
October 31, 2001

Focus Group Report Series – Report 6 **Summary Impressions of FY00 Teachers**

Two focus groups were conducted with FY00 eMINTS teachers in June 2001 at the end of their participation in the eMINTS Program. The FY00 teachers attending the focus groups saw four factors that were vital to the successful implementation of the eMINTS Program: 1) teachers' commitment to the program, 2) students' partnership in their own learning process, 3) administrations' support of the innovation and 4) resources adequate to support the classroom. Through their participation in the program, teachers felt they were part of a learning community where they collaborated with their fellow teachers, their students and people outside the walls of their classroom. All of these activities supported what the teachers saw as major changes in their classrooms.

Introduction

A random sample of the first cohort of eMINTS teachers (the “FY00 teachers”) participated in two focus groups conducted in June 2001. Twenty teachers attended; eleven in Columbia and nine in St. Louis. The demographic breakdown of the group participants showed that seven of the ten clusters were represented. Invited teachers from the South Central, South and the Bootheel clusters did not attend. Each group discussion lasted for two hours

The FY00 teachers agreed that student access to the eMINTS equipment improved their classrooms. While the concentration of the technology in the classroom was essential to the transformation, technology access alone did not create the changes. The teachers made a compelling case that their participation in the eMINTS Program improved their own knowledge and skills. The professional development the teachers received enabled them to use the equipment and integrate it into their classroom curriculum. These skills helped teachers create an active learning community where student motivation and performance noticeably improved.

Teachers also attributed many other changes in their schools to their involvement in the eMINTS project. Among these changes were improvements in the support services their classrooms received and increased interaction between school and district organizational levels.

This report is one product of the eMINTS evaluation project. Other reports and their overall evaluation plan are available at <http://emints.more.net/evaluation>.

The eMINTS Evaluation focuses on student impacts, teacher impacts, changes in learning environments and outcomes of project services.

The eMINTS Professional Development Program

The eMINTS website describes the challenges faced by the eMINTS teachers:

Teachers in the eMINTS Program have been presented with a monumental learning task: they must develop technology fluency with a wide variety of tools, many of which they have never seen or used and they must learn how to integrate these new tools into their classrooms in ways that may differ considerably from teaching methods they currently use.

For teachers, the major difficulty of the program was the required participation in 175 hours of professional development and technical training over two years. The bulk of the professional development hours were scheduled outside of the normal school day. While participating districts budgeted some funds to provide release time for eMINTS teachers, most of the eMINTS professional development was conducted in the evenings after a full day of teaching.

Previous experience with integrating technology into classrooms underscores the need for consistent and appropriate professional development in order to motivate changes in teaching practice. Participation in this professional development required teachers to spend considerable time traveling to meetings and adapting course material to their particular situation. At the beginning of their eMINTS participation few teachers fully understood what was expected of them.

Teachers' Initial Impressions of the eMINTS Program

The teachers participating in these focus groups were the first to participate in a developing program of teacher professional development and classroom change. During their first year in the program many of the goals and procedures of the FY00 were being articulated. So, it is not surprising that many of the FY00 teachers were unclear about the program requirements.

At the beginning of the program, about two-thirds of the focus group teachers decided to participate because their principal requested they do so or for some extrinsic reason, like getting their room air-conditioned or carpeted. Rather than seeing the program as an opportunity, some saw their selection into the program as a punishment. One teacher's first reaction to being asked was, "What did I do [to deserve this]?" The others mentioned a desire to use technology to "improve their teaching" as the motivation for their participation.

However, by the end of their second year of the program, all teachers supported the instructional aspects of the program. In fact, they wished they had more time in the program. "I believe in it," "I've just been thrilled," and "It's been wonderful, I can't believe all that I have learned," were three typical comments heard. Teachers who originally declined to participate in the project have since regretted it. Non-eMINTS teachers "had an envious attitude about us," because of the positive change in the eMINTS classrooms. The eMINTS teachers have "grown in versatility in terms of how I

can teach children. I have the eMINTS Program to thank for that.” Another teacher related, “I just want to say there is definitely a change in my teaching style.”

