Mentoring as Professional Development: Enhancing Mentor Programs to Impact Student Achievement

Introduction
Several strategies for improving student learning in an era of education reform regularly occupy the time and attention of education leaders. Not the least of these strategies includes new teacher evaluation systems, national math and literacy standards, merit pay, and performance assessments. Professional development (PD) also ranks high with education reformers as a mechanism for creating positive change (Borko, 2004). And yet, effective PD has proven elusive. Some reasons for ineffective PD include irrelevant content, fragmented implementation, and disregard for principles of adult learning (Borko, 2004; Kennedy, 1998). Another reason is the broad definition educators apply to PD, which includes everything from coursework to book studies to informal conversations in the lunch room. As a result, the literature base is broad and somewhat scattered, where some studies focus on increasing content knowledge, while others focus on increasing pedagogical skill, and still others focus on how students learn subject-specific content (Kennedy, 1998).

Researchers have proposed different approaches for unifying literature examining PD. For instance, Ball and Cohen (1996) suggested organizing studies around enacted curricula rather than intended curricula for improving teacher knowledge of students, subject matter, and classroom context. Kennedy (1998) proposed careful examination of program content, with less emphasis on structural features such as length of training and activity format. Alternatively, Borko (2004) suggested designing studies around broad themes like teacher as learner and school context. While Wayne et al. (2008) recommended an empirical emphasis, specifically identifying causal relationships through observational, quasi-experimental, and experimental designs with emphasis on determining how PD programs compare with each other.

Although Ball and Cohen (1996), Kennedy (1998), Borko (2004), and Wayne et al. (2008) propose different approaches for identifying effective PD, one commonality is their call for more sophisticated investigations showing direct links between PD and changes in student learning. Since the early 2000s, studies showing relationships between PD and student achievement have increased in size and complexity, including number of participants, duration, and inclusion of experimental design features. For example, Blank et al. (2005) and Yoon et al. (2006) conducted multi-year empirical investigations with hundreds of teachers across four sites to measure changes in teacher practice and alignment of instruction to math and science standards. Diamond et al. (2014) studied 223 Grade 5 teachers split between control and treatment groups to analyze the effects of science PD on student achievement. Abe et al. (2012) investigated the effects of a 2-year PD program on student reading comprehension with more than 3000 students and 198 teachers. And Heller et al. (2012) used quasi-experimental methodology to compare the effects of three PD programs, involving 270 teachers and 7,000 students.

While these studies differ in their sampling, variables, and instrumentation, their literature reviews are derived from widely agreed upon characteristics of effective PD, which Kennedy (1998) articulated nearly 2 decades ago. According to Kennedy, effective PD is (a) lengthy rather than brief, (b) based on teacher input for deciding content, (c) interspersed with classroom application, and (d) organized around teacher collaboration. Likewise, Desimone et al. (2002) indicated PD is effective when (a) teachers from the same school, department, or grade train together; (b) when teachers are actively involved, such as analyzing student work or receiving feedback through peer observation; (c) when training links to teachers’ prior knowledge; and when (d) the content of training shows teachers how to apply instruction and assessment targeting higher-order thinking. More recently, Blank (2013) and Van den Bergh et al. (2014) confirmed characteristics identified by Kennedy and Desimone et al., indicating effective PD tends to be (a) long rather than short, (b) subject-specific rather than general, (d) active rather than passive, (e) collegial rather than independent, and (f) based on teacher prior knowledge rather than abstract.
Correspondence between PD and Mentoring

Most educators would conclude from their personal experience that PD generally includes at least one characteristic of effectiveness, aligned with descriptions found in research literature. However, not all teachers assign equal value to PD activities. For example, Smylie (1989) surveyed 1,789 teachers and found they perceived formal performance evaluation, consultation with building-level administrators, and in-service training planned by school districts as least effective. Alternatively, Smylie (1989) found teachers perceived direct experience in the classroom, consultation with other teachers, observation of other teachers, and independent study and research as most effective. The list of preferred PD activities assembled by Smylie reinforces conclusions reached in the literature. Namely, effective PD is predicated on teacher collaboration, active learning, and teacher prior knowledge and experience.

