The Wisconsin Rural - Urban Whole Schooling Research Project

1998-2001

Across Schools Analysis and Findings

Written By:

Kim S. Beloin, Ph.D.
Cardinal Stritch University
Milwaukee, Wisconsin

And

Paula DeHart, Ph.D.
UW-Stevens Point
Stevens Point, Wisconsin

The following document contains the overall analysis and findings from data collected in eight Wisconsin schools. Data was collected over a two-year period of time, beginning in the spring of 1999 and ending in the spring of 2001. Guiding Principles, Findings, Conclusions and Future Directions are presented in this document.

Introduction:

The following manuscript is based on the data collected, analyzed and compiled from eight Wisconsin schools during 1998-2001. The eight schools include rural, urban, and suburban school districts that span across elementary, middle, and high school levels. The schools you will read about in this manuscript are: Verona Area Senior High School, Colby Middle School, Walker International Middle School, Lincoln Elementary School, Oconto Elementary School, Lily Elementary School, Frank Elementary School, and Gilman Elementary School. We are grateful to all of the schools for their eager participation in this research project.

The data was analyzed using the five principles of Whole Schooling. Each of the five principles, with corresponding findings and examples are presented below. These findings and examples will provide other schools with ideas and processes that have been effective and useful for a range of students. Likewise, there are also some counter examples that can provide insight into the roadblocks that can inhibit effective and successful practices in schools. Finally, it is out hope that this document will prompt further thought and planning on the part of schools who strive to be whole, inclusive, and democratic.

Principle 1: Empower Citizens in a Dem0cracy

The goal of public education is to help students learn to function as effective citizens in a democracy.

As stated in Principle 1, helping students to function as effective citizens in a democracy is the ultimate goal of public education in the United States. It is easy to get sidetracked by the many competing philosophies and agendas that operate in our society and forget that the endgame for any school initiative should be educating children who can access and analyze information, appreciate and critique multiple viewpoints and use what is learned from these endeavors to actively participate in local, regional and national communities. Because of the important role schools play in teaching essential participatory skills and in perpetuating democratic ideals, all of the schools in this study were examined for their nurturance of democratic decision-making.

Finding 1: Committed respected school leaders support the school community in democratic decision-making.

Within the broad arena of democratic schooling, two areas of support for decision-making surfaced as key to the overall sense of empowerment on the part of school community members. The first of these is the kind and extent of support for decision-making shown by the building principal and the second is the presence and degree of site-based management in each school, which often went beyond the purview of the principal.

In all eight schools, the role of the building principal, who generally is viewed as the primary symbol of authority in each school, was key, especially to the teachers. In the schools where they felt their decisions were supported by the building principal, teachers articulated a high degree of efficacy, exhibited creativity and variety in instructional approaches, demonstrated strong support for inclusion and expressed satisfaction with their work environment. The following paragraphs will describe several ways in which principals supported democratic decision-making and the reaction of school community members, particularly teachers, to this support.

There were many kinds of decisions that teachers were empowered to make in the schools observed and two are particularly noteworthy. The first of these, which teachers generally had control over and the importance of which they underscored in many ways was over the curriculum and instruction they implemented in their classrooms. The following quote exemplifies what was found in most schools, "All of the instructional decisions are up to us. The principal gives advice if you want it, but he doesn't come in and tell us how to teach." Even in schools where teachers had limited decision-making power in larger school matters, they usually had control over the curricular content and methods of instruction in their own classrooms. Evidence of the importance of this kind of decision-making power will be highlighted again and again in the remainder of this report as we examine how critical the choice of content and instructional methods are in the successful inclusion of all students.

A second kind of decision-making power that was observed in the study schools that is worth noting is the teachers' role in creating and implementing new school programs. These were programs that impacted classrooms across the school rather than single classrooms. One such example was a school-wide reading program that had been entirely researched and created by the school staff. The reading model was set up in such a way as to include all students, provide instruction at the appropriate developmental level for all students and provide access to the same curricular content to all students. This program was discussed with pride by all of the teachers involved. In another school, the teachers created a new advisee/advisor program for middle school students to ensure that every student in the school felt a closer connection with at least one teacher in the building. In this instance, the principal also provided support in the form of summer pay for the teachers involved. It was observed that when teachers had control over the creation and direction of new programs, their participation in the program was enthusiastic and genuine.

Several comments were made about the importance of having the support of the principal, even when the principal didn't agree with the teacher's decision, as in the following, "All three of our principals, you can go to them and ask for suggestions and support, and they will support you. Even if I don't do the right thing, I know they will support me as much as they can. I don't think you could have a better administration." The resulting impression teachers had when they felt supported by the principal in decision-making was that they were trusted, respected and perceived as professionals, as the following quote demonstrates, "I think our principal really lets us make a lot of decisions. He isn't always in favor of our decisions, but he supports them. For example, he didn't like how we are doing the afternoon, but he said, "Girls you are all professional, so give it a try."

In contrast to the feeling of empowerment created by the principal's support of teacher decision-making were the negative feelings created when important decisions were taken out of the hands of the teachers. This was illustrated powerfully in one school where a school-wide reading program was mandated by the district and approved by the principal against the wishes of many of the teachers. One teacher expressed great frustration in having to use a program that went against her own beliefs, "I don't believe in direct instruction, so I don't like coming to school everyday. We do it because we are professional and are told to do it, but we don't agree with it." Another teacher in the same school echoed a similar sentiment and elaborated on the impact it has had on the teachers in the school, "In the past four years, there was more creativity in teaching. This year, there is no time to teach anything but the mandated programs." The risk taken by principals when they make important school decisions without the input of teachers is the resulting cynicism in teachers' attitudes, which can undermine future improvement efforts in the school. One teacher gave voice to this cynicism as he spoke of his principal's approach to decision-making, "His leadership is the old school of top going down. He says why should I have the input of everyone when I can just make the decision."

The second type of school leadership support for democratic decision-making, was the presence of site-based management in the schools. All of the schools had some degree of site-based management, but varied widely in the form and extent of decision-making power. The greatest degree of decision-making power was demonstrated in schools that had control of fiscal decisions. The site-based management teams that held the greatest degree of power also generally had wide representation from the school community, as the following quote demonstrates: "We have site-based management. All schools in the district have complete financial and educational control. We have a site council that is composed of students, teachers and administrators. There are 24 of these individuals and we make all of the decisions." This particular site-based council had control over 85% of the school funds and also had a voice in hiring decisions for the district. While school principals often held seats on the management teams, their role was as an equal member. A teacher explained about his districts' site-based management team, "The steering committee makes a lot of decisions. There are representatives from everywhere. We take turns so that everyone gets a chance to be on it. We have a committee for the advisor/advisee program. On occasion the principal makes a decision, but that is pretty rare, it is pretty much all team oriented."

Not all schools had site-based management with the extent of power described above, but all schools had school committees that made decisions about school policy and programs. Some of the other kinds of committees observed were a School Improvement Committee, Sunshine Committee, Building Committee, Science Fair Committee, Field Day Committee, Report Card Committee, etc. These committees made decisions about such things as staff get-togethers, assessment and discipline policies, school goal setting, the scheduling of instructional time, the use of the school building after school hours, community projects and extracurricular programs. One of the schools had charter school status and two additional schools were in the process of applying for charter school status, so these schools generally had a committee or team that was responsible for making decisions about the direction of the charter school.

In contrast to the many examples of true decision-making power on the part of site-based management teams and other school committees, there were a few examples where the teachers felt that committees were set up to give the illusion of power, but that it was not real. As one teacher stated, " Site-based management is a façade. District office makes the important decisions." The resulting feelings of manipulation on the part of the teachers has a detrimental effect on their attitude about school policies and decision-making as expressed in the following statement, "I know there is a Principal's Council, but I have never sat on it. I hear that even though people get to have their say, decisions are made administratively. This includes the principal, but also includes the superintendent." The risk in having teachers perceive insincerity and even manipulation on the part of school administrators related to power distribution and decision-making is the lack of support the teachers then give to initiatives that are instituted by the district administrators, even those that might be good for children.

Finding 2: Students are involved in leadership roles and decision-making.

Since the teaching of democratic skills and principles is such an important function of schools, all of the schools in this study were examined for the ways in which they encourage students to take on leadership roles and make decisions in the school and classroom. The leadership and decision-making activities of students fell under four main categories. The first type of leadership activity observed was that of students serving as teachers, the second was students making decisions about discipline and behavior, the third was students involved in school government, and the fourth area observed was students choosing instructional activities and other special activities in which to participate. Each of these student leadership areas will be described in the following paragraphs.

In classrooms where students were observed acting as teachers, the teacher either stated or modeled a belief that students could gain a great deal from teaching and being taught by their peers. One teacher put it this way, "We are all teachers; there is a fine line between helping and creating. Students are teachers as well. We can learn from everyone. Even students with special needs can teach us something." This belief played out in a variety of ways in the classroom. At times students took on short stints as teachers, as in a student who was called to the overhead to demonstrate how to complete an exercise or as described in the following example:

> Mr. N. said, "We are going to do Word Wall now. Four of you may go up and pick out your pointers." Three of the students went up to the front board and took a pointer that was hanging on magnet hooks on the front board. The pointers looked like jester's sticks and had cartoon characters' heads on them like Tweetie Bird and Daffy Duck. Mr. N. called on a female student and she went to the Word Wall, pointed to each word and read, "Are, again, black, boy, best, bug, car, city, etc.

At other times, students had more extensive teaching responsibilities as was observed in a reading and writing skills class. Observation notes describe this scene:

> A student was running the discussion group. He had selected an article for the whole class to read, had developed questions for the class discussion and had created an assessment to evaluate understanding of the article. The teachers in the classroom (a general education teacher and a special education teacher) were required to complete the assessment along with the students.

In varying degrees in the above examples, students are learning important lessons about serving in leadership roles and working with others in a school community.

The second area students were seen acting as leaders and making classroom decisions involved classroom behavior and discipline. In some schools, students created guidelines for appropriate behavior. In one classroom students determined "Above the Line" and "Below the Line" behaviors, described what these behaviors would look like in the classroom and then determined consequences for engaging in the behaviors. In other schools, students served as peer mediators for solving student discipline problems. One example of this was an incident involving students talking in a school stairwell, which was against school rules. The four students who were involved got "Think About It" slips and then had a chance to explain their side of the story to a peer mediator. The peer mediator interviewed each student to try to find out exactly what happened. After the meeting, the peer mediator explained to the classroom teacher that the talking that had occurred was part of the hall monitor's duties, so was not a breach of classroom rules. In this particular situation, the peer mediator's decision was respected by the classroom teacher and no further action was taken by her.

The third area of student leadership and decision-making observed had to do with student government. There was some evidence that students in the research schools were involved in student government, although this finding was not widespread. One school where this was observed had an active student council that raised money for charity organizations, planned school events, and organized community service projects. In another school, students served on the school's site-based council, which made many important decisions about school policies, programming and financial decisions. There may have been other student government activities present in the eight research schools, but they were not observed during the researchers' time in the schools.

The last area where students got involved in decision-making and leadership was when they had the opportunity to choose instructional and other special activities in which to participate. Students as young as kindergartners were observed making decisions about how they wanted to spend their "Free Choice" time. The kindergarten students in one school were routinely given time during the school day to choose activities and were given a variety of high-interest activities from which to choose. Students were given choices in other classes as well, as the following description illustrates:

> Mrs. U. said, "Today, since it is kind of a special day, you will have the choice of reading or writing workshop. When you come back to meet with me, you can bring your reading or writing. You can do either one, but right now you need to make a plan."

As is illustrated in this last example, having the power over one's time also brought with it the opportunity to learn how to set goals, choose priorities and allocate limited time, all of which are skills children need to be successful as students and also later to lead productive lives as adults.

In addition to the instructional activities already mentioned, students in the eight research schools were involved in special kinds of decision-making and leadership roles that aren't as easily categorized. These include writing the school newsletter, leading parent conferences, carrying out classroom jobs, running a school-based business, and planning special programs, like the special Earth Day play and program that one group of youngsters planned for their parents and other community members. Due to the importance of students learning how to participate in democratic settings by the time they are adults, this is an area that all schools should examine. While there were some examples of student leadership and decision-making found in most of the schools, this is a crucial aspect of Whole Schooling and one that could be developed more in any school.

Finding 3: Schools grow and change quickly, but schools reform slowly.

This study seems to point to the importance of differentiating between "change" and substantive, long-term school reform. During the course of this study several of the research schools experienced rapid change. The changes that occurred came in the form of new principals, changing staff, charter school status, rapid school population growth, and mandated testing and programming. Most of the rapid changes that were observed in the research schools had little to do with school reform efforts, but nevertheless the two were connected. Through examining the relationship of rapid change to school reform in the eight schools, several different relationships between the two were discerned. The first kind of relationship that was observed was where rapid change slowed or impeded school reform efforts as the following quote illustrates:

> Sometimes, I am surprised at how quickly schools can change. From last spring to this fall, a whole new reading program was implemented with ongoing, intensive training and the purchasing of new reading materials for the entire school. Within months, the school went from a more of a Whole Language, literature-based reading philosophy and approach to a strictly phonics and skill-based approach.

What was particularly detrimental in the above example is that the district mandated program went against strongly held beliefs on the part of the teaching staff about what was best for children, which had been at the core of their reform efforts.

The hiring of a new principal in another school also threatened the reform efforts that had been in place before his hiring. The new principal had a different philosophy on special education and inclusion, which had been central to the reform efforts spearheaded by the previous principal. Staff members that had been very committed to the reform efforts of the prior principal were apprehensive about what would happen when the new principal was hired in the first year of this study. At the end of the site visits to this school, the teachers' fears about change were partly realized. The approach to inclusion had moved in a different direction with a cut in special education staff and less support for team teaching between special and general educators. The teacher-created reading model, which had been at the core of reform efforts at this school was still in place, but under examination.

The second relationship observed between rapid change and school reform was where the changes that occurred impacted the school, but had little effect on school reform efforts. In two schools the changes were related to rapid population growth. While the rapid growth in student population had a tremendous impact on availability of space, allocation of resources, class size, and teacher-to pupil ratios, and presented challenges to the schools' reform efforts, these schools did not change course. Their strong commitment to the ideals of including all students, promoting democratic principles, implementing authentic curriculum, and partnering with parents and the community were not deterred. Similarly, there was second school in the study that had a change in leadership at the beginning of the research study. Unlike the previous example where the change in leadership slowed reform efforts already in place, this newly hired principal shared the previous principals' commitment to the middle school concept and Whole Schooling and reform efforts continued unhindered. For this reason, the match between an applicant's beliefs and the core beliefs guiding reform efforts seems critical for any school to consider when hiring a new principal.

A third relationship between rapid change and school reform that was observed was where the rapid changes were related to school reform efforts and Whole Schooling. In this case, the principal was committed to inclusion, authentic curriculum, collaboration amongst school faculty members and partnering with families and the community, and tried to bring about change in the school at a rapid pace. The following quote exemplifies a teacher's reaction to these changes: "As far as being a leader, she came with a lot of ideas for changes. We don't do a good job of getting used to things. We would have been more supportive if we had more time to deal with each change. A lot of her ideas, like inclusion, will start without the proper training." In this example, the principal had the best of intentions and her efforts were closely aligned with Whole Schooling, but the changes were not as successful as they might have been because teachers were not given enough time and training.

Finding 4: School leaders promote and believe that continual staff development, research, and collaboration improves the quality of education for all.

