

**MICHIGAN MIDDLE START
STUDIES OF MIDDLE START SCHOOL IMPROVEMENT**

Lake Middle School: A Case Study

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Abstract

This case study documents Lake Middle School's collaboration with Middle Start, a middle-grades reform model, and its progress and struggles in implementing the model. Lake is located in a small city in southeast Michigan; it has over 500 students, over 50 percent of whom are eligible for free or reduced-price lunch. Lake has worked with Middle Start for over four years and is well on its way to becoming a rigorous and student-centered learning environment.

In Michigan, Middle Start was initiated by the Academy for Educational Development, the W.K. Kellogg Foundation, and other partners in 1994. It is currently coordinated by the Michigan Middle Start Partnership. The Partnership is an alliance of national and regional organizations with middle-grades expertise that provide technical assistance (TA), professional development, networking, policy development, research and other services. Middle Start seeks to build academically excellent, developmentally responsive, and socially equitable learning environments for middle graders by developing small learning communities, varied and rigorous instruction, meaningful family and community involvement, and schoolwide reflection and assessment. Schools are required to work with a TA organization within the Partnership to implement Middle Start in their school. A TA partner from this organization is at the school at least twice a month for the period of the grant (usually three years) and coaches the school in attaining high levels of outcomes for students through its Middle Start implementation.

The TA partner and principal shared the vision that Lake would "develop into a full-service school." Over the four years of its collaboration with Middle Start, Lake made several improvements, such as small learning communities, expanded special education inclusion, innovative instructional strategies, better programs fostering family involvement, health and counseling services for students, and improved preparation of eighth graders for high school and beyond. Students at Lake found their classes engaging and the school climate safe and supportive. They also improved their performance on standardized tests. In the future, Lake seeks to extend its improvement efforts through deepening professional development in instructional strategies for staff and fostering meaningful opportunities for family and community involvement in the school.

Data collection for this qualitative report was conducted from spring 2000 to spring 2001 by Pritha Gopalan, an AED researcher, Steve Hoelscher, the Michigan Middle Start Partnership coordinator, and Eileen Storer, an AED research consultant. Data collection for the final section *Key Factors Promoting School Improvement* was conducted by Patricia Jessup and Chelsea Haring, AED research consultants. The report was written by Pritha Gopalan.

Lake Middle School: A Case Study

I. Introduction

This case study of Lake Middle School¹ is based on two years (1999/2000 and 2000/01) of qualitative data collected by a team of researchers from the Academy for Educational Development (AED) and a technical assistance (TA) specialist from the Michigan Middle Start Partnership.² The data collection is at the mid-point of a three-year study (1999/2000 to 2001/02). A final version of this case study will be prepared in summer 2002, upon completion of two additional rounds of data collection, to be conducted in fall 2001 and spring 2002.

The research team is developing case studies of four schools implementing Michigan Middle Start and collecting qualitative implementation data from six other schools. These 10 schools are a subset of the total of 22 schools that received Middle Start/Comprehensive School Reform Demonstration (CSR/D) grants from the Michigan Department of Education. The 10 schools represent the rural/urban distribution of the Middle Start/CSR/D schools, as well as the three Middle Start TA organizations that serve the schools. In all 10 schools we studied two main topics: 1) the role of Middle Start in the school's improvement efforts; and 2) the impact of Middle Start in promoting positive academic and developmental outcomes for all students in the school. We also paid attention to the school's socioeconomic context, and although preliminary, to indicators of whether Middle Start would be sustained in the school past the period of funding.

Lake Middle School leads the group of 10 schools in this study, with the impressive progress it has made in implementing Middle Start. We observed gains in school capacity (leadership development, professional development, teacher planning and collaboration) and concrete improvements in the learning environment for students (improved test scores, varied instructional strategies, expanded inclusion of special education students, and enhanced academic and social support for students through teaming). The Michigan Department of

¹ Lake Middle School is a pseudonym, as are the names of people and organizations mentioned in the case study. Only the W.K. Kellogg Foundation, Michigan Middle Start Partnership, and Academy for Educational Development have been mentioned by name.

² The Michigan Middle Start Partnership is an alliance of national and Michigan-based organizations with expertise in middle-grades education. Several organizations within the partnership provide technical assistance, professional development, or networking services to schools with middle grades. Other organizations are engaged in policy development, research and evaluation and management and coordination of Michigan Middle Start. The Michigan Middle Start Partnership is well-connected with national middle-grades research and advocacy groups.

Education has also recognized Lake as a leader among the 72 schools receiving CSRSD grants in the state, and nominated the school for national recognition as "the most improved" school.

The case study has four sections. This first section introduces the methods of the case study, the second describes the school and the context for implementation of Middle Start, and the third provides a detailed account of the main structural, instructional, and developmental components of the Middle Start implementation at Lake. The fourth and final section assesses the impact of the implementation, based on evidence collected over the last two years and analyzes the factors promoting and hindering the effective improvement of the learning environment for all students.

II. Context for Middle Start Implementation

This section describes Lake Middle School, including its team structure, leadership, classroom culture and school climate, and district role. It also provides an introduction to Michigan Middle Start's design, the Michigan Middle Start Partnership and Teaching for Student Success (TFSS), the technical assistance organization that supported the school's Middle Start implementation.

Lake Middle School is one of two middle schools, including grades 6, 7 and 8, in a small city located in southeast Michigan and easily accessible from I-94, a major interstate highway. There are over 500 students at Lake: 52 percent are Caucasian, 43 percent are African-American, and 5 percent are Latino and Asian-American. Over 50 percent of students are eligible for free or reduced-price lunch, and about 20 percent of students are in special education. The school has an experienced staff with over 14 years experience on average; 80 percent of the staff are Caucasian and 20 percent are African-American.

Lake began implementing middle-grades reform in the 1997/98 school year, in partnership with Teaching for Student Success (TFSS), a technical assistance organization in the Michigan Middle Start Partnership. TFSS is directed by two teacher educators from City University, located near Lake. The W.K. Kellogg Foundation funded TFSS' middle-grades improvement efforts at Lake and Harris, the other middle school in the district, from 1997 to 1999. In fall 1999, Lake was awarded a Comprehensive School Reform Demonstration (CSRSD) grant by the Michigan Department of Education to implement Middle Start, again in partnership with TFSS. TFSS, with funding from the W.K. Kellogg Foundation and CSRSD, is one of three

Middle Start technical assistance organizations in Michigan.³ Lake Middle's TA partner is Dr. Jean Archer, an expert in middle-grades education, who is a former teacher and presently a teacher educator at City University.

