Beginning Elementary Mathematics Teachers Negotiating Leadership Responsibilities

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Abstract: Induction has been given much attention in recent years. Research indicates that a comprehensive program with multiple supports for new teachers, including reasonable teaching loads and complete curriculum resources, is most effective. However, this is not the reality for many beginning teachers. In a study of a two-year, university based, mathematics-specific induction program for elementary teachers, we found many first year teachers were given teacher leadership responsibilities at their schools. These leadership experiences were confounded by school contexts in which curriculum resources were incomplete or competed with their visions of “good” mathematics teaching. Qualitative data included interviews, surveys, written reflections, and researcher field notes from the first year of study. This article reports three first-year teachers’ experiences of significant leadership responsibilities. Findings call for ways to prepare BTs in undergraduate and induction programs for non-instructional duties in teaching, and ways to develop the agency needed to negotiate school-based contextual constraints.

Induction has been given much attention in recent years, particularly as districts and states try to decrease teacher attrition. Largely the purview of local districts, many induction programs focus on classroom management and familiarizing beginning teachers (BTs) with district policies rather than content-specific support to help them enact curriculum (Luft, et.al., 2011). Research indicates comprehensive programs with multiple supports for new teachers including reasonable teaching loads and complete curriculum resources are most effective (Alliance for Excellent Education, 2004; Smith & Ingersoll, 2004).

Birkeland and Feiman-Nemser (2012) note that even a comprehensive set of new teacher supports are not enough if new teachers are being enculturated into schools that do not have a shared vision of a strong professional community including a commitment to reasonable teaching loads. In a study of a two-year, university-based, mathematics-specific induction program for elementary teachers, we found many participants were given teacher leadership responsibilities at their school as first year teachers. These leadership experiences were confounded by school contexts in which curriculum resources were incomplete or competed with the BTs’ visions of “good” mathematics teaching.

We use Hammerness’ (2006) definition of vision as “ideal images of classroom practice.” Our program goals were to:
1) Help BTs navigate the particulars of classroom teaching as they attempted to enact their vision — particular students at a particular grade in a particular classroom at a particular school;
2) Support BTs in refining their visions in line with reform-based mathematics teaching practices (Munter, 2014); and
3) Develop BT’s pedagogical agency (Ticknor & Schwartz, in press).

The culture of schools greatly influences whether BTs take up reform practices or return to the status quo (McGinnis, et.al., 2004). Through a program external to the school context, we provided places for open discussion and development of shared vision of mathematics teaching. BTs participated in three days of professional development (PD) in a residential setting the summers before and after their first year of teaching with two follow-up PD days during the year. Mentors and professional developers with subject-matter expertise worked with BTs to understand and
negotiate district-provided curriculum resources and to grow in their mathematics teaching practice. Specifically, mentor elementary teachers who had a graduate elementary mathematics certificate had phone conversations with BTs every three weeks to discuss mathematics instruction. In addition, all BTs and the mentor at each grade level planned and taught shared lessons and analyzed student work together at PD sessions.

We accomplished the initial goals of the program by supporting BTs’ visions of ideal practice and mathematics pedagogy. However, we found that while these were essential building blocks of a successful first year of mathematics teaching, another set of particulars often dominated our work. These were the particulars of the larger school context (Schwartz & Ticknor, under review). One challenge faced by several participants in the group was an expectation of teacher leadership despite the recommendations for exemplary induction practice that new teachers be given reasonable if not reduced teaching assignments (Birckeland & Feiman-Nemser, 2012). We will share the stories of three BTs simultaneously negotiating their first year of teaching and significant leadership responsibilities. Each teacher’s experience offers different insights into the reasons and ways BTs assumed leadership roles in school settings.

METHODS

The data for this article derives from the first year of a two-year study of a mathematics-specific induction program — Project Launch — in the eastern region of a southern state in the United States. Twenty elementary BTs and six mentor teachers participated in this study (for more information about Project Launch see Ticknor & Schwartz, under review). In this article, we include data from three BT participants, Alisha, Janine, and Lindsay, to provide a closer look at the theme of teacher leadership. Our analysis centered on end-of-first-year BT interviews, end-of-first-year BT surveys, BT written reflections, and researcher field notes from Year 1 (for more information see Ticknor & Schwartz, in press).

Our qualitative analysis was multi-layered and recursive. First, we read each data source for emerging themes. Next, we conducted a content analysis to determine key ideas and themes emerging from commonalities across data. After we reached a consensus about themes in data, we developed working definitions of each theme and identified categories that corresponded with themes. As more data was collected, we continually reviewed initial analysis and adjusted categories when new responses did not fit using constant comparison methods (Glaser & Strauss, 1975). Finally, we read across entire data for patterns to strengthen the external validity (Merriam, 1998) of the findings. A mutual consensus was required for final categories. Examples from the data from each BT for the category of teacher leadership is presented in the next section.

FINDINGS

Analysis of Year 1 data indicated BTs engaged in teacher leadership responsibilities during their first year as teachers in their grade levels and schools. Each BT experienced teacher leadership differently. Alisha became a leader by default; Janine became a leader due to perceived expertise; and Lindsay’s leadership was hidden from colleagues. Illustrative quotes highlight the ways BTs assumed leadership roles in their particular school settings while simultaneously negotiating their first year of teaching.

