Making the Most of Professional Development: How Teacher-Led Professional Development Influences Teaching Practices

Purpose

Since the 1990s, many reformers have urged new thinking about professional development (PD), especially in literacy. Instead of delivering PD to each teacher individually, there has been a push for a collaborative delivery of PD in which groups of teachers and teacher leaders work side by side on the day-to-day task of improving literacy instruction across the school (Darling-Hammond & McLaughlin, 1995; Little, 1993). Improving PD in literacy is particularly important since only 26 percent of fourth graders and 34 percent of eighth graders scored at or above proficient on the National Assessment of Educational Progress (U.S. Department of Education, 2015).

This study examines a new graduate-level, in-service teacher education program designed to develop literacy leaders among classroom teachers, who will then transfer their new knowledge to colleagues in their schools. The Omaha Public Schools (OPS) and University of Nebraska Omaha (UNO) collaboratively designed this two-year program, called the Career Ladder in Reading, in 2013. If implemented as intended, teachers completing the program will learn best practices in reading instruction across the content areas within the context of Omaha's unique urban environment; in addition, they will also pass on their new-found knowledge to other teachers in their schools.

This study, part of a larger formative evaluation of the Career Ladder, focuses on how teacher leaders in the literacy graduate program worked to pass their knowledge on to colleagues. The study poses the following questions:
1. What PD activities did colleagues engage in with the Career Ladder participants?
2. To what extent did colleagues' reported hours of PD relate to the reported influence of that PD on classroom teaching?
3. To what extent did integration of the PD into the school's overall PD plan relate to the reported influence of that PD on classroom teaching?

Theoretical Framework

Professional development relies on a two-part transfer of knowledge: Teachers must internalize new knowledge and skills sufficiently to change their behavior, and those changes in teacher behavior must subsequently result in improved student mastery of the subject matter. It is the complex nature of those transactions that makes descriptive studies of the implementation of PD so important (Sawchuck, 2010).

In one such descriptive national study of American teachers, researchers found that educators who expressed higher job satisfaction were more likely to have benefitted from effective PD opportunities and collaborative time with fellow teachers (Markow, Macia, & Lee, 2013). Researchers concluded that in schools where professional learning is centered on job-embedded collaboration, with a focus on student results, teachers felt less isolated and experienced a greater sense of confidence and job satisfaction—basically the antithesis of the type of PD that occurs outside the school, away from actual instruction, and apart from students.

Analysis of existing research suggests that PD is effective for teachers (1) when it is sustained, comprehensive, and embedded in the school day; (2) when it incorporates peer coaching, observation, modeling, and feedback; and (3) when it is explicitly tied to higher order content and skills (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Garet, Porter, Desimone, Birman, & Yoon, 2001). Research also demonstrates the importance of integrating PD into the school improvement plan and providing an adequate number of hours of PD. A recent meta-synthesis found that studies in which PD had a positive impact included 15 to 80 or more hours of PD (Dunst, Bruder, Hamby, 2015) Another meta-analysis found that 49 hours of PD led to 21 percentage point gains on standardized tests (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). The field needs descriptive evaluations of new ways to engage teachers in ongoing, content-rich, and active learning tailored to their needs. This study describes an innovative approach to PD in which teachers in a grant-funded graduate program that provides ongoing PD activities, pass on their learning to their colleagues on site.

Methods

We used a concurrent mixed methods approach in this descriptive study, collecting survey data at roughly the same time we collected qualitative interview data (Creswell, 2003). All survey and qualitative data were collected in spring 2016, which was after three semesters of PD delivery (Table 1). The survey item asking whether the PD influenced teaching was a "yes/no" question; the item asking about hours of PD required whole number responses; and all other items used four-point rating scales.

Table 1
Timeline for Career Ladder Graduate Courses and Delivery of PD

	Semesters					
	Summer Year 1	Fall Year 1	Spring Year 1	Summer Year 2	Fall Year 2	Spring Year 2
Graduate courses	→	→	→	→	→	→
Delivery of PD			→	→	→	→

Source: Created by evaluators based on Career Ladder program documents.

To analyze quantitative survey data from Career Ladder participants' colleagues, we used descriptive statistics such as frequencies and means. Interviews of a selection of colleagues and principals occurred at roughly the same time as the survey. To analyze qualitative interviews, we used content analysis to identify themes within and across interviews (Mayring, 2000).

Data Sources

This study uses three data sources: A survey of Career Ladder in Reading participants' colleagues, interviews with selected colleagues, and interviews with principals.

Survey of Career Ladder Colleagues

Researchers administered the Career Ladder Colleague Survey to OPS personnel identified by Career Ladder teacher leaders as having participated intensely in PD provided through the Career Ladder. Among the 237 colleagues identified, 166 responded to the survey, for a 70 percent return rate. The researchers created the survey based on a previously developed national survey (Parsad, Lewis, & Farris, 2001) and input from OPS and UNO staff members involved in the Career Ladder.