Staff, students, and visitors alike remark on the pleasant layout of the school and grounds. Each grade level is organized as a house with two teams. For example, the sixth grade house is divided into the "Ravens" and "Woodpeckers." Each house has classrooms encircling a "commons," a bright, spacious area displaying student projects and motivational posters. During one of our visits, a local jazz band held a concert for each house in the commons. An issue of *The Bridge*, Lake's newsletter, featured an article by an eighth-grade teacher about a rainforest she and her students constructed in the eighth-grade commons. Each commons leads into a main corridor, which runs along two courtyard gardens, which students maintain. One garden houses a "weather station," which students monitor daily. They report their readings for temperature and humidity and make a daily weather prediction on the intercom at the end of the day.

There are six grade-level interdisciplinary teams at Lake, two for every grade. Each team has teachers of core subjects, a teacher consultant for special education students, and a counselor. All teams have a common planning period every day and teachers also have individual planning periods every day. Teachers of electives have their own team and common planning time. There are four departmentalized classrooms for special education students. Over half of the special education students at all grade-levels participated in classes with other students for all or most part of the day. A teacher consultant frequently works with a subject-area teacher to provide additional in-classroom support to students who need it. A few students remain in departmentalized classrooms for the major part of the day, except when they join other students for lunch, electives and gym classes.

Most teachers noted that teaming had enhanced the cohesiveness and quality of the academic program. Teachers worked with their colleagues more, which helped them gain better understandings of students' aptitudes and interests, rethink instructional practices, and provide parents with a holistic picture of student progress and behavior. The TA partner said, "Not as many students fall through the cracks because they are in teams." Some teachers, however, felt

³ For more on Middle Start technical assistance, see *Finding a Balance: Technical Assistance in the First Year of MS/CSRD* (Gopalan & Jessup, 2000).

that teaming increased their workload considerably, and that the school was undertaking "too much."

Classrooms at Lake are pleasant places. They are bright and decorated with colorful student projects and motivational posters. Several classrooms also have plants, books, computers, and lab equipment. Lake emphasizes writing-across-the-curriculum; it has a strong elective program offering arts, music, computers, and languages and also offers afterschool tutoring and sports. During our visits to classrooms, we observed students absorbed in several interesting activities — creating informational posters, writing and performing plays, discussing topics in their textbooks in light of current events, conducting Internet research for a project, and performing science experiments. The majority of students felt that teachers made their expectations clear and that these expectations were consistent across each team. They were especially enthusiastic about their science and social studies classes and assessed their best learning experiences to be ones where teachers "made learning funner," and "connected what's in the textbook to real life." They also stated that they had several opportunities to "learn in groups," and the majority of student interviewees said they preferred working in teams.

Lake is also showing progress on standardized test scores over the period of its participation in Middle Start (1997/98 to 2000/01). Students' performance on recent Michigan Educational Assessment Program (MEAP) tests rose in comparison to 1998.

- The increase in Grade 7 Reading from 1998 to 2001 was **14.7** percent. Specifically, 43.9 percent of Lake's seventh graders attained the grade "Satisfactory" in the 2001 Reading test, as against 29.2 percent in 1998.
- The increase in Grade 7 Math was **14.1** percent. Specifically, 42.1 percent of Lake seventh graders attained "Satisfactory" in the 2000⁴ Mathematics test, as against 28 percent in 1998.
- This is an impressive achievement, as the other middle school in the district only showed increases of **0.8** percent in Reading and **1.4** percent in Mathematics in the "Satisfactory" category for the same periods.

Lake Middle school is thus on a path of academic improvement on indicators such as variation in classroom instruction, students' satisfaction with their classes, and MEAP scores. Improvements have also taken place in the school climate. Students largely reported that Lake is a safe schools where they feel supported. All students with whom we talked said that they had at

⁴ The state of Michigan began a Writing test in Grade 7 in place of the Mathematics test in 2001. Students' results on the Mathematics MEAP are therefore unavailable for the 2001 school year.

least one caring adult to go to with academic or other troubles, including the principal, a counselor, or a teacher. Sixth-graders felt that they were able to adjust to the middle school structure and teachers' expectations "in a few weeks." A seventh-grade student said, "We are happy here." Lake's Eighth graders stated that they saw improvements in instruction and school climate during their three years in the middle school.

Difficulties described by students included "too much peer pressure" and strict rules for behavior. Over half of the students and teachers interviewed also identified the need for improving strategies for managing disruptive student behavior. Teachers said that the current system of detention did not provide them with adequate support with managing disruptive student behavior, while students said that the behavior management room was "just a detention room" that did not help them reflect on their actions. Attendance and suspension rates in the school have fluctuated within a narrow range, with suspensions improving marginally (by 1 percent) from 98/99 to 2000/01, and attendance falling slightly from 90.5 percent to 88 percent.

Teachers and the TA partner alike described Lake's principal, Paula Reeves, as a leader with a vision, who encourages staff to take initiative. Reeves has served as the principal of Lake since 1996. The TA partner, district representative and some staff noted that the school had a poor climate and poor test scores when Reeves began, and by all estimates, instruction, climate, and student outcomes have improved under her stewardship. The TA partner characterized Reeves as a strong leader who "manages, listens, reads, wants to know what the best strategies are — she's an instructional leader." Reeves, in turn, emphasized that she "could not have achieved all this without Middle Start. Middle Start is a blessing!" She said that she was still new at Lake when she began the partnership with TFSS, and was faced with a demoralized staff and a poor academic environment. Through their partnership, Reeves and TFSS were able to win over the staff, first by convincing the board to support interdisciplinary teaming and then by providing professional development in best practices in middle-grades education. The school was also able to win a CSRD grant to implement Middle Start, which is helping Lake further advance its student-centered efforts. Reeves noted that Archer, the Middle Start TA partner, is an "invaluable guide" to her. She stated that Archer guided the school on the implementation of several successful student-centered innovations, which are discussed in the next section on Lake's implementation of Middle Start.

Reeves noted that literacy is the greatest need for students and wants to devote the coming year to deepening the school's literacy efforts through professional development and infusion of reading and writing across the curriculum. She described her ultimate vision for the school as "developing Lake into a full-service school." In addition to academic and afterschool programs, she also established the Wellness Center at Lake in partnership with two large hospitals in the area. The Wellness Center provides free health services to students, staff, and members of the community.

The district's emphasis on reading and writing is echoed in Lake's curriculum, instruction, and professional development selections. The district curriculum director, Linda Carr, said that the district is supportive of Lake's efforts and notes significant improvements in Lake's academic program and school climate as a result of its involvement in Middle Start. Carr noted that the district has funded the additional staff needed to implement teacher teaming with common planning time for the last four years. Except for wanting improved communication with the Middle Start TA partner, Carr reported a high level of satisfaction with Middle Start, and stated that the district will help sustain Lake's improvement efforts after the period of CSRD funding.

