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Supporting the Transition from Experienced Teacher to Mathematics Coach

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Educators who transition into new positions with little to no experience often face challenges. Interestingly, most teachers acknowledge the challenges they faced as first-year teachers. Yet, we do not always hear about the challenges faced by novice teacher leaders or mathematics coaches. Too often, we assume that effective teachers will be effective coaches, and that these teachers need little support as they transition into new roles as mathematics coaches. This naïve assumption poses a problem. As experienced, accomplished teachers, they have many skills and much knowledge about teaching. However, when these experienced teachers become mathematics coaches, they become novices again—a space that is very uncomfortable and often confusing to navigate. Transitioning from mathematics teacher to instructional coach requires more than just acquiring additional competencies (e.g., the abilities to work with adult learners, facilitate grade-level meetings, provide feedback to other teachers about their practice, or deal with resistance to change). It also requires, among other things, negotiating new aspects of relationships with long-term colleagues, facing emotional challenges that are different from the emotional challenges of teaching, and organizing the work day in different ways.

Understanding this critical transition is important for facilitating the development and support of effective mathematics coaches. Mathematics coaching has the potential to influence the professional growth of teachers, and ultimately the classroom experiences and mathematics achievement of students. This potential for influence can only be realized if novice mathematics coaches are supported to develop the necessary knowledge bases to effectively do the work of coaching. Moreover, they must be supported to acknowledge and address the challenges they will undoubtedly face.

Just as the education community seeks to develop certain knowledge, skills, and dispositions with K-12 teachers, we contend that mathematics coaches, particularly those in transition from classroom teaching, must develop new knowledge, skills, and dispositions about leadership and coaching. It should not be assumed that excellent teachers will be excellent mathematics coaches. We need to be purposeful in assisting classroom teachers' transition into these roles and positions. Therefore, it is critical to create structures and processes to identify, prepare, resource, and support mathematics coaches. The purposes of this article are to:

1) inform administrators and mathematics coaches about the challenges associated with transitioning into mathematics coaching roles, and 2) make recommendations about support structures to address those challenges.

Our Context

We have worked with mathematics teacher leaders for a number of years in both informal and formal settings. Informally, we supported a local district's Mathematics Leadership Group (i.e., curriculum coordinators, school-based teacher leaders, and full-time K-7 mathematics coaches) by providing professional development, consultation, and a connection to the research literature. More formally, we taught graduate courses about teacher leadership and mathematics coaching, facilitated Leadership Academies for mathematics teachers, and conducted research studies focused on leadership in mathematics education. As we worked with leaders in all of these contexts, we came to recognize that new leaders face a number of common challenges, particularly as they assume leadership

roles at the department, school, and district levels. Armed with our anecdotally-based observations, we took the opportunity to design and conduct a research study with a group of 14 first-year mathematics coaches in one small school district (student population of ~17,000 in grades K-12).

The first-year mathematics coaches who participated in this study were all experienced teachers (11 elementary teachers and 3 middle-grade teachers) who had taught in this school district for many years. Each of these first-year coaches had been identified as particularly "effective" mathematics teachers and were, after a competitive application and interview process, hired to be a full-time mathematics coach (with no assigned teaching load). Of the 14 new mathematics coaches, 12 were female and 2 were male. Eight of the coaches were assigned to support two K-5 schools, three coaches were assigned to support one K-5 school, and three coaches were each assigned to a different middle school.

For this study, we collected data using multiple sources. First, all of the coaches completed a survey that contained items focused on their background experiences (e.g., teaching, university coursework, and professional development). The coaches were also asked to describe characteristics of effective and ineffective professional development. In addition, the coaches responded to questions such as, "What skills and knowledge would help you be an effective mathematics coach in your school(s)?"

Coaches also participated in two semi-structured interviews during their first year; one in the fall and the second in the spring. The first interview was designed to probe coaches' perceived preparation for mathematics coaching, their expected roles and responsibilities, as well as the anticipated challenges and desired supports. The second interview was reflective in nature and designed to follow-up on questions asked in the first interview.