Although most educators are surely able to identify qualities that make PD effective, and preferences for certain PD activities, there is less consensus about comprehensive models that are both effective and preferred. However, some approaches come closer than others, including earning National Board for Professional Teaching Standards certification (NBPTS), participating in Professional Learning Communities (PLC), and mentoring.

Mentoring is unique in comparison to other types of PD since most all teachers have one or more mentoring experiences across their careers. Most teacher preparation programs are designed around mentored internships. Many school districts induct new teachers by assigning mentors. Some schools have coaches to support teachers using principles of mentoring. Even NBPTS and PLC models emphasize peer-to-peer collaboration, observation, and feedback, which most agree are principles of mentoring.

Longevity of mentoring is another difference. NBPTS and PLC models of PD are relatively new, each having been established within the last 35 years. Mentoring, on the other hand, emerged as states and districts began requiring formal teacher preparation, as early as 1870 (Ravitch, 2003).

Nevertheless, longevity has not always translated to coherence. Similar to PD, mentoring and mentors are defined differently in the literature (Dawson, 2014). For example, Daloz (1999) suggests

Mentors are guides. They lead us along the journey of our lives. We trust them because they have been there before. They embody our hopes, cast light on the way ahead, interpret arcane signs, warn us of lurking dangers, and point out unexpected delights along the way. (p. 106)

Bozeman and Feeney (2007) define mentoring as

A process for the informal transmission of knowledge, social capital, and the psychosocial support perceived by the recipient as relevant to work, career, or professional development; mentoring entails informal communication, usually face to face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom, or experience (the mentor) and a person who is perceived to have less. (the protégé, p. 722)

And lastly, Kochan and Pascarelli (2003) simply define mentoring as “having 2 or more individuals willing to form a mutual respectful, trusting relationship focused on the potential growth and development of the mentee” (p. 173).

The literature on mentoring of course includes descriptions of a mentor, sometimes called a supervisor or coordinator, and a mentee, sometimes called a protégé (Dawson, 2014). With the exception of articulating the basic mentor-mentee relationship, the literature varies on most other factors, such as the number of mentors, the strength of relationship, the length of relationship, the way mentors are selected, and the actions mentors and mentees perform (Dawson, 2014). Another consideration is the comparative expertise and status of the mentor and the mentee. In many cases, the mentor may have more experience or seniority in comparison to the mentee. Alternatively, the mentor may possess specific knowledge, and in some way, be a step-ahead of the mentee (Dawson, 2014). And still another approach is peer mentoring, where the mentor and mentee have equal status, though some exclude peers as a model of mentoring (Jacobi, 1991).

Although there is considerable variation in the literature, Dawson (2014) has proposed 16 design elements found across many research studies for categorizing features of mentoring. According to Dawson, these design elements contribute to frameworks, which then comprise specific models. Although there is imperfect correspondence between mentoring design elements and characteristics of effective PD, there are several similarities, as shown in Table 1. Both mentoring and PD emphasize duration and frequency of contact. Both

<table>
<thead>
<tr>
<th>Design Elements of Mentoring</th>
<th>Characteristics of Effective PD</th>
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<tbody>
<tr>
<td>Duration and frequency of relationship, amount of contact</td>
<td>Duration and frequency of activity, sustainability and intensiveness</td>
</tr>
<tr>
<td>Aims or intentions sought as a result of participating in the model</td>
<td>Alignment between program and teacher goals, communication of goals</td>
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<tr>
<td>Evaluating outcomes through observations, feedback, and reports</td>
<td>Application of new knowledge for demonstrating growth</td>
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<tr>
<td>Mentor designed resources, such as reference manuals and instruments for peer observation</td>
<td>Active learning, such as conducting observations, and dependence on existing teacher knowledge</td>
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<tr>
<td>Process for matching mentees with mentors</td>
<td>Selection of training format, such as in-service, coursework, or mentoring</td>
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<tr>
<td>Strength of mentor and mentee relationship</td>
<td>Collective participation by teachers in the same grade or school</td>
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<td>Development of necessary knowledge and skills</td>
<td>Development of specific practices, such as peer observation or testing new instructional techniques</td>
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<tr>
<td>Importance of technology to the relationship</td>
<td>Use of technology to support student learning</td>
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Note. Adapted from Dawson (2014), Desimone et al. (2002), and Van den Bergh et al. (2014).

