

CMSI Professional Development for Elementary School Staff

A Report for the CPS Office of Mathematics and Science
Prepared by the PRAIRIE Group, UIC College of Education

Lisa M. Raphael Bogaert, Meghan Burke, Minerva Cruz,
Carol R. Fendt, Mariam Mazboudi, & Stacy Wenzel

May 15, 2006

*For further information, contact Carol Fendt,
crfendt@hotmail.com, 312-413-3367*

The conclusions drawn in this report reflect the viewpoints of the authors. While there are many potential viewpoints, these reflect a systematic analysis of data by external evaluators. The hope is that these findings can facilitate improvement of this and related programs through open discussion and consideration of data-driven understandings.

*This report is based upon work supported by the
National Science Foundation under grant No. 0085115.*

Abstract:

The purpose of this report is to examine the 2005-2006 professional development offered to teachers, specialists, and principals implementing the Chicago Math and Science Initiative for the Chicago Public Schools. The findings are divided into three major sections: 1) the patterns and reasons concerning 2005-06 CMSI professional development attendance patterns by school; 2) thematic analyses of what teachers and school-based specialists value and do not value about current professional development offerings; and 3) analyses regarding the development of teachers and administrators who will serve as future professional development instructors and leaders in CMSI-supported elementary math and science curricula. Data for this report comes primarily from 13 elementary schools that have been studied as cases, most from 2003 through 2006. Other data come from district-wide professional development activities and from evaluation of the leadership development undertaken by university-based partners of OMS who provide the professional development around 3 of the 4 CMSI-supported elementary math curricula. Overall, we found that:

- 1) Teachers at voluntary schools and in some mandatory schools are less likely to attend professional development sessions on CMSI supported curriculum in 2005-06 compared to 2004-05.
- 2) Teachers and specialists appreciated and enjoyed helpful, informative professional development sessions. Conversely, they disliked irrelevant professional development that lacked practical application to their work with students.
- 3) Professional development for leadership training is not consistent across the curricular providers nor does each serve participants from similar leadership roles within CMSI. Nonetheless, participants seem to gain insight either into the curricula, math or science content knowledge, and/or leadership.

Introduction

Professional development creates learning communities that build instructional capacity by producing high quality teaching and leadership (*Chicago Public Schools Office of Professional Development website*). As a comprehensive curriculum initiative, successful implementation of the Chicago Math and Science Initiative requires professional development offerings that support the instructional capacity of all involved.

In 2005-2006 as of March 8, 2006, the Office of Math and Science reported serving 439 teachers through 15 professional development workshops. Countless additional hours of professional development workshops have been provided in a less centralized fashion. Area Math/Science Coaches have brought teachers together for meetings at Area offices or at individual schools. Schools have had their own math and science leaders or invited outside guests to share insights and give workshops to their teachers on professional development days. Considerable funds and time are devoted to these professional development experiences.

Given the importance of coherent instruction, as well as the time and resources spent on professional development, it is important to understand attendance at the various types of professional development and what people are getting out of the various offerings. This external evaluation report prepared for the Chicago Public School's Office of Math and Science (OMS) by the PRAIRIE Group at the University of Illinois at Chicago addresses these issues. We look at how teachers have responded to these offerings through their attendance and how they report about their experiences in these professional development sessions.

Evaluation Methods

Utilizing OMS attendance records, we begin this data brief by first looking closely at professional development attendance across 13 case study schools for the current and past years. After looking at the attendance patterns in these schools, we turn to focus groups and written reflections with teachers in these schools during the current 2005-06 school year to ascertain their experiences of professional development with both the curriculum providers and within their school via school level professional development provided internally or by CMSI leaders. In addition to teachers, we look at CMSI professional development provided to both principals and specialists in 2005-06. We conclude by looking at curricula providers' professional development for leadership training.

The design of the external evaluation includes the collection and analysis of data about professional development on multiple levels. We have included in this design observations of curricular professional development provided by curriculum providers both for teachers, principals, and future facilitators/leaders of the curricular professional development and conversations with teachers, school-level specialists, and principals about the professional development they have participated in around the CMSI. On average we observed 10 provider professional development sessions, 10 OMS provided professional development sessions for specialists and/or OMS staff, and 8 curriculum provider leadership training sessions. Observations of professional development given by area coaches, facilitators, and other OMS leaders were described earlier this year (See *Instructional Leaders Supporting CMSI Elementary Schools, January 2006*).

Data for this report comes from our case studies in six mandatory and eight voluntary implementation schools. Data collection at these case schools consists of observations of professional development sessions, focus groups, written reflections, and interviews with participants. This data includes approximately 21 focus groups with teachers (3-10 teachers per school), written reflections from teachers at least 3 schools, and 19 interviews with principals. Data on providers' professional development for leadership training comes from our observations, written

reflections, focus groups and interviews as part of our work with three of the CMSI math curricula providers. This data include approximately 7 observations of curricular providers leadership training, 35 written reflections with participants in this leadership training, 6 focus groups with participants, and 6 shadowing of these participants after their training. The data collection occurred between August 2005 and May 2006.

Findings

The findings are divided into three major sections: 1) the patterns and reasons concerning 2005-06 CMSI professional development attendance patterns by school; 2) thematic analyses of what teachers and school-based specialists value and do not value about current professional development offerings; and 3) analyses regarding the development of teachers and administrators who will serve as future professional development instructors and leaders in CMSI-supported elementary math and science curricula.