There were several ways in which school principals promoted staff development, research and collaboration. The first of these was the ways in which the principals modeled and encouraged professionalism. In buildings where the principal modeled professional dialogue, knowledge of current educational research and reflective practices, teachers valued the same things. The following quote exemplifies the importance of the principal as a professional role model. When asked what was good about the school, a teacher replied, "The dedication of teachers, professionalism, and the professional dialogue, which comes from the leadership. After the Monday memos, the principal gives some kind of professional article to read. I know if he attaches it, that the article is worth the time to read. Many of the staff will talk about the article in the teachers lounge." This same sentiment was echoed by a teacher in another school who also spoke of the importance of her principal as a professional role model. She stated, "The principal puts articles in my mailbox. Every other week she puts out a newsletter that describes teaching strategies and other things that work in schools." In schools where the principals shared professional literature and promoted professional dialogue, teachers were especially enthusiastic about trying new ideas, were able to identify the theoretical approach they were implementing (i.e., Multiple Intelligences, cooperative learning, effective schools, middle school concept, etc.) and explain how the teaching strategies they were utilizing benefited their students.

Another way school leaders promoted staff development, research and collaboration in the eight schools was through their support of professional growth opportunities for their teachers. The professional growth opportunities took the form of workshops, in-service training, teacher-release time, visits to other schools, and time and funding for curriculum development and collaboration. The opportunities for professional growth were highly valued by the teachers interviewed, and the principals who supported professional growth were appreciated as this teacher's statement makes clear, "She (the principal) loves to give us opportunities to attend conferences, to collaborate and team together, even during the [school] day. During the summer, we can get curriculum hours, where we get paid." Getting paid for extra work during the summer is not a common occurrence in school districts and this teacher understood that her principal walked the talk of staff development.

The school leaders' investment of time, energy and funding in professional development for their teachers reaped many benefits. Teachers frequently credited new and innovative teaching techniques they were implementing in their classrooms to a workshop or in-service. One teacher said, "We just went to a conference on the five types of writing, and we were all impressed, and we are now using that." Another teacher credited her loyalty to the school district to their support for professional development. She explained that she drives 40 miles one way to teach at the school because she appreciated their support in the form of funding for materials and workshops. The school district had recently made it possible for her to attend a science institute in Chicago, from which she had picked up new ideas for teaching hands-on experiments related to rocks and minerals.

To further highlight the importance of leadership support for staff development, a counter example is illustrative. In contrast to the enthusiasm for innovation shown in schools where teachers received in-service training and financial support to attend workshops, here is what one teacher said about her principal's efforts to move the school toward more inclusive practices:

> I would like to see our teachers have more in-service on the whole inclusion idea. I haven't been trained in special education so I don't know how to work with kids. I would like to see more information and more workshops. I don't want the theory, I want the meat. I want to know how to do it.

While cost to the district can deter school leaders from investing in staff development, this expense must be weighed against the many benefits that are gained in teachers' zest for continuous professional growth and the impact that has on job satisfaction and student learning.

Finding 5: Diversity across ethnicity, SES, culture, ability, etc. is accepted and valued.

Diversity in the traditional sense of the word, which usually means race, was not very evident in the majority of the schools that participated in this study. This is not surprising because six out of the eight schools were located in rural and suburban Wisconsin, where there is very little racial diversity. In the two schools that were located in urban districts, there was a greater degree of racial diversity observed, but this kind of diversity was not the norm. While there wasn't a great deal of racial diversity observed, in the schools where there was more diversity, it was clearly valued. As a parent in one of the more racially diverse schools explains, "The people who work here are diverse – different political persuasions, religious persuasions – we love that diversity and learn from it." In addition to teachers and parents expressing appreciation for diversity, there were also many examples where this was demonstrated in classrooms through interracial friendships, racially mixed academic working groups within the classrooms, and the inclusion in the general education classroom of students who were from diverse racial backgrounds and had learning disabilities.

In the schools where there was little or no racial diversity, enthusiasm for diversity of many other kinds was observed and expressed. There were examples where non-English speaking students transferred into the schools and were included in the general education classroom. In one case, a girl who spoke only Arabic transferred into one of the classrooms. With the support of the classroom teacher and the girl's aunt and uncle who were able to translate her homework assignments, the girl was making significant progress. In another district, which had very little racial diversity, the school had a student transfer in who spoke only Spanish. The school was not set up to handle a non-English speaking student, but they acted swiftly to help the student feel included. The school's technology person loaded a program in the computer lab that allowed the student to translate between Spanish and English and the at the end of this study, the principal was in the process of investigating other assistive technologies to support the student's successful transition into the new school environment.

Another form of diversity that was clearly valued across the schools was support for inclusion of students with varying disabilities and special needs. One example that particularly stood out was the inclusion of a student with autism in the general education class. Because of the length of the research study, it was possible to observe this student as she progressed from kindergarten to second grade. At the beginning of the study, she had no language skills and had very little involvement with the other students or the activities that were going on in the classroom. By second grade, she was doing some speaking, she was interacting with teachers and students in the classroom and she was participating in learning activities. Throughout our observations of this student, the teachers and paraprofessionals who worked with her showed strong support for her inclusion in the general education classroom and confidence in her ability to progress and succeed.

The example of embracing students with special needs that was set by teachers and administrators in the research schools also filtered down to the students. In the example of the student with autism, students in her classroom were regularly seen spontaneously hugging her, encouraging her and applauding her progress. In another school a teacher describes a problem that arose because of the high degree of tolerance on the part of the student population:

> The [school] environment is very tolerant of students with special needs. Sometimes too tolerant. We had a student who was CD who liked to hug everyone. He was 6'2", it was a little intimidating. We had to teach students to

> say, "I'll high five you, but I won't hug you. When he gets out into the real world, he isn't going to be able to hug everyone.

It appeared that in schools where students regularly interacted with students who had physical, cognitive, emotional and learning disabilities, the students with disabilities were perceived as the norm rather than novel oddities.

Another form of diversity that was embraced in several of the research schools was diversity in age. Two of the schools had multi-age classrooms and several of the other schools had courses, school programs and extracurricular activities that included students from different age groups. The more common it was in the schools to have students of different ages working together, the more acceptance there seemed to be for varying abilities. Rather than assuming students should all be at a similar stage of development, teachers in multi-age environments assumed students would be at various levels and planned instruction accordingly. One teacher described it this way: "Just having the multi-age makes it so much easier to adapt to differences among the ages. It happens naturally and without stigma. It isn't an added imposition, it is just part of the planning. We give the kids a lot of choices and we try to encourage the kids to make the right choices. We talk about work that is challenging, just right and too easy and the kids get used to those terms and choosing work that is right for them."

There were very few examples across the eight schools where negative attitudes about any of the kinds of diversity mentioned above were expressed. Generally, school personnel viewed diversity as a positive because it provided students with opportunities to experience people with varying beliefs, abilities, talents, disabilities and opinions. There was one exception to the valuing of diversity that may seem innocuous, but is worth examining. This had to do with the separation of males and females in some classrooms. While in one school classroom, male and female middle adolescents were observed discussing human sexuality and reproduction together, in another school classroom, elementary students moved through the halls in "boy lines" and "girl lines" and all of the girls were directed to do one activity while the boys were directed to do another. It is understandable why teachers might feel that separating boys and girls in this way would deter disagreements between young boys and girls and avoid discipline problems, but there is a larger issue of what happens when students grow up seeing divisions along gender lines as natural and even desirable.

Finding 6: Students, teachers, and parents are encouraged and empowered to develop their true selves.

There were many ways that students, teachers and parents in the research schools were encouraged and empowered to develop their true selves that have already been covered in previous findings of Principle 1, but are worth mentioning again. Regarding teachers, they seemed to feel most empowered to develop their true selves in schools where they are supported in democratic decision-making and encouraged to grow through professional development opportunities. As was mentioned previously, in schools where teachers felt supported, they in turn supported school reform, were willing to take risks and try new teaching approaches, worked to include all students in their classrooms and expressed greater job satisfaction.

Like the teachers, involving students in decision-making and leadership roles also helped them feel empowered to develop their true selves. Previous examples were given of students serving as teachers, making decisions about discipline and behavior, serving in school government and choosing instructional activities and other special activities in which to participate. What these examples have in common is that they communicate a trust in the ability of the students to handle responsibility. This was also observed in less significant ways like students carrying out classroom duties. In one school, all of the students had duties that they carried out every day. One student was observed walking into the school office area and picking envelopes up out of a basket. Rather than scolding the student for going where she didn't belong, the school secretary said, "Did you forget your mail?" It was this student's responsibility to see that all school correspondence made its way out to the mailbox everyday. The level of trust exhibited toward this student to carry out an important task has the potential to have a lasting impact on her self-image and confidence.

In addition to involving students in decision-making and giving them responsibility as leaders and in classroom tasks, there were other activities and attitudes observed in the eight research schools that encouraged students to develop their true selves. One very interesting finding was the way in which student behavior was viewed. There were numerous examples in the eight schools where students engaged in behavior that might have been viewed by teachers in more traditional settings as "problem" behavior, but was instead interpreted as an expression of individuality and viewed as an opportunity for the teacher to learn more about the student. An observation in a kindergarten room illustrates this point. The following scenario occurred in a class where students had been asked to draw pictures of themselves:

> As the students worked on the drawings of themselves, one little boy said he was sitting on the "poddie." Mrs. D. walked over to him and said, "I think you were trying to draw yourself and it didn't look exactly the way you wanted so you said you were on the 'poddie.' What would you like to change?" Mrs. D. walked over to the observer and said, "I'm keeping my eye on his drawing, he started out by drawing facial features, which is a higher level skill and then couldn't draw the body the way the other students were so he said he was sitting on the pot."

Notice that in the above interaction Mrs. D. said, "I am keeping my eye on his drawing," instead of, "I am keeping my eye on him." In a later conversation, Mrs. D. made a statement that seems very much reflected in the above scenario, she said, "You just listen to the kids talking and you learn a lot about what they know." Rather than jumping to the conclusion that students are goofing off and trying to cause trouble, the teachers in Whole Schools look beneath the behavior to see the unique individual underneath and what he/she is trying to express. In this way, rather than punishing students, teachers open the door for students to continue to discover their true selves.

Giving students a variety of opportunities to engage in activities during the school day that went beyond the traditional academic classes and to participate in activities outside of the school walls and hours also provided them the chance to learn more about themselves. Some of the activities and classes in which students engaged were related to creative endeavors like band, choir, and art, which offered them opportunities to demonstrate talents that might not otherwise be utilized in academic classes. Other students were able to participate in things like athletics and student council. One school offered a variety of special classes to students on Fridays including Tai Bo, weightlifting, computer skills, and book talks. These classes were an intentional plan on the part of the school staff to help students discover possible lifelong interests and tap hidden talents.

Activities that were offered outside of the school walls and/or school hours were field trips, academic and athletic camps, special programs for parents like plays and concerts, and community service projects. All of these activities help students discover skills and talents they possess that might otherwise remain hidden in traditional academic classes. The importance of having these kinds of varied experiences was noted and appreciated by students. When asked what was good about her school one student responded, "I think they offer a lot of good opportunities for students like Women in Science Day. They offer camps like they give information about things like science and athletics. I belong to band and choir and basketball."

Principle 2: Include All

The second principle of Whole Schooling supports instructional practices where All children learn together across culture, ethnicity, language, ability, gender, and age. This principle is exemplified in many different ways. The following findings and corresponding examples will demonstrate this.

Finding 1: Students with disabilities have access to the general education curriculum.

Over the years, many of these research schools have evolved from having self-contained special education classes where students with disabilities worked on special and different curricula, to including all of the students with disabilities in general education classes. There were very few remnants of self-contained classes left throughout the eight schools studied. One high school teacher said, "This year, I don't have any self-contained classes. In the past, I have had self-contained math or social studies. We may be able to keep the kids up to credit by having them take a consumer math class, so they are still getting math credits. We think being with general education peers is the preferred way to be. When they get out of high school, they are not going to be in sheltered environments." This teacher also referred to distributing students with disabilities among their nondisabled peers. In the research schools, a common practice was to naturally distribute the students with disabilities through their grade-level classes and use the special educators as classroom teachers or support teachers. One teacher commented, "We have total inclusion. The special ed. teacher and I team-teach at times and we work together to modify. The Student Tutoring Extension Program (STEP) is also an example of using staffing realignment as a means to support all of the students. STEP is staffed by the reading specialist, a multi-categorical special educator, a special education paraprofessional, and the speech therapist. Any child (with or without disabilities) can receive help from the STEP staff and the children who request or need help change from week to week depending upon the curriculum and needs of each child. The STEP staff said, "STEP has been the greatest way to help students meet regular curriculum goals. The curriculum that each child is working on with the STEP staff comes from the classroom. We were concerned that kids were learning to be good remedial students, but were not learning to be good students. STEP gives all of the students support for becoming good students."

In most of the schools, their practices of staffing realignment resulted in smaller class sizes or smaller pupil-teacher ratios. The smaller ratios and more opportunities for students to receive instruction and help from a teacher or assistant was one of the keys to meeting the needs of the students with disabilities while also meeting the needs of the students who don't qualify for special education, but needed support. A few of the schools used their special educators as classroom teachers and reduced the pupil-teacher ratios down to 15 students per teacher. At times, two teachers and two groups of 15 students might join together for a team-taught lesson. Other schools had a special educator assigned at each grade level and the special educator would rotate among the grade-level classes to support students and co-teach. As one special educator said, " My students are fully included, I have no pull outs. I just adapt the regular assignments to each student. I travel around with my students from class to class." One of the principals also commented, "I really believe the key is small class sizes. I think there should be smaller class sizes for K through 12. Having smaller class sizes can really meet the needs of the kids. I would like to see classrooms with 13 to 14 kids. Even in junior high and high school in lab classes, we are going for sizes of 15." There were various other teaching structures that were used to give all of the students more instruction and support time from a teacher.

Teachers worked in concert with one another to make modifications to lessons and accommodations for individual students. The practice of making modifications has been paramount to this finding of giving students access to the general education curriculum. A special educator said, "The way we are working with kids within the general education classroom is better than the way we pulled them out before. One time, a couple of years ago, I went in to observe in a 4th grade room and I realized that I had kids sitting in my special education classroom that could be working in here with just a few modifications." One of her general education colleagues commented, "I include everyone to their ability. I rephrase questions, modify math problems, etc. to include the students in the general academics that we teach." Another teacher echoed this as well, "I expect my students to do everything that all of the classroom students are doing. They can answer questions in different ways, get extra assistance, get the book on tape, or work with a partner. There are many modifications that can lead to success in the general education classroom and curriculum." The practice of making modifications has also been very useful at the middle and high school level. An upper grade teacher stated, "Some of the students with disabilities I modify for, others I don't. The students are doing a paper right now and for some of the students they will write fewer words. If a student needs a test read to them, we'll do that. For the short story assignment, we've divided the class in half so we have smaller groups. That way it isn't the kids with disabilities in one class and the other kids in the other. The special education teacher and I work together in the class the whole time." This is a good example illustrating how making modifications and realigning staff to reduce pupil-teacher ratios are two key factors for effectively teaching all students the general education curriculum.

