

FINDING VOICE: TEACHER AGENCY AND MATHEMATICS LEADERSHIP DEVELOPMENT

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In the course of engaging with a Mathematics and Science Partnership (MSP) project, we planned a yearlong Leadership Academy that fit under the “train the trainers” model for professional development. Midway through, teacher leaders rejected a traditional conception of leadership based on expertise, individualism, and the transmission of knowledge. This proved to be a moment of critical mass wherein the project was democratically reinvented around a model of shared leadership where teacher leaders were positioned as ambassadors of a culture of inquiry. We were able to document three catalysts for this shift as well as the conditions that existed such that these catalysts could prove effective at producing change. We present here our findings on what happens when we allow teachers to take power and experience agency in a teacher leadership development program.

Keywords: Teacher Education-Inservice; Teacher Knowledge; Elementary School Education

Introduction

Answering the RFP for a state MSP grant, we planned a yearlong Leadership Academy that fit under the “train the trainers” model for professional development. We proposed to engage nine teacher leaders in an intensive study of their own practice and the Measurement and Data strand of the Common Core State Standards for Mathematics (CCSSO, 2010). At the conclusion of their study, the Teacher Leaders (TL) would plan and enact a two-week-long institute for their colleagues in the district. Our proposal adopted a leadership development stance akin to a game of telephone. As Mathematics Teacher Educators, we understood teacher leadership as an automatic byproduct of providing long-term, high-quality professional development to teachers and giving them a platform to share what they'd gained with others.

We were shocked mid-way through when teachers who had been happy to participate in our curricular activity balked at the thought of identifying as teacher leaders. One wrote, “I am not sure that I really want to become a teacher leader...just because you try something doesn't make you an expert and teachers may be afraid of being perceived as representing themselves in that way.”

In this moment, we confronted a living contradiction (Whitehead, 1989) in our assumptions and stance. At all times, we believed that teachers deserved agency and voice and intended to empower them as instructional leaders. However, the game of telephone positioned teachers as message receivers and ourselves as the adjudicators of expertise (a title that the teachers rejected) and denied teachers the very things we had intended the program to develop.

We were able to recognize the contradiction in the midst of our project having previous experience with such work (Cox et al., 2014). Our story focuses on the impact of that dissonance and its role in our process of reconstructing our leadership development program midstream. We will present here our findings on what happens when we allow teachers to take power and agency in a Teacher Leadership Development (TLD) program.

Leadership Development

Current reform initiatives have led the mathematics education community to consider the professional development of teachers as leaders. There are multiple models of leadership development and relatively little research on the effectiveness of these models. As such, we have

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made decisions to situate our work at the intersection of best practices for professional development of teachers of mathematics and their development as teacher leaders. With current demands for professional development programs that will reach large numbers of teachers, the idea of teachers themselves participating in the professional development of their colleagues is appealing to the mathematics education community. Koellner, Jacobs, and Borko (2011) call for the purposeful preparation of a cadre of leaders who can implement effective high-quality PD. They identify three features that are critical for the effective preparation of these leaders, that coincide with the features of quality PD for teachers: “(1) fostering a professional learning community, (2) developing teachers’ mathematical knowledge for teaching, and (3) adapting PD to support local goals and interests” (pg. 116).

Like so many professional development providers Koellner, Jacobs and Borko (2011) frame their PD around three design principles: “fostering active teacher participation in the learning process, using teachers’ own classrooms as a powerful context for their learning, and enhancing teacher learning by creating a supportive professional community” (p.117). Engaging teachers in worthwhile mathematical tasks, creating opportunities for reflection on their learning, supporting teachers to critically analyze their practice, analyzing student work, considering a multiplicity of teacher moves as possible for a given teaching episode, are all examples of the types of engagements used by mathematics teacher educators to create a high quality PD experience for teachers that attend to these three principles.

Underlying a large number of leadership development projects we find a predominance of a design principle where teacher leaders experience, as learners, the PD that they will provide to others. In general, a collaborative and problem-based approach that is situated in problems of practice are used. These approaches are identified by Davis, Darling-Hammond, LaPointe, & Meyerson (2005) as features of high quality leadership development programs as they discuss the preparation of highly effective school principals.

This theory about the development of leaders produces leaders who exemplify expertise, who stand apart from other teachers whom they call colleagues, and who take on a separate role as “leader” that may include duties such as facilitating district professional development, coaching, classroom observation and peer review of teaching. In contrast, the shared leadership model suggests that teacher leadership is less about standing apart and more about standing beside. Schlechty (2001) describes shared leadership as, “less like an orchestra, where the conductor is always in charge, and more like a jazz band, where leadership is passed around among the players depending on what the music demands at the moment and who feels most moved by the spirit to express the music,” (p. 178).