I. Patterns concerning 2005-2006 Teacher Professional Development Attendance by School in OMS Curricula Specific Workshops

This section outlines the attendance records at OMS curricula specific workshops of teachers at elementary schools in our participating case study schools. Based on previous evaluation work in these schools, we continue to look at attendance patterns and how they may be influenced by both how many years the teachers have been implementing CMSI-supported curricula and whether the school volunteered and was supported to use these curricula (as an Intensive Support or Readiness school in 2003-2004—Voluntary Schools) or was mandated to use the curricula (as a school on Probation beginning in 2004-2005—Mandatory Schools). (See the October 23, 2005 PRAIRIE Group report to OMS, *Case Study Schools Implementing CMSI Curriculum, 2004-05: School Characteristics Related to Implementation*, for previous findings.)

A. Voluntary vs. Mandatory Schools

During 2005-2006, our **Voluntary** Schools are experiencing a drop-off in the overall number of professional development hours their teachers are accumulating in the OMS curriculum specific professional development workshop series. Even though the 2005-2006 attendance records were not complete at the time of this report, we see this decline in overall attended hours for Voluntary Schools moving from their first year of implementation to their second year to their third year. This pattern is consistent and strong for four of our six former Intensive Support and one of our two former Readiness schools in our case study sample. Even with the former Intensive Support schools that deviate from the pattern included, between 2004-2005 and 2005-2006 we see the accumulated hours decreasing on average per school by 69%.

This pattern of decreasing teacher attendance for Voluntary Schools also holds true when you look at the number of teachers who are attending most of the math sessions available to them. If you look at teachers who attended 75% of the available sessions in the math curricula sequences in the 2005-2006 school year compared to the 2004-2005 school year, there was more than a 40% decline in our case study schools that were formerly Intensive Support. In these schools, the decline in regular attendance in summer workshops was even greater—only a tenth of the number of teachers attended in summer 2005 compared to summer 2004.

The attendance is declining and is also very low in relation to the numbers of teachers in these schools as the October 2005 PRAIRIE report to OMS, *Case Study Schools Implementing CMSI Curriculum, 2004-05*, noted even in 2004-2005 the typical Voluntary school had fewer than 1 teacher

regularly attending professional development for every 100 students in the school. By 2005-2006, this is even lower.

With the **Mandatory** schools, attendance was a mixed picture. Some of our Mandatory case schools accumulated more teacher time in professional development in 2004-05 than in 2005-06. Some had the opposite experience with increasing attendance and more hours accumulated in 2005-06 than in the earlier year. Two of our schools shared a pattern of clear increases in teachers accumulating school workshop experience. Two of our schools shared a pattern of steadily decreasing accumulated teacher time in professional development over the year and decreasing numbers of teachers in summer professional development. The remaining school saw a major increase in teacher accumulation of professional development hours. Like in 2004-2005, in 2005-2006 the typical Mandatory school had fewer than 1 teacher regularly attending professional development for every 100 students in the school.

Discussion Questions:

What kinds of “carrots and sticks” must OMS offer and use towards all schools to increase teacher attendance at professional development? Do different types of schools (ie: voluntary/mandatory) have different issues related to their attendance at professional development sessions and thus need differing carrots and sticks?

In what ways can the content and sequence of professional development offerings increase teacher attendance?

B. New vs. Experienced Teachers

At three schools only new teachers or teachers new to the curriculum attended professional development. Limitations in resources prevented the attendance of more experienced teachers at two of the schools. At one such school where only the four new teachers participated in professional development, the principal explained, *I think we've tried our best to allow our new teachers to go, because I'm a firm believer in staff development as an integral part of the implementation of any program. To the best of my means that I was able to, but with the elimination of substitutes for the in-services, I've had to cut back on that.* Similarly, at another school, the assistant principal admitted that sending three teachers *new to the system* to the professional development was *a long and hard fight* since they were not sure *where the money was allocated*. At another school, the city-wide specialist admitted, *This school's PD attendance is spotty. All of the brand new teachers are going to PD. Some of the 2nd year(s) are going. Most of the 3rd year(s) are not going.* According to this city-wide specialist, the more experienced teachers did not need additional professional development:

I have not really made an issue about it. As first wave teachers they were very enthusiastic, and 3rd year implementation is like one Saturday, it is not much PD, and most of them are very strong and good at what they do.

In comparison, at four schools, all of the teachers attended some type of professional development. In one focus group, for example, all of the teachers present admitted to receiving professional development either at the school or Medill, through the Area, or through university-based math classes. At one school, the principal simply stated, *If there is any kind of professional development that will make them a more effective teacher then they attend... That is not a personal choice.* Similarly, a specialist confirmed the relationship between professional development and teacher evaluation: *That's a part of their evaluation. So, if they want to get a superior rating, they are required to attend all professional development.* At another school, aside from teachers who were recently hired, the specialist confirmed in a November interview, *Well, at this stage of the game, everyone has attended some PD... every classroom teacher is involved in PD.*

Some of the teachers at two schools attended professional development. In a focus group with eight teachers at one school, most had attended professional development last year (during the year and/or

over the summer) but were not attending this school year. At another school, four teachers attended professional development for CMSI over the summer, but the new principal was not sure if the teachers would continue to attend throughout the year. The principal at yet another school commented on the inconsistency of professional development attendance:

We have staff that do go to the training consistently, and some don't go consistently or at all. The percentage is an even split. Three teachers have consistently gone to training, and one that has found every reason to not go to one again.