Michigan Middle Start, a middle-grades reform initiative funded by the W.K. Kellogg Foundation, began in Michigan in 1994, and has grown into a national effort. The initiative seeks to promote academic excellence, developmental responsiveness, and social equity for students in the middle grades as well as a regional infrastructure that will support continued middle-grades reform.⁵ Through our documentation of the Michigan Middle Start Partnership, we understand that the Middle Start school improvement approach, by design, is a set of guidelines for building academically excellent, developmentally responsive, and socially equitable environments for students in the middle-grades. These guidelines focus on the development of small learning communities including all students; varied, rigorous, and culturally appropriate curriculum and instruction; meaningful parent and community involvement; and schoolwide participation in reflection and assessment.

Middle Start recommends but does not prescribe professional development programs in mathematics, science, language arts, and service-learning. It provides each school taking the Center

⁵ For more on Michigan Middle Start and the Michigan Middle Start Partnership, see *Reaching for Goals: Key Areas of Michigan Middle Start/Comprehensive School Reform Implementation in School Year 1999/2000* (Gopalan & Jessup 2000).

for Prevention Research and Development (CPRD) self-study⁶ with implementation and outcome data for reflection and assessment. It connects schools with Middle Start TA organizations expert in middle-grades education reform. Finally, as part of its capacity-building and infrastructure development activities for schools, Middle Start provides a sequence of leadership seminars, connections with regional networks, and an annual state-level networking meeting for schools to connect with other Middle Start schools and build their capacity for effective middle-grades reform. The professional development and networking services provided by the Michigan Middle Start Partnership are recommended but not required. However, schools are required to work with a TA organization within the Middle Start Partnership and take the self-study every two years for the duration of their Middle Start grant. The non-prescriptive nature of Middle Start allows schools to set priorities and implement strategies that arise from their own context, and are not externally mandated. In interviews, principals and district leaders described Middle Start's responsiveness to local context as one of its greatest strengths. The Middle Start Partnership, however, concerned that the guidelines may be loosely interpreted in some contexts, holds that Middle Start technical assistance to schools must emphasize the following:

- Middle Start's goals of academic excellence, developmental responsiveness and social equity for students.
- Schoolwide involvement in the Middle Start implementation.
- High levels of student outcomes as a result of the implementation.

Technical assistance partners are the primary link between the Middle Start Partnership and Middle Start schools. They engage in workshops and in meetings of the Partnership to build their capacity for guiding high-quality, effective implementation of Middle Start in schools. TA partners are required to submit reflective logs to the Partnership and participate in semi-annual interviews (conducted by AED) to account for their time and activities with schools. Our study of Middle Start technical assistance shows that TA partners varied greatly in style and efficacy. However, the majority of the 13 Middle Start TA partners played the role of "guide on the side," rather than a more directive role. They coached staff to make joint decisions, helped them identify

⁶ CPRD is a key research and evaluation agency within the Middle Start Partnership. It provides statistical analyses and evaluations of the effectiveness of Middle Start school improvement. The School Self-Study is a set of surveys that CPRD administers every two years to principals, teachers, and students of schools with middle grades.

priorities and maintain their focus, and aim for a high level of implementation.⁷ This case study will therefore, also discuss the role played by Archer, the TA partner in Lake's Middle Start implementation, as a means of judging the extent to which Middle Start influenced student outcomes in Lake Middle School.

As mentioned above, Dr. Jean Archer, a professor of teacher education at the College of Education at City University and co-director of TFSS is Lake's TA partner. She came to City University in 1996, after extensive experience in teaching elementary, middle, and high school students, as well as teaching at the university level. She won several awards and honors during her years teaching, and was invited to City University to start a middle-level teacher education program. Archer's vision for educational change is, "Full-service schools that support academic rigor, developmental responsiveness and social equity for students."

Archer said that she came to City University with a "dream to work with middle-grades schools." She first established relationships with Lake and Harris (the two middle schools in the district) in 1996/97, and began working with teams from both schools on a proposal to the school board to support interdisciplinary teams. She said that the district had made three prior attempts to get support for teaming, but that all three had been turned down. She stated that the fourth effort, which she led, was successful because "it was based in the best middle-grades research. If you find your practices in research, no one can turn you down." Lake and Harris began to establish interdisciplinary teams in 1997/98, with extensive technical assistance from Archer and TFSS. Archer stated that the funding from WKKF enabled her to "build trust among teachers," as she was able to provide teachers with professional development on developmental and academic practices, and materials that they needed to begin using these practices. In 1998/99, Archer supported Lake in applying for a CSRD grant to implement Middle Start. Harris, due to its lower free-and-reduced lunch percentages, was not eligible for the grant. Thus, according to Archer, Harris was able to restructure into interdisciplinary teams but could not continue the professional development needed to make these teams effective.⁸

Archer formally became Lake's TA partner for Middle Start/CSRD in 1999/2000. Middle Start TA partners typically spend two days per month at schools they work with. Archer said that

⁷ For more on Middle Start technical assistance, see *Finding a Balance: Technical Assistance in the First Year of MS/CSRD* (Gopalan & Jessup, 2000).

⁸ Archer noted that she had offered to work with Harris on a *pro-bono* basis, but that the district had not taken her up on the offer.

she usually spent four half-days per month at the school with the principal, leadership teams, and teacher teams. Both Reeves and Archer described Archer's work at Lake as wide-ranging: she provided inservices for Lake staff on working as effective teams; demonstrated varied instructional strategies; introduced staff to varied student assessment strategies; instituted Core Explore⁹; and guided the staff in selecting appropriate professional development in the area of literacy-across-the-curriculum.

Reeves emphasized the coaching and support that Archer provided in bringing interdisciplinary teaming, Core Explore, and differentiated learning to fruition in the school. She said, "I share with her the direction I would like the school to go, and she shares her expertise and helps us get the resources we need. She is a big part of anything we do here." The chair of the school leadership team described her as "a guide for the school and an advocate for teachers and students." Archer has also connected the school with students in the teacher education program at City University — we met two teachers in the school who were her former students. Several staff also described Archer as an effective professional developer. A few teams in the school said that they needed more time with Archer as a team, to learn more about effective teaming, as well as to show her what they were already doing.