Multi-age and multi-grade instructional arrangements also supported access to general education for all of the students. A multi-age teacher said, "No specialized or different curricula are used for students with disabilities. All students participate in the general education curriculum with adaptations and modifications." These multiage classrooms as well as other grade-level classrooms, drew upon students multiple intelligences as framework for instruction. Students were actively involved in learning through their interests and talents in the arts, languages, etc. One teacher commented, "By teaming, we are able to keep small groups so students who have special needs can adapt to what we are doing. We try to use the multiple intelligences so that when we do a story we also do a hands-on activity. If a student doesn't learn through one intelligence, they can learn it or demonstrate it through another, like a song or play-acting." By designing instruction in integrated ways that draws upon the multiple intelligences, students were more successful with the general education curriculum and less modifications and adaptations were needed for individual students. A multi-age teacher said, "Just having the multi-age makes it so much easier to adapt to differences among the ages. It happens naturally and without stigma. It isn't an added imposition, it is just part of the planning. We give the kids a lot of choices and we try to encourage the kids to make the right choices. We talk about work that is challenging, just right and too easy and the kids get used to those terms and choosing work that is right for them."

Students with severe disabilities were also included and had access to the general education curriculum. Modeling by general education peers, accommodations and active involvement in the lessons within small group or with peer partners were tools that gave students with significant disabilities an opportunity to meaningfully participate in the general education curriculum. During one classroom observation, Heidi was sitting at her desk using math manipulatives, just as the other kids were. Heidi looked around at the other children from time to time to see what they were doing. She also looked up to see what her classroom teacher had modeled on the overhead. Heidi stayed focused and worked on math with the class for 15 minutes. At another school, Terri, a student with severe disabilities, worked with a peer to paint their Indian pueblo for social reading class. They worked together for fifteen to twenty minutes until the pueblo was completely painted. Students with significant disabilities at the middle and high school levels were also included in the general education curriculum. One principal said, "We are driven by a highly inclusive philosophy. Our primary goal is to provide as many students as possible with equal opportunities and access to the general education curriculum. So if you look at schedules of students who used to be segregated, you will see we are actually practicing inclusion, we aren't just saying we are including kids."

Observational data also showed that there were counter examples to this finding. Although the counter examples were few, they are still important to discuss as these schools are continually evolving and fine-tuning their practices. First, there were some times when students with severe disabilities were physically included in the classroom, but not engaged in the general education curriculum. During those occasions, there were times when a student wasn't engaged in any formal instruction, but was sitting and waiting or playing. For example, Jacob played in the sand table for 8 minutes while the other children were working on reading. More commonly observed during these times, were occasions when students with severe disabilities were involved in alternative curriculum. They were working on different goals with different curriculum while their classmates were engaged in a different lesson. There were also a few questions raised at the middle school level regarding the feasibility of including some students in the general education curriculum as they get older and the curriculum becomes more abstract and complex. One teacher commented, "I believed that all kids should be fully included until I got in the middle school. It just doesn't work as well. Kids have a full schedule with no study hall and if I pulled them out to work on something they would miss something else." It is important to be mindful of and monitor these counter examples as schools strive to improve upon the practices they currently employ.

Finding 2: Inclusion is valuable for kids with disabilities.

Overall, inclusion was a valuable experience for many students with disabilities. As mentioned already in finding 1, there were a few observations when children were physically included, but not included academically. Those counter examples and many other examples overlap with finding 1 and have already been described. This finding will delve deeper and broader into the value of inclusion for so many students with disabilities. The next finding will discuss the benefits of inclusion for students without disabilities as well.

First, because students with disabilities were included in general education with their age-mates, they learned a lot of skills, concepts and pragmatics by watching the modeling of their peers. For example, Heidi, a student with autism who was included in second-grade, saw her classmates writing their names on their papers. As a result, Heidi was interested in learning to write her name and began attempting to write the letters in her name. The letters were not in the correct order at first, but she was motivated to get it right by watching her peers. During another observation, these second-graders were counting aloud. Heidi could not say all of the number words, so she nodded her head and made a noise for each number. When they were finished counting, Heidi said, "I did it!" Her teacher commented**,** "Look at how Heidi watches all of the other children to see what they are doing and then she does the same. Isn't she a joy to have in class! She is so excited and so much fun!" A middle school parent shared, "The kids are not pulled out of the class, so they get all of the curriculum. They get to learn from kids who do know the answer."

Students with disabilities also experienced a high degree of engagement and little down time when they were included. A special educator commented, "Our students with special needs work harder for their peers than for the teachers. When I work with a student, I tell the child to choose a friend to work with us or we create a small group with a mix of kids. It's hard to have a book study with one child who has expressive language programs. Because we are doing the same curriculum as the rest of the students, the nondisabled students can also benefit."

Teachers also hold high expectations for students with special needs when they are included. One teacher commented, "I probably don't have any students who like me because I make them tow the line. I want these students to succeed in high school. If they don't learn that they have to get their assignments done, then they aren't going to succeed in high school. Traditionally, kids with special needs don't graduate, and I want every one of my students to graduate. They might not like me now but hopefully at some point they look back and know what I did for them."

Another common theme was that the general education peers knew their classmates with disabilities and showed respect for them. This in turn led to high self-esteem for the students. A middle school parent made this comment, "I like the way the school includes everyone, not just the athletes or the intellectual elites, but everyone. I like the way they integrate the kids with special needs within the regular classes. Then all of our kids grow up on the same level. All of the kids show respect for each other." One principal said, "Being pulled out and labeled can really affect a kids' self-esteem. They know they are looked at as the dumb group. When students are integrated, mutual respect is shared and self-esteem rises." Based on observations, students with disabilities appeared to be comfortable learning side-by-side. For example, Jim, a student with special needs, created a persuasive presentation on sharks. He had a set of shark teeth and a poster with a picture of a shark on it. He talked about how the shark was often hunted and killed because people believed that sharks were very dangerous. He explained that it is not all that common for people to be attacked by sharks and that they were being killed unnecessarily. He encouraged people to save the shark. This was a very valuable instructional experience for Jim and a good learning experience for his classmates as well. In another school, a teacher shared the following comments, "I have one student with special needs who really has me perplexed. He has always been in a low reading group. This year I decided to keep him with me and the group I teach. It has made such a difference in self-esteem. You'd never know which one he is. Even his math has improved. He has never been a shining star in math, but he is farther than anyone else on multiplication." Opportunities like these helped promote respect and raise self-esteem.

Finally, as discussed in the previous finding, there were also times when inclusion didn't appear to be a valuable experience for a student with disabilities. Sometimes students needed more support than what they were getting or what was available in the classroom. Some of the general education classes were chaotic learning environments, and students found it difficult to focus, attend, and concentrate. Some staff talked about the vast experience they had with pull-out services and wanted to use a pull-out model again. All of these items are important to take note of and threaten the inclusion efforts that are currently being implemented. As one teacher stated, "Keep the 15 to 1 class size ratio, but have the special education students pulled out just for the hardcore classes. It would be like we used to do where all the kids were ability grouped and each teacher worked with a group. But I guess that is not inclusion. Another way would be to have kids of all ability levels, but just not include the special education kids. But that is not inclusion either." Teachers and students feel frustration when there isn't adequate support provided at the times when it is needed. It is important to be planful and not return to segregated methods as a method for dealing with inadequate support, experience or frustration. We must stay focused on all of the benefits of inclusive experiences that were discussed in this finding and others.

Finding 3: Inclusion improves the educational experience for all kids.

Inclusion may benefit students with disabilities, but what are the experiences of their nondisabled classmates? This is often a concern on the part of general educators and parents. In an interview, one parent shared, "We are an inclusive school. Some parents think inclusion infringes on their child's right to learn. I explain to them that every child has a right to be here and learn. I would like to have more parents aware that having different people in their child's classroom enriches the life of their child. I think the majority of parents feel the same as I do." Another parent said, "I value the inclusion at this school. I had one child who was gifted and I wasn't sure about inclusion for her, but there is more to school than academics. I am a full supporter."

Many students without disabilities experience the benefit of having a special educator available to make modifications and provide support for everyone. The students who are at-risk or delayed, but don't qualify for special education, especially benefit from the additional resources. In one of the middle schools, a general educator mentioned that she feels the entire class needs special help sometimes, and that total inclusion had allowed the classes to be significantly smaller, while giving all the kids greater attention. The special education teacher said, "I like to get to know the kids and be a resource person to them. I get to know so many of the kids, not just kids with learning disabilities, but some of the gray area kids. The kids maybe have never been referred but they are experiencing problems and may need the special help." This proactive support also reduces the number of referrals for special education. The students are getting help from a specialist without having to be referred and labeled.

All of the students also have opportunities to get support for test-taking, note-taking, strategy instruction, etc. For example, one teacher said, "Some of the students with special needs need to take their tests in a quiet area, and they can have the test read to them. However, this isn't only available for students with special needs, I even have some high-level students who need help with the reading. They can also be pulled out to a quiet place where they can get support." Students receive support for note-taking as well as test-taking. During one observation, all of the students learned how to do a graphic organizer to understand more about the Russian rulers that they were studying. This was necessary for some of the students, but all of the students gained form the modification.

Because special education teachers are involved in instruction for more students, schools are also able to offer a broader range of course options for everyone. As one teacher commented, "The 'Pilot' program was designed for kids to actually receive English credit to improve their reading strategies. It isn't just for students with special needs. It is coordinated with the curriculum in the other classes and available to everyone." Another program was called "Resource." One teacher explained, "Resource is a structured study hall. Kids receive a quarter credit. They can't choose to sleep through it because we teach strategies in it. We teach when the skills are needed. Some kids need two resource periods, but they still only get one-quarter credit. Sometimes students need two periods because they have health problems or learning needs that warrant the two periods." Reading Recovery was a special program that was offered at the elementary level. An elementary teacher said, "I looked at different students in my class using the Reading Recovery approach. This seemed to have an effect on all students, some who had disabilities and some who didn't. One general education student was quiet and this gave her more confidence. With the special education kids, it seemed to help because they were reading the book so many times." Students all learn differently and these opportunities proved valuable for a range of students. One teacher made this final comment, "I just try to remember that the kids will learn in different ways, I try to keep this in mind when I am planning lessons and new programs."

Finally, the only counter example to this finding was based on a few observations. It appeared that at times, students with special needs took up a great amount of teacher time. Of course, there could be potential negative effects from this happening on a consistent basis. When teachers are teaching alone and student needs are great, the teacher's time and energy is strained.

This is important to monitor since it often means that more support is needed in the classroom during that time period.

Finding 4: Inclusion provides positive, proactive supports for students.

There are many, many examples to illustrate this finding, but due to the overlap in findings, the majority of examples have already been discussed. Here are a few additional comments and observations that are important to share here.

Inclusion did provide many positive and proactive supports for students with disabilities. For starters, students with communication difficulties and disorders were motivated to communicate with their peers. They had a purpose to communicate and worked hard at it. Some of these students were motivated to use assistive technology to communicate and others worked hard on their oral communication skills. For example, Heidi used a combination of methods to communicate with her classmates. She used her touch talker, some sign, and was really working hard at speaking during the last year of this research project. Heidi was often attempting to speak by using the initial sounds of words, such as "Baw" for "Ball."

Secondly, students without disabilities were sensitive to the uniqueness of their classmates and reached out to support them. For example, in one classroom, the teacher reported that there is a group of boys in her class who continually reached out to develop a relationship with Trevor. She said that these students have been even more considerate after Trevor recently came back from spending two weeks in the hospital due to his emotional problems. Students cheered for their classmates with disabilities, included them in working groups, and shared information that was of mutual interest.

As discussed earlier, modeling appropriate behavior, social skills, and academic skills was a powerful proactive tool for offering support. Teachers and volunteers also modeled positive behavior and appropriate social skills. Many of the teachers were always very positive with the students. They showed warmth and concern. They had cheerful personalities. Generally, the students responded very positively and cheerfully in return. Students expressed their views on this, "This is a nice place. Nobody gets hurt here." and "I like my teacher. A good teacher plans ahead. They are very nice. You should always line up very quietly. (He related a rule about lining up, called the quiet body, five-finger rule.) We have nice a principal, too." Students felt positively about their peers, teachers and school.

As with the other findings, there were also a few examples that were in opposition to this finding. During one observation, the class had been too talkative, so the teachers had "taken away" all games for the week. They hoped that the children would become less talkative at transitions and more cooperative about settling down when they shifted from one subject or activity to another. The teachers also feel that the class is doing too much socializing when they break up into groups for activities and too little concentrating on the academic purpose of the groups. This was certainly a reactive measure as opposed to a proactive support. In another school, a teacher expressed some concern that inclusion was good in many ways, but students really needed to know their basic skills, or they would have to be pulled out to work on these. Her concern was that without the basic skills, they would feel alienated in the general education classroom. Students may need work with their basic skills, but should it be at the expense of having other learning opportunities with their nondisabled classmates? The challenge is to look for unconventional or nontraditional ways to teach those skills without students having to leave. Looking for positive, motivating, proactive ways to support students is needed rather than reactive strategies that sometimes undermine the inclusion process. Several schools also expressed a desire to integrate speech and language services more and reduce the amount of pull-out services that were being provided in speech/language. Finally, some teachers expressed a desire to have a sign language option integrated into the school day for those students who would benefits from or take interest in this language.

Finding 5: Inclusion promotes the natural distribution of students.

Across the eight Whole Schooling research schools, there was a commitment to naturally distributing students with disabilities among their nondisabled peers. Clustering students with disabilities was not a practice that schools planned or that observers saw or heard about, with a couple of minor exceptions that will be discussed shortly. The urban and some of the rural schools had student populations that were impacted by high needs across the board due to community, neighborhood, or family poverty issues. In some settings, it seemed like there were a disproportionate number of students with disabilities, but it soon became clear that every classroom had a higher than average number of students with needs due to the high number of students with special needs in the neighborhood and school. In a few of these schools, 20%-30% of the student body was eligible for special education and another percentage had high needs, but didn't qualify. One teacher said, "Our principal is very supportive of inclusion. She wants to make sure that the kids are distributed equally."

Multi-age and multi-grade classrooms forced the equal distribution of students. Students with different abilities, needs, and interests were also from different grades and had different ages. All students with disabilities are included full-time in one of the two multi-age classrooms. There were no other placement options for the students, so natural distribution was a forced concept, but also one that the teachers believed in and found to be a very workable and beneficial practice.

The majority of the time, it was impossible to tell who the students with disabilities were when conducting classroom observations. Researchers often had to ask the teachers to identify the students with disabilities among their general education peers. The process of making regular modifications and adaptations for students was so smooth that observers often couldn't tell who had modified work without looking closely at each student's papers or projects while they were working. In the beginning, it was also difficult to tell who the special education teacher was from the general education teacher during team teaching situations. The teaming was so seamless and orchestrated and both teachers worked with all of the students, that it was not at all apparent to an outside observer. The use of modifications, teaching structures, multi-age units, and lack of clustering students, made the practice of naturally distributing students a successful one for the schools.

However, as already alluded to, there were some nuances to this finding. After close observation and investigation, researchers found out that some teachers ended up with a few more students than they typically would have had because they were such strong teachers overall and had greater success with students experiencing disabilities. This, of course is a compliment to those teachers, yet it did tax their time and energy at times because they had an extra student or two who needed substantial assistance. One an occasion or two, researchers also observed a couple of classes that had an equal mix of students with disabilities with nondisabled students. For example, in an early childhood/Kindergarten classroom. Three teachers taught together by joining the early childhood class (which had all students with disabilities) with the kindergarteners (which had some students with disabilities and the majority of students without disabilities. This seemed to work well for the students and teachers, but it did create a class where approximately half of the population had a special need of some sort. Finally, some schools redistributed students for reading or math groups. This also led to unnatural distributions in some of the groupings. Therefore, the general practice and philosophy across the schools was to use natural distribution of students, but there were times when higher proportions of students with disabilities were grouped for academic purposes.

