

Middle School Concept Helps High-Poverty Schools Become High-Performing Schools

Middle School Journal, Volume 36, Number 1, September 2004

Ali Callicoatte Picucci, Amanda Brownson, Rahel Kahlert, & Andrew Sobel



The elements of the middle school concept are widely practiced, but are they equally effective in all schools? The results of a study conducted by the Charles A. Dana Center at the University of Texas at Austin for the U.S. Department of Education during the 2001-02 school year showed that elements of the middle school concept can lead to improved student performance, even in high-poverty schools. This article describes common elements of the middle school concept found across the study schools and discusses how the schools supported implementation of these elements.

The middle school concept is based on developmentally and academically appropriate guidelines for children during the transition between elementary school and high school.

While *Turning Points* has provided a foundation for the middle school model, its concepts overlap with a larger body of work on middle grades education. Distilling this larger corpus into common themes, the research on middle schools suggests that successful middle schools share a belief in excellence and equity for all; a challenging curriculum with high expectations and the provision of expert instructional methods that prepare all students to achieve at higher levels; a collaborative school environment that shares a developmentally and intellectually appropriate purpose; and a partnership involving parents and the larger community in supporting student learning (Charles A. Dana Center, 1999; Geiser & Berman, 2000; Jackson & Davis, 2000; Mayer, Mullens, & Moore, 2001; National Middle School Association, 2001; Southern Regional Education Board, 1999).

While there is little disagreement about the value of these elements of the middle school concept, there is concern about the efficacy of the middle school concept in practice. It is the position of some that it is not the concept that is suspect but rather the implementation of the concept that is at issue. Dickinson and Butler (2001) suggested six factors that contribute to the arrested development of middle schools. These factors include incremental implementation of the model, lack of teacher education programs and licensure that focus on the middle school level, lack of attention to curriculum, failure of organizations to fully realize leadership for the middle level, absence of research to sustain the middle school concept, and an overall misunderstanding of the original concept. These concerns suggest that if the middle school concept is to be effectively established in middle level schools, the larger context surrounding middle grades education needs to be understood.

While Dickinson and Butler (2001) raised several important issues, this article addresses only the incremental implementation of the model and the attention to curriculum. It focuses on examples of high-performing, high-poverty middle schools that have successfully implemented elements of the middle school concept with careful attention to curriculum. The study team at the Charles A. Dana Center selected and visited seven high-performing, high-poverty turnaround middle schools across the nation to understand how they were able to improve student performance.



Seven public, open enrollment schools were selected for participation in this study based on student performance in mathematics and reading on state-administered standardized tests. The schools selected had a typical middle grades configuration and had a strong growth rate in reading and mathematics performance for at least the three-year period between 1997-98 and 1999-2000. The schools also had at least 50% of the student population participating in the free or reduced-price lunch program.

ELEMENTS OF THE MIDDLE SCHOOL CONCEPT FOUND ACROSS SITES

The schools in this study demonstrated several concepts from the *Turning Points* model. Like that model, they shared a common focus on excellence and equity, resulting in high expectations for all students. Schools implemented thoughtful school structures which emphasized smaller learning communities. Additionally, the schools relied on a staff that understood the developmental needs of this age group and invested significant time in attending to individual students.

Driven by a common purpose

Research suggests that students perform better in schools that have high academic expectations (Bryk, Lee, & Holland, 1993; Chubb & Moe, 1990). The Southern Regional Education Board has come to similar conclusions in their examinations of middle schools (1998; 1999). One of the key premises of the Improving America's Schools Act (1994) is that high-poverty schools will generate greater student achievement if they are held to a clear set of challenging standards that are equivalent to the standards expected of all other children in the state. This finding has been supported by the research of the Consortium for Policy Research in Education (Massell, 1998).

Consistent with this research, staff at the seven schools in this study hold high expectations for their students and believe that all students can learn and deserve to learn. Holding high expectations is a characteristic they recognize and view as important to their success. As a part of this focus, adults in these schools accept responsibility for student learning and set high expectations for themselves and their students.