We also attended the monthly district-wide coach meetings, where we collected two types of data: responses to written prompts and audio-recorded, whole-group discussions. At each monthly meeting, coaches spent approximately 20 minutes writing individual responses to researcher-generated prompts (see Figure 1 for sample prompts). Then the researcher facilitated a whole-group discussion about those prompts. These whole-group discussions were audio-recorded.

FIGURE 1. *Sample writing prompts.*

- Think about unanticipated situations that you have faced as a mathematics coach. Choose one of those situations and respond to the following prompts:
  1. Describe the situation.
  2. Describe how you responded to the situation.
  3 Describe any support you sought out to help you with this situation.
- Think about a challenging situation that you have faced as a mathematics coach. Choose one of those situations and respond to the following prompts:
  1. Describe the situation.
  2. Describe how you responded to the situation.
  3. Describe any support you sought out to help you with this situation.
- Think about your role as a teacher of mathematics. Now think about your role as a mathematics coach. In what ways are these roles similar? Different?
- Think about all you do as a coach in a "typical" week. Use the circle below to represent what you do as a mathematics coach and the amount of your week you spend doing each activity. (In other words, create a pie chart that describes your work as a math coach in a typical week.) Below the circle, provide a "key" for the parts of your circle. For example, if you have "observing teachers" as a piece of your circle, describe the specifics of what you do during that time.
- What was your initial vision of your job as a math coach in the district? How did you deal with differences between your initial vision of your job as a math coach and the actual experience as a math coach?

Challenges for New Mathematics Coaches

In this section, we present five different challenges that these mathematics coaches faced as they transitioned from experienced teacher to novice mathematics coach. Our data analysis indicated that these novice coaches faced challenges that they expected and others that they did not expect. Although the coaches were placed in different schools across the district, their challenges were surprisingly similar.

ENHANCING KNOWLEDGE BASES AND BROADENING VIEWS

Often mathematics coaches are identified for leadership roles due to their success as classroom teachers. The knowledge needed to be a successful classroom teacher; however, differs from the knowledge base necessary for successful leadership. The ways that they have learned to communicate with students, for example, is very different than the ways that they now need to communicate with adults on a daily basis. In addition, mathematics coaches need to have knowledge related to a wide variety of areas beyond "coaching" (e.g., school improvement, adult learning, addressing conflict, scope and sequence of mathematics across grade levels, and leading individuals with different personality types). Often, novice coaches are not cognizant of what they need to know in order to do their jobs effectively, as expressed by Rebecca in her fall interview:

> If you don't know what you're looking for, if you don't know what you don't know, then you have a problem—which is kind of where I was [prior to school starting]. I'm moving a little past that. It's astounding the things that I don't know.

Farah expressed the same sentiment: "I can't even tell you all the things that I need to learn because there are too many, and some of them I don't even know what they are, yet."

Other coaches spoke of very specific knowledge that they felt they needed to have to be an effective coach. For example, Ilene spoke about her need to build knowledge of mathematics that was being learned across the grade levels: "Learning more about the curriculum—sometimes it's difficult to drop in and know what's happening and to know if the math coming out is significant." Uma said,

> I knew what I had done in my classroom, but I didn't know anything about leadership. I didn't know where the math was going. I didn't know anything about (National Assessment Data) . . . that's background knowledge that you need to be effective [as a coach].