In fall 1999, Archer had a serious illness, and was not being able to work with Lake's staff regularly. Reeves noted that she had contact with Archer, but that teachers did not see her in the building for most of that year. However, Archer has been actively involved with Lake for over four years (at the time of writing) and is a familiar figure to administrators and staff alike. In Archer's estimate, Lake has made significant progress over the last years, especially in the development of a socially nurturing environment for students, as well as a more varied academic program. Archer described instruction at Lake as "more consistent" and emphasized that her work in 2001/02 would build on the school's strengths, "focusing on interdisciplinary instruction and effective teaming." Archer stated that she would also help Lake establish a good schoolwide literacy program in the final year of the grant, as well as continue her efforts to coach teams and develop the capacity of the leadership team to sustain the efforts of the last four years. She said:

Lake is a real different school compared to five years ago. My strategy has been to ask them what they want to get accomplished and when they identify what this is, to get them the resources they need to go ahead and do it. First we worked on

⁹ Please see page 13 for a description of Core Explore.

teaming, and when we got that right, we've started chipping away at instructional practices. That's the focus now, to improve instruction schoolwide.

III. Lake's Implementation of Middle Start

Reeves, Lake's principal, in interviews with us listed several areas of activity in which the school was engaged. We asked, "Which of these would you categorize as Middle Start activities?" She answered, "It's all Middle Start. Everything we do is toward academic rigor, developmental responsiveness and equity." Similarly she described Archer, the TA partner, as her "guide and sounding board" on several of the activities we discuss here. From our study we concluded that Middle Start had played a strong and positive role in the school's development into an effective middle school. However, our data showed that the principal's own passion for middle-grades education and her dedication to the school and its students enabled the Middle Start TA partner to work very effectively with the school. Middle Start was successful in fostering improved academic and developmental outcomes for students because it was implemented collaboratively by Lake Middle School and TFSS, the TA organization. Also, the four-year partnership between TFSS and Lake through two different grants (from WKKF to TFSS for the first two years, and from CSRD for the next two years) enabled Lake to deepen its staff's expertise in the developmental and instructional aspects of middle-grades education.

This section provides a detailed description of Lake's Middle Start implementation. Teachers, the principal, and the TA partner described several innovations that the school has set in place as a result of its participation in Middle Start. The majority of staff reported that they are "excited" or "have come a long way" from where they were four years ago through implementing teaming, inclusion, and Core Explore — three major **structural changes** that the school conducted in partnership with Archer and Middle Start. The same staff also noted, and we confirmed through classroom visits, that **classroom practices** had moved significantly in the direction of project-based education, including team work and the use of educational technology. Staff offered considerable additional academic support for students through Core Explore, afterschool tutoring, and the homework hotline. The principal and TA partner noted, and we observed evidence of, several efforts underway to improve the **school climate** and **social supports** for students. The staff welcomed parents and community members into the school through free health services offered by the Wellness Center; an orientation for parents of incoming sixth graders; student-led parent-teacher conferences; a parent newsletter featuring student work; and team-parent meetings during team

planning time. Eighth-grade staff also incorporated career education and an orientation to the local high school to prepare their students for the next phase of their education.

Structural Changes

Among the main structural changes are the development of a strong school leadership team and grade-level houses and teams; inclusion of special education students in teams; and changes in the schedule to accommodate common planning time for teachers and additional learning time (Core Explore) for students. The TA partner, in addition to working with a leadership team to get the school board's support for teaming, also guided the development of teaming with inclusion at Lake and Harris, and pushed the school to create additional learning time for students. Archer, Reeves, and the school leadership team envisioned these structural changes as fostering a developmentally responsive environment for students and supporting academic innovation and improvement. Almost all staff (including those who felt that there were too many changes) felt that the school had evolved through these structures into a more developmentally responsive environment for students. The TA partner agreed stating, "You'll see a very nurturing school," but added that the staff needed to "embrace the structures philosophically rather than just physically," in order for their potential to be fully realized.

The **school leadership team** is the school improvement team, composed of staff from all grade levels. The principal describes this team as being the group she brainstorms ideas with and sees them as "spokespeople" for new ideas among the staff. The school leadership team has revolving leadership — when AED visited the school, the team was led by a new staff member— all new staff members joined the leadership team in their first year at Lake. The principal's rationale for this was that the school was involved in a large change effort that new staff needed to understand and participate in:

When there's someone new, the first step is that they become a part of the school improvement team. That's a must for the first year, in order to be a part of the (Middle Start) process. As a teacher, you're so overwhelmed with so many things that you don't know why you are doing what you are doing."

The principal also noted that this approach both oriented new teachers to the larger effort the school was in, as well as ensured that the larger effort was sustained, in spite of changes in staff. We met the chair of the leadership team, a young woman beginning her teaching career.

She described the leadership team as an entity that prioritized areas for implementation and sought to build consensus on how to proceed with implementation:

We [the leadership team] seek to set and attain schoolwide goals. We consider the data in light of our Middle Start, NCA and district goals. Our emphasis this year is literacy, as we found that students read fictional but not informational text well. We then identify professional development based on thinking through our goals.

Teaming and the formation of grade-level houses are the most extensive structural innovations that the school undertook over the last four years. As mentioned in the introduction, Lake has three grade-level houses, composed of two teams each. The district curriculum coordinator, Linda Carr, the main district liaison to the school, noted that the district started supporting teaming with common planning time at both middle schools three years ago. Half of the cost of the additional staff needed for teaming was provided by the W.K. Kellogg Foundation for the first two years, after which the district raised the money to continue to support teaming with common planning time in both middle schools. However, Lake continued its work on effective teaming with Archer, the TA partner, with its Middle Start/CSRD grant. Carr said that the other middle school in the district was not teaming as effectively, as it did not have the same expert guidance from the Middle Start TA partner. The principal added that the funds for extensive professional development from the CSRD grants helped teams use their flexible schedule and team-planning time effectively. The majority of teachers at Lake agreed with these assessments, stating that teaming helped them become a cohesive decision-making unit, support each other instructionally, and develop consistent rules and expectations for students across a grade-level house. Teachers said:

Our sixth grade team has grown more cohesive over time.

When I'm doing a project with my class, the team [seventh grade] knows about it. We understand and support what the others on the team are doing

Teaming is the reorganization of the school to provide an environment of learning. There is consistency in rules, regulations, and expectations all across the eighth grade house.

Although students do not specifically refer to teaming, several of them noted that teachers' expectations for work and behavior were consistent across their team. Each house has a counselor, connected to both grade-level teams in the house. Students mentioned the counselor as an adult they could talk with about personal and academic difficulties. The TA partner, district liaison, principal

and staff all describe teaming as "well in place." The instructional aspects of teaming are discussed in a following section titled Classroom Practices.