## Interviews With Selected Colleagues and Principals

As part of the ongoing evaluation of the Career Ladder, researchers used stratified random sampling to select schools for site visits. The stratification balanced schools from the three geographic regions of the city and also from different instructional levels—elementary, middle, and high schools. Then, we asked the teacher leaders at these schools to select one colleague they worked with in-depth and invite this colleague to participate in the interview; we also interviewed one principal from each school. This resulted in 16 colleague interviews (since several schools had more than one teacher leader participating in the Career Ladder) and 11 principal interviews. We based the semi-structured interview protocols on the survey in order to provide more insight into the survey results.

Results

RQ1: PD Activities Varied

Career Ladder participants' colleagues reported that they received PD through a variety of modalities. On average, survey respondents participated in three different types of PD. Most commonly, colleagues reported sharing materials or strategies, attending staff meeting presentations, or receiving one-on-one general advice about instruction (Figure 1). Nine percent of respondents reported engaging in additional types of PD provided by Career Ladder participants, which most commonly included book clubs, literacy nights for students and families, and interactive staff bulletin boards.

Figure 1
Percentages of Teacher Colleagues That Reported Participating in Various Types of Career Ladder Participant-Led PD
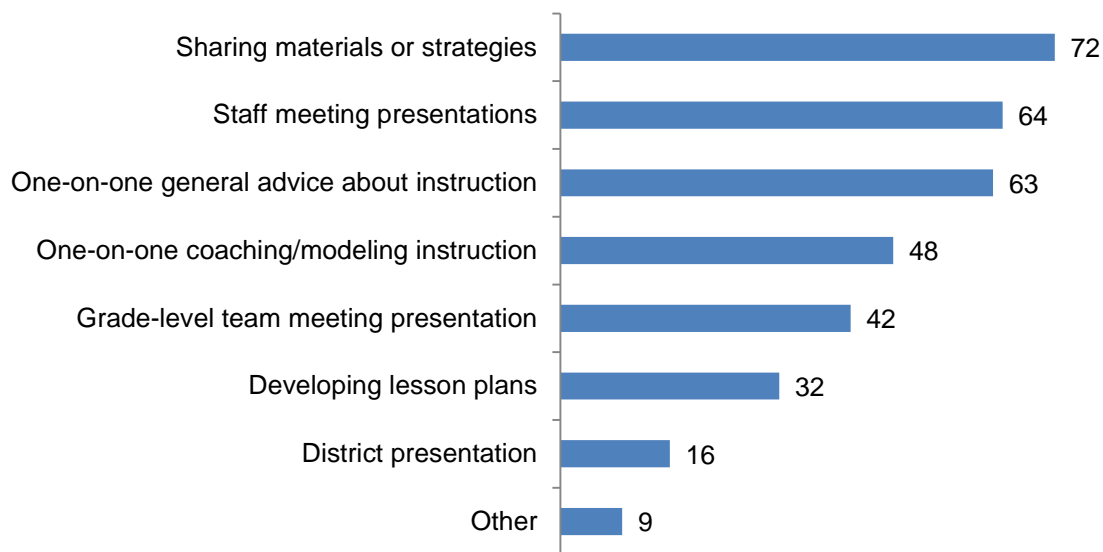
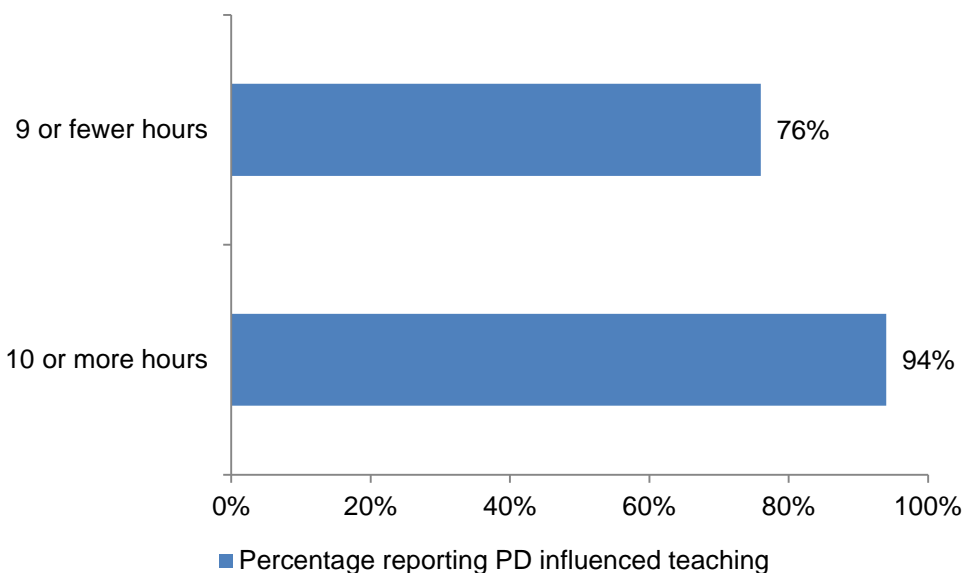Source: Evaluator analysis of Career Ladder survey data