Principle 2: Conclusions

There are some overall conclusions that can be drawn from these findings and examples. First, students at all grade and ability levels, including those with severe disabilities, were integrated into general education classrooms. Due to the creativity, skill-level and attitude of the majority of school staff, these students also participated in the general education curriculum with supports and adaptations. Small class sizes, smaller pupil-teacher ratios, and the use of modifications and adaptations seemed to be keys for effectively including students and for accessing general education knowledge and skills.

Second, students with and without disabilities in the eight research schools benefited from the creative use of special education staff and the daily interactions with a diverse population of peers. Due to the realignment of special education staff, resulting in smaller class sizes and smaller pupil-teacher ratios, students without disabilities had access to more individualized teacher time and to different teachers. This really helped the students who had needs, but never qualified for special education services. General education students also benefited from increased course options and opportunities to receive support during classes and for tests.

Finally, the natural distribution of students presented some mixed results. On a school-wide level, students were naturally distributed in classrooms at all grade levels. Yet, on an academic level, some teachers redistributed students into ability-based groupings which resulted in a few segregated special education groupings or groupings that had a disproportionate amount of students with disabilities. Although these disproportionate groupings were the exception and not the norm, they are still in existence and should be monitored to see if this grouping strategy produces positive or negative results for the students.

Principle 3: Teach and Adapt for Diversity

Design instruction for diverse learners that engage them in active learning in meaningful, real-world activities; develop accommodations and adaptations for learners with diverse needs, interests, and abilities.

Finding 1: Instructional practices are responsive to learner's needs, interests and abilities.

There were many examples across the eight schools of instructional practices that were responsive to learner's needs, interests and abilities. It is not surprising that the classrooms in which teachers were most adept at responding to the needs of the learner, were also the classrooms where all learners, including those with special needs, experienced the greatest success. Many times, in classrooms where the teacher was able to design curriculum that addressed multiple levels and multiple interests at the same time, it was nearly impossible to identify the students who had special needs. The following paragraphs will describe a variety of ways that teachers addressed varying needs, interests and abilities in their classrooms.

The majority of strategies teachers used to address multiple developmental levels and/or interests fall under the broad category of "multi-level curriculum." Multi-level or differentiated curriculum describes an approach to designing and implementing curriculum that has varying ability levels and learning needs built into each lesson, unlike the one-size-fits-all presentation of traditional curriculum. The challenge of designing multi-level/differentiated curriculum is that classes must be structured to allow for a variety of materials and activities to be used by students at the same time. This requires teachers to creatively orchestrate lessons that incorporate various forms of technology and media; small group, pairing and individual instruction; reading materials that cover a wide range of reading levels; and activities that respond to a wide variety of interests and learning styles.

Technology provides a powerful tool for presenting multi-level/differentiated curriculum. Students in the research schools were frequently observed using computer programs that included a variety of activities at varying levels of difficulty. For example, in one school, a computer reading package by Scholastic was used. The Scholastic company provided all programming for the computerized portion and all reading materials. The free reading books that were provided were also available in audiotape form. The program was set up so that students read into the computers via microphones and then the computer customized the vocabularies and questions to the appropriate reading level of each child. In this way, all students in the same classroom could be engaged in reading activities that were appropriate for their reading level regardless of what level that might be.

Similarly, the use of multi-leveled computer programs was also observed in math, spelling, writing, science and social studies across the schools. Teachers who used them generally built time into the teaching of the core subject areas for computer time. Depending on the number of computers available in a classroom, what that often meant was students were put into small groups and the groups rotated through a series of subject related activities, one of which was computer time. Not only did the computer instruction address individual learning levels, but the fact that a group of students could work independently at the computers allowed the teacher to work with the students who were not on computers at the same time to further address individual needs. Students with disabilities were observed experiencing a great deal of success with this kind of individualized computer instruction. One particular example of note was a student with severe autism who had little verbal interaction with teachers and peers. This same student, when working at a computer was seen giggling, swinging her feet and repeating words from the computer program. The repetition and predictability of the computer program seemed to provide a needed level of safety and certainty for this child.

A second way that teachers across the eight schools presented multi-level/differentiated curriculum to meet varying needs and interests was through the use of Writers and Readers Workshop. The following description from a classroom observation illustrates the structure of Readers Workshop:

> Mrs. U. started Readers Workshop. She showed the students sitting on the floor in front of her some sentence strips they could use to write about their books. She said they should get their workboxes and that they should be able to find where they were. A group of four students pulled out books from their workboxes and began to read. The workboxes contained different books for each child and were chosen for their match with each student's interests and abilities. One of the students showed me her sentence strip and asked me to read it. I asked if she could read it. She read "I like this book because _______." She said, "Because it was weird." She went back to her table and wrote the sentence.

As shown in this example, Readers Workshop allows students to choose books that they are interested in reading and that are at the appropriate reading level. Because everyone in the class is reading a variety of different books at different rates, there is no such thing as a "reading group" with the accompanying stigma for students, especially those with special needs of being in the "low group."

Through Readers Workshop, students learn to choose books that are at the appropriate level and learn to monitor their own progress in reading. In another observation of Readers Workshop, students were seen keeping a Readers Workshop log. The log was a place where each student kept track of what book he/she was reading, which pages were read each day and any new vocabulary words that were encountered in each day's reading. In this way, students developed their own dictionaries of vocabulary words with definitions to go along with them.

In some schools, teachers didn't call their reading program Readers Workshop, but it was structured in a similar way. Students engaged in independent reading, choosing books out of tubs that were arranged by level. Each level, which was identified by a different letter, included a large number of books on a wide variety of topics. While the students were reading, the teacher was able to work one on one with students to check their reading fluency and comprehension. In this manner the teacher was able to work with each student every two weeks and keep a running record sheet and instructional reading record of each student's progress.

Writers Workshop is to writing much as Readers Workshop is to reading. Rather than drilling students on grammar and parts of speech, the Writers Workshop approach encourages children to write on topics that interest them and to write at the level of which they are capable. Students are instructed in the skills and techniques of effective writing, but this instruction takes place naturally in the context of writing for a real purpose. The following classroom interaction occurred during a Writers Workshop lesson:

> **Mrs. H.:** It is time for Writer's Workshop. What do we need for Writer's Workshop? What I want to talk a little about this morning is the lead to the story. What is the lead of a story?
> **Student:** It is how we start our stories out.
> **Mrs. H.:** Yes, it is how we start our stories out. We want to have a really good lead for our stories. Is someone reading a story now that has a really good lead? Kristen?
> Kristen read the beginning of her book. Mrs. H. stopped her and asked, "Would you want to read Kristen's story?"
> **Student:** Yes.
> **Mrs. H.:** Why?
> **Student:** Because it is interesting.
> **Mrs. H.:** I would want to read Kristen's story because there is so much going on in it. There is a car accident and someone's life is changed. Ashley would you read the lead in your story?
> Ashley read the beginning of her story.
> **Mrs. H.:** I really like the words the author used in the lead to that story. I like the way the author has started to introduce us to the characters in the story. Now, I want you to go back to your stories and see if you have a lead that makes people want to read your stories. Take out your story plans and write out what you are going to work on today. You have only 15 minutes to work. One thing I hope everyone writes down today is that they are going to work on the lead to their stories. See if you can write a lead that really makes people want to read your story.

Notice how the teacher in this example relates the students' writing to books they are reading. In this way, the teacher encourages students to view themselves as real authors who are using effective writing strategies to appeal to real audiences. Within this format, students can write about topics that interest them, write at their developmental level and continue to grow as authors as they try out new techniques to improve their writing.

An added bonus to implementing Readers and Writers Workshop in the classroom is students can work independently on their reading and writing because it is at the appropriate learning level. This further gives the teacher time to work with individuals and small groups to address specific learning needs, as the following teacher quote describes:

> My readers and writers workshop are very effective for giving me time to meet with kids and work with them individually with their needs. I might do an activity with capitalization for a small group and maybe one student is way beyond that and another one is struggling, so I can work with them individually.

In addition to technology and Readers and Writers Workshop, a third way teachers in the research schools implemented multi-level/differentiated curriculum was through making modifications and accommodations for students who needed them. Some of the kinds of modifications and accommodations teachers made were assigning fewer problems for students who were struggling; allowing students who processed things differently or more slowly to have more time to learn important skills and concepts; having students read books on the same topic, but at different levels of difficulty, like three different books on pioneers; allowing students to watch a video or listen to an audiotape made of a book in lieu of reading the book; pairing students who are struggling with students who are not; providing extra help for students who need it; and providing challenges to students who are ready to move ahead. Two examples of programs that were used to challenge students were Arithmetic Developed Daily and Dynamath, both of which are advanced math activities.

One teacher summed up her beliefs about making modifications in this way, "Modifying is difficult, but the goal is to have children achieve and be the best they can be and not to always be doing the same things." As this teacher states, the purpose of making accommodations and modifications is to target learning to each child's developmental and ability level, rather than trying to force all children to fit the same learning mold. When accommodations and modifications are done effectively, as they so frequently were in the research schools, it was nearly impossible to pick out students who had disabilities and/or those using adapted materials.

A fourth way that teachers differentiated their curriculum in the research schools was to use a variety of approaches to present information to students. One teacher described what she did this way:

> I make sure that when there is a whole group lesson, it is presented in different ways. Many of the kids are visual learners, so I use an overhead, manipulatives so they can feel and move things. I double-check with them to be sure they are understanding. I do like them to explain even when a concept is difficult, I have them do think-a-louds.

Like this quote describes, teachers were seen addressing the varying needs and abilities of their students by using multiple methods of presentation including the use of manipulatives, graphic organizers, outlines, graphs, charts, maps, and Venn diagrams. There was awareness on the part of these teachers that because students have different styles of learning, teachers need to utilize a variety of ways to present information. One teacher even described using more worksheets for a particular class of students who needed information presented in a very concrete manner even though the use of worksheets did not match with her preferred style of teaching. About this the teacher said, "I've probably made more worksheets for this class than I have in the entire rest of my teaching career."

There were specific programs and staffing structures that supported the implementation of multi-level/differentiated instruction in the research schools. The first of these was a multi-age approach observed at two of the elementary schools. In multi-age programs, students of different ages and grade levels are mixed together in one classroom. The assumption on the part of teachers within multi-age programs is that they are going to have students with greatly varying interests, abilities and needs in the room. Even though this is also true in most classrooms, it is just more apparent in multi-age classrooms. One teacher describes her experience with the multi-age approach in this way:

> Just having the multi-age makes it so much easier to adapt to differences among the ages. It happens naturally and without stigma. It isn't an added imposition, it is just part of the planning. We give the kids a lot of choices and we try to encourage the kids to make the right choices. We talk about work that is challenging, just right and too easy, and the kids get used to those terms and choosing work that is right for them.

As this teacher states, the multi-age approach lends itself to grouping and regrouping students according to their needs, abilities and interests and helps students to choose appropriate work for their learning level rather than worrying about what other students are doing and whether or not they measure up.

A second specific program or staffing structure that supported the implementation of multi-level/differentiated instruction observed in all of the research schools was the creative use of teaching staff and volunteers. One of the greatest challenges of implementing differentiated instruction is that a single teacher must try to provide multiple levels of curriculum, a variety of instructional approaches, and modifications and accommodations for a group of 20 – 30 students all at the same time. This can be an overwhelming task and probably why many teachers rely on a one size fits all approach to instruction. In the research schools, creative use of staff and volunteers increased the number of adults in the room and reduced the student to teacher ratio. Some of the ways this was accomplished was through the use of parent, senior citizen and student volunteers; team teaching with teachers at the same grade level and across grade levels; the use of support staff and specials teachers, and team teaching with general education and special education teachers.

Finding 2: Motivating instruction reduces the need for individual accommodations

Observations from across the schools verified that when teachers present curriculum in motivating ways, the need for individual accommodations often falls away. Motivating instruction took many forms in the eight research schools and sometimes was as simple as turning rote instruction into a game. Some examples include playing "Around the World" as a math facts drill game, "$25,000 Pyramid" as a vocabulary game, and "Candyland" as an adjective game. One teacher who was observed using a variety of games for rote learning in her classroom stated, "I am the queen of games. I can think of a game for anything we do." While the use of games for rote instruction does appear to keep students engaged in classroom activities, it seems important to first examine the learning goals for the rote instruction and determine if the best approach is to turn it into a game or to find a more meaningful way to present the curriculum. Most of the examples that follow demonstrate instruction that is both motivating and meaningful for students.

Another way instruction was made motivating in the research schools was through high interest curriculum materials, classroom activities and student projects. The term high interest when applied to curriculum and classroom activities in this way means engendering a high degree of student involvement. Some of the high interest curriculum materials observed in the schools were pre-packaged programs like "Everyday Math" and the "Foss Science Program," both of which teachers described as "hands-on" and "authentic." The Foss Science program was organized in tubs, and came complete with literature sets and trays of materials to be used for classroom activities. For one of the learning activities, students collected soil from the local area around the school and completed experiments on it. During an observation where students were engaged in experiments from the Foss unit on soil, the observer remarked, "It is impossible to tell who has a disability given this curriculum and instruction in science." This comment suggests that with all students highly engaged in an activity, any disabilities that might normally interfere with learning become far less pronounced.

While some of the high interest curriculum materials, classroom activities and student projects were pre-packaged like the Foss Science Program, the majority observed in the research schools were of teacher design. Some characteristics of the teacher created curriculum, activities and projects that made them high interest and motivating were that the activities invited student creativity and imagination, students were given a sustained period of time to complete the work and the activities involved problem solving, critical thinking and reflection. The following paragraphs will provide examples of curriculum, activities and projects that fit the criteria for high interest and motivating.

A classroom example that is illustrative of an activity that invited student creativity and imagination was the Earth Day Program observed in one school. Rather than getting a traditional teacher lecture on Earth Day, this elementary level class of students decided they wanted to put on a special Earth Day Program for the other students in the school, parents and community members. The students, with some assistance from the teacher, did background research on Earth Day and then planned what they would present to a real audience. The program began with a small group of students explaining how Earth Day started and why it is celebrated. Next, two students staged a short skit where one of them threw an aluminum can on the ground and the other student explained to him that aluminum can be recycled. The recycling advocating student shared some specific facts about aluminum recycling and how much energy it saves over producing new aluminum. The remainder of the program included students putting on a second skit, giving tips on how to care for the environment, singing a recycling song and holding up signs at the end that said, "Every Day is Earth Day."

While the Earth Day program was going on, the teacher explained to the observer that one of the boys reading the lead role in one of the skits had a severe reading problem, so severe that the boy and his parents decided that he would stay an extra year in 6th grade rather than go on to the middle school with the rest of his grade group. The teacher said his reading had really improved this year and that he hadn't hesitated to take the lead reading role in the skit. The student-created Earth Day Program was not only motivating because it engaged the students' creativity and imagination, but also demonstrates how motivating instruction can reduce the need for individual accommodations. A student with significant reading problems had a strong desire to play a lead role in the Earth Day skit and so overcame any apprehension he might have felt about taking on a large reading part, especially in front of an audience.