In each of these three examples, we see that the pattern of professional development attendance may reflect the beliefs of school principals and staff as to who is best served by professional development &/or reflect accountability structures &/or resources available so teachers can be freed up to attend professional development. Interestingly when shadowing a coach this very issue arose. The coach questioned why all teachers in a school did not attend professional development even when the school budget included professional development stipends:

PD is something we monitor and pay attention to. Are the schools using the materials, going to PD, and consistently? If we know there are certain schools that are not sending their teachers to PD, and we know it is not an issue of money because we made sure they budgeted for that, that is something we address because OMS is not going to go to those principals and ask them why aren't the teachers going.

Discussion Questions

In the ideal world, how much professional development should teachers, principals, & school-based specialists participate in from CMSI curricula providers?

How do curricular providers account for the various needs of teachers, principals, & school-based specialists?

II. What Teachers and School-based Specialists Value in Professional Development Offerings

A. Specialists' Specific Views

Thematic analysis of our participating case study schools provides additional information regarding the attendance issues of school-level specialists at professional development. Without attendance records on specialists attending either curricula provider meetings or OMS specialist meetings, this section relies on data from our case study schools where specialists spoke of their experiences at professional development. Most of the data in this section comes from our voluntary case schools as four of our voluntary case schools employ a school-based specialist in some capacity while only one of our mandatory case schools employs a specialist. Similarly, OMS provides a city-wide specialist in one of our voluntary case schools and two of our mandatory case schools.

1. Attending Some Professional Development

We've found that in our case schools this year, attendance at OMS/provider professional development for specialists has been hit or miss. Although the professional development meetings in the past were generally considered helpful, some specialists note that because OMS is no longer paying for their position &/or because they no longer are freed from their teaching positions, they are no longer attending professional development meetings. Still, in some cases, specialists have found time to attend these professional development workshops. At the same time, city-wide specialists seem to more consistently attend OMS/provider professional development.

2. Constraints on Attending Professional Development

As alluded to above, there seem to be two main reasons (i.e., scheduling and budgetary constraints) that school-level specialists did not attend the specialist meetings and/or curricula professional

development. At one school, for example, although the specialist attended summer professional development sessions (OMS and publisher's), the principal did not want the specialist to miss any of her classes (i.e., she taught full time) so she was unable to attend any of the specialist meetings or the curriculum professional development sessions. This specialist was unhappy that she missed out on professional development: *I'm just a little bit bitter about missing these meetings, because I feel like I'm missing out. And I feel like my role is not really what it should be anymore, because I'm not going to these meetings and getting this extra information and bringing it back to the teachers.* Similarly, at another school, the principal did not allow the specialist to attend the specialist meetings because of funding issues (i.e., this particular specialist was paid by the school instead of the district). The principal of this school, however, recognized that his specialist deserved some additional professional development: *If she has to go to meetings, I do let her go to meetings that pertain to math. I let her go because we still have to continue training the trainer.*

Funding issues also prevented the former specialist at another school from attending professional development. He explained, *there is still no money if I wanted to go to any of that.* It is also unlikely that another former specialist from another school attended professional development since she taught full time. Similarly, at another school, although the former specialist was a trainer for a CMSI curriculum in July, she had not participated in professional development since then.

Discussion Questions

How has OMS/provider professional development developed over the past 3 years? Is there a need for a different strand depending on experience and/or role within the school?

Is attendance for specialists being tracked? What can be learned from this data?

As specialists positions in school disappear with funding or as these titles remain while the teacher moves back into full time teaching, what role are these individuals playing in their schools to support a CMSI infrastructure? What support in terms of professional development is needed by this changing position? How might OMS, the Area, or curricular providers utilize the expertise of these individuals?

B. Positive Impressions of Professional Development

This section details the positive impressions of professional development for teachers and school-level specialists in our participating case study schools.

1. Generally Helpful/Informative

Through written reflections/focus groups within our case schools, over 20 teachers regarded professional development sessions as helpful or informative regardless of a school's adoption policy. Professional development assisted teachers with increasing their understanding of lessons. Teachers perceived that the information gained from the professional development workshops would directly influence their classroom instruction. A sample of teachers' responses follow:

Because we did, I think, up through the fourth unit or the third unit and did all the major lessons and so when I flipped to the lesson I would [think] "Oh I know how to do this from the workshops," so that was really helpful, and I would put little post its inside so I could remind myself how it was instructed.

They [professional developers] help us figure out ways to use the problems for extended response questions for this upcoming test. That was really helpful.

And the thing that I found helpful especially the first year was how to manage the materials, and we had a lot of assessment sessions which I found helpful.

Similar to the teachers, specialists appreciated the helpfulness of professional development sessions. For example, one specialist explained, *I feel much more prepared to teach the lesson, because I've done it myself and I've gotten feedback on it, tips and this and that. And [the new teachers] agree. They totally agree.*

2. Helpful Instructors

Although new teachers sometimes felt *clueless* at professional development, they appreciated receiving *guideline(s) of what they [were] supposed to teach*. Teachers at one mandatory school welcomed the instructor's efforts to assist them with questions about the new curriculum:

And even if you really didn't know it, they had the patience where they went back over it and walked you through it. That's one of the things that I liked about the [math curriculum] professional development classes. No question was mediocre. They went back over it regardless of how many times you needed help with whatever it is that you wanted from that book. They were willing to give it to you. That's what I liked about the classes.

Similarly, other teachers regarded the [science curriculum] professional development as *really good* since the instructors *went through lessons. We did the experiments. The people who taught it have been classroom teachers so they give them tips (e.g., Look, this is something that you need to watch out for)*. The specialist at one school recognized the value of including teachers in professional development (e.g., *I solicited teachers to come in at all grade levels to work the overhead and use the different technology pieces so that they can show other teachers what is working in their classrooms*).

