative with us and us more cooperative with them. I think parents were more involved in the middle school than they were in the junior high school.

Administrators commented too:

The role of the principal changed when we implemented middle schools. We weren't dictating everything. We were doing a lot of listening to the teachers and learning about what they needed and using their suggestions. We went from pure management to having to get involved in academics again.

Preparation for the Sixth Graders

Educational preparations for the sixth grade teachers paralleled that for the seventh and eighth grade teachers. The sixth grade teachers enrolled in the same college courses on the characteristics of middle school students, had the same consultant-led workshops, worked on committees to write an interdisciplinary curriculum, and visited the middle schools in the district and in the state. The district also replicated its public relations efforts. Each middle school held an orientation for the students and their families. Families were included on the newsletter mailing list to increase awareness of the programs and practices in the middle schools. Two of the sixth grade teachers expressed some general thoughts about going to the middle school:

There was some uneasiness, some not knowing what was going to happen, but it was nothing like those [seventh and eighth grade] teachers. And, we had a lot of excitement.

My biggest concern was the team...You've got to work with somebody. That scared me. What if I worked with somebody that I can't work with? That's what we [sixth grade teachers] talked a lot about.

After one year of intense preparation, the sixth grade teachers and students successfully transitioned into the existing middle schools. The sixth, seventh, and eighth grade configuration that was envisioned in the original middle school plan was finally completed. Study participants remembered their perceptions of the year that sixth grade teachers and students joined the middle schools:

You know, teaching two subjects as opposed to six was heaven.

When the sixth grade teachers moved up, they brought their ideas, but by the same token, the people in these buildings took them under their arms and made them middle school people. No longer in self-contained classroom. We were all part of a team.

We were very successful [in the middle school] because I remember parents were making decisions that they would take their sixth graders back into the public school and out of private schools.

By having the seventh and eighth grades already operating in the school, I'm telling you now; it really softened the impact of getting the sixth grade involved. A two-year grace period to get the seventh and eighth grades running smoothly made all the difference in the attitudes and support level of the parents of the sixth graders too.

The Follow-up

After the sixth graders were integrated into the middle schools, the district appointed a Middle School Evaluation Task Force to assess the results of the full change effort. With three years of implementation completed, all middle school, parents, teachers, and students were surveyed about the effectiveness of academics, discipline, communication, orientation, rules, and school climate. The survey results were impressively positive. However, since then, no further evaluative or progress reports regarding the middle schools were ever made to the school board and middle schools were no longer discussed by the school board as a policy issue. Soon after the survey results were publicized, the district eliminated the position of Middle School Coordinator. As the primary responsibility for middle schools shifted from the district office to school sites, teachers and administrators at each middle school began to guide the on-going evolution of the middle school concepts within their school.

To celebrate the progress of middle schools and to share their learning, the middle school principals invited ten teachers from each middle school to organize a district-wide conference for the opening of the fourth year of the middle schools. The conference included cross-school teams of teachers leading workshops and a luncheon with a keynote speaker. These workshops were a testimony to the growing congruency between the teachers' and the district's understandings of the middle school constructs and concepts. As one observer noted, "Our teachers had become leaders, and outside consultants were no longer needed."

The following year, the district's middle schools successfully reached their five-year, milestone. One of the participants gave reasons for the success:

...we had stability in terms of principal leadership and central office leadership. We had agreement and commitment to the vision. We had focus and support for continuing the journey, from the superintendent and all of the district office administrators. For five straight years we had stability.

During the sixth year of implementation, the stability of personnel changed. A number of the teachers and administrators, including the superintendent, retired. When others were hired to replace them, the newcomers were unfamiliar with the core structures, purpose, values, and vision of the district's middle schools. For the newcomer, the core structures were easily learned during the daily, on-the-job interactions; yet, the thinking that grounded the processes remained unexplained. Without a designated person to coordinate their indoctrination into the district's middle school culture, the responsibility for district continuity was left to each school. At approximately the same time as the retirements occurred, the new superintendent and school board members refocused their educational initiatives toward a national agenda to reform curriculum. With the spotlight off the middle schools, some participants wondered if the district would gradually slip back to the junior high model for educating adolescents. To the contrary, because second-order change had altered the deep beliefs about schooling adolescents, the middle school mindset was solidly institutionalized within the district's culture. And, today, the district's middle school operations and philosophy still have the strong support and pride of parents, teachers, and students.

In the next section of this article we will synthesize the process that occurred during this change effort and identify major strategies that facilitated and hindered the institutionalization of middle schools in this district. In the final section we present insights into organizational change that emerged from the perspectives given by participants who were personally involved in the transition.