A specific example that is illustrative of how spending a sustained period of time on a project can motivate students to learn and reduce the need for individual accommodations was found in a middle school science classroom. The activity was part of a larger electricity unit and students had been asked to work in small groups to construct their own electricity projects. The groups had developed an amazing assortment of projects. One group built a model of a lighthouse with a light in it that went on with a switch; another group constructed a haunted house complete with a fireplace, spider webs and ghosts that lit up; a third group built a model boat with an electric propeller that moved it along in a tray of water; and a fourth group created a merry-go-round with horses that went around with a flip of a switch. These projects obviously took quite a lot of time to construct, which meant there were fewer science topics covered, but students ended with a thorough understanding of how electricity works. The student groups included general education students and those with special needs. As far as identifying those with special needs, it was nearly impossible. All students were equally involved in constructing the projects and all students were able to articulate how electricity powered their creations. Of this science classroom a special education teacher who worked with the general education teacher in the classroom said, "For the most part, this class has so much hands-on work that my students do very well."

The third characteristic of motivating instruction, which involves problem solving, critical thinking and reflection, is reflected in an archeological dig project that was observed in one of the research schools. For this project, a team of teachers from social studies, science and Spanish, put together archeological dig boxes for students, with each box representing a different location around the world. Each box was filled with sand and then artifacts that are clues to the location were buried in the sand. The general idea of the project, according to one of the teachers, was for students to conduct a research project from beginning to end. The students worked through all of the steps that an archeologist would go through including using spoons, sand screens, brushes and dental tools to uncover their artifacts; charting on a graph where each artifact was found in the box; writing a report about the conclusions they came to about their location; and giving a persuasive speech about their artifacts to support these conclusions. This is the same kind of problem solving, critical thinking and reflection that a professional archeologist would go through as s/he completes a dig, writes a professional report on what was found and presents these findings to an audience of peers. During an observation of the archeological dig, students were seen working well together in groups and dividing up the work of digging, labeling and recording. The groups included students with special needs and those without and they were all highly engaged in the lesson.

While much of the motivating instruction observed was in the course of daily lessons, teachers in the research schools also tried to create assessments that were more engaging than the traditional end-of-unit test/exam. One particular example of note was observed in a high school history class where students were participating in a mock trial as their final assessment. The topic of study was the Spanish conquest of the Native American population in the South and the mock trials focused on the actions and treatment of the parties involved. The class was divided into witnesses, defendants, the jury and lawyers, and the teacher acted as the judge. Students self-selected their roles and completed in-depth research on the historical events of the time period in order to prepare for their parts. The trial was videotaped to enable the teacher to go back through it and assess each student's preparation, knowledge and performance. General and special education students were included in this mock trial final examination.

One final way teachers in the research schools made instruction motivating was to relate the content to students' lives. This could be as simple as making a connection during a classroom discussion, like one teacher who was talking about different locations in Wisconsin and said, "Where would I go if I wanted to see or pick cherries in the summer?" Picking cherries is an activity in which students may already have engaged or will in the future and thus the students have a way to personally relate to Door County, the geographical focus of this particular lesson. This example illustrates how a teacher can appeal to general and age-specific interests of the students they teach, which frequently occurred in the research schools. Within elementary classrooms, teachers appealed to the children's interests in play, friendships, family, animals and the natural world. At the middle and high school levels, teachers connected to students' concern with relationships, health and nutrition, human development, popular music and entertainment, physical fitness and self-knowledge.

An example of how one teacher incorporated student self-knowledge into her classroom instruction was an electronic portfolio project that was required in one language arts class. Prior to starting the electronic portfolio, each student had completed three different personality inventories; "True Colors," one similar to Myers-Briggs, and a third one related to Multiple Intelligences. The students used the computer program "Hyperstudio" to create an electronic page for each of the inventories and a description of what they had learned about themselves from completing the inventory. The teacher explained that the purpose of the activity was to have students develop a portfolio they could continue to add to throughout the remainder of their middle school experience and take forward to high school. The teacher hoped that completing the personality inventories would help to give students insight into how they learn and how they relate to others. During the course of the observation, the teacher explained that both students with special needs and those without were completing the electronic portfolios. The observer noted that all students were highly engaged in creating their portfolios and was unable to identify which students had special needs.

Finding 3: "Authentic" curriculum and instructional practices are implemented (Authentic: Involving the construction of knowledge; disciplined inquiry; value beyond school).

For the purposes of this study, "authentic" curriculum and instructional practices were defined as those that involved the construction of knowledge, disciplined inquiry and value beyond school. There were numerous examples of authentic instruction and curriculum across the eight schools in each of the core subject areas. It was determined that for this particular finding, there is value in describing authentic practices by curricular area to demonstrate how it is possible and desirable to implement authentic practices in all subject areas.

The first area where authentic curriculum and instructional practices were observed was science. Because of the investigative, experimental nature of science, this subject seemed to easily lend itself to the use of authentic practices, and many engaging science activities were observed in the research schools. Some examples include students investigating the natural world like the pond studies that were observed in two different schools. In both instances, the students walked to a pond near the schools and completed a series of experiments on the pond water like measuring temperature, oxygen content, nitrate content and ph levels. Students also studied signs of life in the ponds like populations of frogs, insects and fish. The main objective of the pond studies was to determine the health of the pond and the environmental factors impacting the level of health. Clearly, students were constructing knowledge about the interrelationship between humans and the natural world; were involved in sustained, disciplined inquiry as they conducted scientific tests on the pond water and analyzed results; and were gaining skills and knowledge that had value beyond school as they learned about how personal decisions they made affected the ecology of the world around them.

There were similar examples of authentic science curriculum and instruction across the research schools including the study of rocks and minerals and their characteristics, the growing of plants in elementary school classrooms and in a high school horticulture class, the study of dinosaurs and the typing of fingerprints. There were also highly engaging lessons observed related to genetics and human body systems. In one classroom, the study of genetics included the creation of genetically engineered creatures called "Reebops," which students created given a specific genetic make-up. In two different schools, the human body systems curriculum culminated in the dissection of animal organs that were similar in structure to human organs. The two teachers who were involved in the dissection activities explained that students gained a better understanding of the workings of human organs from studying the animal organs they dissected. In all the science activities described, students with special needs were observed actively participating in every step of the learning process.

At the elementary level, a popular approach to authentic science instruction included holding science fairs, which were observed at two different schools. In both settings, students chose an area of science about which they wanted to learn, conducted research and/or an experiment, analyzed data and presented their work to an audience of peers, teachers, parents and community members. Again, the research in which students were engaged involved the construction of knowledge about scientific concepts, required students to practice disciplined inquiry as they moved through the investigative process and allowed students to see the value of their work beyond the classroom walls as they presented their science fair projects to the public.

Many authentic curriculum and instruction practices were also observed in social studies classes. Rather than a traditional fact and lecture-based approach to teaching social studies, there were numerous examples in the research schools of meaningful and sustained study related to history, geography, political science, current events and the behavioral sciences. One example that includes many of the discipline areas of social studies is a Festival of Nations project that students completed in a middle school classroom. The students were asked to choose a country to investigate and as a part of that investigation to create a landform map, a mobile, a replica of the country's flag, a grocery bag backpack for a trip to that country, three recipes from the country and a Hyperstudio presentation. The Hyperstudio presentation had to include a map of the country, the flag, the national anthem, products of the country, national resources, something about the people and any other things they found interesting. This project fits all of the characteristics of authentic instruction. Rather than memorizing random bits of information about countries of the world, students constructed deeper knowledge of one specific country and put together a presentation on that country to present to the teacher and their peers.

In a similar example, students in an elementary classroom were asked to investigate Wisconsin cities in much the same way that students in the Festival of Nations project were asked to study countries. Each student in the class chose a Wisconsin city and wrote to the Chamber of Commerce of that city to receive materials. The students also used a computer program called Map Quest to get door-to-door directions from their school to their Wisconsin city. Students worked on classroom computers to word process descriptions about their cities and to find information about their cities from the Internet. The teacher explained that the students would be preparing booklets to convince other students to visit their cities. Students were involved in disciplined inquiry as they gathered information on their cities and were seeing how the information had value beyond the school as they tried to persuade peers to visit their cities, much as a tourism bureau director would do.

In a third example of authentic social studies instruction, students in a multi-age elementary classroom were observed starting an immigration unit. The teacher explained that she had set up a contract system for the unit where the students could earn points for completing different activities related to immigration. Some of the assignments from which students could choose included doing research on what an immigrant group left behind when they immigrated to America, interviewing a family or community member about their immigrant roots, designing a menu for an ethnic restaurant that would cater to a particular immigrant group, writing a report on a famous person from an immigrant group, conducting research on the flag of a country from which immigrants came, and investigating an immigrant language. The school secretary even called the high school to get information on the foreign exchange students in the school for potential interview candidates for the elementary students.

Students in this same school were also engaged in another particularly fascinating and authentic social studies project. The school and school building had a long, rich history and the teachers and students in the school decided to research this history. Students in the school carried on a long distance correspondence with one alum of the school who had attended in the 1940's and provided a great deal of background on what the school was like at that time. Students also conducted interviews of a wide variety of community members who had attended the school at various times. The two teachers in the school even wrote a Christmas play with a Dickens theme of the ghost of the school's past. Students engaged in this school history project clearly were learning the authentic practice of doing historical research. One of the last discussions with the teachers in the school revealed that students were faced with the very real problem of what to do with all of the data they had gathered. One of the teachers was trying to pursue the idea of turning the project into a book and was looking for an author or publisher that might be able to help.

There were a variety of ways that teachers incorporated authentic practices into their reading instruction. One approach that was discussed in depth in a previous section was Readers Workshop. The belief behind Readers Workshop is that students should have choices about the books they read, need to learn to monitor their own progress, need to learn strategies that will allow them to be self-directed, independent readers and should spend as much time as possible engaged in reading. The ultimate goal of Readers Workshop is to inspire students to be lifelong readers.

Students in the research schools were also involved in other authentic reading practices including preparing to read, sing, or perform a skit of a nursery rhyme to an infant; intergenerational and cross-grade book buddies; reading partnerships with college students; and vocabulary development through interactions with text and discussions of life experiences outside of school. Vocabulary development through discussions of life experiences started with students as young as kindergarten. In one kindergarten classroom, students were observed sharing words as sophisticated as violin, vacuum and velvet. Not only were the students able to share and pronounce the words, they were able to use the words in context as they told why they chose to share the word.

There were many authentic practices observed in the research schools in language arts. One of these, Writers Workshop, was discussed in depth in a previous section. Like Readers Workshop, Writers Workshop approaches writing in an authentic manner. Students are encouraged to view themselves as real authors who are using effective writing strategies to appeal to real audiences. Within Writers Workshop, students can write about topics that interest them, write at their developmental level and continue to grow as authors as they try out new techniques to improve their writing.

There were examples across several of the schools of students writing and illustrating their own books and magazines. In one school students were observed participating in an author's party where they shared the books they had written with teachers and community members. The author's party was held in the school library and students spent an hour discussing their books with an appreciative audience, eating cookies and popcorn and drinking punch. In another school, students created a magazine that included an editorial, a news article, an interview and advertisements. The students were able to choose whatever theme they wanted for their magazine and then interview someone who was related to that theme. For example, one student chose "Fitness" for her theme and interviewed one of the coaches at the school to talk about fitness. At the end of the magazine project, which was done on computer, students had a finished product that looked very much like a professional magazine.

Another example of an authentic language arts project was a persuasive video that middle schools students were asked to complete. The project was part of an integrated ocean unit and students chose an ocean animal about which to create a video. In the video, students gave basic background information on the ocean animal and then urged people to engage in activities that would help to protect the animal from destruction and extinction. The students not only learned science content with the research they conducted on the ocean animal, but learned the art of persuasion and the skills of effective video production. During one of the video presentations, the special education teacher who was teaching the class about persuasive video production, explained to the observer that one of his students who read at a third grade level was part of the group presenting. The observer could not identify which student it was. The special education teacher said that with the right kind of activity and the opportunity to rehearse the reading, this particular student was very successful.

Math is probably the subject area most likely to be taught in a drill and skill manner, yet there were several instances of authentic math practices observed in the research schools. One example revolves around the study of money. As part of a math unit on money, the teacher had students examine actual coins and bills to determine what is usually found on money and why. The students then worked in pairs to design their own money including symbols of their choosing that were consistent with the symbols found on real money. The observer of this lesson asked students about their money designs and they were able to explain the meaning of the symbols they chose and why they had chosen them.

In another math class, students were learning how to use spreadsheet software on the computer. One student was observed inputting basketball statistics for different basketball players including two and three point baskets, free throw attempts and percentage of free throws made, number of games played and average points per game. This student explained how he had transferred the statistics from a piece of chart paper to the computer and how he had created formulas for doing all of the calculations. In this same school, students in a different math classroom were observed participating in authentic activities. The class session that was observed was part of an integrated ocean unit in which all of the sixth grade teachers and students were participating. For the math component, students researched and wrote reports on specific kinds of whales. Math was integrated throughout the whale presentations as the students presented statistics on the size of their whale, its life span, the distance it travels and how much it eats. Some of the students created graphs to visually represent these statistics.

While numerous examples of authentic curriculum practices were observed in the research schools, there were also examples of instruction that did not involve the students in construction of knowledge and disciplined inquiry. There were many classes observed where students spent the class period filling in drill and skill worksheets. An example of this kind of lesson was observed in a first grade classroom where students were completing a worksheet on the short “u” sound. The teacher said, “The directions say to circle all of the pictures that have the short ‘u’ sound.” The teacher read the name of each picture and then told students to circle the ones that had the short “u” sound. Students completed one side of a worksheet in this manner and then turned it over and completed the other side of the worksheet in the same way except they drew an X under the pictures that had the short “u”. While students may need to recognize the short “u” sound in a piece of text, this particular worksheet lesson gave students no context for the skill and gave the teacher no assurance that students would be able to read the short “u” sound if they encountered it in a story.

Skill and drill taken out of context was also observed in another school that implemented a Direct Instruction reading program. Examples of worksheets that students completed included directions like “Circle the baskets that are not empty,” and “Cross out the box that does not have the right first step.” Not only were the activities unrelated to anything meaningful for the students, the directions were often confusing and students had difficulty completing them. One kindergarten teacher in this school commented, “With Direct Instruction, kindergartners can’t write, can’t have books and they are bored out of their minds and hate reading.” Since the ultimate goal of reading instruction is not only to teach students to decode words and comprehend text, but also to become lifelong readers, any school that relies on a drill and skill approach to reading may want to examine this issue carefully.

Finding 4: Instructional practices integrate curriculum

There were many ways teachers in the eight schools integrated content and skills across discipline/subject areas. The most common form of integration observed was the weaving of literature into the teaching of other subject areas. A term that could be applied to most of the schools in the study is "literacy rich," meaning that students were frequently interacting with text in meaningful ways. The following quote by a teacher when asked what instructional practices support learning at her school, seems to express a belief common to the teachers in all eight schools:

> I think with the strong emphasis on literacy and love of reading. And once they have the love of reading, the other things follow. I guess there isn't a lot more you can say than that. By being careful to choose literature and other nonfiction materials that fit in with the curriculum in the other subject areas, we are able to handle just about everything in the curriculum.

Literature was observed being integrated into the teaching of science, social studies, language arts and math. As was mentioned previously, even a pre-packaged science program observed being used in one school came with literature sets. The integration of literature into the core subject areas makes a great deal of sense because it is a way to communicate content matter to students through stories, and stories are often more meaningful and interesting to students than straight factual information. An example of this was observed in a school where all fourth graders were studying pioneers. To help students understand what pioneer life was actually like, one class was reading "Caddie Woodlawn," another was reading "Little House in the Big Woods," and the third class was reading "The Courage of Sarah Noble." While all three of these stories are fictionalized, they are based on the real life experiences of pioneers and are told through the voices of children. In this way, students are able to connect with the content in a way they couldn't without the use of literature.