3. Applicable to Classroom/ Dealing with Real-Life Issues

Both teachers and specialists appreciated professional development that addressed authentic issues related to their classrooms and schools. One specialist, for example, appreciated new attempts by OMS to address real-life issues:

This year they started changing the agenda, they realize we need a big chunk of the day to deal with real life situations that happen in the schools and they adapted beautifully. OMS started putting articles into it [professional development] and I think those were much more what the teachers needed at the specialist training. I was very impressed with [OMS].

4. Opportunities to Listen and Share Information—to Network

A few teachers and specialists revealed in focus groups or in written reflections that they enjoyed professional development sessions because of the opportunity to listen to other teachers or specialists and to share information about their particular classroom issues with others. One of the teachers, for example, liked getting feedback from other teachers noting that *this is the most useful part of the workshops*. Similarly, a specialist shared that she felt better about the struggles in her school after listening to other teachers with similar problems:

I listened to other teachers about the same problems that they were having in their schools as far as the program which made me feel better because I thought our teachers were the only ones feeling this pressure because this is the new way to present math from what they have been doing so it was enlightening to find out that everybody basically felt the same way.

Some teachers, likewise, appreciated the support and strategies from other teachers attending professional development sessions:

What I found helpful about the training was that there [were] other teachers there, and everyone had suggestions as to what, what they did wrong or what they wish they would have done better, so those teachers that hadn't gotten to that unit, you know, they basically knew what to they could change.

And it was great that all of the teachers can share their ideas because it gave you strategies to use when you are implementing the program.

There [are] a lot of questions that were answered there that I had. Because it's grade levels [professional development workshops] so a lot of the concerns are the same and come across the other schools.

In conjunction with the support and strategies received at professional development sessions, teachers and specialists appreciated networking and developing relationships with other K-12 professionals. One specialist remarked that the professional development sessions provided teachers with the opportunity to *meet people that they would never come in contact with normally and it really expands a person's horizons and makes them feel a part of something big.*

Discussion Questions

How does OMS/curricula providers/instructors continue to adapt to the changing needs of participants?

One of the original goals of CMSI was to build learning communities/networks across schools throughout the district. In many respects this seems to be happening for some teachers and specialists at professional development workshops. How can these networks continue to be supported in the Area or the district as attendance at professional development workshops changes?

C. Negative Impressions of Professional Development

This section details the negative impressions of professional development as described in focus groups and written reflections by teachers and specialists in our participating case study schools.

1. Impractical/Doesn't Meet Overall Needs (i.e., A Waste of Time)

Unfortunately, professional development sessions did not meet the needs of all of the teachers or the specialists. At one focus group with eight teachers, more than half of the teachers regarded professional development as generally a *waste of time*. Teachers disliked the redundancy of professional development sessions. As one teacher explained, *it just went over and over and over the same materials, and it wasn't necessary*. A few teachers explained that they wanted professional development that directly applied to their classrooms/schools. One teacher argued that *as much practical training as possible is a good thing. But, it must be practical. I have no problem with getting trained and retrained. It must be practical*. One specialist admitted to *shutting down* during professional development:

When we go to the math workshops, it is constant talk. Pretty soon you shut down—not helpful anymore because they devote too much time listening to someone complain and helping them—also no chance to get to know the people who are around you to get a network going.

2. Difficult to Implement Curriculum

Although teachers at one school enjoyed professional development sessions, they experienced difficulty with implementing the curriculum in their classrooms since *whoever is running the workshop makes implementing look and sound so easy. Then you come back here and really try to apply what you learned, but it is difficult*. A specialist at one school questioned the practical application of professional development wondering, *how can you ask the teachers to start using something they are not familiar with?* Elsewhere, a teacher explained that teachers needed to *do some brainstorming and moaning and groaning since there is too much (of an) assumption that the program is going to work a certain way*.

3. Little Opportunity to apply what is learned during the Workshop

Dissatisfaction with professional development was noted by teachers and specialists. Teachers at two schools especially disliked professional development sessions that did not include opportunities to apply lessons learned in professional development sessions directly to their teaching. In a similar way,

teachers at some schools were disappointed by the professional development for Benchmark Assessments since they anticipated time to score their students' work, but weren't given enough time to use the scoring process (*More on Benchmark Assessments will be forthcoming*).

4. *Doesn't Address Specific Needs of Teachers or Students*

Some teachers and specialists agreed that professional development was not tailored towards their particular needs. For some, professional development did not differentiate to meet their changing needs nor did it address the particular needs of all of their students.

Beginner vs. Experienced Users

Both beginner and experienced users desired professional development that met their experiences with the curriculum. Although some experienced users positively regarded professional development, other experienced users did not feel that professional development met their specific needs. In fact, some experienced users perceived that professional development benefited new teachers more than they:

I just did one [workshop]. It never helped me, but I could see how your first year or like if you were new to teaching that it would be helpful. If you knew nothing about [the curricula], it could be helpful because there are a lot of theories behind it, but, you know, I have only been to one so I can't say.

The worst about PD is sometimes you have a group of people who are at certain stages. So for someone who is at the end of training...the beginner might take in a lot and the experienced user might think you are wasting my time.

In comparison, two experienced users and one new user at another school all voiced a need for more professional development. One explained, *I would like to attend some CMSI professional development...I would appreciate training...in order to implement the material more efficiently*. Similarly, one of the new teachers desired professional development since she was a first year teacher who had received no teacher training.