In our experiences, shared here, we describe the dissonance that is created when a leadership group favors a shared leadership model, but engages in a professional development experience aimed at establishing expertise and elevated status.

Project Background

Our MSP was designed to meet the recommendations of best practices in the development of teacher leaders as described by the federal MSP program. We began with the selection of a small cadre of teacher leaders who would remain classroom instructors throughout and after the project. From there, we developed a three-strand curriculum (content, pedagogy, leadership) to be delivered in a Leadership Academy conducted over the course of a school year. We adhered to three principles when designing the curriculum:

- Teachers should encounter a variety of engaging and interactive activities (c.f. Even, 1999; Nesbit et al., 2001) conducted in a constructivist environment (Khourey-Bowers et al., 2005).

- Learning should be individualized and grounded in professional inquiry and specific classroom practice (Khourey-Bowers et al., 2005).
- A learning relationship should be at the heart of the academy and focus should be placed on establishing and supporting partnerships between individual teachers and university partners.

Our Academy met six times in cycles, each cycle having the same basic structure. We'd start each cycle with a seminar where we met as a whole group including nine teacher leaders, six university partners, and one evaluator. In the weeks following a seminar, we'd spend time on individual reflection and meet in partnerships. The Academy would culminate in a 60-hour Summer Institute for math/science teachers in their district. At this institute, teacher leaders would engage their colleagues in conversations about their mathematical and pedagogical work in the Academy as well as in questions of future practice.

University partners were thoughtfully matched (prior to our first seminar) to teacher leaders based on pedagogical interests or expertise and the personal preferences of faculty members about school or geographical location. Thus, one-on-one relationships were established early in the project and remained consistent throughout, documented as a best practice (Howe & Stubbs, 2003). We designed a series of partnership activities. From mathematical problem solving to curriculum alignment activity, to conducting mini action research projects into student reasoning (Even, 1999), to the activity of facilitating public discussion (Harris and Townsend, 2007; Howe and Stubbs, 2003; and Nesbit et al., 2001), our teacher leaders would be immersed in inquiry and intellectual exploration.

Measurement and data and the eight mathematical practices within the CCSSM (CCSSO, 2010) were selected by district administrators as target areas for district improvement. Thus, those two areas formed the mathematical basis for our seminar curriculum. We had intended there to be a two-way flow of influence between the seminars and the partnership activity. The interplay of ideas between large and small groups, 1. would keep our curriculum and professional learning grounded in real practice; 2. help the group note contextual similarities and differences; and 3. scaffold learning for all participants. We had intended to establish a professional community of practice (Lave & Wenger, 1991) for the teachers. Teacher leaders would gain authority, capable of establishing a line of inquiry (mathematical or pedagogical), pursuing that inquiry alongside partners, and presenting their findings to a larger group. In this way, teacher leaders would be empowered to be reflective practitioners and to engage in a rigorous examination of their own practice and the mathematical culture of their buildings and district.

We intended the summer institute to be a replication of the activity of the Academy on a smaller scale. There would not be enough time for individual teachers to conduct their own inquiries into classroom practice, but they could benefit from the experiences and data collected by the teacher leaders in the Academy. Like the transitive property or a *game of telephone*, we expected the lessons of the Academy would translate to good district-wide professional development, an expectation supported by Wallace et al. (1999) and Miller et al. (1999).

Methodology

Presented here is one slice of a two-year project aimed at uncovering what happens when we allow teachers to take power and agency in a Teacher Leadership Development (TLD) program. Data relevant to this study were taken from transcripts of LA Seminars, partnership meetings, and also teacher blogs and journaling responses. Data spans the first year of our MSP project.

Data were transcribed and analyzed by the researchers. Each researcher conducted multiple readings and interpretations using a hermeneutic process (Kinsella, 2006). Interpretations were

substantiated and validated as we contrasted our interpretations and sought common ground, thus enriching our understanding of our teacher and the development of their identity as leaders.

Findings

Data shared here come from three key episodes in our project. We refer to these episodes as *catalysts* because of their potential to leverage change. The three episodes, *Mentoring Peers?*, *Angela's Rejection of Leadership*, and *Leading Through Practice* stand in concert with other events, however stand apart in the sense that they had a profound impact on the planning and enactment of our Leadership Development Program.

Mentoring Peers?

In our third seminar, we asked TLs to consider leaders within their communities, district, and lives. We invited them to describe their mentors and asked, "To whom do you listen?" Each of us shared anecdotes about those in our lives who had been our teachers and when we felt we had strong relationships with mentors.