What changed for these teachers? Those who taught for “quite a while” said it wasn’t until the second year that they really understood what “inquiry-based instruction” was and how to “get a grasp on it.” They admitted that they are still working on changing to a constructivist style of instruction. The change did not come all at once, but “piece-by-piece.” Another component of the change was their ability to integrate technology to enhance the learning environment.

It's funny. Looking back now, I thought that I knew about technology when I started. Now, I realize I really knew virtually nothing. And, every time you do anything in your classroom you just learn more. Every day it just awes me because you can do anything...You can go anywhere. You can take your kids anywhere using that technology. It surprises me that we can do more and more and more and makes me think that the possibilities are still endless.

eMINTS Improves Knowledge and Skills of Teachers

After two years in the program, many teachers reported changes in the way they taught; they stopped being the one with all the answers in the classroom and helped students construct their own knowledge. “I was always used to being the authority in the classroom and I’m not the authority anymore.” Another teacher recounted, “I used to do a lot more instruction and I noticed that I did a minimum of instruction.” Another teacher shared what she noticed about her students. “They wanted to get going and they learned more by doing it than from what I told them.” Students could research information on their own, solve their own problems and answer their own questions. Very frequently they found opportunities to extend their learning while on-line. The classroom became more student-directed rather than teacher-directed. Teachers and students were learning together.

Teachers were impressed with how quickly their students learned to use the technology. Students “caught on quickly,” and they “learned more than was expected.” The students knew when eMINTS professional development took place. “They would always ask the next day, what did you learn in eMINTS?” This was motivating for the teachers as they attended their own professional development classes. “I always felt if I was one step ahead of those kids I was doing good.” Once students began adopting the eMINTS equipment as a resource in their learning, teachers were motivated to improve their skills; they wanted to stay ahead of the students.

Teachers Focus on Professional Development

Most teachers viewed professional development as a critical activity and believed that participating in the professional development improved their teaching significantly. One of the teachers described the professional development as an “excellent teaching and

learning opportunity.” Nineteen of the twenty participants said they would like more professional development. “I feel like I wouldn’t mind signing up for another 100 hours.” Several were concerned about the loss of support as their contracted commitment to the program was drawing to an end. The teachers requested at least a yearly eMINTS update.

The aspects of the professional development activities that the teachers mentioned as being the most worthwhile were: the actual training classes, the individually guided opportunities, the idea sharing in the clusters and the discussion list.

Professional Development Classes

Teachers’ comments about the professional development classes were mixed. Many of the teachers said that they felt like their professional development topics were responsive to each individual teacher’s ability. However, other teachers criticized the ways that the eMINTS professional development staff structured the classes.

Among the positive comments was the sentiment that the eMINTS Cluster Information Specialist began at their level and pushed them along. The teachers liked that the professional development classes were “about every two weeks. It wasn’t overwhelming in length of time or travel time and it was pretty much targeted. We had a real focus.”

Teachers preferred practical demonstrations to general lectures and book study. The book that was part of this year’s curriculum was characterized as too theoretical. Teachers wanted practical knowledge. They felt they learned best when they were doing and collaborating.

Negative Comments about Professional development

Some teachers had more negative comments about their professional development. Many of these comments questioned whether the professional development was truly customized to the needs and expertise of the teachers:

The first year, I think MOREnet had some kind of prescribed checklist and I felt like I was kind of being shoved through their checklist of make a web quest, do this, do this, do this, do the scanner, where we just kind of touched on things enough to be able to check them off the list.

Three teachers questioned the use of the Profiler, an instrument that was taken, in part, to judge their current ability in technology and constructivist teaching practices. The teachers’ felt that although they gave honest responses in the Profiler, it did not matter because they were all taught the same information.

In response to these concerns, several teachers requested that the Profiler be used to pinpoint adjustments needed in the professional development to fully address individual teacher’s skills. Some teachers said they were asked to do things that were beyond their scope of understanding. The first year of professional development was described as a

“whirlwind.” “They were talking Russian all evening.” “It is extremely frustrating to be trying to learn and doing your best and it’s not at all at your level.”

They suggested using the Profiler to target professional development needs. Perhaps the teachers could choose which professional development to attend based on their individual requirements. As an example, some teachers said they knew all about inquiry-based teaching and were practitioners. Others thought, “They jumped too quickly into the inquiry-based.” There were a wide variety of technical abilities “from how to turn on a computer to a teacher who apparently lived and breathed on a computer.”

