
COMMENTARIES

Connecting Research to Practice: Viewing Data Utilization Through the Lens of Professional Development

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Guss, Norris, Horm, Monroe, and Wolfe (this issue) describe valuable lessons about how to support programs to utilize data from classroom observations for quality improvement. The authors draw upon their experiences partnering with an Educare center. One of the core features of an Educare center is a unique research-program partnership between the program and local evaluation partner. As I read about their experiences, the question that ran through my mind was how to apply the lessons they have learned in programs that do not have that type of ongoing relationship with an evaluator. I believe the answer to that question can be informed by viewing Educare's research-program partnership through the lens of professional development rather than the lens of evaluation.

A focus on effective processes underlying professional development is an emerging area of emphasis in the field (e.g., Sheridan, Edwards, Marvin, & Knoche, 2009). The research literature on early childhood professional development contains studies of many specific professional development initiatives that often involve a combination of training, provision of curricula or materials, and coaching or technical assistance. Because studies often involve a variety of professional development strategies, it is difficult to disentangle which elements are essential to the professional development program's success to address the key questions of how and why the program works. This has led some scholars to call for more research on the processes of professional development to document which methods are most effective for moving teachers from gaining new knowledge to meaningfully incorporating new knowledge into their practice (Sheridan et al., 2009; Zaslow, Tout, Halle, Whittaker, & Lavelle, 2010). It is important to move beyond questions about whether a specific program worked to identify specific processes that

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take place during professional development that lead teachers to make changes in their practice (Adger, Hoyle, & Dickinson, 2004).

Research on these kinds of processes is rare in the current literature on early childhood professional development, which is in its infancy. However, Zaslow and colleagues (2010) recently conducted a comprehensive review of early childhood professional development research and identified features that were common among programs showing positive impacts on teacher behavior and/or child outcomes. The local evaluation partner relationship described by Guss and colleagues is characterized by several of these features: (a) specific and articulated objectives, (b) practice as an explicit focus of the professional development, (c) the collective participation of teachers from the same classrooms or schools in the professional development, and (d) intensity and duration matched to the content being conveyed.

SPECIFIC AND ARTICULATED OBJECTIVES

Research on early childhood professional development suggests that professional development efforts may be more effective when they are focused on specific and articulated objectives rather than more open ended (Fukkink & Lont, 2007; Zaslow et al., 2010). One promising way to develop such objectives is to use an observational measure of classroom quality as a starting point. The results of the observational tool can then be reviewed and used as a basis for setting specific goals for quality improvement (e.g., Palsha & Wesley, 1998). This type of professional development process is precisely the type of model that Guss and colleagues (this issue) discuss. Their article provides some valuable lessons about how to form a relationship that facilitates the utilization of data for quality improvement that can inform these types of professional development efforts. Specifically, they highlight how simply providing information about the results of an observation does not lead to the utilization of those results. Instead, they found that it was important to establish a relationship built on respect for each party's expertise, a process that took time.

PRACTICE AS THE EXPLICIT FOCUS OF THE PROFESSIONAL DEVELOPMENT

The focus of many professional development efforts is to increase teachers' knowledge. However, the research on early childhood professional development suggests that professional development efforts are more effective when they also include a focus on the application of knowledge, or practice. Many professional development efforts include onsite mentoring or coaching to accomplish this goal. Research supports the idea that these approaches, which involve opportunities for observation and individualized feedback, support teachers in applying what they learn in trainings and workshops in the classroom. For example, Neuman and Cunningham (2009) compared a group of teachers who received coursework on early language and literacy development with a group of teachers who received both coursework and coaching. The group that received both coursework and coaching demonstrated improvement in their classroom practice. This was true for both center-based and home-based providers. However, the group that received coursework alone did not demonstrate improvement in their classroom practices.

Other research has investigated the effectiveness of stand-alone coaching or consultation. For example, the Partnerships for Inclusion onsite consultation process is aimed at improving the global quality of programs so that they are better equipped to support the successful inclusion

of children with special needs (Palsha & Wesley, 1998; Wesley, 1994). In this model, consultants began by establishing a relationship and training participating programs in the use of the Environment Rating Scales (Harms & Clifford, 1980, 1989; Harms, Cryer, & Clifford, 1990). Then both the consultant and consultee observed the classroom using the appropriate Environment Rating Scale tool. They reviewed their ratings together and collaborated on a technical assistance plan. Once the technical assistance plan was completed, the consultant once again observed the classroom using the Environment Rating Scale tool and reflected on the results and future directions with the program. This model has been shown to be effective when delivered by both university-based consultants and community-based consultants who received training on the model. Data from these studies demonstrated significant increases in Environment Rating Scale scores from before to after consultation and continued improvement in some areas 6 to 12 months after consultation ended.

The MyTeachingPartner study (Pianta, Mashburn, Downer, Hamre, & Justice, 2008) provides another example of stand-alone consultation. In this study, teachers received Web-based consultation to improve their interactions with children in the areas of emotional support, classroom organization, and instructional support as outlined in the Classroom Assessment Scoring System (CLASS) observation (Pianta, LaParo, & Hamre, 2008). They videotaped themselves every 2 weeks and received individualized feedback from an online consultant. Teachers in this group demonstrated greater gains in the quality of their interactions with children than a comparison group of teachers who received access to online resources but did not participate in consultation.