The coaches also indicated that they needed to learn how to deal with teacher resistance and unprofessional teacher behavior (e.g., lying about availability, stating that they didn't need help). The coaches did not know "how to coach," including what questions to ask teachers, how to challenge teachers' thinking, and how to focus conversations on mathematics. They wanted to know how to build a teacher community and better facilitate grade level meetings. For example, Farah stated, "I think I need to learn a lot about, it's that ongoing journey of learning how to be with people, all people–how not to get frustrated when people are real resistant, or afraid." Still Rebecca said, "Since I've become a coach of mathematics, I feel . . . there's still a ton to focus on: content, supporting adult educators, keeping up on most recent research, planning, modeling, and reflecting with teachers." While Barbara stated:

> I want to know if there's a model, some kind of setup. I know they keep saying, 'going to be different with the teacher, with the school,' but I wish there were best practices that we have for teaching. We know about questioning and we know about modeling, and we know about all that. I want something like that for a math coach. I want to know how to be more effective, or to be as effective as I can. I've read books about what to do as a math coach, and I've tried that, but I still don't think I really know.

In addition, these new coaches talked about having to broaden their views from the classroom level to a school/district level. New coaches face the challenge of "seeing" familiar situations from a new perspective. Teachers are typically not aware of the differences in instructional practices that exist in a school. In addition, new coaches are often asked to examine school-wide achievement data for particular subjects, identify areas for improvement, and then work with specific teachers to address those areas. They may be called upon to serve on district-level committees, requiring a perspective on decision-making at a district-wide level, rather than the classroom or school level. For example, Uma described her need to broaden her views:

> I think looking as a math coach, who is looking at the whole picture, K-5. When I was in my own classroom, I focused on my kids and my grade level. Now I consider what can we do for our kids, K-5, and what can we do for those teachers. So, I have a broader perspective and look for ways to make connections: Kindergarten, first, second, third, fourth, and fifth so we can bridge those gaps.

Isabel also described a shift in perspective: "I think about where classroom teachers are and what they are doing and what will work for them. But I also think about where we want to go having a broader goal rather than just what is happening in my classroom today or tomorrow or next month."

BUILDING CONFIDENCE TO APPLY NEW SKILLS

New mathematics coaches need to build confidence in their skills as a leader—skills that allow them to implement their enhanced knowledge base. For example, new coaches have developed, over many years, finely honed skills of managing a group of youngsters or teenagers. Yet, those finely-honed classroom teacher skills may have little applicability when facilitating teacher study groups, vertical grade-band meetings, one-on-one classroom coaching, or large group professional development. With limited skills and experience in these areas, new coaches often lack confidence to do their jobs.

Several coaches talked about a lack of confidence in their new role and with the new knowledge they were building as a result of their required professional development in *Cognitive Coaching* (Costa & Garmston, 1997). For example, Ramona said,

> This coaching thing that we're learning about, the cognitive coaching, is definitely a weakness for me right now. It's been very hard. I think that's across the board when I've talked to other coaches as well, that we talk about being a consultant, and being a coach, and it's really hard when a teacher comes to you and they have two minutes, and they just want the answers, and they're new teachers, not to just give them the answers, because you really want to.

Other coaches spoke about their overall confidence in their new roles. For example, Uma said, "I felt confident as a teacher within my own little domain, but to feel like I could have an impact on other people, I didn't have that confidence. Mary agreed, "It feels so strange because I'm so comfortable working with kids, but not when I'm trying to decide how to influence a teacher. Rebecca also spoke of not having confidence in her new role, "I am just not as much there yet feeling confident in knowing that this is my role. I don't feel like everyone at my school has accepted me in this role yet and that is kind of a surprise."

NEGOTIATING INTERPERSONAL RELATIONSHIPS

New mathematics coaches often find themselves in an undefined role in the school—not a teacher, not an administrator. As such, new mathematics coaches need to learn to re-negotiate interpersonal relationships with classroom teachers, administrators, students, parents, and the community. New mathematics coaches may become aware of certain power structures within a school or district and they may be confused about how their positions fit within these power structures. In addition, mathematics coaches may, for the first time, encounter resistance to their efforts to improve instruction from teachers with whom they have worked for many years.

Ramona described her relationships with teachers she had taught with for a number of years:

> [Our relationship has] been a little different—I think because I know the teachers. In some ways that's a good thing, in some ways that's a bad thing because they view me differently. I've always been a part of their staff, and so when I come in to work with them, I think some of them may feel threatened. I tell them 'we're not evaluators in any way.' I don't know if they really believe that.