Individually Guided Professional Development

Individual professional development and classroom visits were prized. “What I found is best for the training is when the CIS [Cluster Information Specialist] finally did have time to come work with me in my room after school and work on what I needed at my level.” They said it makes a “major difference” having someone who knows their classroom come in and sit with them and guide them on their home turf.

The technology-based development was essential. In order to incorporate technology into the classroom using the inquiry-based learning, teachers said they first had to “overcome the fear of computers and become proficient.” They gained confidence in their own abilities. About one-third of the focus group participants said that their increasing ability to incorporate technology in the classroom was the best experience of being an eMINTS teacher. They benefited from creating Web Quests and on-line projects and “being able to teach in a whole new way.”

Idea Sharing in Clusters

Several teachers thought the most valuable aspect of the professional development was the opportunity to share lesson ideas among other teachers in their cluster groups. “Our clusters really became support groups,” and a “colleague support team” were indicative of the terminology used. They valued discussing other teachers’ experiences. This sharing was so much a part of the teachers’ common experiences that during one focus group, the participants stopped the group to share teaching resources with each other.

Many teachers thought that the cluster setting was the best context to learn about new teaching approaches. “Where it was your own group and you were sharing ideas were [some] of the most beneficial times. That’s where a lot of times I would take ideas from other people in the group and go back and try it in the classroom.” The clusters created a strong community that supported changes in classroom practices. Many teachers thought that this cluster-based approach was more effective than other types of professional development.

Discussion List

The on-going support of the discussion list was valuable. When teachers discussed the ongoing resources provided by MOREnet, they had positive comments about the discussion list. They liked being a part of a network of education professionals who could email each other for help and ideas. “You would know who could do the scanner and the digital camera and you could email them.” One teacher said she liked the “collaboration with other eMINTS teachers, especially, the discussion lists.”

CIS Staffing and Other Cluster-Specific Issues

Some teachers felt that there was an inequity in the skill level, support and training quality provided by the Cluster Informational Specialists. “In your schools, you were getting weekly support. Well, you take your weekly support and compare it to my only getting once a month. No wonder I’m having more of a struggle.” One teacher said, the “quality of the CIS is vastly different between groups.” Overwhelmingly, the CIS were lauded as indispensable, however CIS personnel who made fewer visits to the classroom, or were poor trainers were described as “less helpful” to the teachers.

Teachers wanted consistency in the CIS staff over the two-year commitment period. “Do you know what I think is important for MOREnet to know? Don’t switch CIS.” The teachers said they did not like it when they were assigned a different CIS. Teachers felt that “their” CIS knew their ability level and teachers got used to one style of professional development. One teacher was afraid that the new CIS would think that the teacher was not paying attention “or I haven’t been working... That is a very uncomfortable situation.” “Let that CIS see that cluster through because it’s less stressful on your teachers because they already have some kind of camaraderie with that person.”

Teachers also argued for keeping clusters together without any reorganizing:

I know it was really hard for them [new people added to the clusters] in the beginning because we were already in groups and we had been through all the initial stuff together and you know all those tears, all this struggle from the beginning and we had done it all together.

The teachers were a close group. One teacher said that when their cluster was broken up, it affected the clusters ability to “feed on each other for ideas.” Another teacher added, “We missed our colleagues.” [Note: Adjustments were made in the makeup of the clusters for the second year of professional development in response to the cry from some teachers to decrease travel time to cluster meetings.]

Teachers Established Learning Communities

Participation in the eMINTS Program placed these teachers in an extensive learning community. At first, the learning communities were the two eMINTS teachers at each school. “I like the fact that we were teamed up with a person in our building instead of working in isolation and that, I felt, was a luxury.” Another teacher reiterated, “I really

appreciate being able to work with a partner.” As the program expanded, their classroom was “de-privatized.” The teachers say now, "It really ‘globalized’ our little classrooms."