In the ensuing conversation, TLs shared their previous experiences with leadership models (such as state mentorship programs) that had indicated to them that assigned partnerships rarely produced chemistry and that the mere act of assignment destroyed a part of the intended relationship.

When TLs imagined leaders or described individuals who had an impact on their own practice, the relationships seemed more serendipitous and unplanned. Leadership happened in the small conversations outside classroom doors (Terry), in the examples witnessed by accident (Marissa), or in the lessons that were co-planned, co-constructed, and co-enacted by two eager colleagues who were not organized into a false or assigned hierarchy (Molly and Shannon).

Furthermore, teachers challenged the notion of models of leadership that implied a mentoring experience with peers. Angela described her experiences as a mentor when she was asked to help her team implement what she had learned in a professional development experience about Professional Learning Communities (PLC).

"We have weekly PLCs and at my grade level they don't work. I attended the training in Saint Louis about 5 years ago but no one else in my grade level did. It didn't work well when we tried to come back and tell the other teachers what we had experienced. We basically pretend each week to collaborate in a meaningful way but teachers are not invested in the process." (Angela)

Angela's Rejection of Leadership

Reflecting on the conversations about mentoring in her blog post, Angela provided an abrupt catalyst for change. Angela called into question the model of leadership that had been here-to-fore assumed (emphasis hers).

"I am not sure that I really want to become a teacher leader," wrote Angela, "I think that people choose the "mentors" that they have in their lives and I am very leery of being in a position of "leadership" when it has been forced upon ANY one."

She had begun to question her position within the district and as a "MSP Leader". Angela equated leadership with expertise. She was adamant that she did not want to be perceived as someone with expertise--or more specifically, as someone who *considered herself an expert*. Angela was worried that, by association with the MSP, others would assume that she was an expert, or even worse, assume that she thought that she was an expert.

"As I watched the presentation given by two teachers today, I thought of all the teachers in the district who have done similar things for much longer than twice and somehow putting people and ideas in front of others is in some way suggesting that they are experts. Could this be why

no one wants to be watched teaching? Just because you try something doesn't make you an expert and teachers may be afraid of being perceived as representing themselves in that way. We are always trying new things and how many of our new ideas really stand the test of time.”

In this same time period, in a small group meeting, Angela expressed a new vision of what leadership might entail. She later wrote, "I don't want to be a part of a group of leaders. I want to be a part of a leadership group." To unpack this statement as a unified group and eventually negotiate what leadership would mean to us would mean redefining leadership and constructing a new purpose for our MSP project.

Leading Through Practice

In seminar one, we were still playing the role of the PD providers, wanting to plan and account for every minute of the four hour block of time we had set aside. Our rationale -- teachers' time is valuable, we need to make sure they take away something worthwhile from a Saturday morning spent with us. We decided on an activity that seemed important for the roles of leaders. We decided to collaboratively create a timeline of children's experiences with measurement (the mathematical content focus of our funded PD project) when going through their school district. Following this activity, time was allotted for teacher leaders and university partners to begin to articulate inquiry projects as they considered the teaching of measurement.

The rich conversations that ensued, the difficult questions that were asked, the thoughtfulness with which the group considered the timeline of experiences were beyond our expectations. While staying within the predetermined activity, teachers used their voices to provoke shifts in the agenda. Advocating for herself, one teacher (Ellen) remarked that it made no sense for her to engage in a cycle of inquiry about student reasoning and thinking about measurement and data since she wasn't slated to teach the topics. Another group of teachers (Molly, Shannon, Christine, Anne) noticed within the timeline the activity of measuring one's foot in Kindergarten, 2nd grade, 3rd grade and again at fifth grade. The group, rather than jumping to conclusions, wondered whether that was needless repetition or if there was something useful to gain. They proposed it as a question for the larger group.

It was clear to us that the teachers knew their curriculum well, they had given much thought as to the placement of topics in their own grade level, but had never had the opportunity to hear from their colleagues and create a mental picture of the vertical alignment of a child's experience. We were fortunate to have the voices of a few participants who had experiences in different grade levels -- either because they had taught at different levels and recently been reassigned (Ellen, Molly, Shannon), or because they were intervention specialists (Marissa) and lived in multiple classrooms of different grade levels. This activity generated an opportunity to share their expertise across grade levels and across buildings.