Rebecca also described having to negotiate new relationships with teachers she has worked with:

> We have several veteran teachers there who…are our biggest resisters. I have worked in the same hallway with them for years and they don't feel like I have anything that I can share that is new information for them. They are happy for my new role, but they don't see how I can benefit them . . . I have had some very close relationships with them and I see that these are not as close as they used to be.

Isabel described having to build trust with teachers she has not worked with in the past:

> I mean it goes back to—one of the big things is developing trust with teachers, which I'm trying really hard to do. It's just, it's like one of the things I want to do is I want to do a math vertical team, but how do I offer that when I don't want to require anything because I know that by saying you must come to this that it's burning bridges, not building bridges.

Negotiating new relationships, whether with teachers who have been peers in the same school or with teachers in a new school, can be stressful for new coaches and present new emotional challenges for them.

FACING NEW EMOTIONAL CHALLENGES

Classroom teachers who transition into leadership roles like coaching face a range of emotional challenges. As new coaches move from being a peer of their teacher colleagues to being a leader of those colleagues, they enter a murky

area for both the leader and their colleagues. They no longer feel comfortable "venting" to the same colleagues and are unsure about whom to approach for emotional support. New leaders and coaches have concerns about their visibility (i.e., teachers may ask, "What do coaches do all day?"), other's perceptions of their work (i.e., fear of being perceived as a "slacker"), and their reputation as an educator (i.e., distance from classroom teaching). They also encounter fear as they face new challenges, experience disappointment as colleagues resist their efforts, and sadness from losing their teaching positions.

For example, Isabel talked about the emotions she felt as she watched the teachers in her schools get ready for the beginning of the school year:

> I'll tell you when school started and I saw teachers were in their rooms planning and getting ready, it was guilt. I felt a lot of guilt about not having that insane work that needs to be done. And when I look at parent-teacher conferences that are coming up, and I look at report cards and midterms and sometimes I feel like, I just, teachers are asked to do so much. And I feel guilty that I'm not doing that anymore, that I'm not dealing with that.

Uma spoke of facing the emotions of not being in the classroom with students:

> It was tough the first month. I have to say more than anything just because I'm a teacher at heart, and I miss being in the classroom every minute of the day. I mean I'm in the classroom a lot, but I miss that, you know, being with kids, because that's what I really miss. You know, just trying to figure out why they aren't understanding something, trying to figure out a way to support them, and trying to get them to understand it. That was always what I loved: talking with a child that couldn't get it and then what could I do to help them. Just that contact; I miss that.

Carolyn expressed similar sentiments about her classroom:

> I find it really awkward to be in my old classroom. That's the hardest one to go into because I feel like a fish out of water in there...I probably visit that class less than any, for a couple of reasons. It feels a little uncomfortable…When I go in there I just feel kind of guilty, like I left them. Like, "Oh, I left you guys, I'm not in here with you.

While Ben explained how sometimes these emotions were unexpected:

> Some interesting things really made me feel, I don't know, kind of sad. One of them you wouldn't expect was the first time we practiced the fire drill I had no group of kids, I was like lost…what do I do? Just go outside and stand around. That's kind of when it hit me, I don't have my own group of kids that you make into your team, your family.

Other coaches spoke about the emotions they felt in relation to assuming their new positions and learning new skills. For example, Isabel said, "So, when I look at the other math coaches—I'm emotional all of a sudden ... sometimes I feel like I don't know as much as I need to know to do the best job that I can do." Ramona was also feeling some stress about her new job:

> I feel like I do a lot of things, and I don't do any of it well. Whereas, I'm one of those people who likes to, I like things to be a certain way, like I said before I'm very organized, and I have high expectations and I feel like I want things to be this way, but then I try to do everything that people are asking of me, so then I'm too stretched.