Collaboration With Other Teachers

Traditionally, teaching is an individualistic profession and in some schools the formal structure made collaboration between teachers difficult. However, through their eMINTS experience, teachers began to share teaching and learning ideas with others. eMINTS teachers had people in and out of their classrooms. “We had a revolving door.” Teachers gave examples of how eMINTS helped to develop a more collaborative teaching environment in their schools:

- 1st through 5th grade students had access to eMINTS classrooms weekly.
- Teachers in non-eMINTS 3rd and 4th grade classrooms came to the eMINTS rooms often.
- Six teachers from one district attended the summer sampler to get more comfortable in the eMINTS setting.
- One eMINTS teacher has a sign-up sheet on her door. With other teacher’s permission, non-eMINTS students may come into the room for 15 minutes to access information using the Internet.
- All 4th graders in one school were exposed to eMINTS through their departmentalized communication arts curriculum.
- eMINTS workshops were conducted by eMINTS teachers during staff development days. It opened doors for conversation and other staff would come to the eMINTS room more often.
- eMINTS teachers volunteered to train other teachers to use a laptop computer lab.

Teachers described consulting, talking and working with other teachers in their schools. Teachers who did not know how to navigate with a computer two years ago are now helping their co-workers. “I had difficulty doing email and now people in my school actually come to me. I solve problems. I do web pages. I'm helping others do web pages”.

Collaboration With Students

“The eMINTS project introduced a new kind of camaraderie between student and teacher. I’ve enjoyed that.” Several teachers commented that when the students learned something, they taught other people around them. “You didn't just have one teacher in the room you had 20 teachers and they got really strong.”

At many points in the group discussion teachers admitted that their students became valuable classroom resources. For example: “If I was stuck or didn't know how to do something, I [could ask a particular student], ‘Do you know how to do this?’ And if he didn't, in 30 minutes he did.”

Collaboration With Outside Entities

In some cases, the impact of the eMINTS professional development expanded outside of the school. Teachers recounted visits to their classrooms by education majors, the Commissioner of Education, newspaper staff, politicians and others. The eMINTS teachers were asked to be guest speakers at area universities and to help other teachers at different schools.

There was a lot of interest from UMKC [University of Missouri at Kansas City]. A lot of people visited [my classroom] and asked me to contribute to continuing education and upcoming teacher education [programs]. I liked that.

eMINTS Impacts Students

Nearly all comments about the impact of the program on students were positive. Teacher comments described increases in student motivation and improvements in student reading. They also described remarkable improvements in the performance of special needs students.

Student Motivation, Achievement and Competence Expands

Many teachers attributed motivation as the first step in learning and announced that all their students wanted to share what they were doing and what they had learned, “the very highest and the very lowest.” The students were occasionally motivated externally. “It’s fun for them to have 7th and 8th graders pop by and say ‘Wow, we didn’t have this when I was here.’ You can see their shoulders go back.” But, more often they are motivated by their own achievement and competence.

The “students gain[ed] skills to become active, ‘life-long’ learners.” They drew on the knowledge and experience of the teacher, but they took charge of their own learning. Teachers described “intense faces” as students focused on their projects. Over time, students became independent learners and did not feel dependent on the teacher for information. Students believed in their own ability to solve problems and to complete a task. Teachers described projects where the students did not ask questions of the teachers, rather they asked each other and they talked themselves through it. One teacher, commenting on her students’ work habits said, “It was just amazing to me because they were doing it on their own. They didn’t even think to ask me.”

The research skills the students gained “were just phenomenal.” The teachers credited computers for this increased willingness to research. “They were excited about it and so they were willing to put forth a lot of time and energy.” Some students generated research questions that they wanted answered and later, they were able to share what they learned with each other. “I don’t think anything is too much for these kids.”

The teachers reported showing one child in the room something about the computers and then “it’s amazing how fast it spreads and you didn’t have to go over it ten times.” “You’ll hear them talking about how did you get this or how did you get that done.”

Teachers reported that students put more effort into their computer work. "I think no one can deny that it raises the kids pride in their work and in their own self-confidence. But, what I saw first was the kids were very proud of their classroom." Another teacher said, "During a lesson on pioneers, one of the children asked, 'Are we pioneers, because we are doing this?' They had tremendous pride that they were part of this program."