Lack of Differentiation for Special Education

In a focus group with six teachers, three admitted that summer professional development sessions provided *very little* advisement concerning differentiation of the curriculum. When asked about her vision for professional development, one of these teachers shared that she *wrote on every comment that [she hoped for] professional development specifically for special education grouped together*. Another teacher expressed concern that the instructor did not understand the *level that our students were at* because of the difficulty level in the examples of student work.

5. *Poor Instructor*

The instructor also contributed to teachers' negative views of professional development. A few of the teachers especially disliked instructors who were out of touch with the classroom. For example, one teacher explained, *I think some of the trainers were people who helped create the program but were not ever in the classroom. Don't tell me how it works at the lab school at U of C. Tell me how it works in Englewood, Humboldt Park or the Austin Neighborhood*. Another teacher commented on the poor presentation style of the instructors:

It's like a crapsboot when you go because if it's a good presenter then the time is well spent, but I think it blew the whole time. It's really bad, it went over a lot of the stuff that we went over and it just wasn't very good.

A teacher at one school disliked the instructor's attitude toward the teachers: *She automatically assumes we are not doing what we are supposed to be doing*. Similarly, another teacher advised instructors to *present the material in a straight forward way, with as many helpful tips as possible, with practical applications*. One of the

teachers wanted the specialist to provide professional development to show how the curriculum *worked*.

6. *Activities*

A number of teachers complained about the content/activities embedded in the professional development workshops. Some questioned the games played or other hands on activities in professional development. Although one teacher initially enjoyed the games, she felt *too much time [was] spent on actually playing the games and I think people had other topics that they wanted to address*. Another teacher was displeased that they *pretended we were 6th graders and did every activity like we were the kids*. Although workshop leaders tried to find ways to make teachers comfortable about doing hands-on activities by finding time within the workshop to experiment with these activities, this was not necessarily translated into use of these materials/activities in their classrooms. One principal expressed concern that teachers did not include the games in their instruction because they did not recognize the importance of them:

I think they are not utilizing the games as much as they should and being part of the professional development, sitting there with my teachers in some of these meetings, I really see the value of what we are calling the games, and I don't think there is anything wrong with playing them and using them. But I think for the teachers that is the easiest thing for them to cut out, and, unfortunately, it is a vital part of the practice and reinforcement. So as they are trying to get through the pacing and staying on task, I think that they are eliminating the games because when they get a little behind then it is easy to say, "Ok, we just won't do this on this day, we will just go forward into the next unit or section."

Similarly, an area coach hoped that the teachers realized that the *games are the computation and logic components of the program*.

Still other teachers hoped for professional development workshops that would provide them with more assistance with assessments (e.g., rubrics for the lab experiments). Another teacher hoped that the summer professional development sessions would include more units. Similarly teachers at another school preferred professional development topics and activities geared towards the books actually being used in the classroom and leading to a universal pacing guide.

7. *Too Much Professional Development for Overwhelmed Teachers*

Teachers managed multiple roles and responsibilities implementing a number of programs at their schools. Attending multiple professional development sessions took away from teachers' time and perhaps, overall effectiveness in any one of these curricula. An assistant principal at one school recognized that excessive professional development contributed to the teachers' stress, as well as ineffective implementation of programs:

Those teachers are feeling stressed out. I think that there may be too many programs going on in the schools. When will you be able to implement some of these programs if you are always out at PD?

Similarly, another principal in a school implementing both the CMSI math and science simply stated, *there's too many PD, and teachers are getting worn out*.

8. *Wanting the "Professional" in Professional Development*

Some teachers felt that they were not being treated as professionals because they weren't given adequate opportunities to attend professional development or to work with peers across the Area. Others felt that their judgment as educators was in question when they were asked to choose to use one of the four CMSI math curricula. For example, teachers at one school felt that the current structure of professional development tainted the notion of professionalism. They questioned the small stipends (\$28) allotted for teachers attending Saturday workshops, and they wondered why they

had to *jump through all kinds of hoops* to get the time off work to attend professional development offered during the school day. Teachers also desired optional, additional professional development sessions outside of CPS related to their work. For example one teacher in this focus group suggested that teachers be allotted a certain amount of money to attend a workshop not offered by CPS but related to their work.

The specialist at one school argued for more teacher involvement in professional development stating the following:

There needs to be Area meetings where teachers get together who have a program in common, and someone needs to listen to them to see what parts of the program are not working. If it's not working here and another school in the Area, it's not working. Somebody needs to take it out, rework it, or rethink it. The actual stakeholders need to be involved in producing, directing, and manipulating the program.

Discussion Questions

How do OMS/curricula providers assess what needs to be addressed in professional development workshops? (In terms of content, pedagogy, time to apply what is learned, needs of teachers?)

How does the district, Area, or OMS encourage and prepare schools to adopt CMSI in a fashion that seeks to ease pressure on teachers, particularly in cases where other curricular changes are in progress?

In what ways are teachers given authority for the reform they are asked to implement?

III. Development of Teachers and Administrators for Future CMSI Leadership

This third section addresses the professional development provided to those who will serve as future professional development instructors and leaders in CMSI-supported elementary math and science curricula.

A. Thematic Analysis of Attendance for Principals at Case Study Schools

Thematic analysis of the voluntary and mandatory Case Study Schools provides additional information regarding the attendance issues of principals at professional development. In the first year of CMSI implementation, principal professional development was a cornerstone of the program. Although this cornerstone was neglected in 2004-05, it has been repaired and is again a supporting infrastructure to the CMSI.