Table 1.
rely on clearly communicated goals and focus on specific practices and processes for evaluating outcomes. Both depend on preexisting teacher knowledge as a starting place for training and future growth, along with opportunities for making choices. Both mentoring and PD depend on relationships and collective participation, and this is perhaps the most salient link between fields. Less obvious, but no less present in the literature, is the role of technology, whether for improving communication or changing instructional practices.

Types of Mentoring

While mentoring and PD show clear correspondence to each other when design elements and effective characteristics are analyzed, their relationship becomes less clear when different types of mentoring are considered. For example, Dawson (2014) associates mentoring and PD within the context of peers coaching each other, or veterans coaching novices, but not specifically new teacher training or induction. However, the research on mentoring of course includes coaching, but it also includes new teacher induction and mentoring student teachers.

Costa and Garmston (2002) define coaching as mentors paraphrasing and inquiring to help mentees identify solutions to problems based on prior knowledge and context. Coaching also includes collaborative evaluation of solutions dependent on evidence, such as student work samples, assessment data, and reflection on one’s own performance. For example, a classroom teacher may contact a district coach and request support with a particular challenge, such as improving reading fluency in a leveled reading block. The pair analyze student reading data together, and the teacher provides context information relating to both students and classroom. The coach poses questions prompting reflection along with paraphrasing the teacher’s responses and drawing out possible solutions. In summary, the coach guides the inquiry without dictating the final result, enabling the mentee to integrate and apply new knowledge and skills.

Another category of mentoring is new teacher induction, which Moir, Barlin, Gless, and Miles (2009) have suggested is most effective when it focuses on student achievement, effective practice, and professional norms of inquiry and development. One model of new teacher induction that includes these features is the New Teacher Center (NTC). NTC designs curricula for mentors inducting novices with special attention to recursive questions around teaching in high-poverty schools, issues of equity and academic success for all, and mentor and mentee responsibility for serving as agents of change.

Although the literature base is somewhat developed, many studies examining the effects of coaching and new teacher induction programs show mixed results with regard to improving student achievement and retaining new teachers (Garet et al., 2008; Glazerman et al., 2010; Glazerman & Seifullah, 2012; Ingersoll & Strong, 2011). The literature examining the effects of mentoring student teachers suffers from a different problem. Most research in this area only address outcomes related to mentees (Iancu-Haddad & Oplatka, 2009). This is perhaps one reason mentoring student teachers is less often associated with PD. Another reason for the narrow focus is successful mentor and mentee relationships are idiosyncratic, unpredictable, and defy structure and formality (Tauer, 1998).

Mentoring student teachers also differs from other types of mentoring in significant ways, not the least of which include cost, design, and objectives. While coaching and induction programs are usually designed and funded by school districts, models of mentoring student teachers are guided by teacher preparation programs, and funded by tuition. The goals of coaching and induction include retaining novices, recognizing and rewarding accomplished teachers, implementing curricula or other innovations, and positively influencing student achievement (Eisenberg & Medrich, 2013; Littie, 1990). Alternatively, neither mentoring student teachers is an activity implemented by districts nor has it been extensively linked to improvements in student learning. For most educators, mentoring student teachers is seen as a professional courtesy. The goal is teacher preparation. Nevertheless, most agree a proficient student teacher is an asset, able to assist with planning, instruction, and assessment, or at the very least, serve as another competent adult to support students (Feiman-Nemser, 1996).

While studies in the area of mentoring student teachers focus on outcomes for mentees, the benefits for mentors as a PD activity have not been altogether neglected. For example, Hudson (2013) conducted a mixed-method study of the effects of collaboration between mentors and student interns by collecting survey ($n = 101$) and interview data ($n = 10$). Hudson found evidence mentors were becoming more conscious of their instruction, feedback to students, and communicating lesson goals, along with increased awareness of gaps in their knowledge of curricula. Russell and Russell (2011) conducted a qualitative study with nine mentors and found they were motivated to work with interns to gain new understanding of trends in teaching and to collaborate with beginning teachers. Likewise, Kyle, Moore, and Sanders (1999) found similar results in a case study of several mentors, who indicated increased awareness of their own instruction, knowledge of current practice, and enthusiasm for teaching as a result of mentoring.