The data-sharing processes described by Guss et al. (this issue) could be viewed as similar to these approaches. As classroom observation data are shared with classroom teams, the focus is on individual practice. Master teachers follow up with classroom teams to make improvements based on the results of the observations. Guss and colleagues also describe times when decisions about additional training resulted from the results of the observations. For example, they describe how the teachers requested additional training on the Instructional Support dimension after receiving feedback on the CLASS observation. This model, in which the observation and feedback inform the nature of classroom training, may be an effective avenue for supporting teachers' quality improvement efforts.

COLLECTIVE PARTICIPATION OF TEACHERS FROM THE SAME CLASSROOMS OR SCHOOLS IN PROFESSIONAL DEVELOPMENT

The research literature on early childhood professional development suggests that professional development is more effective when it is delivered to whole programs or classroom teams. It is useful to have the entire staff working toward the same goals instead of one or two teachers struggling to apply new ideas that they have learned in isolation. Furthermore, when supervisors and administrators are involved in the professional development, it helps to ensure that they can provide ongoing support to the staff to implement what has been learned. This sort of whole-program approach may also contribute to sustainability because it has the potential to have an impact on the culture of the program (Zaslow et al., 2010). Furthermore, when there is collective participation, teachers can work together and discuss how the new information they are learning fits with other curricula and initiatives in the program, providing an opportunity for greater coherence (Birman, Desimone, Porter, & Garet, 2000).

The Educare model involves the entire staff in the same process of ongoing observation and feedback. Master teachers, who supervise and serve as coaches for classroom teachers, are involved in the classroom observation feedback process. Teachers working with children from birth to age 5 are all involved in this effort, which may promote continuity of experience for children as they transition from an infant/toddler classroom to a preschool classroom.

INTENSITY AND DURATION MATCHED TO THE CONTENT BEING CONVEYED

Research suggests that specific, discrete skills can be successfully addressed with short-term professional development efforts. However, more complex and global changes need more sustained professional development interventions. For example, studies on dialogic reading, which is a set of specific skills related to book reading, demonstrated that short-term interventions were sufficient in producing a change in teacher practice (e.g., Whitehurst, Epstein, Angel, Payne, & Al, 1994). However, for professional development efforts targeting more complex changes, such as improving teachers' support of children's language and literacy development, studies with more intensive dosage tended to produce stronger effects than shorter term professional development (Zaslow et al., 2010).

Guss and colleagues (this issue) describe their experiences with a long-term research program partnership. Their lessons learned with the Educare model may shed light on one of the reasons why longer term professional development efforts seem to be more successful. They describe that the longer term nature of the relationship was a benefit, as it took a long time to develop their partnership. They also describe how their relationship has changed over time, from the evaluators and teachers having discrete and separate roles to a more collaborative relationship in which the lines between roles are more blurred.

DATA UTILIZATION IN PROGRAMS WITHOUT AN EMBEDDED EVALUATOR

One potential avenue for promoting data utilization of classroom observations as described by Guss and colleagues (this issue) is to work through quality rating and improvement systems (QRISs). Coaching and technical assistance are a common element in QRISs. When QRIS administrators have been surveyed about their QRISs, almost all of them have reported that some form of coaching or technical assistance is used (Smith, Robbins, Schneider, Kreader, & Ong, 2012; Tout et al., 2010). The nature of coaching and technical assistance delivered through QRISs varies greatly. Some QRISs offer very short-term technical assistance within a short period of time, whereas others offer more extended technical assistance (Tout et al., 2010). It is clear that, even among the QRISs that offer more extended coaching, coaching does not rise to the level of intensity that the literature suggests is necessary to prompt meaningful change. In one study, nearly half of QRIS technical assistance providers reported that their ability to focus on aspects of quality that they felt were important was limited by having insufficient time to address all of the areas of need they identified.

A question that arises from the model described by Guss and colleagues is whether there is a distinct benefit to having someone with a research background involved in the data utilization process. There are a number of reasons why this may be beneficial. One of the roles that Guss and colleagues describe in their article is to foster data literacy. Individuals with a research background are likely to have a more nuanced understanding of measurement tools such as the

Environment Rating Scales and the CLASS. They are more likely to have an understanding that items on an observational tool are operationalizations of a construct of interest. Those items are associated with quality but should not be viewed as a restrictive recipe for quality. Such individuals are also more likely to be comfortable with the idea that there are always errors in measurements. All of these factors may make the incorporation of staff with a research background into quality improvement efforts a useful strategy to consider.

The approach to data utilization described by Guss and colleagues includes many of the characteristics associated with effective early childhood professional development. The lessons learned that they present can help to inform much-needed further research on early childhood professional development. Furthermore, their lessons learned can inform improvements to existing technical assistance and professional development efforts, such as those that currently exist within QRISs.

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