While literature seems to fit naturally with social studies and science, it may seem more difficult to integrate literature with math. Yet, in the research schools, there were several instances of math and literature integration. A special education teacher in one of the schools was observed reading a Christmas story to his students where the main character was trying to earn money to buy his mother a blanket. At different points in the story, the teacher would stop and ask students to solve the math involved to calculate how much the little boy had earned thus far in the story. The little boy earned money by selling trees so students had to multiply each tree by its money value and then add that number to what the little boy had already earned. This exercise reinforced math skills and modeled real world applications of mathematics. Also important, the integration of math and literature like the example just described breaks down the artificial boundaries between subject areas that are often seen in schools.

Another form of integration that was observed in the research schools was integration of the fine arts like art, music and drama. In several situations, the general education teacher worked with the teachers in the different fine arts areas to coordinate curriculum between the classes. For example, a music teacher was observed saying to a class of students, “I know that you are working on finding things in the library. I want you to look in the encyclopedia or a book about Australia and find a picture of a Kookaburra. If you find a picture and bring it to music class the next time, you will get extra credit.” This same teacher went on to tell students that something they might do for fun is construct a Didgeridoo out of a paper towel holder, decorate it and make music by humming into it. By coordinating curriculum between the general education class and this music class, students’ study of Australia was being enriched and extended beyond the general classroom walls.

In another observation, the school’s art teacher had students create the illustrations for pop-up books and the reading resource teacher had the students write their own story to go along with the pictures. Several students then shared their books with teachers and peers. The observer noted the pride with which the students shared their books and remarked, “The illustrations are just beautiful.” It isn’t unusual for elementary school students to draw pictures to go along with stories they write, but it is uncommon for students to view their book illustrations as pieces of art. By involvement of the art teacher in a book-writing project, the students are able to receive expert advice on their writing from their classroom teacher and on their illustrations from the art teacher.

One science teacher found a unique way to integrate the arts into her classroom. She decided to play classical music on a CD player while students worked on science projects to create a calm work environment. When she learned how little students knew about classical music, she said she had added incentive to expose the students to a variety of composers during science work time. She said by the end of the year she wanted students to be able to recognize some of the major composers like Back, Beethoven and Mozart. Students in this science classroom were getting the most out their instructional time as they learned about minerals and Mozart.

A final form of integration observed in the research schools was the integration of technology into the classroom curriculum. Students were often seen using computers to locate, organize and present information. Some of the schools utilized programs like Power Point and Hyperstudio for student presentations. Several student assignments produced on Power Point and Hyperstudio have been described in previous sections including a Festival of Nations project, a presidential candidate presentation and an electronic portfolio project. Students in several of the schools were seen using the Internet to locate information for research reports. This was particularly important in the rural schools, where library and community resources were more limited. Students in some of the schools were seen using email to correspond with pen pals and book buddies and to communicate with experts in a specific field of study like genetics. What is worth noting about the ways technology was used in the research schools was how naturally it was used to support learning. Rather than a separate area of study, technology was used as a powerful tool to facilitate learning in the core subject areas.

The integration of content and skills across discipline areas was facilitated by the ways in which teachers within grade levels and across discipline areas worked together. This was particularly true in schools where grade level teams worked together to design integrated units. In one of the middle schools each of the grade level teams were observed doing at least one major integrated unit, including a variety of subject areas. The eighth grade teachers created a unit on Native

Americans; the seventh grade teachers developed a unit focused on the ocean, and the sixth grade teachers worked together to develop an animal research project for students. For the animal research project, students chose an animal they wanted to learn about in the science class and then learned how to write a formal research paper on their animal in the language arts class. The final step of the project was the integration of technology as the students used word processing software to type up their final paper. Participating in the integrated units was such a powerful and memorable experience for students that it even came up in a student interview. A student in this middle school stated, "The integrated units are so good. We are doing a states project right now and I think it is so good. It just integrates everything. It interlocks all fields into one. It helps you to see if maybe you might want to be an historian when you grow up."

Two teachers in a high school setting were observed making natural connections between English and social studies. The social studies teacher explained that with every unit the two teachers teach, the English and social studies are tied together. At the time of the observation, the teachers were involved in a unit on the French Revolution. The students were reading "Tale of Two Cities," the abridged and unabridged versions to accommodate for different reading levels. The assignments students were required to complete incorporated both subject areas. One example of an integrated assignment they were asked to complete was a letter they were asked to write as a prisoner during the French Revolution to describe what was happening and what conditions in the prison were like. The letters were then graded for accuracy of history content and for writing technique. The history teacher who was a part of this integrated team said, "I just love when kids come to me [with an assignment] and they say, 'I don't know what teacher to give this to because everything is so integrated.'"

Finding 5: Major determiners of learning; Relevance of curriculum; Attendance; Participation; Classroom management; High Expectations; Accountability; Time on task; Completion of work.

There were many factors that influenced the degree to which students were encouraged and able to learn in the eight research schools. Many of these factors have been covered in the previous four findings, particularly those that focus on the importance of high-interest, motivating and authentic curriculum practices. While an engaging curriculum is essential to student learning, there were other instructional factors that played a role in student learning that don't fall within the realm of curriculum. The first of these is an emphasis on accountability. Accountability in the research schools often came in the form of district and state testing. This is not surprising since Wisconsin now requires testing in all core subject areas in the fourth, eighth and tenth grades, with districts choosing to test students in other grade levels as well. The emphasis on preparing for the state and district tests varied across schools. In some, students were observed practicing how to fill in the bubble sheets that are used for standardized testing and in others, very little mention was made of the tests. In schools where the highest degree of authentic instruction was implemented, there seemed to be the least explicit preparation for the state tests. There was also more concern expressed about state testing in the urban schools than in the rural and suburban schools. This is probably related to the high degree of public focus on urban school districts and the perception that urban schools are failing to help students learn.

A second instructional factor that played an important role in student learning in the research schools was the statement of clear expectations. Stating clear expectations for what students are to demonstrate or accomplish was found to be extremely important for students with and without disabilities. Some of the ways in which teachers communicated expectations to students was through stating them verbally, writing them on the board, putting them in parent newsletters and building them into grading rubrics. In one school, students had Agenda books (like daily planners) where they wrote assignments and expectations for every class they attended. Teachers in this school were particularly faithful about writing assignments and due dates on the board, because they knew students needed to enter them in their Agenda books. The Agenda books also provided a tool for parents to monitor their child's learning and assignments. Of the Agenda book a teacher commented, "Parents really should never complain that they don't get enough information. If a parent really cares they can see by looking on the Agenda how their child is doing. The grades for all of the assignments are written in. We require the students to fill in what they have to do in each class and parents have to sign it. If they have something they haven't finished then they get that highlighted in the agenda book and then we can tell by the number of highlights how many assignments have not been completed."

Grading rubrics were also used effectively to communicate expectations to students. This was particularly true when the grading rubric was given to students at the beginning of an assignment or unit of study. An example of how a grading rubric was used effectively was observed in one school where students were asked to create a persuasive videotape. The grading rubric with clear expectations for what the persuasive video needed to include, was given to students at the very beginning of the assignment. Students could refer back to the rubric as they worked on their projects and then the teacher reviewed the rubric again just before the persuasive videos were presented to the class. Having clear expectations was especially important for students with disabilities who faced many challenges in completing class assignments. Several students with special needs were seen successfully presenting persuasive videos in this classroom complete with all of the required components that were highlighted on the grading rubric.

Not only was it important to communicate clear expectations, a third instructional factor that played an important role in student learning in the research schools was the setting of high expectations. It is particularly noteworthy how often teachers in the research schools mentioned having high expectations for their students with special needs. An observer's comments highlight the high expectations held for Heidi, a student with severe autism:

> Mrs. Potter is really very good. She supports and encourages Heidi and the interactions between Heidi and the other children. She promotes independence and holds Heidi to high standards. She knows when to back off and let Heidi work independently or with the other children.

A similar emphasis on high expectations is expressed by a special education teacher in a middle school:

> I probably don't have any students who like me because I make them tow the line. I want these students to succeed in high school. If they don't learn that they have to get their assignments done they aren't going to succeed in high school.

> Traditionally, special ed. kids don't graduate, and I want every one of my students to graduate. They might not like me now but hopefully at some point they look back and know what I did for them.

A final instructional factor that played an important role in student learning in the research schools was the modeling done by teachers. Teachers across schools frequently talked through critical steps in decision-making to assist students in achieving success. This could be as simple as a teacher saying, "Fold your science papers in half. Now where would be a good place to put these papers?" When a student suggested putting the papers in their science books, the teacher responded, "Yes, put your papers in the front of your science books, please." In another classroom, a teacher talked through what students needed to do to complete a research paper by the due date. She said, "What I expect to have tomorrow is all of your research completed and your outline started. Tomorrow, you'll be finishing your outline and finishing your rough draft. Now think to yourself, what do you need to do today to get the research you want for your paper?"

In yet another classroom, a teacher explained what students should do whenever they encounter a word they don't know. She said, "If you aren't sure what the word means after reading it in the sentence, then look the word up in a dictionary. I shouldn't see students just walking up to an adult in the school and asking them what a word means. I am going to tell all of the adult helpers in the school to ask first, 'Did you look that word up in the dictionary?'" All of the strategies modeled by teachers in situations like this were intended to help students be successful independent learners in school and beyond.

There were a few factors observed in the research schools that interfered with successful student learning. One of these was the high absentee rate experienced at one of the schools. A special education teacher in the school said she was very concerned about the absenteeism in her group and the low number of students doing their homework. She said that some of the students with learning disabilities only had to achieve 70% of the total points to pass and were unwilling to do even that much. The teacher concluded that the students who attend and turn in the work generally get A's and B's, but that many students just don't bother to turn work in. Another barrier to learning observed at this school was the number of interruptions experienced during the school day. The interruptions took the form of ringing phones and announcements over the loudspeaker. Every time one of these interruptions occurred, learning stopped and students began to chatter and their attention strayed from the instructional activity in which they had been engaged.

Principle 4: Build Community & Support Learning

Principle four focuses on the school's practices for building an effective and supportive learning community. This often requires the use of specialized school and community resources (e.g., special education, Title 1, gifted education) to build support for students, parents, and teachers. This principle also focuses on building community and mutual support within the classroom. Finally, providing proactive supports for students with behavioral challenges is a necessary ingredient.

Finding 1: The creative use of available time, technology, staff, parents, and peers benefits and supports ALL students.

Data from across the eight research schools reflected the creative use of time for supporting students with and without disabilities. Common team planning time, in addition to individual teacher preparation time was a key ingredient to successfully providing this support. In some schools, this common planning time for grade-level teaching teams with a special educator, was provided on a daily basis. In other schools, the common planning time was regularly provided once a week. In order to creatively find common time, some schools set up the yearly instructional schedule so that grade level teachers and the special educator were available to meet, while all of the students were in related arts or other special classes. For example, one class of students would go to physical education, while another went to art, and the third went to music class all during the same time period. Teaching assistants, parent or community volunteers or student teachers act as supports to the children in their special classes while the team meets and plans together. Another school changed to block scheduling. Classes were 70 minutes in length, team-taught, and teachers integrated the content. Due to this, students also had a block of time for the related arts on several occasions throughout the week. The block schedule left each teacher with at least one empty period everyday in addition to the team-planning period at the end of the day.

The use of technology is also a support for students. During an observation, the principal was in the teachers' room talking to the sixth grade teachers about the new Spanish-speaking student. She said they were trying to get an electronic translator for him. One of the teachers said that the computer lab director had put a Spanish translation program on one of the computers so the student could type in Spanish and it would translate it to English. These computerized translation programs can be used to free up teachers and interpreters during periods of time for planning or for supporting other students. The computerized translation programs are now available for sign language interpretation, as well. While the classroom teacher speaks into a lavalier microphone, the computer translates the teacher's voice into both words and signs on a student's laptop computer screen. The use of technology to support students with different needs and abilities should not be forgotten.

Using different teaching staff in creative ways to support student learning was also common in these research sites. In some schools, the students with disabilities are naturally distributed among the grade-level classrooms and the special educator is used as a team teaching partner or as another classroom teacher. By realigning the current staff, the pupil teacher ratios are reduced for every classroom. In some schools, the ratios were reduced down to 15 students per teacher. Given such low ratios, teachers have more time to attend to every student in the class. In co-teaching and team teaching situations, there were times when the special educator taught the class while the general educator worked with a small group or an individual child. At other times, the whole class was split into two mixed groups and the special educator taught half of the class while the general educator taught the other half. This was another creative use of staff, which resulted in small and manageable pupil-teacher ratios. Yet, in another school, the specialists (i.e., one special educator, one teaching assistant, a speech/language therapist, and a reading specialist) designed a unique program called the Student Tutoring Extension Program (STEP) in which these specialists served any student in the school who needed assistance. The STEP schedule and staff were very flexible and changed weekly or daily depending upon those who needed and those who requested assistance with their academic work. Children receive assistance from the STEP staff on content that is being taught in the general education classroom at that same time. Therefore, there is no set schedule of specific children getting help at the same time each day or week all year round. The schedule and the staff are responsive to the learners and adjust accordingly.

In addition to the teaching staff, there were many other school-based staff that worked with students. Media specialists, computer instructors, physical therapists, guidance counselors, and student teachers were all used to provide support in general education classrooms. Here is an example to illustrate this. During a school observation, the science teacher was in the computer lab helping students write research papers. A teaching assistant was in the science classroom helping the students who needed extra help, which allowed the science teacher's absence. The special educator was in the computer lab helping students with special needs and any other students who needed help. The media specialist from the library (which was connected to the computer lab) was also in the computer lab helping students. The computer lab director was working on some of his own projects, but he also took some time to help students. The physical therapist came in during the class period to help the two students with special physical needs on their keyboarding skills. This was certainly a team effort to support any and all students in the class. At another school, the school secretary taught keyboarding skills to the students because they didn't have the resources to hire a computer or keyboarding instructor. At this same school, the school cook served as a teaching assistant during student cooking projects and doubled as the school videographer for student performances. These examples are a brief glimpse of the many creative ways staff time and talents were used in these schools.

Peers are sometimes a forgotten resource for providing natural support to each other. Across the schools, peers were used as supports in many different ways. Teachers used peer partners, group presentations, group projects, and cooperative grouping arrangements. Some schools used peer mediation for problem solving and buddy programs for social supports. In addition, middle and high school students were used as cross-age tutors and classroom assistants for elementary students. Some of these middle and high schools students used their study hall time and earned regular credits for their tutoring or assistantships.

Community members were also used in creative ways. Some schools had foster grandparents programs where a classroom would adopt an elderly community member to be their foster grandparent assistant. Other schools had senior citizens come in and read aloud to students or listen to individual student's read. During a school observation, the younger students were sitting in a group on the floor and a senior citizen was reading, "The Little Engine that Could" to them. The teacher said that this same man had read to her daughter's class in a neighboring district and her daughter went up to him afterward and said, “My mom is a teacher and you have to go to her school and read to them, too.” The teacher said that was six or seven years ago and this gentleman had been coming a couple of times every fall and every spring to read to her students. This same school also had a Veteran come in to present on Veterans Day, and he told the students about his experiences and then had some students help him demonstrate the proper way to fold the United States flag (see Illustration). Other community members came over to the school for day-time performances, plays and other special events. One school called upon the neighborhood community group to go door to door every month to deliver the school newsletter. This same neighborhood supported after school activities by volunteering their time to supervise open gym nights at the school. Finally, university students and community members volunteered to be e-mail book partners to students. The students and their assigned volunteer read the same book and had ongoing discussions about the book through e-mail. Community members are a resource that all too often goes untapped.