Although these examples omit the kind of wide-scale experimental studies called for in the field of PD, they do indicate mentoring is a viable approach for improving teacher practice. Nevertheless, West (2002) claims that mentoring is underutilized as a PD activity. Reasons for undeveloped or underutilized mentoring programs are complex, though Howey (1998) suggests one source of the problem is teacher assessment. Although models of teacher assessment may employ research findings, they may also depend on intermittent observation and feedback, emphasis on technique and judgment, and dependence on an evaluator’s personally developed craft knowledge. No less significant are mentors and mentees who fail to engage in systematic inquiry and critical reflection. For example, according to Howey, some educators view mentoring as a psychological support activity, where mentors are buddies who provide occasional observation and feedback, which yields interactions void of substance for promoting sustained change. These kinds of implementation issues impede, rather than promote, teacher growth through mentoring models.

Strategies to Improve Mentoring Effectiveness

One approach to overcome challenges hindering the effectiveness of mentoring as an approach to PD is to have mentors and mentees conduct frequent formative evaluations after developing collegial
relationships based on mutual commitment to improve. Resources necessary for effective formative evaluation already exist as a result of revised teacher evaluation criteria and performance rubrics. Frameworks describing exemplary teaching, such as Danielson, Marzano, and CEL 5D, have been widely adopted by school districts, followed by systems for gathering data, conducting observations, and analyzing evidence to improve teaching. Coaches and mentors can increasingly depend on novices and student teachers who are familiar with principles of self-assessment, goal setting, reflective practice, gathering evidence over time, and conferencing.

Strategies for enhancing mentor and mentee relationships are also widely available. One of the most common is co-teaching, defined as “two or more teachers working together in the same classroom sharing responsibility for student learning” (Badiali & Titus, 2010, p. 74). Co-teaching was conceived as a set of strategies for promoting cooperation between general and special education teachers (Bauwens, Hourcade, & Friend, 1989) though it is often used by teacher preparation programs for guiding new teacher training. The most important activities unifying mentor and mentee within co-teaching is shared responsibility for planning, instruction, and assessment. Although empirically tested outcomes of co-teaching are still being investigated, experienced teachers report benefits similar to those found in literature relating to mentoring, such as gaining new insights about their own students through observation, learning new instructional techniques from student teachers, and validating their own knowledge and skill by working with novices (Badiali & Titus, 2010). Likewise, co-teaching depends on many of the same dimensions of collegial relationships found in effective PD, such as (a) committing to frequent and open communication, (b) scheduling weekly appointments for conferencing, (c) planning lessons cooperatively during meeting time, (d) examining student assessment data as the basis for discussion, and (e) cultivating a relationship that encourage conflict resolution.

Conclusion
Reexamining mentoring as a form of PD, within the context of revised teacher evaluation and models for enhancing relationships, such as co-teaching, is an inventive and practical approach to improving instruction and student achievement. All of these activities are familiar to educators across levels and unlike many other reform efforts, mentoring and PD have substantial collections of research for guiding experiments and innovation. The longevity of PD and mentoring and the importance of teacher evaluation are significant enough to assume schools and districts have already included them as part of education change, suggesting some capacity for improved implementation and integration without much additional investment. Finally, thoughtful linking of PD and mentoring—especially mentoring student teachers—interwoven with improved approaches to teacher evaluation, builds on existing district assets and success, which is at the very least a refreshing departure from the critical tone characteristic of much education reform over the last few decades.

References


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Our mentor program connects public health students to public health professionals to help with career and professional development. Mentoring relationships can benefit both mentors and mentees. For mentees, the program can have a key impact on future career choices. For mentors, helping the next generation of public health leaders can be rewarding and impactful. The School of Public Health boasts the largest mentor program of any school of public health, serving approximately 400 students and mentors with special events and helpful resources for mentor pairs. We work to provide students with diverse professional experiences and recognize the role that mentors have in training future public health leaders. One such professional development program that happens inside the school is "mentoring" where a newly hired or less experienced teacher works with a more experienced teacher for an extended period. This study examined the role of mentoring in teacher professional development, focusing on how mentoring is understood/ perceived and practiced in two schools in Kazakhstan. A total of eight participants were interviewed, representing mentors, mentees, and mentor program coordinators. The findings revealed that despite time concerns, occasional mentor and mentee mismatch and different attitudes towards mentoring, it has a positive impact on the professional development of teachers.

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