Overall, respondents reported participating in 1 to 150 hours of Career Ladder participant-led PD, with an average of 10 hours. The average number of hours respondents reported participating in each different type of PD ranged from three to five.

RQ2: More Hours of PD was Associated with Influence on Teaching

Many respondents (82%) reported that working with the Career Ladder participant influenced their teaching. Of these respondents, those reporting participating in 10 or more hours of PD with Career Ladder participants were significantly more likely to report that the PD influenced their teaching (Figure 2). [1]

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[1] $X^2 (1, N = 131) = 7.071, p = .008$

Figure 2
Percentage of Respondents Reporting the PD was Influential, by Hours of PD

Source: Evaluator analysis of Career Ladder survey data

Fourteen teacher colleagues gave examples of how their work with the Career Ladder participant influenced their teaching. Almost three quarters of those responding said that they learned new strategies to implement in their classroom.

> *I am using the strategies she showed me with my students, and the schedule change she suggested has been one of the best changes this year.* (Teacher colleague)

> *I have received resources and ideas that I am utilizing in the classroom to improve instruction.* (Teacher colleague)

RQ3: More Integrated PD was Associated with Influence on Teaching

Overall, about two-thirds of survey respondents reported the PD was integrated into the overall PD plan "somewhat" or "a lot" (Figure 3).

Figure 3
Percentage of Respondents Reporting Career Ladder-Led PD was Integrated into the School's PD Plan
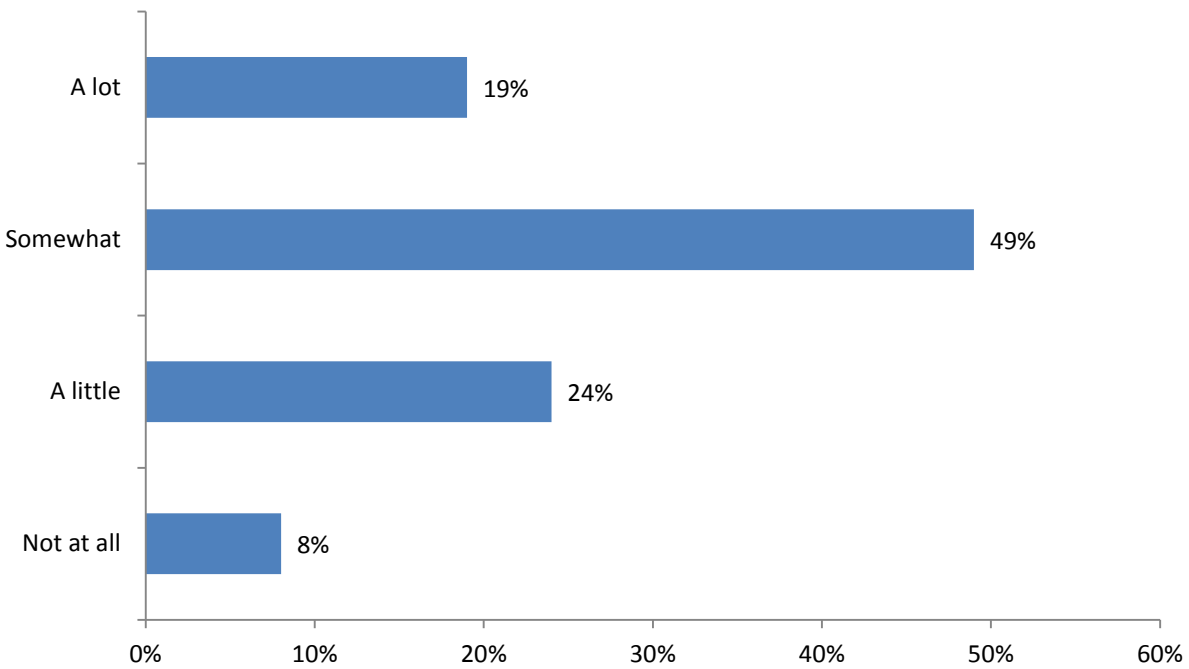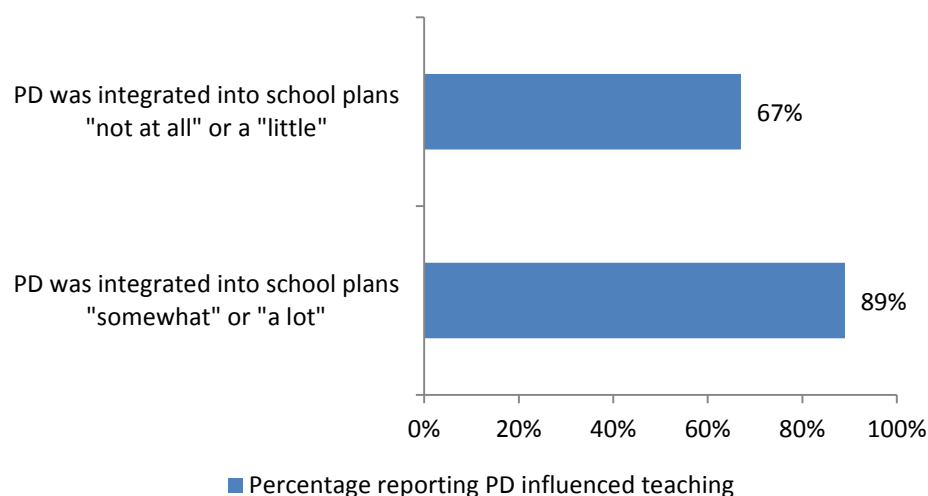