1. Professional Development Helpful for New Principals

Two new principals appreciated the helpfulness of professional development. At one school, the principal is a former specialist and spoke of attending lots of professional development. This professional development from the last three years has been useful to her as a new principal because it familiarized her with the various curricula. Observations of OMS principal professional development show that principals, whether new to the principalship or not, are given opportunities to engage in activities/lessons and dialog about these lessons in ways that OMS hopes teachers are engaging students. This modeling of lessons and discussion of mathematical content knowledge presented provides less experienced, as well as more experienced administrators with tools to understand the program and to gauge the depth of implementation in the classroom.

2. Professional Development Helps Principals Assist Their Teachers

Three principals, who attended professional development, acknowledged that it helped them assist their teachers with the curriculum. After participating in professional development to *get involved (and)*

see *what it is like*, one principal sympathized with the teachers' frustrations and felt more equipped to assist the teachers:

It helped me to understand the teachers' frustrations with having to teach something they may not understand...It kind of opened my eyes to the total program, purpose, and what to look for. They gave us a list of what to look for to help in observing the classes...It really helped me to know what to look for to help make suggestions, and assist the teachers.

Another principal attended professional development to see *how the training was conducted but also to show my support as a principal*.

3. Not Attending Professional Development This Year/Last Summer

At two schools, the principals were not attending professional development this year. Although the school-level specialist attended professional development, the principal at one school admitted, *I haven't done anything this year*. Similarly, although another principal did not attend professional development, he noted that CMSI was discussed during Area principal meetings. Furthermore, in the summer, there was an Area meeting and information was given about available professional development workshops through OMS. Another principal who did not attend summer professional development because of other meetings confessed that she did not see many principals attending in past summers: *When I have gone to them, I didn't see that many [principals], but this time there was a push to get a few [principals] so there might have been a few that attended*. At another school, although the principal attended the principal's professional development, he did not attend the provider or OMS curriculum workshops in the summer due to illness.

Discussion Questions

Is principal attendance at professional development being tracked? What can be learned from this data?

How has OMS/provider professional development for principals developed over the past 3 years? Is there a need for a different strand depending on experience and years of implementation within the school?

Are principals getting consistent and coherent messages from OMS, the Area, and the District regarding the implementation of CMSI in their schools?

B. Roles of Specialists Concerning Professional Development

This section details the roles played by school-level specialists regarding professional development.

1. Assessing Teachers Needs and Providing Information Needed

With respect to professional development, specialists' roles varied according to their schools. A number of school-based specialists and city-wide specialists found themselves in the role of registering teachers for professional development. Others were responsible to see that the teachers had all the materials they needed to implement the CMSI. Specialists at four case schools explained how they provided teachers with information and materials relevant to the curriculum. At one school, in addition to teaching three classes, the specialist provided teachers with the information they needed from OMS, observed their classes, and surveyed their needs. One specialist examined overall teacher-student interactions, as well as how the teachers solicited student input, used cooperative learning techniques, and demonstrated awareness of individual student learning needs. This specialist assessed teachers' practices and discussed problems in grade level meetings. A specialist at another school spent much of her time working with new teachers, who had not received professional development on the use of CMSI materials. In a discussion about his schedule, the specialist at another school explained how he supported teachers in a variety of ways to support their professional development:

I was meeting with the teachers at the grade levels, discussing with them their problems with [the CMSI curricula] and providing support and any additional materials they might need. I participated in a walk through to make sure they had everything they needed for [the CMSI curricula], and, also, I talked to them about the responses that were going to be on the ISAT test and how they can incorporate those with the [the CMSI curricula] without doing something extra.

2. Changes in Responsibilities throughout the School Year

In some schools, the role of the specialist in providing professional development to fellow teachers seemed to change as the year progressed. For example, one specialist primarily modeled lessons in the beginning of the year. She noted, *teachers don't want me there...they are comfortable now*. Teachers at another school, however, expressed their displeasure with the specialist and admitted to seeking help elsewhere:

She gets us materials but doesn't work with us in the classroom...The first year she helped all the time. Now she is doing other jobs...Now, we have the books. Maybe it would be better to begin to train us in a different way...For third grade, we bounce off of one another. I go to my colleague if I don't understand something.

This idea that teacher's needs change over time or that one time might be more appropriate for a certain kind of help as opposed to another seems worthy of keeping in mind especially as professional development offerings are being planned.

Discussion Questions

In many schools, specialists are responsible for signing teachers up for professional development, making sure teachers have the appropriate materials to implement the curricula, and observing, critiquing, and monitoring implementation. What support is the district, OMS, or the Area providing to schools that do not have a specialist? How do communications about professional development get to these teachers?

Does professional development for specialists provide them with a well-rounded background in all of the roles they are asked to play?

C. Opportunities for Professional Development Provided by Principals

This section details the opportunities provided by principals regarding professional development in their schools.

1. Providing Various Types of Professional Development on Various Days

Principals provided a variety of opportunities for CMSI related professional development at a number of our case schools. In a few of our case study schools, Principals rearranged professional development days to incorporate professional development related to the Benchmark Assessments. In other case study schools, principals provide teachers the opportunity to have focus groups with PRAIRIE staff about their implementation of CMSI. For many teachers, this provided an opportunity for them to hear from each other the struggles and successes of their schools implementation for the first time. At one school, the principal used restructured days to discuss CMSI implementation concerns. For example, he planned a half-day session concerning data driven instruction concerning test scores (e.g., ITBS). The principal at another school made time for staff to collaborate both during grade level and staff development meetings around their implementation of CMSI. This principal provided as much time as she could *because [professional development on the curricula] only once a month is not enough*. On restructured days, she anticipated using about thirty minutes to discuss CMSI implementation concerns. However, in a number of schools we found that the planned professional development around CMSI didn't always happen as hoped. At one school although the principal provided professional development during restructured days, he acknowledged

how the time got divided up on other issues, sometimes overshadowed the curriculum. He explained, *[there is] ...A portion where I do announcements or I mean we have a target goal for that day, a theme of whatever we do, but we do make a little more time for the other in-staff needs that we have to take care of.*

Discussion Questions

Are principals given suggestions on how to structure professional development in mathematics and science to enhance the implementation of CMSI?