Results of the Study

Second-Order Change

This district's transition from a junior high philosophy to a middle school model for early adolescent learning is an example of second-order change. As suggested by Levy (1986) and Walzawick, Weakland, and Fisch (1974), the change fostered disequilibrium and ambiguity among participants and led to the development of new concepts and behaviors. The process of deep organizational change caused a reordering of meaning on the district, team, and personal levels, and schooling for adolescents was transformed. Because the new model of schooling was deeply embedded in the organization's memory, the middle school survived the changes in district leadership and the passage of time.

A close examination of the changes reveals dramatic shifts in the district's core structures, purpose, and values of adolescent learning. A number of examples illustrate this point. An interdisciplinary team structure replaced curricular departments. Teams of teachers shared a daily planning time and determined the daily schedule for their students. Families and school personnel communicated directly, frequently, and in a number of ways, rather than solely through report cards. The purpose changed from a subject-centered junior high with curriculum and practices that mirrored the high school to a student-centered middle school that responded appropriately to the distinct, developmental needs of early adolescents. Interdisciplinary teams of teachers and students were valued and used as the main and essential mechanism for organizing the middle school and supporting the continuous improvement of students and educators in the school. In terms of personal change, teachers' sense of professionalism strengthened and they increased their willingness to be introspective about themselves and their relationship to the school organization.

What Process of Change Emerged?

The district's process of change evolved through three cycles of change: adoption, transformation, and institutionalization. Although the district began to move into the fourth cycle of renewal, it was brief and

soon abandoned.

Adoption. During this cycle the district adopted the middle school concepts. The cycle was distinguished by its focus on the preparation for change: the accumulation and clarification of information about middle schools and the practical applications of this model into district schools. The new purpose of the middle schools was clarified for teachers, administrators, parents, and community. Also, numerous activities helped to imprint the concepts into a shared meaning of middle schools.

Transformation. This cycle was distinguished by the experimentation with new structures, values, and purposes (core processes) that resulted in the integration of individual and collective learning. Teachers began working in teams, moved away from junior high practices, and began to alter their personal meaning of early adolescent schooling.

Institutionalization. During this cycle new learning was embedded into the mindsets and routine actions of participants. Teachers increased their mastery in teaching strategies, team leadership, and applications of the core purpose. Also, the junior high philosophy and practices were replaced with a middle school paradigm and the new practices became routine. In other words, the change "penetrated [so] deeply into the genetic code...that nothing special need[ed] to be done to keep the change changed" (Levy, 1986, p. 7).

Renewal. When this cycle occurs in a change process, it is distinguished by generative learning. Although the renewal cycle began within the district, it was abandoned. The district-wide middle school conference that was planned and conducted by cross-school interdisciplinary teams at the beginning of the fourth year of implementation was an effective example of generative learning. However, the event was not repeated. When the middle school director's position was eliminated from the district's budget, no one was appointed to coordinate the on-going learning experiences of middle school teachers and principals, monitor the on-going progress made by schools in the middle, or facilitate the indoctrination of new members into the middle school philosophy. Neither was there anyone to plan generative learning experiences to keep the changes evolving. Therefore, the district did not use the renewal process to stimulate generative learning.

What Strategies Facilitated and Hindered the Process of Change?

Facilitated Change. Two particularly helpful strategies for facilitating change were the (1) adoption of a philosophy and prescriptive model for middle schools and (2) site visits to middle schools in action. These strategies provided participants with a compelling reason to change andconcrete ideas and a clear and visible representation of what the change would look like and the participants' personal responsibilities within that context (Schwahn & Spady, 1998).

Other strategies that facilitated the district's change from a junior high to a middle school model can be categorized into four general areas: acquisition of knowledge, use of teams, time to prepare, and district support and trust of school personnel. Specific strategies that fall within these categories are listed here:

Acquisition of Knowledge

- extensive educational workshops provided for teachers and administrators on practical topics that related to middle schooling
- advice, assistance, and education from consultants who had experienced the process
- site visits to neighboring middle schools
- high involvement of teachers and administrators
- community education
- an initial assessment of the middle school's effectiveness after three years.

Use of Teams

- establishment and use of teams for workgroups, leadership, interdisciplinary planners, student discipline decisions, and networks for understanding

- committee work.

Time to Prepare

- 2-year preparation time for 7th and 8th grade teachers
- 1-year preparation time for 6th grade teachers.

District Support and Trust

- district office support for funding of travel, materials, consultants, substitute teachers and coursework
- commitment by district to the middle school philosophy
- care in selecting teachers and administrators for the middle school
- shift of the numerous responsibilities for change from the district level to the middle school teams and administrators
- confidence and trust in the ability of teachers to learn, make competent decisions, give advice, and implement the middle school model.