Inclusion of special education students in regular education is a major thrust of Lake's change efforts. About 20 percent of Lake's students were placed in special education in the 2000/01 school year. Structurally, this was accomplished through teaming — as each team has the subject area teachers and a teacher consultant with expertise in supporting special education students on the same team. In the principal's estimate, at Lake 50 percent of students in the special education department attended classes with other students for most or all of their subject-area classes in the 2000/01 school year¹⁰. The teacher consultant works with the teacher of the class to provide extra support to students who need it. The other 50 percent of students in the special education department attend all elective classes and a few subject area classes with other students and are in a self-contained special education class at other times. The principal and TA partner note that Lake aims to increase the number of special education students in regular classes in the next year. The support provided by the teacher consultant, the additional learning time provided by Core Explore every day, as well as the exposure to differentiated instruction for teachers are factors that the principal and TA partner see as fostering equitable learning opportunities for students of varied learning abilities.

Core Explore is an extension/enrichment period each day when students complete outstanding assignments, complete work for extra credit, or engage in enrichment activities (such as constructing a miniature model of their school). Subject-area, special education, and elective staff teach Core Explore, which, according to staff, allows for smaller class sizes and more personal attention for each student. The school has had Core Explore in place for two years, and the majority of staff reported that they would like it to continue because they were able to pay more attention to each student. Students noted that they gained extra learning time during Core Explore and could either complete assignments that were due, or if they were caught up, could learn interesting skills such as "building planes and things." Students also said they liked Core Explore because they could get extra help from teachers during that time and were free to play sports after school. Although the school offers afterschool tutoring, students said they also played team sports during that time, which made it difficult to regularly attend tutoring sessions.

Classroom Practices

¹⁰ As mentioned in the introduction, 20 percent of students at Lake were in special education in 2000/01.

Classrooms at Lake are usually abuzz with activity. Students can be seen working in pairs and small groups on projects, engaging in animated discussions with the teacher about a topic, conducting Internet searches for a paper, reading and writing independently, and listening to the teacher read or explain a new topic from a text. A major mode of instruction at Lake is project-based education. At Lake such education means that students, with the teacher's guidance, learn subject-area content through the creation of individual or team projects using verbal, visual, and other modes of learning; and produce displays and products, which the teacher assesses. We noted, and students confirmed, that such instruction is especially strong in the science and social studies classes at all grade levels. We also noted an emphasis on reading- and writing-across-the-curriculum; students have multiple opportunities to use language through discussing topics, and creating plays, posters, informational displays, flip books and other products that build thinking, research and writing skills. The school, through a district technology initiative, has four to five computers in every classroom and we observed students actively using the computers for varied assignments. There is also an elective class on computer skills. During our visit to Lake we saw students' projects displayed on the walls and ceilings of classrooms, as well as in the commons and main hallways of the school. There was also evidence of interdisciplinary coordination (e.g., a rainforest theme that different subject area teachers emphasized in the curriculum). However, several teachers and the principal noted that they needed to do more curriculum mapping and develop "truly interdisciplinary units." According to the principal and TA partner, interdisciplinary instruction will be a greater focus in the next year. The majority of students enthusiastically described their classes. An eighth grader who had started in the sixth grade at Lake said that she saw improvement on several fronts in the school: "Teachers are more helpful and class activities are better. There is more group work, more kids participate in class." Two sixth graders stated:

The "funner" they make it, the easier it [content] is to get.

Every teacher makes their class fun and interesting. They grab your attention.

Project-based education includes projects large and small, which students create as part of learning subject matter in texts. We noted simple projects, such as a three-dimensional, colored shapes, that sixth graders created in math class to explore the characteristics of cubes, pyramids and other objects. Students painted designs on the shapes, and hung them with string in all classrooms in their team, creating a colorful ceiling display. We also observed more complex projects, such as a

flipbook that seventh-grade students created as part of a science project exploring eight stages of the repopulation of an island devastated by a volcano. The assignment asked students to write the book from the viewpoint of a spider, the first creature to reappear on the island. For extra credit in the same class, students could create an illustrated alphabet book organized by names of animals with identifying information on what the animal ate and what it was eaten by. We heard from an eighth-grade teacher about a long-term science project in which students tested for radon in their homes; prepared a report and an oral presentation including visual aids (a poster or set of overheads); and compiled a fact sheet for the larger public on radon.

Overwhelmingly, students supported “learning by doing” and said they had opportunities to learn this way several times a week. They also said they liked to “work in groups” — it helped them learn better. A seventh grader said, “I love science. Its exciting when you can look through a microscope and learn about the organism that you read about in your book!” An eighth-grader reflected on her three years in the school and felt that opportunities to learn in teams and by doing projects had increased over the three years. She said: “The activities in class are better. More kids participate in class.” Another eighth grader remarked: “We learn a lot in groups, except when we need to learn alone. We do a lot of work in groups in science. For math, mostly alone.”

Literacy-across-the-curriculum was evident in the majority of classes visited where we observed teachers requiring students to use varied language skills to produce projects. Students were engaged in simple tasks involving language, such as taking vocabulary tests or reading excerpts from their texts. In all grade levels, they were also involved in more complicated language-based activities such as text-based discussions, writing plays, conducting Internet searches for information, synthesizing information to create visual displays, and presenting displays, posters, and plays to their teachers and classmates.

We observed the above activities in science, social studies, and language arts classes. However, there were fewer such activities in math classes. In a seventh-grade science class, for example, the teacher and students were engrossed in a discussion of the conversion of potential energy to kinetic energy, as they were with the forms of energy such as thermal, sound, and wind energy. In a fast-flowing discussion they debated the forms of energy described in their text in light of examples they were familiar with, such as a rocket launch, a tree’s reliance on the sun’s energy, and the production of heat and sound energy when playing a musical instrument. In another seventh-grade science class, students presented informational posters on a country of their choice. Each

student displayed a poster (a third were sophisticated displays), of the country's name, a picture of the flag, demographic data, languages, modes of dress, main exports and imports, and major historical events. An eighth-grade teacher reported that she held a schoolwide poster and poetry contest on the rainforest. Student writing is also showcased in a monthly school newsletter sent to staff and community members.

Educational technology is available in every classroom through a technology initiative of the school district. Teachers received extensive professional development in the use of technology, including computers, a microphone, and overhead projector connected to a laptop, as part of the initiative. We observed a few teachers using PowerPoint as a teaching tool. The majority of teachers we spoke with, however, said they needed time to get used to the equipment, although most students eagerly asked for time on a computer to research or write a paper during class.

Reeves emphasized that literacy-across-the-curriculum is the greatest emphasis in the school in the 2001/02 school year. Over summer 2001 teachers participated in professional development in a literacy approach that they have begun implementing in their classrooms in the 2001/02 school year during Core Explore. She also stated that teachers would undertake professional development in incorporating cooperative learning, newer approaches to assessment, career education, and technology in instruction as the year progressed. She described the school's priority as "deepening instructional areas" in the last year of the Middle Start CSR grant.