For example, the staff at Rockcastle County Middle School in Mount Vernon, Kentucky, value setting and maintaining high expectations. A staff member explained how "not accepting failure from our students, having high expectations, and being able to vocalize those expectations to our students, ... I would credit as one of the major things [that improved student performance]." There is the expectation that students will do whatever it takes to succeed and that staff members will provide whatever supports are necessary to help them succeed.

Equity is an important part of the common purpose in these schools. These schools make sure that students from low-income backgrounds and minority students receive the same standard of education as other students. A student's background and prior academic performance do not pass as reasons to lower expectations. The principal at Memorial Middle School in Eagle Pass, Texas, shared the way her school avoids the attitudes that could lead them to accept less from students:



One of the first [changes] was high expectations. Don't come and tell me that this is a poor Mexican child and he comes from the barrio and everything. No, no, no. I don't want you to come and tell me ... that we have absolutely no jurisdiction over [a child] while he's at home. When he crosses that street and he gets in here—what are we doing about that child?

At these schools, equity means attention to all students. Like all other students, special needs students, such as those receiving special education services or English as a Second Language (ESL) services, are expected to meet high expectations. At Tonasket Middle School in Tonasket, Washington, for example, the staff makes an effort to include students receiving special education services in mainstream classes and hold them to the same state standards other students are held to. At Hambrick Middle School in Aldine, Texas, ESL teachers have moved away from the suggested state curriculum because they feel that it is not challenging. Other schools, like Inman Middle School in Atlanta, Georgia, focus on providing all students with high-level material by placing more students in gifted and talented classes and by teaching Algebra I in the eighth grade. Staff at these schools understand that equity is not a value that is applied only when it is easy or convenient. It is a value that affects their daily decision making.

Thoughtful school structures

How schools organize time and space matters. Staff at the study schools carefully think through and plan arrangements that make the most sense for their unique settings. While only one of the seven schools implements a specific middle school model, *Turning Points: Preparing American Youth for the 21st Century* (Carnegie Council on Adolescent Development, 1989), all study schools use structures that reflect elements of the middle school concept. All study schools implement most of the following school structures: localized student teams, common planning time for teachers, and block scheduling.

Student teams. Middle school literature supports smaller school arrangements to increase the attention given to individual students (Jackson & Davis, 2000; National Middle School Association, 2001; Southern Regional Education Board, 1998). Six of the seven schools implement student teams. Staff at the study schools note that the team concept helps the schools seem smaller and more intimate, especially in large schools. By creating teams, staff have daily interactions with a subset of the student population, making the middle school experience less intimidating and creating a stronger sense of belonging. Student teams also interact with the same group of teachers, helping to develop a stronger team identity. Teachers benefit from the smaller arrangement because they have more opportunity to develop a deeper understanding of the students' knowledge and abilities. A teacher at Memorial Junior High School explains how this benefits the students:

We see a different side of students. I may have someone who's not comfortable with science and I cannot get that child to perform at all. [Team teachers] sit down and I'll find out that [the student is] awesome in [another subject area]. It's usually, if they're not good in science, it's the language arts where they excel. And they'll show me examples and I'll think, "Oh, this child can write?" I didn't even know they could write. Because they won't for me but they will for their language arts [teacher]. So you get to see different sides of the students.



By clustering teams within the building, these schools are also able to reduce transition times. For example, Pocomoke Middle School in Pocomoke City, Maryland, locates grade level teams within the same areas so that students do not have to travel far to change classes. Several schools eliminate the use of bells so that students are not all dismissed from classes at the same time. These strategies foster a safe and peaceful school climate.

Common planning time for teachers. Research by Lein, Johnson, and Ragland (1997) found that the staff of successful, high-poverty elementary schools spent a considerable amount of time collaborating around instructional issues. Similarly, Pointek and Dwyer (1998) suggested that teachers in successful schools were continuously working together to improve learning opportunities for students. A study of the Michigan Middle School Initiative noted that student achievement in reading and mathematics improved in schools when teachers had weekly planning time together (Jackson & Davis, 2000).

All study schools value common planning time and arrange teachers' schedules to accommodate common planning time. Staff at the study schools use common planning time to discuss curricular issues, developmental issues, and instructional practices. A teacher at JFK Middle School in Utica, New York, explained, "You're on the same page and you just feel like ... you're all part of the same team trying to do the same thing."