In addition to advocating for an individualized approach to our planned cycles of inquiry, teachers used a collective voice to exert pressure on our planning of future agendas for the Academy. During seminar two, Marissa and Terry offered to share a brief "fifteen-minute" story about an episode that occurred in Terry's classroom in the time between our meetings. Their short story evolved into a two-hour discussion with audience participation. Their peers' interest in their work was a great surprise to them. The many questions and the request for ideas as to how they would recommend modifications for the task for other age groups generated a rich discussion and positioned Marissa and Terry as having pieces of practice that were worth sharing and discussing. What began with excitement about what had transpired in their classrooms turned into a curricular experience for others where we continued to interpret and analyze the event. The result was empowering, not only to them, but also to others who then followed their lead. The remaining

seminars were filled with such presentations and examinations of practice.

Discussion

Allowing these catalysts to have an impact on the structure of our MSP required three conditions: 1. a culture of non-evaluative listening; 2. the willingness of all participants to unpack our expectations and experiences with leadership; and 3. a conscious choice on the part of university partners to equalize the power relationships within the partnership. We will establish each of these conditions below along with how they facilitated change.

First, we were predisposed to listen to participants and hear their comments without judgment. We made the conscious choice to step back from our planned curriculum and forward into a space that allowed for multiple funds of knowledge (Moll, 1992). In stepping back, we gave teachers agency to construct alternative paths based on professional motivations and interests.

Each participant in the Academy began to shape a vision of what it would mean to take part in the MSP and what we would be doing during the Academy. The original plans for the Academy quickly disintegrated giving way to a new concept and a new reason for being. We are not naive to think that all of us shared a common vision, but our visions were converging to at least a few common aspects, these being that the teachers would be presenting for a good part of the Academy seminars, and also that issues were arising in the smaller partnerships that were valuable to bring to the large group for their deliberation.

Second, we committed to the work of consciously unpacking our expectations and experiences with leadership. This required the participation of every person involved. It allowed for a shift from thinking about leadership as belonging to or living within the individual toward thinking about the power of the collective. As a group, we have more power than as individuals to change perception, to lift our voices and have our ideas heard by others in our community. This requires that we shift our perception of leaders as those with expertise toward where leaders are willing to seek a deeper understanding and share that inquiry process publically with others.

Marissa and Terry were moved by the spirit that Schlechty (2001) describes and we, the participants, were inspired by their music to ask our own questions, to examine our own lived classroom experiences, and to modulate their melody in our own style and timbre. Their experience, because it was shared, reverberated throughout our group.

Third, as members of this partnership who had the power to determine the curriculum and structure of the project, we, the university partners, consciously chose to equalize the power structure and to give teacher leaders agency in their own professional development. At the outset, we did not view teachers as agents of and for change, but as agents that needed to be changed (Roesken, 2011).

As a result, in the course of the Academy, participant (university partners and teacher leaders) roles in PD began to blur and shift. From recipients or attendees of PD, teacher leader roles would morph to planning and delivering PD themselves. Our roles as university partners morphed from the planners and deliverers of PD to a place where we were active participants reflecting on our personal practices as teachers of teachers as well as grounding our practice in the real lived experiences of local classrooms. In this way, we were able to define expertise to include multiple funds of knowledge and in blurring the lines between the providers and the receivers, the teacher leaders have autonomy in crafting, (re)shaping, and enhancing their practice (Diaz-Maggioli, 2004). In as much as the teacher leaders perpetuating this model in the summer institute, they passed that autonomy on to their colleagues within the district as well.

Conclusion

In the course of this project, teacher leaders found professional voice, not only defining for themselves what needed to be accomplished beyond classroom doors, but also envisioning their role

in accomplishing it. This has direct implications for personalizing local and state reform policies and implementing the Common Core State Standards. Ultimately, what we have learned is that it is not a matter of trusting that teachers will be productive with neither assigned direction nor oversight. It is the act of not even questioning them that ensures both agency and voice.

As a group, we also reformulated what it means to lead. What began as a game of telephone morphed into a model of shared leadership. Teacher Leaders became ambassadors of our culture of inquiry, but also remained a part of the community within their buildings and district. This was an integral facet of the experience for the teachers like Angela who did not want to be perceived as held aloft as experts in their field, entirely distinct from their colleagues. By establishing an environment where teachers had agency, we had opportunities to come to know ourselves in relation to one another. We realized that we are not only individuals, but are also framed by our participation within the community. Leadership identities were shaped by our shared experiences, but also by coming to grips with our histories in the district, in our schools, and by coming to understand how we are viewed by others because of how we use and have used our professional voice(s).

Lastly, by challenging conceptions of expertise and including multiple funds of knowledge, Academy learning opportunities were based on the realities of the classroom and occurred naturally in the course of investigating classroom practice in small supportive partnerships. This learning was rigorous, supported discussion of content and pedagogy, and had an immediate effect on classroom activity.

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