School Climate and Social Supports

Student involvement in several activities outside the classroom fosters their ownership of the school. In addition, excellent orientation of sixth graders to the school and access to good counseling and health services at the Wellness Center foster a sense of belonging and ownership on the part of students. These are discussed below.

Student involvement in school activities includes working in the school garden, manning the weather station, and writing for the school newsletter. Students in the two courtyards proudly showed us the trees and flowers they have grown. Two seventh graders described their love of working outdoors and watching things bloom and showed us the tulips that they had planted the previous fall. In one courtyard a group of eighth graders were collecting data from the weather station, with one reading the temperature, another reading the wind direction (measured by the speed of rotations of plastic pots tied to an old bike wheel), and a third recording both. They described the

weather report as a revolving duty that their class undertook daily. A group recorded readings at different times of day and made a weather report and prediction over the PA system at the end of each school day. As mentioned above, the school's monthly newsletter, *The Bridge*, showcases student writing. A teacher compiles the newsletter in coordination with the principal, and includes reports and articles from teachers and students from all three grade-level houses. For example, a seventh grader wrote an article describing the visit of their district representative to the school after students had written letters to the representative in their social studies class "telling her about some of the issues we were concerned about like pollution, abortion, health care, guns, and violence."

An indicator of the school's commitment to students in the middle-grades is the excellent orientation of incoming sixth graders, as well as the orientation of eighth-graders to the structures and requirements of the high school. A few students reported building a model of the school for orienting incoming sixth graders and their parents from district feeder schools to the layout. Eighth-grade teachers described taking their students to visit the high school to better prepare them to make the transition from eighth to ninth grade. A teacher also described integrating career education for eighth graders, including exposing them to a career software package that "helps students determine their interest areas and pick jobs that match their interests."

Counseling is widely mentioned by students as one of the social supports available in the school. The majority of students described their counselor as someone they could go to with personal and academic troubles. We met an eighth grader outside the counselor's office who said he was going to talk with her about difficult times that his family was facing. We spoke with two counselors in the school who emphasized their readiness to support students with questions about high school, careers, as well as peer or family-related problems. The sixth-grade counselor said: "I am here for students, parents, and teachers."

The Wellness Center is a unique facility that the principal and TA partner spearheaded in their quest to make Lake a "full-service" school. Staff at the Wellness Center reported that school staff, students, families and members of the local community use the services, which are provided free of charge. The principal described the center as serving the purpose of removing health-related obstacles to students' learning:

My goal was to alleviate any obstacles that would interfere with kids' learning. I have a physician on site three days of the week, a nurse practitioner here everyday, and a social worker. They see all students regarding their concerns at no charge.

Parent involvement in the school is on the increase, according to the staff and the principal. Although we did not interview parents — that was outside the scope of the budget of our study — many in the school mentioned that teaming had contributed to improved parent involvement in students' academic and social activities in the school. The principal described parent involvement thus: "Over 1500 parents have walked through our doors since the beginning of the school year. They are very happy with the restructuring of the school. Our enrolment is up." Teachers in all the grade-level teams reported meeting with parents as a team, usually with the counselor present, to discuss a student's academic or behavioral issues. All teams stated that this presented a "holistic picture" of the student to both the parent as well as teachers. A teacher said: "The parent is not hearing differing accounts of the student from each teacher. A parent can talk with the whole team and see what her child is capable of doing academically." Team members also said they rotated outreach responsibilities such as updating the homework hotline (parents can dial to get their children's homework assignments over the phone) and contacting parents about upcoming events and other issues. The principal also described parent involvement as "overwhelming" at events such as fine arts night and parent-teacher conferences. The TA partner, however, felt that parent involvement needed to change into "true engagement." Her vision was for parents to be involved in "decision-making, in classrooms, and other meaningful avenues" and stated that parent involvement was a priority for her work with the school in the coming year.

Staff and students are overwhelmingly positive about the school's social climate. The only major suggestion made by over half of the teachers and several students, as described earlier, was the need to improve the behavior management system. Currently, the Responsibility Management Office is in charge of detentions and behavior management. Teachers stated that the current system did not help students reflect on their behavior in productive ways; students described the office as "just a detention room. You go there when you are in trouble."

Summary

Overall, Lake's partnership with TFSS and Middle Start has resulted in concrete improvements in structural arrangements, classroom practices, and social supports for students and school climate. Through engaging teachers, especially new teachers in school leadership activities, and gaining the district's support for interdisciplinary teaming, Lake has also put in place a system for sustaining the concepts and structures needed for ongoing reform. In the first two years, Lake

with TFSS' technical support, established interdisciplinary grade-level teams with a good grounding in the best practices in middle-grades education. In the next two years, the school focused on improving teaching and learning using approaches appropriate for middle-level learners such as project-based education. Lake also built student ownership of the school and involved their families in academic and social activities within the school. The Wellness Center, along with several afterschool activities, has also put Lake further on the path to becoming a full-service school.

The focus of Lake in the final year of the grant (2001/02) is to further improve instruction through professional development for staff in literacy, cooperative learning, and interdisciplinary instruction. Another key area, suggested by the staff and students, is an effective system for student behavior management, and the TA partner emphasized the need for meaningful parent and community involvement. We noted, and staff confirmed, that there were few avenues for intergrade staff networking — the school needs to develop opportunities for the three houses to engage in productive exchange with each other, and for subject-area staff from the three grade levels to work together to coordinate their academic activities.

The following section presents our analysis of factors that promote school improvement from our broader study of 10 Middle Start/CSRD schools.