Teachers at these schools use common planning time to solve daily problems and share their professional knowledge. For example, if a whole class has difficulty with a particular concept, a teacher can address this issue with other team teachers to come up with a new approach. Often, teachers use this time to plan lessons that address the same concepts across disciplines so that students gain exposure to material through different teachers and in different contexts. Through common planning, teachers also attend to students' developmental needs based on collective knowledge. A Tonasket Middle School teacher illustrates this point: "So we're always talking about what we need to do for this student; are you having trouble with this student; how can we benefit this student; what do we need to do to make him succeed?"

Block scheduling. Five of the seven schools use traditional block scheduling in which students alternate the classes they attend each day so that class periods are lengthened. While block scheduling is a controversial issue, some research into the scheduling model has shown that if it is implemented with support and proper teacher training, it can improve school climate, student attendance, and student achievement (Rettig & Canady, 1999). The teachers at the study schools find the arrangement useful. The main benefit of this arrangement for teachers is more time to teach in-depth lessons during class. According to a teacher at Hambrick Middle School, "With a 50-minute class, you wouldn't have that time [to cover a lesson]." Teachers tend to break the time into a series of activities. For example, a Tonasket Middle School teacher explained how the schedule provides flexibility to take advantage of the students' productivity and make adjustments depending on student interest level:

I've got three or four things I want to do during that period. And the nice thing about that is that [if] they're getting frustrated ... [you can] save it for tomorrow. And let's go on to this next thing I have. ... You've got the freedom to do what you want, and also, the block schedule gives you the freedom to adjust the times and you just kind of read the class.



Attention to individual students

A consistent feature of each of these seven schools is their commitment to holding students to high standards and helping them meet these standards by attending to them on an individual basis. These seven schools stand apart from other schools not because they have teachers who are willing to give students additional time—teachers do this every day in schools across the country—but because these schools develop systematic strategies to ensure that all students receive the additional attention they need. They have structures in place to make sure students are known by adults. They also have systems to identify students who are in danger of failing so that additional supports can be provided. Students have opportunities to attend after-school programs that are both academically and non-academically oriented and to attain additional academic instruction in areas of need during the school day. Additionally, school staff provide transition programs to help students adjust to middle school.

Extending the school day. These schools recognize that for them to achieve their goal of each child attaining academic success, they have to provide students with additional resources, typically in the form of services extending beyond the regular school day. These schools are systematic in their approach to providing these services, both in the way they identify students at risk and in the way they work together to ensure that sufficient programs are available to meet the needs of all students. In addition to before- and after-school tutoring programs, formal after-school programs provide students both academic and developmental growth opportunities as well as a sense of belonging to the school.

Structured academic support programs. Staff members give significant amounts of their time, both before and after school, to students who need additional help with coursework. At most schools, the team structure helps staff members coordinate after-school activities so that someone from each subject is available each day. This support is formal and consistent rather than haphazard.

When it is discovered that students are not receiving the services they need, efforts are made to ensure they get them. In these situations, staff members do not simply make themselves available for those students who choose to take advantage of their offers; they insist that students take advantage of these opportunities by not allowing students to opt out.

After-school programs. Many of the seven studied schools use grant funds to establish strong after-school programs, and others use the assistance of outside agencies to help staff these programs. At Rockcastle County Middle School, grants provide significant funds for after-school programming. Some of these programs provide academically focused opportunities for project-based learning. But staff members also recognize that these programs help students find a sense of belonging at the school. One grant coordinator explained that their program sought to work with students who were not already involved in other things because research showed that students who become involved in some sort of extracurricular activity by the time they graduate from middle school are more likely to stay in school.



Pocomoke Middle School also received grant funds to run an after-school program that includes some academic clubs as well as other kinds of extracurricular activities such as swimming. These kinds of programs provide students additional academic support, opportunities to develop mentoring relationships with adults, and safe and positive environments during after school hours.