Students Don't Want To Leave

Before eMINTS the students would "zoom out the door for recess and dismissal." "It was a struggle to get kids started." Now, many teachers remarked, they couldn't get rid of the students. They were excited to learn. "I turn off the light and I start locking the door, I mean, every single day. It's really different than it used to be." The children were always preoccupied working on something. "Now, you have to struggle to get them to stop." The kids said, "It can't be time to go home yet." Another teacher lets her students stay in and work during her lunch period:

I'm finding that almost one-third of my class [stays in during lunch] and it's more important to me that if they want to stay in and work on something then I give them that opportunity, because everybody is going home at 3:00. I give them my lunchtime.

According to one teacher, students did not want to leave for recess and they did not want to move on to the next grade. "There are some pretty sad children leaving 3rd grade." The teachers said their students would ask, "Who is going to use my computer next year and who's going to teach them how to take care of it?"

Students Reading More

Teachers reported that many of their students had improved their reading skills as a result of their eMINTS experience. The students were reading more and reading for information. "In 4th grade it's so hard to get kids to read for information. Teaching reading for information was so much easier [with eMINTS]." "Reading is a skill that my kids will take with them." Students were definitely more excited about reading and getting things done on the Internet rather than in the encyclopedia or other print books.

When you go on-line it's not [as] threatening [as] hand[ing] you the book. That book's too big, but once you go on-line it's just one page and before you know it you've been scrolling down and you've been reading for a long, long time.

Teachers believe that the need to read more material, along with students' improved attitude towards reading, "have helped improve performance."

Students With Special Needs Succeed

Students with Attention Deficit Disorder (ADD), motor skills problems, difficulty with language, poor attendance and learning disabilities have made particular progress in eMINTS classrooms. The teachers stated that academics were not going to be as big a stumbling block for success for these students as before. Although not initiated as an intervention for students with special needs, these students perform especially well in eMINTS classrooms. Student self-esteem improved, they had increased interest in learning and they generally “thrived” in the eMINTS environment. Some examples from the focus group sessions:

I'm amazed at what the kids can do. I watch them, especially my really, really low level students that can just take off and they just do amazing things that just shocks me and it shocks their parents.

The low achieving students just do so much better and it was extremely motivating and focusing especially for the ADD kids that I have.

One teacher related a story about a boy who did not come to school much last year, but he was there every day of his eMINTS year:

He was so motivated to come to school...so I think for those kids who struggle with going somewhere they don't want to go and their parents are not very supportive and don't make them come when they've got a headache or a stomach ache. . . I think that [eMINTS] is a real plus.

Another teacher spoke about a child who was language disabled and also had illegible handwriting. Often the teacher needed to have him read his work to her, but on a computer, his writing was organized and cohesive. He became so skilled on the computer; his writing was just as good as the others in the class. It was easier for him to write and edit using the computer so his writing improved.

In another case, parents were concerned about computers and how they might affect their daughter who was a struggling reader. At the end of the year the same child "reads all the time. Her reading has improved. Her writing has improved because of the language development." These parents are now "very, very impressed." Another child, who was also a struggling reader asked to go to the library to get a book about what the class was studying so he would have a storyboard for the next day. This was uncommon behavior for this child.

The eMINTS classroom proved to have positive effects for students with learning disabilities (LD). In one school, a student diagnosed with LD, had a history of difficult behavior. Other teachers would come and ask if this particular student displayed behavior problems in the eMINTS class. His eMINTS teacher said that he was doing a “great job.” Apparently this student completely changed his behavior during his eMINTS year. He loved the computer so much that it proved to be a beneficial instructional tool and contributed a great deal to increasing this student’s self-control. When he started to get

upset, the teacher reminded him to take a few minutes to compose himself. This proved successful, as he wanted to remain in the class so as not to miss out. In this case, the computer helped a teacher to help a student gain improvement in self-control. Other teachers have similar stories of students with LD who were unmotivated in the past, but now stay on task and are able to focus their attention.

eMINTS Support and Infrastructure

One of the more complex issues discussed during the focus groups was that of resources available to eMINTS teachers. Understandably, there was considerable variation in the level of support teachers received from the program and their schools. Teacher comments addressed the activities of the Cluster Instructional Specialists, the role of the building technical coordinators and the role of school and building administrators. Teachers also commented on the ways participation in eMINTS stretched budgets, human resources and available space.