SUPPORTING THE TRANSITION FROM EXPERT TEACHER TO INSTRUCTIONAL COACH

West, Hanlon, Tam, and Novelo (2007) argue that teacher leaders rarely receive ample training, support, or direction and are isolated from other teacher leaders. School and district administrators including principals, curriculum coordinators, superintendents, and more experienced mathematics coaches need to address these problems and play a critical role in supporting beginning coaches. Novice coaches face many new challenges as they transition into their new roles as illustrated above. School district personnel need to carefully consider how they design, initiate, and implement support structures for new mathematics coaches. Even though some challenges may be lessened, others challenges (e.g., dealing with resistance and lacking leadership experience) occur for every novice coach. Therefore, school administrators can support beginning coaches by helping them develop strategies through the use of formal and informal support structures.

For example, the coaches with whom we worked consistently identified communication as a critical component of shared leadership and support. As Ilene noted, "My biggest

frustration was not having direction at the building level... as there were no conversations with my administrators except when there was a need. I think I could have been more effective if I would have had more specific direction ...I have worked with my administrators for a long time and I know they trust me to do a good job. I just sometimes felt unsure of what to do and how and when to do it." Ramona wrote, "My principal and I talk several times a week...whenever the need arises ... to keep the lines of communication open." Beyond opportunities for communication, the mathematics coaches specifically suggested that the nature of this communication needed to be structured. Carolyn wrote, "The building principal should work with the coach to set goals for how to best utilize the math coach. These goals should then be communicated to the coach and follow up dates set to discuss the progress." Ramona suggested that the school administrators develop short and long-term goals. She wrote, "Be specific about what you want the coach to do. If you say meet with grade levels each month, what do you have in mind? Work on specific issues? Review curriculum? What is the general goal?" The mathematics coaches also discussed the importance of defining and communicating their roles and responsibilities to school administrators, faculty, and staff. Carolyn wrote, "When the coach's role has not been well defined in the building, then there can be animosity created between the coach and other staff because the coach is seen as not having the same expectations as others."

Based on our interviews and interactions with beginning mathematics coaches, we make the following recommendations for administrators and mathematics leaders:

1. Provide opportunities for coaches to attend professional development focused on leadership and coaching so that coaches have the opportunity to develop new knowledge, skills, and dispositions. Further, it must be recognized that to develop leadership knowledge and skills takes time. For example, some of the coaches we studied attended professional development to discuss cases written by mathematics coaches (Morse, 2009).

2. Provide professional resources for coaches (e.g., books and articles) that focus on teacher leadership and coaching.

3. Provide opportunities for coaches (across a district or region) to meet regularly to identify problems, brainstorm possible solutions, and support one another. The coaches we studied found it helpful to write situations they were facing and role play potential coaching actions for those challenging situations. They also needed the emotional support from other coaches.

4. Protect the coaches' time (as much as possible) for the job they are supposed to do. In studying how the leaders spent their time, we found some coaches devoted a small percentage of their time to the role they were hired to do; instead they participated in activities such as additional playground supervision.

5. Acknowledge and discuss the challenges. Particular attention should be given to facilitate interactions among new coaches so they can develop the new knowledge and skills that are required in their new position.

6. Identify experienced leaders to mentor new coaches. These mentors must be willing and available to work with new coaches. In addition, mentors need to initiate frequent contact with the beginning coaches, sharing resources and engaging in problem-solving discussions.

7. Mutually define the coaches' role and recognize that it will continue to evolve over time.

8. Develop ways to document the coaches' work and the influence that coaches have at the school level. This provides evidence to teachers, administrators, and parents about the critical role that mathematics coaches serve.

9. Engage in discussions about school/district contexts and incorporate new coaches into existing school/district leadership teams.

10. Encourage coaches regularly.

In summary, administrators need to create structures to prepare and support coaches as they transition into new roles. Coaches need to initiate and participate in both formal and informal support structures so that they develop the skills, knowledge, and disposition to effectively lead others. Finally, both administrators and coaches need to address the challenges that coaches will undoubtedly face so that they will be encouraged and energized to lead.

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