Expanding academic opportunities. These seven schools not only provide time outside of the school day to reinforce academic skills, but they also carefully structure the school day so that students who need extra academic support in certain subject areas have access to it. This means some students may have to give up an elective class to take an additional class in a core subject area.

JFK Middle School offers Academic Intervention Services (AIS), funded by the state of New York, to students who need additional help in English Language Arts and mathematics. AIS tutorials are written directly into the students' schedules so that they become an official course. Hambrick Middle School schedules students into additional academic classes when they are struggling. Other schools, like Inman Middle School, use academically oriented elective classes to help students shore up skills.

Helping students transition. The educators in these schools recognize the need to help incoming middle school students feel safe in their new environments. A Rockcastle County Middle School teacher notes

Kids come to us in sixth grade having had two, maybe three teachers their entire school career, and they're hit with six or seven of us on a team, plus the exploratory teachers, plus the gym teachers, plus the big building, and it's truly a big transition.

Recognizing that this time can be difficult, schools do a number of things to create an atmosphere that helps students adjust easily. This is done by collaborating with the elementary schools to help students understand what middle school will be like and by providing students access to a social support network.

At several schools, students are provided the opportunity to visit the middle school during the spring semester before they graduate from elementary school. At Rockcastle County Middle School, they assign students to their sixth grade teams before the end of their fifth grade year so that students know what to expect and do not have to spend their summers feeling anxious about the coming fall. Additionally, they allow each student to select one friend that will be assigned to his or her homeroom class so that they will be guaranteed to see a familiar face when they start middle school. Inman Middle School staff members provide incoming sixth graders a weeklong transition program in July before they begin school. During this time, counselors and teachers work with students on study skills as well as help them begin to feel comfortable in the middle school setting.



Staff members from all of the study schools are personally involved in the success of individual students. Students understand the degree to which adults in their schools are invested in them, and they express appreciation for this individual attention. Staff members carefully track individual students' progress and work collaboratively to make sure that each student is provided the additional services they need in order to be successful. This happens with the support of outside agencies that provide the necessary resources for these additional services. It is doubtful that these seven schools could have demonstrated the level of success they have without this individual attention and the additional supports that these schools have managed to provide.

BUILDING THE CAPACITY OF THE SYSTEM

These strategies and practices would be less successful if these seven schools did not value building the capacity of the system. By providing staff with the necessary support, training, and expertise, these schools created an infrastructure to maintain improvement. Using data to focus curriculum and instruction, investing in ongoing professional development, and providing resources to support these efforts were ways study schools effectively built their capacity.

Using data to focus curriculum and instruction

Lein, Johnson, and Ragland (1997) found that in successful high-poverty elementary schools, curriculum and instruction were focused toward getting every student to reach challenging academic goals. The schools they looked at tended to make decisions about curricular and instructional issues based on careful consideration of student achievement data. Thus, if approaches were not working to achieve the desired objectives, they were often modified, supplemented, or eliminated.

The schools in this study all use data to determine areas of need and focus curriculum and instruction. School staff receive training on how to use data to guide them in this process. This training comes from both the district level and from outside consultants when the additional help is necessary. Rockcastle County Middle School brings people in to “talk about where the data says we are, where we think we want to go, and how are we going to get there.” Teachers and school staff are taught how to disaggregate data into more meaningful components that indicate specific areas of need.

In addition to using state assessment data, schools also generate their own data through benchmark testing. Many schools in this study administer regular student assessments to document how well students are progressing on designated content and skills. Generally, school principals monitor data closely. At JFK Middle School, the principal asks teachers to document all the services they make available for students who are experiencing difficulties and to document how far students have progressed on a weekly basis.

Schools not only examine current data, but also take advantage of longitudinal data. Tonasket Middle School and Pocomoke Middle School, for example, obtain the elementary school test data of sixth graders so that the teachers are able to analyze the skill level of each incoming student to emphasize certain areas and to lay a strong foundation on which students can build as they move through the grades.



Data is also used to address non-academic issues that affect student performance, such as attendance and discipline. At Hambrick Middle School, a coach reviewed attendance data and found that student athletes who have physical education last period are more likely to attend after-school practice. The coach convinced the administration to alter student schedules accordingly. At Inman Middle School, teachers discovered that several students who lacked basic school supplies and were scoring poorly on assessments shared the same address in a government housing complex. The staff contacted the Boys and Girls Club serving those students and enlisted their help in providing these students and their families with basic social services and school supplies.