Hindered Change. Once the implementation plan for middle schools was approved by the school board, the district was flexible, responsive, and supportive throughout the preparation and implementation of the plan. Although strong resistance is usually present during substantive change (Heifetz & Linsky, 2002), the resistance was lessened because the district allowed junior high teachers a choice of teaching at the middle school level or not. Therefore, hindrances during the adoption, transformation, and institutionalization cycles were few or non-existence. However, a follow-up plan for the implementation of middle schools did not exist. After middle schools were established and institutionalized in the district, it was the lack of strategies that hindered the district's movement into the renewal/regenerative cycle of change. These "missing strategies" are provided below:

- lack of a planned process for reflection on what was being learned and why
- lack of on-going assessments of middle schools after the initial assessment that followed the first 3 years of implementation
- dismissal of the Middle School Director's position without delegating someone else the responsibility to coordinate and facilitate the continued development of middle school practices and the learning of teachers and administrators
- no system in place to monitor improvement; determine the needs of teachers, administrators, and students; and/or highlight best practices across the district's middle schools
- no provisions for the coordinated induction of new personnel into the middle schools to learn the reasons behind the structures and practices
- a shift of school board interests and district resources from a focus on middle schools to a focus on curriculum reform. Maintaining an interest in both middle schools and curriculum reform would have been more helpful than taking an either/or approach.

Insights into Organizational Change

A number of insights can be gleaned from this district's journey through second-order change. Two are highlighted and discussed here.

Insight #1. Appropriately educated teams can be an effective mechanism for change. The findings of this study indicate that teams were the major organizing structure that ensured the successful transition to middle schools in the district. Team members did not agree on everything, but they developed similar philosophies about middle schools and a common purpose. Members of teams supported each other's personal transition from disequalibrium to understanding, and brought new knowledge and purposeful exchanges into the learning context. The networking within and among teams provided a synergy that fostered and facilitated change throughout the district and increased the high personal involvement of teachers and administrators in the change process. Teams were the major vehicles through which teachers learned from their peers and, through purposeful dialogue, developed shared meaning about school-aged adolescents and their instructional and emotional needs. Wheatley (1992) affirms that the reconstruction of meaning is essential for change because meaning is the "strange attractor" toward which al action is directed.

Insight #2. Change occurs as new meaning is constructed from new knowledge, engendered by the context in which the change occurs. Change is not about instituting a new program. A new program may be the outcome of change, but substantive change is about the evolution of altered mental models that frame and reframe thinking. New knowledge and new experiences are prerequisites to the construction of new meaning and the reframing of one's thinking. To change schools, the opportunity to learn must be available to participants. The context in which learning takes place is significant because as the context shifts, new knowledge will emerge and new meaning will be constructed.

In this district's change from junior highs to middle schools, many opportunities to learn and acquire knowledge were available to participants: workshops, site visits, university courses, and team discussions, to name a few. As the district shifted from junior high schools to a middle school model, the context was altered. As the altered context combined with the new knowledge about middle schools, new meaning was constructed and the mental models of schooling for adolescents were altered. Within this altered context, altered meaning and altered mental models produced new ways of thinking, acting, and working within the district, demonstrating the results of successful second-order change. These changes were consistent with the theories of second-order change as espoused by Hillary, 1990; Levy, 1986; Walzawick, Weakland, & Fisch, 1974.

Summary

Schools are complex systems and changing them is a complex process, with solutions that, according to Heifetz and Linsky (2002), are both technical and adaptive. An imposed agenda by local, state, or national policymakers may result in some minor adjustments, but little will change for school-aged youth unless, as Sarason (1990) suggests, the deeper levels of school cultures are penetrated and examined.

The results of this study suggest that schools take at least five years to adapt, transform, and institutionalize a major change effort. Substantive change requires time to educate participants about what is being changed and time to implement strategies that facilitate and sustain change efforts. Shorter timelines that are expected by the general public, school board members, and other policy makers are counterproductive to sustaining change. Although this study examined changes in middle schools, the process of deep change at other school levels, most likely, will follow a similar process and use similar strategies, whether initiated at the district or school levels. Comprehending change theories and understanding how these theories guide the implementation of substantial change are essential components in the knowledge base for educational administration.

Failure to change schools is often attributed to the incompetence of educators to alter the outcomes of schooling. We suggest that the lack of deep levels of school reform is actually the failure of policymakers, school board members, and educational leaders to fully understand the different levels of change, recognize the cycles of the change process, and comprehend the strategies needed to facilitate and sustain second-order change.

Data from this study clearly confirm that the demands and expectations for current and future educational leaders expand far beyond the knowledge and skills needed for instructional leadership alone. In this regard, the assertion by Fullan (2002) is appropriately stated: "The role of the principal as instructional leader is too narrow a concept to carry the weight of the kinds of reforms that will create the schools that we need for the future" (p.17).

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