Is it possible to structure grade level curricular professional development in the Area on restructured days?

D. Professional Development provided by Other Instructional Leaders

This section details the professional development provided by other instructional leaders in the schools.

1. Providing Training

In the recent *Instructional Leaders Supporting CMSI Elementary Schools*, we unpacked the many ways in which these roles support the work of teachers and principals. In addition to supporting the people involved in the implementation of CMSI, instructional leaders also assisted with the training of teachers. One area coach, for example, provided teachers with additional training in content knowledge:

I give them content knowledge because many people do not have the conceptual knowledge. They understand how to divide, but they do not understand why we have to do things in division. I give them teaching strategies that will help them get the message across. Then we give suggestions of how to use it in the classroom. I do not think that OMS tries to address these issues. They are not giving them [teachers] the content knowledge. Yes, they are giving them the courses, but the courses and the material sessions are two separate things. They need to be connected. I have been doing the connection.

In another case, a facilitator explained that she hoped the professional development provided to teachers and specialists concerning Benchmark Assessments would affect classroom instruction. During a professional development session, the teachers had opportunities to score the extended responses and talk about why they gave students the scores they did. The goal was two-fold. First, the participants learned how to assess their students' papers and talk to other teachers as they made sense of how to do this. Second, teachers were to go back to their schools and do the same with their staff (More on this in the forthcoming data brief on Benchmark Assessments).

In a number of cases instructional leaders provided professional development specifically focused on the upcoming ISAT. For example, during an observation of one professional development session, the area coach suggested ways the school could integrate ISAT into their math program by doing the following:

Integrate calculators with Family Math Night. Use materials, encourage problem-solving, have students justify and explain answers, familiarize students with testing format. Find your grade level and see how many items are being tested. What do we need to cover? What do students need to know? If students understand how to explain their answers, then they can do well on most of the test.

Discussion Questions

What is the range of professional development workshops that instructional leaders provide to schools?

Are these workshops aligned with the goals of CMSI and/or meeting the needs of individual schools?

How do Area, OMS, & curriculum provider professional development for teachers and principals complement each other?

E. Professional Development Leadership Training

This section discusses the professional development leadership trainings. Over the past year PRAIRIE evaluated three professional development providers' professional development leadership trainings. All of these trainings aspired to increase the pool of professional development facilitators for future professional development sessions. We begin this section of the report by examining the goals, participant composition, results and suggested improvements for the professional development leadership trainings.

1. Goals of Professional Development Leadership Training

While all of the three professional development providers we studied aspired for their professional development leadership trainings to result in more professional development facilitators, they did not all aim to build leadership capacity at the school and district levels. Out of the three professional development providers, two of the professional development providers had the same goals for their professional development training: (1) to increase the number of professional development facilitators and (2) to develop leadership skills for math instruction at the school and district levels. The other curricula provider had only one explicit goal: to increase the pool of professional development facilitators. This difference among the goals of the professional development providers for their professional development leadership trainings may have affected the content, composition and effects of the professional development leadership trainings.

Regardless of the expectations of the professional development providers for their professional development leadership trainings, they all utilized different mechanisms to achieve their goals. The professional development provider who aspired primarily to increasing the pool of professional development facilitators was the only provider to focus on teaching presentation styles in addition to math content knowledge during their professional development leadership training. One of the professional development providers who aspired to create a bigger pool of professional development facilitators and to instill leadership skills focused on building math content knowledge during their professional development leadership training to fulfill both goals. Unlike the other two, the third professional development provider explicitly addressed leadership during their professional development leadership training using a cross-grade level approach so participants could brainstorm strategies to field questions from all grade levels in order to serve in a leadership capacity. Each professional development provider used different content during the professional development leadership training to achieve her goals.

The only similarity among the curricula providers in their professional development leadership trainings were the partnerships among the participants. The professional development providers all organized their participants into partnerships between a "new" leader (a teacher leader who had never facilitated professional development) and an "experienced" leader (a teacher leader who had facilitated professional development). Each partnership was then given time to design their grade level summer professional development session. Across all of the professional development providers, the partnerships were very effective in creating worthwhile and valuable professional development.

Discussion Questions

Is it a goal of CMSI to have coherence between professional development providers such that professional development providers create coherent and uniform goals for their professional development leadership trainings? Or do different curricula have different professional development leadership training needs?

How can the professional development providers collaborate to pull from their experiences with professional development leadership trainings and utilize successful mechanisms to build leadership capacity within CPS and develop more professional development facilitators?

2. Participant Composition of Professional Development Leadership Training

The working professions of the participants in the professional development leader trainings also varied according to the professional development provider. For two of the three professional development providers studied, the majority of professional development leadership training participants were teachers. For the other professional development provider, half of the participant population was teachers and the other half was OMS support staff, specialists, and other CMSI support people. The composition of the participants may be important in considering how to build leadership capacity at the school and district level. For instance, possessing leadership skills and providing support for math instruction are seemingly inherent in the positions of CMSI support people whereas classroom teachers may not see themselves as serving in a leadership capacity nor see their leadership as able to extend beyond the school level.