Ongoing and tailored professional development

Research suggests that a school's approach to professional development is most effective when tied to student improvement, linked with standards, and integrated into teachers' daily work (Southern Regional Education Board, 1998; Sparks, 1997). Darling-Hammond (2000) found that teachers' expertise was the most important factor in determining student achievement. A U.S. Department of Education report (2001), concluded that professional development was one of three factors associated with improved student performance on state assessments. Killion (1999) concluded, "Teachers who are lifelong learners are more likely to adapt to the growing demands and challenges of educating middle grades students," (p. 6). Experts emphasize the need to increase both the pedagogical and content knowledge of teachers. Teachers with a richer understanding of their subject area and a richer understanding of how students from diverse backgrounds learn will be the most prepared to implement successful practices.

Most of the study schools make a considerable investment in developing the capacity of teachers to deliver high-quality content and instruction. Many of these schools are parting from traditional professional development, focusing on more in-depth and ongoing professional development rather than one-time workshops. For example, teachers at Rockcastle County Middle School identified a need for training in how to improve student writing. The middle school formed a partnership with a University of Kentucky writing professor. All teachers, regardless of subject area, take his semester-long class on how to develop students' writing. Teachers work from their own student writing samples in the class.

Most every school visited has a designated staff member or members as in-house curriculum specialists. Their primary responsibility is to support teachers. The curriculum specialists have daily discussions with teachers around their specific needs. They are expected to observe classes regularly and discuss teachers' content and instructional choices. They are also available to model lessons and provide curriculum resources.

Some schools, like Pocomoke Middle School and Inman Middle School, provide teachers time to visit one another's classrooms and discuss what they observe so they can learn from each other. Teachers at JFK Middle School also use peer coaching as a professional development tool. Each teacher is paired with someone from a different department. Throughout the year, they observe each other's classrooms and focus on certain domains they want to improve, such as lesson delivery. After the observations, they discuss ways to improve.



Teaming is another capacity building element. During common planning times, teachers are able to share strategies and ideas that have helped them be successful with their students. This exchange of information is ongoing and very specific to the students they teach. At Memorial Junior High School common planning time also allows for collaboration and for the integration of curriculum. One teacher explains:

We get to share ideas, and if something worked for me ... I get to share it with the rest of the teachers. And the same thing goes for them. If they presented a lesson ... and the kids were able to understand it and do well with it, then we incorporate it into ours.

Expanded vision of resources

These high-poverty middle schools use resources effectively to enhance student performance. Although these schools are considered high-poverty according to the percentage of students participating in the federal free or reduced-price lunch program, they find ways to bring in additional resources to meet the needs of their students. For example, Rockcastle County Middle School organizes teams and in some cases hires consultants to help them write competitive grant applications. Almost all these schools examine how existing funds are being spent and redistribute money to better support their goal of having all students achieve. For example, some schools use existing professional development funds to pay teachers a stipend for the time they spend developing curriculum. Others use these funds to pay for substitutes so that teachers have additional time to observe each other and share professional knowledge. Schools choose to more closely align how Title I money is distributed with Title I legislative mandates. In every case, the schools move from funding one or two teachers designated as Title I resource teachers to sharing this money across the campus to support additional tutoring programs, professional development, and the acquisition of needed materials.

Additionally, the schools take a broad view of resources that includes more than money. Schools spend time developing human capital. JFK Middle School staff formed mutually beneficial relationships with local businesses. Inman Middle School encouraged colleges to use their middle school campus as an incubator for student teachers, formed alliances with community organizations to provide volunteers for formal tutoring and mentoring programs, and asked community volunteers to spend time mentoring students and sponsoring after-school programs. Finally, school staff were given the time and support required to coordinate these efforts so that additional resources did not result in the duplication of services. Rather, resources were aligned toward the goal of improving student performance through different means.



