



Coaching in Microsoft Math Partnership Schools: What worked?

"The number one most important thing we get [from the grant] is the coach. She really gets good instruction. I believe that if we are providing more effective instruction we will be able to identify struggling students earlier."

~ MMP School Principal

Throughout all the three years of the Microsoft Math Partnership (MMP), teachers and principals identify the **instructional support** provided by math coaches as one of the most valuable components of the Partnership. For example, one building principal shared, "Having an effective math coach has been invaluable. [It is important that the coach not just know] math and curriculum, but [also helps teachers] plan and take risks. That has been a great help." Some of the MMP coaches are ensuring the delivery of high quality instruction through a coaching process of collaboratively planning a lesson, observing the lesson, and then providing feedback.

"Teachers have been great about having me in the classroom. I plan instruction with them [and] we discuss lessons during our planning time together. Without [a coach] to help change their instruction it would not happen."

~ Coach

As the grant has progressed, MMP coaches are more adept at providing teachers with feedback around their instructional practices and the teaching and learning occurring in the classrooms. Some of the coaches are collecting data in classrooms and are providing it to teachers. For example one coach explained, "I might take a rubric from Marzano and then go observe teachers for 30 minutes at a time. I then track the types of questions they are asking, such as 'was this a higher level question?' I then

script what students are saying. Then the next day I can share it with the team during common planning time."

In some buildings, the observation and feedback process is moving to the point where teachers are starting to visit one another's classrooms. The majority of teachers who are observing colleagues report the experience to be valuable and want to incorporate more of this in the future. Some of the coaches are being creative in getting teachers to watch their peers teaching, including using technology such as Flip Cameras to videotape lessons. Coaches are also working to improve instructional practice by modeling instructional strategies for teachers and by co-teaching lessons. Another way coaches are focused on improving instructional practice is by providing teachers with resources and research. A few of the buildings are doing book studies with the help of the math coach.

In general, the MMP coaches believe supporting instructional practice to be one of their most important roles. However, some coaches are frustrated about not accomplishing as much as they would like in the area of instructional support due to a variety of factors, such as time constraints and lack of teacher buy-in. If teachers are unwilling to have coaches in their classrooms and if principals are not able to make working with the coach a part of a teacher's professional growth, then little change is made in instruction. Also, if coaches and teachers do not have substantial time to collaborate within the structure of the school day, this hampers instructional support efforts.

This barrier appears to be compounded in buildings with a large number of math teachers, because often they do not have common planning time.

During the three years of the grant, coaches provided different types of **targeted professional development** depending on district, school, and individual teacher needs. In many of the MMP districts, there was the expectation for math coaches within the district to coordinate and to provide professional development for all middle and junior high school math teachers. Other districts and buildings expected the coach to deliver professional development but were not as specific in their expectations.

Many of the coaches lead and participate in professional development centered on aligning curriculum with new state math standards. Additionally, a few of the MMP districts implementing new math curriculum are relying on the math coaches to help with training and supporting teachers during the process. Many teachers reported that the curriculum change would have been very difficult without the coach and that the coach has been essential in ensuring that the relevancy of the math gets integrated into lessons even if it is not embedded in the curriculum.

Other coaches are working on creating common assessments and teachers spoke very positively about collaboratively creating and scoring these assessments. This work is helping to align academic expectations across teachers. Coaches are also supporting new teachers coming into their buildings. In particular, coaches work with new teachers to ensure they have the materials they need and are proficient in basic classroom management strategies.

The implementation of Professional Learning Communities (PLCs) or **collaborative learning teams** is becoming more of a focus throughout the grant, and MMP coaches are integral in this work. Most coaches are working within the framework of pre-existing collaborative communities. In most cases, coaches help facilitate these groups during common planning time. In buildings where no common planning time exists, coaches create collaborative groups on early release days or during regularly scheduled department meetings.

The process of developing PLCs is going smoother in buildings where the majority of teachers are actively

working with the math coach and where the principal is sponsoring the work by creating a schedule where teachers have common planning time within the school day. One teacher shared, “Without having the foundation of being a PLC, I do not know how we would have made it this year. I was worried at the beginning of the year with the curriculum change, but then I remembered that together we are one.”

“The biggest benefit I have seen is our math teachers becoming a PLC. [It is a] way to have conversations about teaching and learning. [The conversations have really] moved it to another level.”

~ Principal

The function, structure, and extent of collaborative teaming and PLC work varies from building to building. Some of the teams are having conversations around instruction, some are looking at student work and student assessment results, some are working on curriculum alignment, others are sharing information gained from professional development, and a few are doing research and book studies, among other activities. In some schools, teachers report that PLCs are meeting as frequently as once or twice a week. In other schools, coaches report difficulties in finding sufficient time to collaborate, and in some cases, only get a chance to meet with a few teachers at a time rather than an entire math department. Finding time for collaboration is essential for the work of the coaches and requires schools to confront the organizational constraints that are hindering PLC development.

Coaches who keep their focus on influencing the culture of the classroom, the department, or the school are the most successful in encouraging sustainable, lasting, and positive impact on student learning. Their jobs are made easier with high principal sponsorship, high teacher willingness and openness to change, and good relationships between themselves and the teaching staff.

In general, the key takeaways regarding effective coaching include having coaches:

- 1) Provide instructional support through a coaching process of collaboratively planning a lesson, observing the lesson, and then providing feedback

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- 2) Provide targeted professional development particularly in the areas of curriculum alignment, creating common assessments, and supporting new teachers
- 3) Implement and support collaborative learning within math departments