Alisha began the first year of teaching with both veteran and beginning third grade teachers. However, by the middle of the first year, the more experienced teachers had left either the grade level or the school. The replacement teachers were all BTs just graduating from their program, leaving Alisha, with four months, as the most experienced third grade teacher in terms of the amount of time in the classroom. In the end-of-first year interview Alisha reflected, “It was terrifying because halfway through the year I was the one with the most experience.” With the most experience also came the role of grade-level chair. Alisha shared, “As a new teacher I shouldn’t have to do it, but I did it anyway.” What Alisha “did” was the grade-level assessment coordination and planning mathematics instruction for the grade-level team. When asked about her role as a teacher leader Alisha replied, “I never felt like a
leader, but I do now.” This statement indicates Alisha’s increased sense of power, which may have contributed to her agency as a BT. When asked about her plans for the upcoming year, Alisha continued, “I am excited about others being leaders for other things (grade-level field trips, incentives, etc.) ... I hope this year I will be more prepared to lead our grade level in math teaching.” Alisha’s statements reflect both the hope for other grade-level teachers to share in leading the grade-level and her plans to continue as a teacher leader.

Janine’s leadership role was also tied to grade-level team lesson planning and mathematics content knowledge. Janine’s undergraduate mathematics concentration and her participation in our mathematics-specific induction program positioned her as the grade-level mathematics “expert.” With knowledge came responsibility to write shared mathematics lesson plans for her second grade teacher team members, each with more teaching experience than she. In the beginning of the school year, Janine co-planned mathematics instruction for the grade level with a colleague, as the year progressed, so did Janine’s leadership role. Eventually Janine solely wrote the mathematics lesson plans for the grade-level team, using her school’s menu style lesson plan format, which is structured like a multi-course meal in a specific order. Janine did not find the format conducive to student inquiry because it “doesn’t allow for a lot of flexibility.” Janine continued, “I planned [math for the team] using it because we have to use it.” However, Janine did not use the menu lesson plan in her own teaching. Instead, Janine wrote two sets of lesson plans: one for colleagues and one for herself, which was more reflective of the vision she was trying to enact in her pedagogy. Writing two sets of lesson plans for mathematics increased Janine’s thinking about pedagogy, which may have contributed to her agency as a BT.

Lindsay became a teacher leader in the school through close administrator contact. Lindsay’s principal regularly checked-in about professional development activities including Project Launch, which Lindsay attended during the first year of teaching. Lindsay’s grade-level colleagues were not as welcoming of her new ideas, advising her not to bring anything into her classroom unless everyone else was using it. Instead, Lindsay would share her resources and ideas with the principal. Lindsay shared, “My principal is open to new ideas and I talk with her about Launch.” Lindsay’s principal would often inquire about “new ideas.” Lindsay learned in professional development settings and then share Lindsay’s ideas with school faculty. Lindsay said, “I told her about mClass Math because I heard about it at a conference and then we had a webinar at a faculty work day.” Lindsay was pleased to know “she does listen” to the ideas, Lindsay shared. However, Lindsay’s principal did not share where the ideas were learned. Lindsay stated, “Then I told her about Planbook (an online organizational tool) and then she told people they should buy it. She didn’t tell them it was because of me.” Even though Lindsay did not seek credit for sharing the idea, when school colleagues had questions about how to use the tool, they were directed to Lindsay since she had been using it. By answering their questions, she was positioned as an expert. Lindsay shared, “Then everyone came to ask me about it. A little part of me is like, ‘yay.’ So maybe (the principal is) excited about my ideas.” Through the administrator, Lindsay not only had the agency to enact her vision in spite of discouragement from grade-level teachers, she was able to affect change on a school-wide level.

**DISCUSSION**

Despite calls for reasonable teaching assignments (Birkeland & Feiman-Nemser, 2012), some first year elementary teacher participants in our university-based, mathematics-specific induction program assumed leadership roles beyond their own classrooms. We highlighted the stories of three BTs’ as examples of typical experiences in which participants took on additional responsibilities for different reasons and in different contexts. Alisha served as grade-level chair by default because experienced teachers at her grade level left mid-year. Janine wrote mathematics lesson plans in the required format for her grade level because of her perceived expertise, even though she felt the format was not in line with her vision of “good” mathematics teaching. She then wrote a second
set of mathematics lesson plans to use in her own classroom. Lindsay chose to resist her grade level’s advice to do what everyone else does in part because of her principal’s interest in her ideas. Due to the social impacts of this resistance, Lindsay’s leadership was at first hidden as the principal shared her resources with the faculty without her being named as the source. By the end of the year, she was beginning to get credit for her ideas more publically as people became aware of her role.

Much of the BTs’ visions were different from school expectations. They all cited the support of Project Launch, and specifically the program mentors, in facilitating their agency to pursue the enactment of their vision in the classroom, while still within the constraints of their school contexts. Although the additional responsibilities were a struggle throughout the year, in the end, all three BTs reported having increased knowledge and an increased sense of confidence because of the experiences.

The increased knowledge and confidence that comes with responsibility (or in Lindsay’s case, administrator buy-in), may have been a factor in the sense of agency they felt to “go against the grain.” We do not suggest placing teacher leadership responsibilities on first year teachers simply to develop agency. However, more research is needed to explore BT agency when making mathematics instructional decisions, particularly in settings where their vision and the particulars of the school context do not align. Alisha, Janine, and Lindsey offer glimpses of challenges faced by BTs that are beyond the scope of traditional teacher education and induction. Finding ways to help undergraduates and BTs develop the agency needed to negotiate school-based contextual constraints, and prepare them for teaching responsibilities beyond the classroom is of paramount importance.

REFERENCES


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