Source: Evaluator analysis of Career Ladder survey data

Other respondents said PD was integrated only "a little" or "not at all." The respondents who reported that PD was integrated were significantly more likely to report that the PD influenced their teaching (Figure 4). [2]

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[2] $X^2 (1, N = 137) = 9.811, p = .002$

Figure 4
Percentage of Respondents Reporting the PD was Influential, by integration of PD

Source: Evaluator analysis of Career Ladder survey data

Several teacher colleagues provided comments that described how their Career Ladder teacher integrated the PD into the schools' plans for PD and improvement. In general, comments that described this integration also reflected a positive view of the PD and found it useful.

> *Our school's goal for the year was to more effectively use a workshop model to teach writing. The [Career Ladder] teacher that provided my PD was in charge of grade-level meetings, looking for resources, sharing materials, collaborating on lesson plans and the creation of rubrics for writing. This was an integral part of our school-wide goal and was provided at least once and often twice a month.* (Teacher colleague)

> *[The PD] was integrated from the beginning, then throughout the school year occasionally. The most helpful aspect to me was that the Career Ladder PD allowed you to take time and develop and then meet with a Career Ladder individual. It was spread out [over] the correct amount [of time] so that I felt as though I could figure out things on my own and grow as a professional, but ask for assistance and ideas as needed.* (Teacher colleague)

When asked whether the PD provided by Career Ladder participants was an important part of the overall school PD plans, almost all of the interviewed principals said that it was. Many of the principals elaborated and said that the school improvement plans were based on analysis of student data that often pointed them to more PD involving best practices for supporting literacy.

[Career Ladder PD] fits in with our school improvement plan. When we plan out the school improvement plan we look at areas of need through The Nebraska State Assessment (NeSA) and Acuity, and we did a staff survey, and definitely the word walls and vocabulary were a high need. (Principal)

We (Career Ladder participants and school administrators) talk about what the needs are. We talk about what I think we need to do and what they think they need to do, and so far it has coincided because it's about best practices. (Principal)

Significance of the Study

Results from this study show that teacher leaders enrolled in a graduate literacy program through the Career Ladder in Reading passed on their learning to colleagues through a variety of activities. Overall, colleagues reported that this Career Ladder participant-led PD influenced their teaching practices. Furthermore, when they participated in at least 10 hours of PD, colleague participants were significantly more likely to report it influenced their teaching. Similarly, when this PD was integrated into the overall school improvement plan, respondents were more likely to report that it influenced their teaching. These results support the findings of past research on effective PD (Garet et al., 2001; Darling-Hammond et al., 2009; Dunst, Bruder, Hamby, 2015; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

For leaders of the Career Ladder program and other educators interested in broadening the reach of PD, these findings are promising—teachers involved in an intensive graduate program actively passed on their learning to colleagues in their school, and these colleagues found the activities influential, especially when they were integrated into the overall school improvement plan. Given the evidence supporting the importance of integrating PD activities into the school improvement plan, in the future, Career Ladder school administration should make sure to integrate these activities in order to ensure influence on participant teaching.

As Career Ladder leaders work to hone this PD model, they will continue to track both the content of the PD and perceptions of its influence. More research is needed to know the extent to which the Career Ladder and similar PD models change teacher practices and ultimately increase student achievement. Future research should continue to explore the impact of participant-led PD on teachers and students.

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