Cluster Information Specialists

The teachers were unanimous in identifying the Cluster Information Specialist (CIS) as a critical component to their success. Teachers complimented the CIS on their willingness to address both technical and educational issues. The CIS were equally comfortable in the technical area and willing to get back to the teachers if they could not immediately identify the answer. Attributes appreciated about the Cluster Information Specialist were flexibility, accessibility and approachability:

I like the fact that our CIS this year was so flexible. I mean, she could come during the school day or she could come after school, even Saturday.

Our CIS is wonderful, couldn't be any better. Email her, she will try to come out that day. Call her on the phone, she tries to solve our problem on the phone. You can call her at night; I mean 24 hours a day she is willing to help you.

I never ever felt afraid to ask her a question because she never made me feel dumb. Sometimes you are reluctant to ask a question because it's really pretty silly, but she never, ever acted like that and I appreciated that a lot.

School Building Technical Coordinators

On-site technical support influenced the working environments of the teachers. Teachers appreciated all technical help as they learned how to function in a classroom full of computers. Teachers said that their local technicians thought of things that they didn't,

which freed them to concentrate on classroom management and the teaching end of the project. The variety of expertise of the school technicians ranged from technical aides to a district director of technology. One of the schools benefited from a technical aide for the building and another technical aide who served only the eMINTS classrooms. One school that started the program with a technical aide with no knowledge of IBMs hired an additional person with more technical proficiency for the second year of the project.

Though the context and level of support were different in each school, successful implementation supported the teacher's use of computers through local, direct and personal contact. The most appreciated role of the technician was the ability to meet the immediate needs of the teachers. One teacher said she received help in a matter of minutes.

I had a lot of small questions to ask and he would come over maybe in the afternoon and visit with me an hour and say, 'Okay this is where you open it up. This is where your trashcan is.' I didn't do any of the 800 numbers, none. He would always come and look at it first to see if it was something he could handle.

A teacher from a larger district added that she didn't receive help in a matter of minutes, but she would receive help in a matter of days. She also felt that her technician tried to be supportive.

One in-house technician was cited as being proactive. She learned what she needed to do to help the teachers and "everything is just beautiful, making sure that everything is installed; everything is ordered." She made sure "we have our extra cartridges so that we don't have to wait until the last minute. She's just very supportive. Now that we're adding a new room this year, she's been able to go in and get everything set."

In the beginning of the project, a technical support person was needed more for troubleshooting. One teacher said, "It was not uncommon for the machines to shut down 20 to 30 times a day." As the project progressed and the teachers became more proficient, they were called on less. "Our tech support was really good getting started. He was always very supportive. I don't see him very much anymore. He felt like I had out-distanced him. We've gone farther than he has."

Generous Material Resources

Teachers and students noticed the input their districts had in the eMINTS project. Equipment and school outlay were seen as positive investments in the elementary school. The teachers said that when adults model that they value education, "that really sends a strong message to the children." When the students come to a room that is outfitted with the best equipment and feel like they have some ownership of that equipment, they realize that that is something that our society values and so they value education more.

Teachers comment that their work is easier with the additional resources in the eMINTS classroom. "I'm sure had I not had the resources and the Internet and the technology [the

students] would not have learned as much.” The teachers say they may be personally entertaining, but it took the equipment to capture their undivided attention. “The quality that you can give them all day long is just incredible.” The students sit there “and have their mouth hanging open as you are doing the lesson.”

The equipment fuels teacher motivation. "The computers are nice and the Smart Board is heaven." "I feel like I had the best equipment in a classroom." Many teachers categorized their teaching as constructivist, but with the availability of equipment resources, they didn't have to go digging. The information was accessible. A teacher with 22 years experience is being continually asked when she is retiring. She's staying because eMINTS "was a shot in the arm...Now that I have this equipment, it just makes the biggest difference in the world, because now you can do the kind of teaching that you always wanted to do."

The Role of the District and School Administration

Most teachers reported having visits from members of their school boards. Others describe self-confident and articulate eMINTS students presenting their work at school board meetings. One teacher attributed the support of the school board for her school's level of participation in the program. "We got to add two more classrooms, this year. We will have six more [eMINTS] rooms in the building." Overall, teachers saw the support of the school board positively:

Some of my best experiences have been unannounced visits by the board and for them to walk in and see kids so completely engaged. There's something about the technological aspect of it that really invites adults and piques their interests and they really want to get in there and see what is going on.