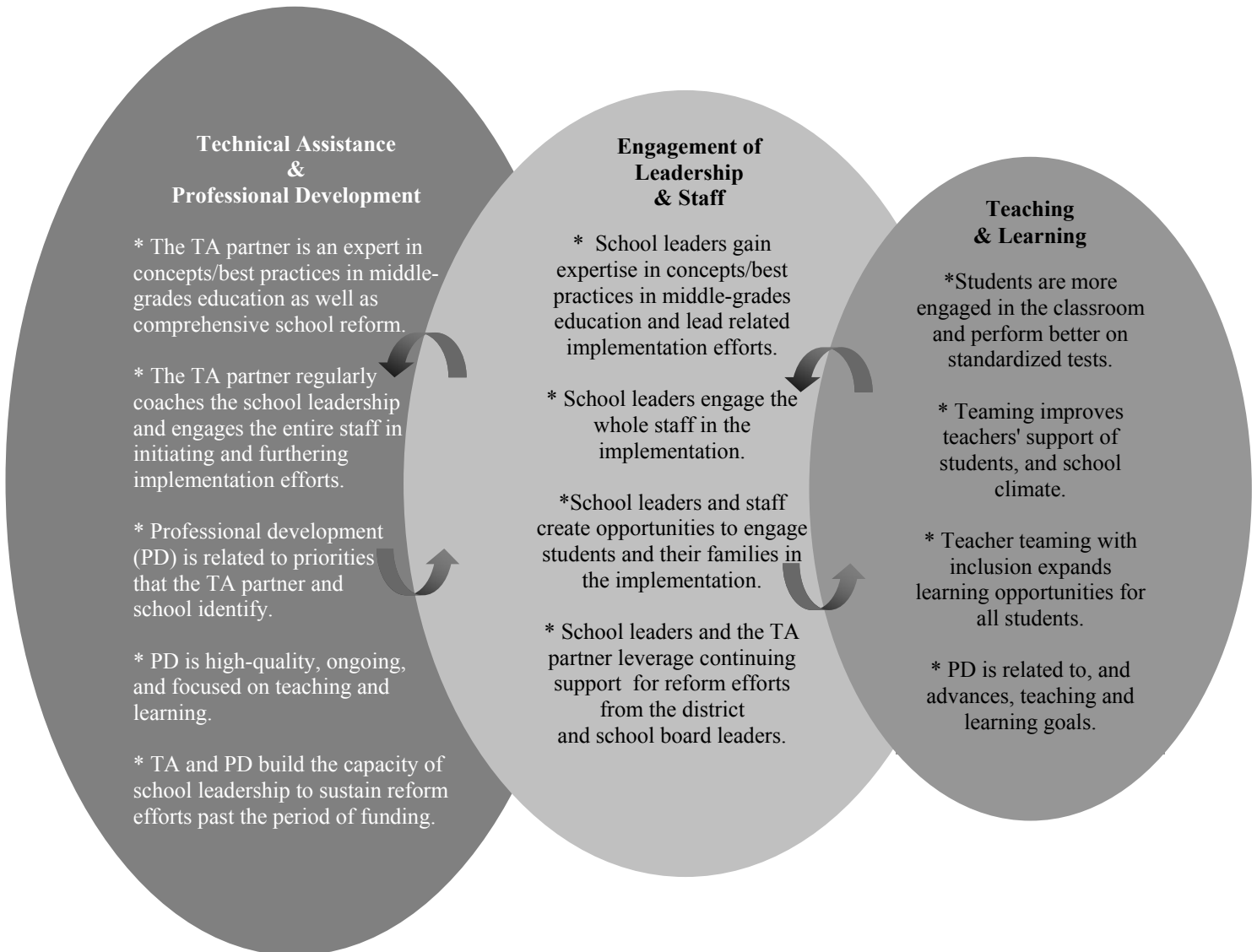
IV. Key Factors Promoting School Improvement

As stated in the introduction, the AED research team is conducting a three-year study of a sample of 10 schools implementing Middle Start/CSRD. Each of these schools has a unique context and chose different sets of strategies for implementation. They also vary in their success in achieving a learning environment that is academically excellent, developmentally responsive, and socially equitable for all students. After two years of implementing Middle Start, six of the group of 10 schools show higher levels of implementation than the other four. Key factors, such as effective technical assistance, focused professional development, and an expert and engaged school leadership and staff, are leading to improved school climate and classroom practices that positively enhanced the learning environment for all students in these six schools.

Figure I illustrates the key factors and the preliminary teaching and learning outcomes that we noted in the six high-implementation schools. Throughout the two-year study, we noted that Middle Start can better be described as an iterative school improvement approach (signified by the interactive arrows in Figure I) rather than an intervention. Middle Start takes an ongoing capacity-building

approach, as illustrated in the Lake case study. Preliminary findings from the high-implementation schools show that Middle Start's approach is effective in fostering academically and developmentally appropriate learning environments for a growing number of middle graders in these schools.

Figure I: Key Factors Promoting the Improvement of Teaching and Learning in High-implementing Schools



The **key factors** promoting school improvement in the six schools are:

- **Middle Start TA partners** are experts in middle-grades education. Middle Start technical assistance is regular, ongoing, and collaborative and guides the school leadership and staff in implementation efforts. TA partners ensure that the school is focused on the improvement of

academic and developmental outcomes for all students and coach the school in designing strategies for improvement of the same. TA partners also coach and guide the school leadership in ways that build the school's own capacity to plan and conduct reform. This approach prepares the leadership to sustain its reform efforts past the period of external funding and technical assistance.

- **Professional development** is high-quality, ongoing, and focused on the improvement of teaching and learning. Professional development needs are identified by the TA partner and school leaders in collaboration with the staff and based on a review of available data, including the school's self-study results.
- **The Michigan Middle Start Partnership** consists of middle-grades experts, some of whom are members of the National Forum to Accelerate Middle-Grades Reform and connect Michigan Middle Start TA partners and PD providers with up-to-date research and best practices in the national arena. The Partnership thus builds the capacity of Middle Start TA and PD organizations, which in turn share their growing expertise with schools they serve.
- **School leaders**, organized as a school leadership team or committee, include administrators and teacher leaders. School leaders gain expertise in middle-grades concepts and best practices through discussions with the Middle Start TA partner; study of materials in the field; attending reputable conferences on middle-grades education; and visiting schools at an advanced stage of Middle Start implementation.
- With the TA partner's support, school leaders share their growing middle-grades expertise with the **entire staff** at staff meetings, collaborate with staff in identifying and conducting appropriate professional development activities; provide follow-up support as staff begins implementing new instructional and other strategies in teams and classrooms.
- Again, with the TA partner's guidance, school leaders and staff create opportunities for **students' families and members of the local community** to learn about and participate in the school's Middle Start implementation. Specifically, parents are engaged in academic and social activities of interdisciplinary teams; parent-teacher conferences; orientations for parents and sixth graders to middle school; and high school preparation of eighth graders.
- School leaders and staff, with leadership from the TA partner, keep **district and school board leaders** informed of the progress of their Middle Start implementation. They identify areas of improvement, as well as areas needing improvement, and leverage the continued support of district and board leaders to sustain their reform efforts past the period of external funding.