Parents also served in various and creative ways throughout the schools. Some parents come to school and help in the office, listen to children read, or help with fundraisers. Beyond some of these traditional ways that parents have been used, there are creative ways that parent volunteers have been used in the Whole School research sites. Several schools employed parent-school coordinators or liaisons. The duties of these positions varied a bit from school to school. Parent liaisons organized parent-only fieldtrips, family activity nights, speakers on various topics of interest to parents, and games for the children at recess time. In at least one of the schools, the parent liaison called or traveled to a child’s house whenever the child was absent and the school had not been notified. Some parents don’t have telephones and are unable to call the school to report an absence. Yet, they were grateful that the parent liaison made a house call to check on the child’s safety.

There were very few counter examples to this finding. Some teachers felt that even after tapping all of these resources, more support was needed. There were times when staff members were absent and substitutes were not provided that day. This put an added strain on the children and other staff. There were other occasions when team members did not follow through and do their part, which also put an added strain on the children and other staff. Fortunately, these situations were not very common among the eight schools over the 2-year period of this project.

In summary, peers, staff, technology, parents, community members, and other volunteers have been a valuable resource in these Whole Schools. On a daily basis, they help to support the education of so many different children from elementary through high school. They are a part of the school community, and they continue to build community supports around the students. They are an invaluable resource that is appreciated and utilized in these Whole Schools.

Finding 2: Peers serve as natural supports for their classmates.

The first finding discusses how teachers and schools used instructional grouping arrangements, which promoted peer support. This finding takes that practice a bit further and provides additional examples to support it. Throughout the two years of classroom observations, there countless examples of nondisabled peers offering academic help and support to classmates with special needs. Likewise, there were examples of students with special needs and special talents also offering academic help and support to their general education peers. A student may have a learning disability in reading and be a wiz in math. Teachers used the practices of partnering and cooperative grouping as a vehicle for students to have opportunities to naturally support each other. As one teacher stated, "The children all learn at different rates. Some children finish a math assignment in 2 minutes and other take longer and need individualized help. Sometimes I pair the students together; one student who needs more help or time with one who doesn't." Even the modeling that peers provide for each other during work time serves as a support for their classmates. Upon arriving at a school for an observation, the children were starting their snack time and show and tell. A student with autism got up from her desk and walked to the front of the room, picked up a book and pretended to read to the class. She flipped through a few pages and made sounds (as if reading). Her classmates sat and listened to her and then when she closed the book, the children spontaneously clapped for her. This little girl smiled as she looked at her classmates and then went back to her desk and sat down. When interviewing this little girl's mother, she stated, "I am so pleased with her schooling. I can't believe how good the other kids are with my daughter and how much they teach her everyday."

There were also some creative and meaningful instructional practices that promoted natural peer supports. For example, during a school visit, the teacher divided the students into groups and explained that they would be playing "Time for Kids" jeopardy. She said rather than calling on the student on their team who had their hand raised, she was going to call on anyone in the group, so they needed to make sure everyone in their group understood the articles in the "Time for Kids" publication before getting started. The students had to work together as a group to be successful in the activity. In another class, the students read a play called "Warm Fuzzy." The teacher gave the students instructions on how to design a warm fuzzy for each of their classmates. The teacher addressed the class and said, "I waited until we were in school for a month before doing this because I wanted you to get to know each other first. I want you to say something unique to each of your classmates, such as: 'Thank you for smiling at me this morning, because I wasn't having a very good day.' Instead of saying, 'I think you are nice.'" When the bell rang for recess, many of the students didn't want to go out, because they were so excited about the assignment. In another school classroom, students were working in partners on a social studies lesson. The social studies teacher encouraged the students to use Think Alouds as a modeling strategy to help support their own thinking process, but also the learning process of their partner. The social studies teacher was working with two boys when he said, "When the two of you work together, think aloud and tell each other everything you are doing. Say, 'I'm opening my book to page 24 and reviewing the definitions. The first word is . .'" Other schools used Readers and Writers Workshop, which also promotes peer modeling and peer support. One teacher shared the following, "I love doing Writers Workshop when the kids can meet with one another and teach each other. I like when the kids are working in groups and then they come up to the front and share. I am also going to try using literature circles where the kids read a book and teach it to one another." We know that modeling is a powerful strategy for learning and it is important that peers have opportunities to model for each other.

Peers also demonstrated concern for each other in very natural and caring ways. For example, one teacher described how there is a group of students (boys) in her class who reached out and tried to develop relationships with a students who experiences emotional difficulties and recently came back from spending two weeks in the hospital due to his emotional disabilities. In another classroom, the students were taking a standardized reading test. One student was struggling with the test and became increasingly upset. He began to cry. One little girl went to his desk to check on him. Another classmate was also concerned and asked why he was crying. The children spoke briefly to him and then returned to their desks. These first graders showed great empathy and concern for their classmate and took action to help support him. Classmates showing concern and providing support to each other was common to see across many of the Whole Schools.

There were also some counter examples to the finding. There were occasions where peers were not courteous to each other. Students would interrupt their classmates during presentations. Students would complain that others would bother them at times. Others would express concern about being bossed around by older students in the building. Finally, there were also indications that students were looking for support from gang members by dressing or conducting themselves in certain ways. Students need guidance and continuous modeling to reinforce the positives ways in which classmates can be supportive. Staff and parents need to be as proactive as possible in order to diminish the opportunities for negative peer interactions and capitalize on the positive ways in which students can support each other.

Finding 3: Whole Schools provide positive, proactive supports to manage behaviors.

Many positive, proactive behavior management strategies were observed in the eight research schools. Those strategies included the effective use of wait time, redirection, being consistent, swift lesson pacing, developing self-management skills, using positive reinforcement, teaching problem-solving skills, using music to calm and inspire students, using low pupil-teacher ratios, and showing students the relevance of content being taught. Here are some specific examples that demonstrate some of these strategies. While observing a second-grade class science lesson, the teacher taught the science lesson and then students organized themselves into small work groups. She stacked three colored plastic cups in the center of each grouping of three or four students. They all had a green cup on top of the yellow cup and the red cup was on the bottom. She explained that the green cup means "Go ahead and work." If the group gets too noisy, she changes the green cup to the yellow, which means "You have a warning for being too loud while working." If the group continues to be loud, the teacher changes the cup to red, which means "You must stop working and put the lab materials away. During the group work time, only one group became noisy and received a warning by having the yellow cup put on top. When the group quieted down, their green cup was returned to the top of the stack. The student groups continually self-monitored their volume by looking to make sure the green cup was on top. In another classroom, two boys began arguing over a pencil. The classroom teacher focused on student problem-solving skills and addressed the boys, "How are you going to work this out?

Remember that I'm not involved. You have to solve it." In another classroom, the teacher posted positive consequences for positive behavior. The positive consequences were, positive notes, praise, surprises, good feeling, and developing self-management skills. This teacher is focused on positive behavior and positive reinforcement for that. In another school, the hall monitor hands out "Think about it" slips to those who are unsafe. When a student gets a slip, they go to the peer mediator to talk about it and problem-solve. Finally, a parent volunteer shared the following during an interview, "Sometimes a child with behavior problems could make a class unteachable, but the staff is creative and original." These examples taken from across schools are a glimpse of the many ways in which the teaching staff provided positive and proactive supports to manage student behaviors.

There were also a number of examples illustrating how an active school principal contributes to this finding. As one parent stated, "The principal really cares about the children getting a good education, especially those with behavior problems. He doesn't send them home. He works with the teachers and the child." Through observations, there were principals playing football with the children at recess time, and those who stood at the door and greeted as many students as possible each morning when they arrived at school. Principals were very visible and accessible to the students. They would regularly come into the classrooms and talk with the students, help them with work, and see how they were doing. Principals can and do play a very important role in modeling positive and proactive behavior supports. Principals who take the time and put forth the effort to develop relationships with students are critical to the practice of positive supports.

Teaching staff and volunteers also demonstrated their care and concern for the students. One volunteer stated, "We routinely see some of the children angry and troubled and then they connect with a staff member and they feel cared about and happy." The students support this statement with their comments.
During an interview, one elementary student shared, "The teachers help my brother by watching him and watching me too. If we can't get something, we can ask and they help us. We three have trouble with things. I have trouble with the cursive. I don't know what they have trouble, that's their business. When I go higher I get smarter." Parents also echo this, "Teachers are very accepting that my son has a special need, and they don't try to change him, but adapt to the way he learns. He had so much respect for the teachers that he was willing to do things I wouldn't have expected. All kids do better under positive reinforcements." Teachers, guidance counselors and other staff demonstrate their care and concern for the students in a variety of ways. They take an interest in individual students and their families. They conference with and advise students on academic and personal issues. They provide opportunities for students to get additional academic support outside of the school day. For example, some schools have a homework club after school where teachers take turns staying to help students with their homework.

Finally, another common practice used across schools was the implementation of a school-wide code of conduct and expectations plan. Some of the schools used school-wide plans, such as Honors Level Discipline and others developed their own plans. A common issue in the higher-grade levels had been the lack of students turning in completed homework. One school set up a ticket system, where students earned tickets for turning in completed homework and the tickets could then be exchanged for a reward.

In another school, students each have and use an agenda book. The agenda book includes guidelines for behavior. For every day and every subject, the students write their assignments in the agenda books. If the student doesn't complete the assignment, that assignment gets highlighted in the agenda book. Each week, the teachers have an individual conference with each student. She said that while teachers are meeting one on one, the other kids are journaling and doing other activities that are a part of the advisor/advisee program. The students earn points for work completed and when they earn a certain number of points they earn an extra fieldtrip. Clearly stating the behavioral expectations and consistency in using a plan that applies across the school, rather than a different plan from classroom to classroom, helped support positive behaviors in many of these schools.

Even with all of these creative, positive and proactive supports in place, there were examples across the schools to illustrate that managing student behaviors is an ongoing challenge. Sometimes, students would get frustrated and engage in inappropriate behavior when the lesson pace was too past or they had to sit and wait to long for classmates or teachers. The others had difficulty transitioning within and between lessons, which led to disruptive behaviors. Yet others found it difficult to concentrate due to the escalating noise level in the classroom during instructional time or independent work time. There were examples of demerits and detentions being given out, toys and electronics being confiscated, lock-downs, sarcasm being used by staff, and students harassing other students. These issues are not uncommon in schools today. During an interview, one student commented, "I think teachers need to take a look at things. Like kids bringing cigarettes to school and harassment and things like that. I think they need to take a look at that rather than picky things like gum chewing. There is a lot of harassment that is going on here that needs to be recognized. There is a state law that all of the schools have to have a Code of Conduct. My understanding is that if kids are causing problems, it [the Code of Conduct] is to get them out of the classroom. I don't see that happening here." A parent also echoed similar concerns. "There hasn't been anything that has disappointed me about this school other than the lack of authority teachers seem to have. There are times that I have been here waiting for my son and I can't believe some of the behavior from the students, I don't know how people put up with that."

Throughout the study we saw teachers, principals, and volunteers being creative and working hard to provide positive behavioral supports and proactively manage student behaviors and instruction. This is an ongoing challenge and one that the staff knows they cannot let up on. Students and parents are counting on schools to stay the course and continually look for new and better strategies and ideas that will be positive and proactive in an effort to reduce the need to be reactive. Likewise, teacher and principals are counting on students and their parents to support the efforts and ideas they implement. This is an area that certainly takes the commitment and active involvement of the whole community. We must continue all efforts to build this educational community and support learning.

Principle 4: Conclusions

First, the staff and volunteers at each school consistently demonstrated creativity and resourcefulness as they worked to educate and support all of the students. They creatively used staff, volunteers, parents, peers, time, technology, and even space to engage students at their instructional levels and maintain that engagement throughout the academic day. Some schools realigned staff to reduce pupil-teacher ratios. Others used peer and cross-age tutors, and many schools tapped into parents, grandparents, senior citizens and other volunteers to support the students academically and socially. The need for common planning time was often the way in which staff were able to plan and implement effective programs.

Second, peers at all grade levels, with and without disabilities, regularly served as supports for each other through the modeling, instructional practices, and natural opportunities available to them during the instructional day. Teacher set up instructional arrangements and curriculum that promoted peer interaction and support by using Readers and Writers Workshop, cooperative groupings, and assignments that focused on building peer relationships.

Finally, there was mixed data showing that positive, proactive supports are consistently used to manage student behaviors. This seems to be inconsistent from classroom to classroom across schools even though there are school-wide plans in place. School-wide plans included Honors Levels Discipline, peer mediation programs, and Student Organization and Advising programs. Some unique ideas were presented and many more examples and ideas are available in the individual school profiles.

Principle 5: Partnering

The last principle of Whole Schooling is Partnering. This principle requires that schools build genuine collaborative relationships within the school and with families and the community. It further promotes that schools take an active role in strengthening the community as well as providing guidance to engage students, parents, teachers and others in decision-making and the direction of learning and school activities.

Finding 1: Joining together with families, community members and university faculty mutually benefits all.

Across the eight whole schooling research schools, there were many examples illustrating how families benefited from being actively involved with their school. During an interview, one parent commented, “The school staff is so encouraging. We moved here from another state and were an at-risk family. One day, my daughter’s teacher asked me to come and help in the classroom and from then on I became a valuable resource in the school. I am now a valuable employee at this school and so are a few other parents. I would put up with a lot before I would leave this school. They have done so much for me. They gave me confidence and taught me that I am a pretty remarkable person and parent.” This was a powerful example of this finding. Other parents talked about having many different opportunities for meaningful involvement, feeling that the school was parent-friendly because no one was ever turned away, and believing that the school-family connections resulted in one large family.

Some of the schools offered parents other incentives for getting involved. At one of the schools, the site-based council proposed and approved paying parent volunteers. For every hour they volunteered, they got a dollar taken off of their child's activity fees. This was a very beneficial option for some families who couldn't afford to pay school activity fees. It was a proposal that was mutually beneficial to the school and the families. As more parents volunteered in the building, greater trust and relationships developed. One parent volunteer shared, "Parents feel better when they know other parents are working in the school because they think a parent will watch out for what is in the best interest of the children and their families. At other schools, we didn't always have positive experiences with teachers and principals. Parents don't feel that way here."

Another common theme was that children improved academically when families were involved. A second grade teacher commented, "The kids improved because the parents showed an interest. We are not a small school and we had 100% attendance at Parent-teacher conferences. The parent workers and teachers push to get all of the parents here and involved." Families also took an active role and interest in helping to create the science fair projects, the electricity fair projects, and helped with the all-school plays and performances. Grandparents took an active interest in history projects and helped the children to understand history from first-hand accounts. When getting started on that history project, the teacher addressed the children; "I don't want to see your faces in books a lot. I want you to talk to people and find other sources. If you talk to someone's Grandma, in a couple of hours, you are going to learn a lot more than if you sit for hours and hours reading a book. I want you to go to first hand sources." Students and grandparents alike enjoyed this approach. Families also came to family fun night events, family picnics, safe and drug free school programs, and elementary graduation ceremonies. Families realized the benefits of their participation for themselves and their children.