Many principals openly supported the teachers' participation in the program. They would willingly observe the classrooms, monitor the benefits for the students and promote eMINTS. One school had a very strong technology base ten years before eMINTS yet, the principal noticed "what tremendous benefits those kids are getting" in the two eMINTS classes." He will never, ever think about pulling students out of that class."

Other principals were viewed as teacher advocates. Teachers felt their principals supported them by arranging for substitute teachers and by adjusting their committee work to allow the eMINTS teachers time to participate in their professional development sessions. When the teachers felt discomfort, principals expressed empathy about the time and effort involved in the project. One principal said, "I know you're tired and I know it's a lot."

In most cases, members of the school building administration were generally supportive of what the eMINTS teachers were doing. Phrases like "right behind me" and "absolutely 100% supportive" and "could not have been better" were used to describe administrative backing. Stories were told of asking for something in the middle of the day and having it the next day. "He never ever balked at anything that I asked for."

However, not all principals were equally supportive. Apparently, the level of support from building principals varied from almost daily consultations between principals and teachers to apathy. In some cases the support was minimal, amounting to lip service only, with general comments like "You guys are doing a good job."

In other schools there was no clear understanding of how an eMINTS classroom operated. Apparently some principals objected to the level of noise. According to one teacher:

...My room is loud and the students are working in groups. I always try to give [my principal] a little briefing when [the principal] comes in because it doesn't look like I'm really teaching.

Likewise, some principals did not understand the time commitment required to complete the professional development. "Our principal didn't have a clue how much extra work eMINTS was on top of everything else, because, you know, you are expected to do everything else, plus the 100 hours."

Finally, in some schools the goals of the project were not communicated to the rest of the staff. A few teachers reported that their colleagues wished they were part of the project and they were in the words of one teacher, "very jealous." This teacher continued, "You know when it gets unbearable and there are days when it gets unbearable." Others felt they were singled out as the "favorite people" and they needed to take care of their own problems. One teacher said, "Teachers in our district do not have a good attitude toward us because the first year, the way we got this equipment was we took professional development money of which they didn't get to go anywhere and do anything. They really haven't said much to us at all."

Other Concerns of FY00 Teachers

What follows are three short summaries of issues the FY00 teachers discussed.

Squeezed School Budgets

The teachers expressed a need to expand and maintain the program. A stumbling block was financing. "I felt like there was a little pull when it [eMINTS] started pulling on their budget." Some building principals relayed the message that if more money was needed then the teachers should go find the money. "It's lots of money" and "huge ticket" and "the sticker price on this thing is so great" were used to describe the cost factor. Grant applications were seen as a way to fund the project, but in the words of one classroom teacher, "I don't have time to sit down and write a grant and I don't know what I am doing."

Reimbursement for out-of-class time was an issue for some teachers. Some teachers were paid mileage and a stipend by their district and some were not. At least one teacher participating in the focus group had not been paid her full stipend for professional

development. Some were paid such a small amount they found it insulting and demoralizing. This remains a sore spot.

Stressed Human Resources

There were periods during the year when teachers felt overwhelmed by the time commitment necessary to complete the professional development:

You know I traveled four hours...my time is too precious. I don't think that MOREnet people understand how precious our time is. Our time is very precious.

We were all physically drained by May. I mean, you looked at each other and it's like, I haven't been home. I haven't been able to fix food. I haven't gotten the laundry and you just couldn't. You just met yourself every week.

By the time I would get home it was almost time to go to bed and no time to wind down and, you know, teachers have to. We don't just come home from work and go to sleep. We have to correct papers and things like that. That part was very hard for me.

Space Issues

The physical environment of the eMINTS classroom can be limiting when space is an issue and when furniture and room layout choices were made without consulting the teacher. Many of the teachers felt rushed in deciding on their furniture. Now, some of the teachers regret the choices: "I hate the chairs that we have. We have cloth chairs and they are disgusting."

Some teachers do not like their room arrangement. One said, "It looks like an office, not a third grade room." Several were unhappy that the room arrangement could not be changed. They said they had to give up the control of where to put the furniture because it was dependent on where the drops for the wires were. In other cases, the teachers said the classroom space was no longer their own, the "furniture was not my choice and cannot be rearranged."