CONCLUSION

While Dickinson and Butler (2001) argued the middle school concept has experienced “arrested development,” the findings from the schools we visited suggest that some schools are able to have success implementing elements of the middle school concept rather than the whole concept approach the authors advocate. In the seven study schools, we saw one school that systematically implemented the middle school concept in its entirety. More commonly, these schools implemented different elements of the middle school concept at different times. What made the schools successful in this work was not that they chose to implement parts of the middle school concept but that they approached their work with care, thought, and a commitment to collaboration. Schools in this study selected areas of need to target first, adapted elements of the middle school concept to fit unique settings, and revisited their progress with these efforts.

REFERENCES

- Bryk, A. S., Lee, V. E., & Holland, P. B. (1993). *Catholic schools and the common good*. Cambridge, MA: Harvard University Press.
- Carnegie Council on Adolescent Development. (1989). *Turning points: Preparing American youth for the 21st century*. New York: Carnegie Corporation.
- Charles A. Dana Center, University of Texas at Austin. (1999). *Hope for urban education: A study of nine high-performing, high-poverty urban elementary schools*. Washington, DC: U.S. Department of Education, Planning and Evaluation Service.
- Chubb, J. E., & Moe, T. M. (1990). *Politics, markets, and America's schools*. Washington, DC: Brookings Institution.
- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Educational Policy Analysis Archives*, 8(1). Retrieved September 15, 2003, from <http://epaa.asu.edu/epaa/v8n1/>
- Dickinson, T. S., & Butler, D. A. (2001). Reinventing the middle school. *Middle School Journal*, 33(1), 7-13.
- Geiser, K., & Berman, P. (2000). *Building implementation capacity for continuous improvement*. Emeryville, CA: Research Policy Practice International.
- Improving America's Schools Act of 1994, 20 U.S.C.A. § 1001 et seq.
- Jackson, A., & Davis, G. A. (2000). *Turning points 2000: Educating adolescents in the 21st century*. New York & Westerville, OH: Teachers College Press & National Middle School Association.
- Killion, J. (1999). *What works in the middle: Results-based staff development*. Oxford, OH: National Staff Development Council.
- Lein, L., Johnson, J., & Ragland, M. (1997). *Successful Texas school-wide programs: Research study results*. Austin, TX: Charles A. Dana Center, The University of Texas at Austin.
- Massell, D. (1998). *State strategies for building capacity in education: Progress and continuing challenges*. Philadelphia, PA: Consortium for Policy Research in Education.
- Mayer, D. P., Mullens, J. E., & Moore, M. T. (2001). Monitoring School Quality: An indicators report. *Education Statistics Quarterly*, 3(1), 38-44.



National Middle School Association. (2001). *Research summary #4: Exemplary middle schools*. Retrieved August 18, 2003, from <http://www.nmsa.org/research/ressum4.htm>

Pointek, M., & Dwyer, M. (1998). *Capacity for reform: Lessons from high poverty urban elementary schools in the northeast*. Portsmouth, NH: RMC Research Corporation.

Rettig, M. D., & Canady, R. L. (1999). The effects of block scheduling. *School Administrator*, 56(3), 14-16, 18-20.

Southern Regional Education Board. (1998). *Raising the bar in the middle grades: Readiness for success*. Atlanta, GA: Author.

Southern Regional Education Board. (1999). *Leading the way: State actions to improve student achievement in the middle grades*. Atlanta, GA: Author.

Sparks, D. (1997). A new vision for staff development. *Principal*, 77(1), 20-22.

U.S. Department of Education. (2001). *The longitudinal evaluation of school change and performance (LESCP) in Title I schools (USDE Publication No. 2001-20)*. Washington, DC: ED Pubs - Editorial Publications Center.

Ali Callicoatte Picucci is a project director and Amanda Brownson, Rahel Kahlert, and Andrew Sobel are research scientists at the Charles A. Dana Center, University of Texas, Austin. E-mail: asobel@mail.utexas.edu or picucci@prc.utexas.edu

Original publication information:

Picucci, A. C., Brownson, A., Kahlert, R., & Sobel, A. (2004). Middle school concept helps high-poverty schools become high-performing schools. *Middle School Journal*, 35(1), 4-11.