Many of these whole schooling research schools were used as community centers. The doors did not close at 4:00 pm.; rather, they were open to the community from 6:00 am. until 10:00 pm. Community members could come in and exercise by walking in the building during the winter. The library and computers labs were open and available for community use. Parent Resource Centers were open throughout the day and evenings. One parent said, "We have a nice Parent Resource Center. They are constantly sending out newsletters. I have gotten books on Attention Deficit Disorder and discipline. I even took an Internet class and a basic computer class through the Parent Resource Center." Some of the schools had open gym in the evenings to give the students a constructive way to use their free time. These opportunities reduced the vandalism in the urban neighborhoods. The neighborhood residents volunteered time to supervise the open gym activities, which gave the students an opportunity to get to know the neighbors as well as have something constructive to do with their time. The same school even had health services within the school that the students could access free of charge during the day, and anyone in the community could access free of charge in the evening. In order to provide these health services, the school approached a health care facility and expressed their need to provide some health services to the students whose families could not afford them. Both of the urban schools in the study had parents who made the following comments, "This school is a community center and not just a school." Another parent said, "This is a safe school and one that the neighborhood is very proud of, even though it is in the inner city."

Teachers, students and community members came together to share history, develop relationships and embrace family and community participation in school and community events. For example, on Veterans Day, Mr. C. (a community member) came to the school to present his personal experiences. He explained that Veteran's Day is a day to laugh and a day to cry and a day to heal. He said that many Americans have gone to other places to preserve freedom at home. He remembered the lives lost in WWI, WWII, Korea, Vietnam, the Gulf War and other conflicts. He remembered that people who served their country lost their eyesight, their hearing and their limbs. He told the students about a ceremony at the local Cemetery on Memorial Day, where they do a roll call to honor all of the people who died in wars. He asked the students to come to the ceremony and to bring their families. Then, he showed the students how to fold the flag. The classroom teacher said the older students needed to learn how to fold the flag so that they could fold it properly when they bring the flag in at night. There were many valuable and mutually beneficial experiences like this one that were observed in the eight schools.

Students also engaged in community projects. One of the schools studied its school history by contacting former students from as far back as fifty-years earlier and interviewing them for information. The same school purchased land in the city to be used as a park. There used to be an old house on this piece of land near the school and the students asked the community if the school could have the old house and the land is was on. They ended up paying one dollar for the land and the house. The fire department came to burn the house down and another community member bulldozed the remains. They turned the land into Memorial Park for the children to maintain. Families take turns weeding the park's garden over the summer when school is not in session. Another school implemented a "Make A Difference Day." One of the student council committees was the "Make a Difference" committee, and they bought doughnuts for the whole staff of the school, made coffee and then, when the buses came in the morning to drop off students, the Make a Difference Group brought the drivers doughnuts and coffee and swept the buses out. The Make a Difference Committee was also organizing a time for the students to rake leaves in the community. These Community projects were mutually beneficial to the students and the community-at-large.

Finally, teaching staff and university faculty also found their collaboration to be beneficial. Many of the teachers in these research schools seemed hungry to learn and share with others. This is one of the reasons why they nominated their schools for the research project. Over the three-year period of this project, teachers in three of the schools co-presented with university faculty at national conferences. Six of the schools presented at statewide conferences, and several teachers and administrators gave presentations to university classes. University faculty and teachers were interviewed by two local newspapers that were interested in publicizing the good work of these schools. In one case, the publicity and the parents helped to keep the school from closing, which the district was pushing to do as a way to reduce district expenditures. University faculty, school staff and parents came together for a Summer Institute for three consecutive summers to share information and practices across the schools. Students at the university requested student teaching and internship placements in these research schools. Several classroom teachers also agreed to share their expertise and best practices by teaching university courses in the evenings. The mutual benefits and lasting effects of this collaborative effort and opportunity to build collaborative relationships has been a stimulating experience for many of the school staff and the university faculty.

Finding 2: Collaboration and Co-Teaching strengthen the overall school community and learning experiences.

Collaboration among stakeholders can result in a stronger overall school community. When teachers collaborate with each other and with others (i.e., parents, administrators, community members, etc.) there are benefits that affect the greater school community. For example, co-teaching and collaboration were strengthened the inclusive practices in a number of the schools. Teachers working closely together by planning together, sharing instruction and communicating regularly had a direct affect on all of their students. An earlier finding described how the practice of co-teaching reduced pupil teacher ratios resulting in more students having an increase in direct teacher time. During an interview, a general educator stated, “Inclusion works so well in our school and especially in our team because of the collaborative planning and co-teaching we do. All of our students benefit.” In these times of high accountability, a parent shared, “I think accountability is a good thing and collaboration and co-teaching can accomplish this.” A guidance counselor also supported this finding with the following comment, “I team teach the teen issues class with the special education teacher. This co-teaching arrangement lends strength to the class. Between the two of us, we can give the male and female perspectives.” In another interview, Mrs. H. said, “One of the nice things about working so closely together is that we were aware of what the other person was teaching and could look for materials for each other’s students.”

A genuine trust and camaraderie is also established by collaborating with others. One teacher stated, “Sometimes I find I am not getting through to some of my kids, and I will talk to the person I team-teach with, and she will come in and work with kids on it. I like to get her suggestions and ideas. I trust her and she has a lot of experience.” Another teacher shared, “If there is something that has gone on during the day, we are always discussing that. Even if the guidance counselor has concerns, depending on what it is, we are all involved because we all know what is going on. There is a trust here where we know that nothing is going to go any further or out into the community. There is a genuine concern here for the kids. If anyone of us could, we would do whatever we could to help the kids. If that is collaboration, then we do it all of the time.”

Collaborating and trust often start out slowly and build from year to year. “After the other kindergarten teacher and I started collaborating on our theme units and sharing some of our lesson plans one year, the next year we taught together. We were able to offer the students multiple approaches to learn every subject. We always had one approach that was hands-on and discovery, one that was for the auditory learner and one that was more rhythmic. It would have been hard to meet all learning styles for one teacher, but together we always tried to have different approaches.” Other teachers talked about learning from their co-teaching experience with student teachers, “I know collaborative teaching is better, and I try and I am improving, but I am a creature of habit and I was trained to teach alone. I do better collaborating with the younger teachers. This is one reason I take student teachers. I also learn a lot from the student teachers.”

The whole school community is also strengthened when decision-making happens through collaboration and consensus. One principal stated, “Decisions are made through a lot of talking and collaboration. Even the school secretary is involved in the decision-making process. Everyone has a perspective to bring.” Another comment echoed this, “Decisions are made through consensus. There is never a decision made without at least some of the staff sitting down and bouncing ideas off of the others.” This ties in with the first principal of Whole Schooling, but decision-making practices are also critical for collaboration and co-teaching.

Not only is the school community strengthened through collaborative practices, but also the learning experiences of the students are strengthened as well. Schools demonstrated a range of collaborative and co-teaching practices including multi-age classroom and multi-grade units. These co-teaching structures require a high level of collaboration with colleagues on a continual basis. Those who taught in multi-grade and multi-age setting enjoyed this collaboration and believed that it was highly beneficial for the students they served. Parents who were interviewed also believed that it was a beneficial experience for their children.

The learning experience of students was also enhanced by teachers who co-planned and co-taught integrated instructional units. One teacher shared, “Kids who know us and know our way of teaching, tend to take this class because they like our style of teaching. I’m more artsy-fartsy and she is a little more lecture/factual based.” Through classroom and school observations there were countless examples of co-teaching and integrated units being taught, including units on Oceans, Whales and Native Americans culture. For the Native American unit, students used their math skills and created a scale model of the canoe. In science, they created the canoe. In English they explored the languages of Native Americans, learned sign language and looked at cave drawings. In social studies they learned about political history and treaties. They were learning about Native Americans in all classes. Through school observations, integration occurred between English and social studies, Science and social studies, art and language arts, science and language arts, math and science. Students were engaged in research, archeological digs, authoring and illustrating narrative stories, and compiling school histories, to name a few. The expertise and interests of teachers, community members and parents were brought together though integrated instruction in order for the students to engage in meaningful and useful learning experiences.

There were also some counter examples to this finding. Some teachers stated that there are still some teachers who aren’t interested in planning or working together, even when offered extra money to do so. Other teachers said that there was reluctance from some colleagues to really participate in a collaborative partnership. On some occasions colleagues didn’t follow through with their part and their teaching partners were disappointed in them. Another obstacle to collaboration was the lack of communication or poor communication. It can be very difficult to find the needed time to communicate and plan on a regular basis in order to make the co-teaching arrangement work. Parents also expressed their awareness of these situations. One parent stated, “I am not sure that the two teachers are always in sync.” Fortunately, there were few examples like these across the eight schools. However, it is important to be mindful that collaboration and co-teaching take continual effort, commitment, and time. The counter examples above show that there are times when these ingredients are not present and at times, that can create a problem for the students and the overall school community.

Finding 3: Parents and students feel supported by school staff.

Previous principles and their corresponding findings also illustrate valuable examples to support this finding. However, a few additional examples are unique to this finding and illustrate the support that parents and students felt from the school staff.

Through parent interview data, parents talked about how the school staff helped build their personal confidence. Some of the comments from parents include:

- “The staff is so encouraging.”
- “They gave me confidence and taught me that I am a pretty remarkable person.”
- “I have a volunteer award in the office with my name on it.”
- “Everyone is like a family and they know you and they like you and they ask how they can help you. If you have a problem, they are prompt with helping. They are willing to make you feel like you’re doing a good job as a parent.”
- “I have a lot of good memories here. It’s just a real nice atmosphere to be in. Everybody acts like they care about the students and their parents.”

These are some of the comments that were expressed during the course of the project. Many times parents were asked to come to school to present information on their job, career, hobbies, or interests. One parent was an electrician and he was quite a valuable resource when the students were studying electricity and preparing projects for the electricity fair. During an interview, a parent shared, “The teachers call me and I bring in things to share. They respect me. I bring in baby chicks. We had three different colors of chicks. We brought four colors of each so every child had one to hold and look at.” These comments illustrate how the school staff was able to build confidence and show concern for the parents of the students they serve. These parents were a delight to listen to. They shared many stories and examples of how encouraging and helpful the staff was to them personally.

Parents also talked about trusting the staff and calling upon them for support at times. Principals had open door policies for parents and which created trust between the parents and the school. Some principals and teaching staff gave children a ride home when needed or took students to the public health nurse for immunizations. One parent said, “We have a lot of support from the special education staff and the principal in our school.” Another said, “The teachers are really good here and they are always there to talk to and answer questions.” One principal said, “Sometimes parents come in and ask me if I will join them for their child’s IEP meeting, and I do that. I review every IEP. I think parents put a lot of trust in our school. They feel confident that we are meeting the needs of their children.” A parent echoed this statement in her own words, “I am perfectly happy with this school. The school staff is easy to communicate with. People are easy and ready to talk with about any problems. Anything that I have had trouble with I have either gone directly to the teacher or to the principal and it has been taken care of immediately.”

Parents gave examples of the staff being very student-centered. One parent said, “Mr. H. is a good principal. He’s out on the playground, let’s kids give him a hug and does whatever is needed to help the kids.” Some of the schools have such positive reputations that children outside of the neighborhood want to transfer in or families actually move into the neighborhood in order for their children to have the opportunity to attend that school. A volunteer said, "Parents want to send their kids here and there is a waiting list of kids outside of the attendance area who want to come here." There is a strong commitment to hire staff that is student-centered. "We hire really good people. At times there may be a candidate that is more skilled academically, but not as parent and child centered as the one we hire."

Students gave examples of the different ways in which they feel supported by the school staff as well. "If we have a question in anything, we can go up to the teachers and ask a question and we don't have to be embarrassed. And they don't say, 'I already taught you that and you should know it.' They just give us a reference to go back to. I love coming to school, it's fun coming to school." One teacher even created a web page so that the 8th-graders could get access to find out about their assignments. Another student commented, "I think a lot of the teachers are really good about saying, "If you need help just ask for it," and they are really good about providing help and letting kids do it on their own if they want to." One teaching team used "Good News Postcards." The teacher explained, "We have good news cards, we'll pick out a student each week to send a good news card. We make sure that everyone ends up getting a good news card before we start sending out the next round of cards."

Once again, not every school runs smoothly everyday. There are also some times when parents and students didn't feel supported. The following comments were also expressed.

- "My husband doesn't like this system. He doesn't think Stephen is getting enough help or progressing fast enough, but I see it as a longer process than he does."
- "Things are not going as smoothly this year. The teacher is not watching the kids that need extra help as much as necessary. She needs to pay extra attention to those kids. I don't know if my child is comfortable in there or not."
- "It is frustrating as a parent when your child isn't getting the help they need."
- "I think more playground supervision is needed. This is an area that could be improved. I would like to see more structured play on the playground. I think you can teach as much on the playground as you can in school. Like fair play and sharing."

The great majority of examples demonstrated that parents and students feel supported by the school staff. There are always suggestions for improvement and schools need to continue to work in this direction. However, these teachers, administrators and volunteers should be commended for the support they provide to students and their families through each year.

Principle 5: Conclusions

First, there is a preponderance of evidence demonstrating that a reciprocal and beneficial partnership exists among various constituents: Parents, volunteers, staff, students, and university personnel. These partnerships appear to have ripple affects throughout the school and to the some of the neighborhoods and communities at-large. Countless examples show community members and parents, who continuously donated their time, skills and money. Students engaged in different community and school service projects. Teachers and university personnel worked collaboratively to spread the good news of effective educational practices. Finally, teaching staff discussed the positive outcomes of parent involvement.

Second, collaborative planning and team teaching added motivation and benefit for supporting the inclusion of students across different grade and ability levels. These collaborative partnerships impacted student learning through the use of integrated instruction, lower pupil-teacher ratios, and multi-grade/multi-age teaching structures. Collaboration also strengthened the school community as a whole. Genuine trust, concern and camaraderie were established through collaborative efforts. Many instructional decisions were made through collaboration and consensus. Parents and staff believed that inclusion worked effectively in their school due to the collaborative relationships and practices that were established and implemented. Finally, there were occasions when teachers were reluctant or resistant to collaboration and communication among staff was difficult.

Third, multiple examples illustrated the support that was provided to and felt by the students and families. Students and parents provided examples to illustrate their belief that the schools were student-centered. In general, staff earned the trust and respect of parents who called upon staff for support at IEP meetings and for advice and counsel. Staff contributed to parent and student confidence through their words and actions. Parents and students felt that communication with teachers and principals was open and concerns were resolved quickly. Finally, at times, parents were frustrated by the lack of services or lack of supervision.

Principle 5: Future Directions

Several future directions emerged from the interview and observation data. First, in the urban schools, there appears to be a serious and persistent problem with student attendance and neighborhood transiency in the urban schools. Staff and community volunteers discussed their concerns and said that they would like to look at ways in which they might be able to work collaboratively to prompt positive change related to these issues. Second, school staff also expressed a need to bring health services into the school. One of the schools has been successful with this and other school would also like to move in that direction. Staff said, “Health issues are becoming greater and greater and it would be nice to establish a health center within the school.” Third, “More and more students are coming to school so far behind academically, that we have to look at some other ways to get kids where they need to be academically.” The urban and rural schools experience the impact of this the greatest. Due to the academic delays, more and more students are qualifying for special education. The staff believe they must reverse this trend, as 20-60% of the students served in some of these schools are significantly behind their grade-level peers academically. There were subtle and overt reminders of the importance of statewide assessment to identify these students. Finally, as more students with disabilities take advantage of their right to continue in school until the age of 22, the staff will be figuring out appropriate and meaningful options to offer to these young adults.