It's just too complicated to change the littlest thing. You have to get 17 people involved and workers to come in and dust is flying everywhere to just move a table. Maybe they should have put several [drops] around the room just so the teacher could change her mind every now and then. But you're very limited now in what you do for like the next 50 years that you are in that classroom.

Even the teachers who like their room setup miss the versatility of space they once had. “I’m not a person who has my room structurally set up the same year after year after year. I like my fourth graders to come back in and say, ‘Wow, you’ve changed your room.’ I don’t have that option now.” Another teacher says that she would like a little area where they could sit on the floor and talk, but there is not an area for that anymore because her room is extremely small. She wishes her room were bigger.

Room arrangement in some cases limits teacher’s access to students. “I literally cannot get through” and “I’m losing 20 pounds, I can’t get around my room” were representative comments.

Summary: Teacher Perception of eMINTS after the First Two Years

At the end of their participation in the eMINTS Program, the FY00 teachers attending the focus groups saw the program as a success. From the viewpoint of participating teachers, four factors were vital to the successful implementation of the eMINTS Program: 1) teachers’ commitment to the program, 2) students’ partnership in their own learning process, 3) administrations’ support of the innovation and 4) resources adequate to support the classroom.

Throughout their participation in the program, teachers strived for continuous improvement in their teaching practices. eMINTS teachers required a high level of technical training and a high level of support for inquiry-based activities. Teachers valued the professional development provided to them, the individual classroom visits, the idea sharing in the clusters and the discussion lists. They felt part of a learning community where they collaborated with their fellow teachers, their students and people outside the walls of their classroom. All of these activities supported what the teachers saw as a major change in their classrooms.

The role of the teacher and student changed in the eMINTS classroom. Students were actively involved in their learning activities. They partnered with their teachers and they assumed new responsibility for their learning. The students became resources for the class. Achievement and competence increased as motivation increased. Students of all ability levels experienced success. The greatest improvement was seen in the students with special needs. Their focus, behavior, attendance, reading and self-esteem improved.

Many of the eMINTS teachers experienced increased support from their building administration and school boards. The interaction between the teacher and the principal was especially valued as principals demonstrated their understanding of the project. Many principals voiced support of the program and support of the teacher and were alert to their teachers’ efforts. This support was appreciated by the teachers struggling to find the time and energy to sustain their teaching commitment and take advantage of their new professional development information and integrate the two in their classroom. Other principals were less supportive and their ignorance of what was happening in the eMINTS classrooms discouraged a few teachers.

The Cluster Information Specialist, the building technical coordinator and generous material resources were critical components of eMINTS' success. The CIS provided ongoing staff development to support the teacher in integrating new technologies into the curriculum. On-site technical support, provided by the building technical coordinator influenced the working environments of the teachers, freeing them to concentrate on the teaching end of the project. The quality of the material resources turned out to be phenomenal learning aids. They were motivational to the students and to the teachers.

The participating teachers did not discuss in any detail the ways the eMINTS Program has developed in its first two years. Since beginning in 1999, the eMINTS Program has become fully staffed, its professional development curriculum has become fully articulated and its installation procedures have been streamlined. The impact of these changes have been documented by some of the teacher survey data analyzed over this period. These surveys show improvement in teacher opinions of the eMINTS classes over the course of the 2000-2001 school year.

The FY00 teachers were the first cohort of eMINTS participants. As the project developed through these two years, many things changed and many things improved. These teachers' experiences are best summed up with this statement from the focus groups comparing a teacher's experiences with the program's first and second years:

So support-wise from the beginning it was terrible, [but] the good part is since then it's been wonderful. Okay, so I have nothing but "thumbs up". I didn't know [anything about] this stuff and now I'm really good at it, at least in my opinion I can stay with any 8-year old now.

Real transformation takes time and many things are connected to it. This project is in its infancy. Professional development needed improvement and was improved. Project support was vital to success and improved over the two-year commitment. Some teachers enjoyed administrative support while others felt isolated. All teachers witnessed gains by their students both socially and academically. Albeit challenging at times, all of the focus group participants felt fortunate to be able to participate in the program.