Discussion Questions

How can the professional development providers collaborate to offer uniform training to both teachers and other CMSI support people?

How can the professional development providers develop a coherent definition of “leadership” so as to work toward a uniform goal? Does the term “leadership” differ across positions and, if so, how can this be addressed through the professional development leadership training?

3. Results of the Professional Development Leadership Training

As mentioned earlier, all of the professional development leadership trainings aspired to increase the pool of professional development facilitators and at least two of the three sought to build leadership capacity in math instruction at the school and district levels. Regarding the first goal, all of the three professional development providers increased their pool of professional development facilitators. Regarding the second goal, only one of the three professional development providers had any record of whether the leadership training participants used their leadership skills at the school or district levels. This professional development provider asked past leadership training participants to describe one way in which they used the leadership skills they learned. The majority of the leadership training participants responded in one of two ways: (1) by providing professional development over the summer or (2) by working within their positions as CMSI support personnel to provide classroom and school based support.

Discussion Questions

How can further follow-up be gathered to see the results of the professional development leadership training in building leadership in math instruction at the school and district level?

How can the pool of professional development facilitators be sustained as more schools adopt the CMSI curricula and need curriculum-specific professional development?

What role do professional development providers and OMS play in expanding teachers’ sense of their leadership within their schools and across the district?

4. Suggestions for the Improvement of Professional Development Leadership Training

We gathered feedback from the participants in the professional development leadership trainings for all three of the professional development providers regarding how to improve future professional development leadership trainings. For one of the professional development providers, participants responded that the training needed (1) *more time spent for discussion* among leaders and (2) *strategies* to address *reluctant participants* and *how to effectively work with uncooperative teachers* during professional development. Similar responses for another professional development provider included (1) more time to work in partnerships and (2) more teaching examples including how to modify the

curriculum for children receiving ESL, as well as students with other various types of exceptionalities (e.g., special education, gifted and talented, and other students who struggled with the curriculum). More general improvements were offered by the last professional development provider, which included (1) how to effectively involve and educate parents in the curriculum, (2) how to facilitate effective professional development, and (3) how to improve their knowledge of the curriculum. One common theme among all of this feedback is that it revolves around receiving more instruction during the professional development leadership training in becoming more effective professional development facilitators. However, the participants did not explicitly ask for increased information or support in serving in leadership roles at the school and district levels.

The suggestion for more teaching examples, especially those including how to modify the curriculum for children receiving ESL and special education services is a common suggestion among professional development participants, classroom teachers, and principals. As detailed in the *Special Education Data Brief* written by the PRAIRIE Group, this request is widespread among both special education and regular education teachers. The suggestion by both professional development participants and professional development facilitators may prompt further discussion on how professional development providers can address special education issues during the professional development leadership trainings and the curriculum-specific professional development.

Another common issue in two of the three studied professional development providers' responses was for more time in the professional development leadership training. The time necessary for the professional development leadership training is best described by one teacher leader who stated the following:

Our only complaint was always time. We never had enough time to work together, to organize our supplies, to make sure that our materials were available at the testing site, to set up the classroom we were about to use. My partner and I took what we did VERY seriously...When we began planning for the sessions we would facilitate, my partner and I wanted to making sure there were no "gray areas." We wanted our participants to have a stash of materials at their disposals, and to be ready to begin with the calendar connections on day one. We made our session very hands on...We were always working way overtime to get ready with our room and our materials. But, I think the end results was that our participants were always leaving the institute informed, comfortable with the curriculum, and confident that they could do it.

Throughout all of the feedback received from the professional development leadership training, participants agree upon the high quality and value of the training they received. The request for additional time during the trainings is an indication of the value placed upon the trainings and subsequent desire for additional knowledge and training. However, because time constraints are constant, the sensitive issue of time may be difficult to address.

Discussion Questions

How can professional development providers develop a coherent and sustainable way to address the feedback provided by past professional development leadership training participants?

How can professional development providers address the issue of inadequate time for leaders to plan lessons together?

How can professional development providers develop a coherent and sustainable plan to integrate special education into both their professional development leadership trainings and curriculum-specific professional development?

Conclusions and Recommendations

We began this data brief with a discussion of declining enrollments in professional development workshops seen in our case study schools. We recommend that OMS both share this report with

providers and Area Coaches and use already scheduled meeting times to address the issues raised in this report. For example, in terms of declining enrollment in professional development for experienced users, we recommend that OMS, curriculum providers, and Area Coaches plan together a strategy for deepening teachers understanding of the CMSI curriculum and deepening commitment to its use. As a precursor to this work, we suggest it may be helpful to first survey experienced users on a broad scale to ascertain their needs for professional development in the use of the CMSI curricula and what inhibits or promotes their attendance at professional development workshops. Utilizing this data, the team of OMS staff, curriculum providers, and Area Coaches can plan a coherent approach that utilizes the Area, OMS, and provider professional development structures to complement each other's professional development work or to create the opportunity for greater understanding of how these distinct groups can work in tandem with each other on this complex issue.

Similarly, when it comes to developing teachers and principals for future CMSI leadership, these same stakeholders need to work together. How is the leadership training of principals and teachers being approached in a coherent manner by *all* curriculum providers, *all* OMS staff, and *all* Area Coaches? Again, we suggest that these 3 key groups of people need to be at the table together. Is the work of each group focused on the same goals? Are the goals of each group complimentary or contradictory? Is it important for each group to support the same professional development needs?