Preliminary Outcomes

The six high-implementation schools, therefore, saw the development of significant leadership and teaching capacity for middle-grades reform by the end of the second year of

implementation. We noted the following preliminary outcomes¹¹ — positive changes in classroom practices, improved test scores, interdisciplinary teaming, and expanding inclusion of special education students in regular programs, and professional development for improved teaching and learning — in the six schools with all or most of the above factors in place:

Classroom practices in the high-implementation schools are more varied since the beginning of the Middle Start/CSRSD implementation. In these schools, instruction is focused on literacy-across-the-curriculum, project-based education, and service-learning. Principals and teachers report that there is less direct instruction, which was the predominant mode prior to the Middle Start implementation. In interviews, students remarked that they learned best through projects and other approaches connecting subject-area content with current events and their own experiences, and noted that they did such "fun" and "interesting" assignments more frequently in their classes. Principals and TA partners noted that students were more engaged in their classes and had extra learning support from teachers in completing their assignments. Students also performed better on the Michigan Educational Assessment Program (MEAP) tests in high-implementation schools. Table I reports average changes (%) in Grade 7 MEAP reading test scores for high-implementation and lower-implementation schools from 1999 to 2001 (the first two years of Middle Start/CSRSD implementation). Reading scores improved for high-implementation schools by over 10% from 1999 to 2001 and declined slightly in lower implementation schools during the same period.¹²

Table I: Changes in Grade 7 MEAP Reading Scores from 1999 to 2001

Average Percentage Change from 1999 - 2001 in Students Attaining "Satisfactory" on Grade 7 Reading Test	
High Implementation Schools (N=6)	Lower-Implementation Schools (N=4)
(+) 10.4%	(-) .85%

Interdisciplinary teaming was a major focus of the Middle Start implementation for all 10 schools in the sample. Leadership teams and staff, with their TA partners' guidance, discussed possible teaming schedules; visited schools with teams; undertook professional development on effective teaming; worked with the district on staffing teams; and instituted interdisciplinary teams

¹¹ Final outcomes will be reported at the end of the study in fall 2002.

as an important step in their Middle Start implementation. By all accounts, teaming has paid rich dividends, especially in high-implementation schools — teaming facilitated the development of small learning communities in the high-implementation schools. Several of these communities have a name and motto; a set of expectations that teachers make clear to students; and common planning time for teachers to collaborate on student assessment, interdisciplinary projects, and parent conferences. Teachers, administrators, and TA partners alike stated that teaming improved teacher-student relationships, enabled teachers to gain a holistic perspective of each student and address their interests and aptitudes, and keep in better touch with students' families. The majority of students interviewed in high-implementation schools reported that they did not hesitate to approach teachers on their team for help with assignments or with a personal difficulty, and expressed satisfaction with their school's physical and academic environment.

The high-implementation schools are also at various stages of implementing **interdisciplinary teaming with inclusion** of special education students, as part of their Middle Start implementation. At least four schools instituted teaming with full inclusion, although they also maintain resource rooms where students can work with a special education teacher. In these schools, a teacher consultant (special education teacher) provides in-class support for special education students in a regular education environment. The other four schools instituted teaming with full inclusion as a pilot program in one or more teams and are expanding inclusionary practices schoolwide. Teachers undertook professional development on effective teaming, differentiated instruction, cooperative learning, and other instructional strategies, as part of their preparation to work effectively in teams and with special education students. Principals, TA partners, and teachers reported that with the right teaching approaches and support, special education students adapted successfully to being in regular education classrooms. They also acknowledge that inclusion is difficult to implement and requires specialized professional development and additional staff on each team. High-implementation schools have also ensured that teacher consultants share the same planning period as the team they work with, fostering greater collaboration between regular and special education teachers.

Professional development (PD), like teaming, was an important first step for all schools in the sample, which helped staff in these schools gain expertise in best practices for teaching middle-

¹² The Grade 7 MEAP math test was replaced by a writing test in 2001. It was therefore not possible to compare Grade 7 math scores for the 1999 - 2001 period.

grades students. Although PD by itself is not a final outcome of school improvement, the improvements in instruction that it fostered, especially in high-implementation schools, is an important intermediate outcome of schools' Middle Start implementation.

To select appropriate PD programs, staff and administrators — with the TA partner's guidance — first reviewed multiple sources of school data, including the school's self-study results, to identify teaching and learning goals for the school as a whole. All schools in the sample used data to guide professional development decisions, with the assistance of their TA partner. High-implementation schools closely aligned their PD plans with their teaching and learning goals. All six schools identified PD in effective teaming and varying instructional strategies as essential for school improvement efforts. TA partners helped them select high-quality PD providers, who after the initial workshops would also continue to provide on-site implementation assistance. TA partners, principals, and district leaders described extensive and excellent PD opportunities that fostered improvements in instructional practices at the team and classroom level. Teachers interviewed in high-implementation schools described PD experiences through Middle Start as thorough and ongoing, and reported using a variety of teaching strategies, such as cooperative learning, thematic instruction and differentiated instruction. The focus of high-implementation schools on high-quality professional development furthered their staff's ability to teach and support students in more effective ways.

Of the sample of 10 schools, four schools did not attain the same high levels of implementation that the six schools discussed above attained. Their experiences illustrate a need for a longer period of technical support and additional staff and leadership development. Middle Start implementation in the four schools suffered for one or more of the following reasons:

- The TA partner did not have the required expertise to win the confidence of the school's leadership and staff, as well as guide their implementation efforts.
- The principal did not develop his/her knowledge of middle-grades reform concepts and best practices; did not collaborate with the TA partner on a regular basis to plan and conduct the implementation; and did not attempt to engage the staff in professional development and implementation.
- Staff did not become engaged in the Middle Start implementation because of a history of poor relations with the principal and/or union-related issues. They perceived Middle Start as "yet another reform effort" that would disappear when a change occurred in either the district or school leadership.

- Several district and other initiatives competed with Middle Start for the attention of school leadership and staff. It took repeated efforts for the Middle Start TA partner to identify the multiple initiatives and help the school align its efforts so that the initiatives worked together, rather than at cross-purposes.

Conclusion

The case study of Lake Middle school described the multiple areas in which the school developed its expertise — leadership development, teaming with inclusion, project-based education, literacy-across-the-curriculum — to name some key areas. The study also showed that Lake forged a productive relationship with the Middle Start TA organization TFSS and the Michigan Middle Start Partnership. In addition, Lake forged beneficial relationships with local universities, families of students, and the district and school board to move its efforts forward. It has taken four years of sustained capacity building for the school to significantly improve its teaching and learning environment in ways that benefit students.

We conclude by highlighting the importance of leadership development and teacher professional development, or the overall improvement of school capacity, to fostering improved academic and developmental outcomes for all students. The technical assistance role is crucial to the development of school capacity, and TA partners need adequate preparation to be effective partners to schools' reform efforts. Finally, in order to sustain improvement efforts, schools need to develop productive partnerships with students' families, the district, school board, and other key organizations in the community. With these elements present, Middle Start's approach to middle-grades reform has developed the capacity of Lake and other high-implementation schools to improve academic and developmental outcomes for middle-grade students in an equitable and sustainable manner.