In October 2015 the U.S. Administration for Children and Families (ACF) announced grantees for six national centers comprising part of its new cross-sector early childhood training and technical assistance system. The new system brings together partners from across ACF and the U.S. Department of Health and Human Services to strengthen coordination among Head Start, child care, and other early childhood services, and to support those who provide these services. The work of the system's National Center on Early Childhood Development, Teaching, and Learning, funded by the Office of Head Start and the Office of Child Care, includes building a strong professional development system for the early childhood workforce.

Of the elements in a strong professional development system, one promising approach is coaching, which typically involves on-site, ongoing individualized expert technical assistance. Literature reviews on the sizable body of research on early childhood coaching conducted by Mathematica (Aikens & Akers, 2011) and Child Trends (Isner et al., 2011), both published in 2011, show it can have positive outcomes for teachers and children.

Because in-person professional development approaches such as coaching can be costly and logistically complicated to deliver, interest is growing in the use of technology to deliver off-site support. A recent project funded by the Office of Planning, Research and Evaluation (OPRE) examined the role of technology in early childhood practice. The final report provides in-depth descriptions of evidence-based professional development approaches that incorporate technology to support off-site delivery, including two coaching programs: Classroom Links to Early Literacy and My Teaching Partner (Hernandez et al., 2015).

This Topic of Interest expands on the OPRE project by identifying research in the Research Connections collection on additional approaches to using technology for off-site delivery of coaching in early childhood center-based settings.
Targeted Reading Intervention (TRI) is a professional development program that supports the development of skills among rural kindergarten and first grade teachers to help struggling readers. After participating in a three-day in-person summer workshop, teachers use web-conferencing technology to: 1) receive weekly/biweekly live, real-time feedback and coaching from TRI coaches as they work one-on-one with a struggling reader, 2) engage in weekly/biweekly school-level meetings with fellow teachers and off-site TRI coaches, and 3) participate in monthly/bimonthly workshops.

- A 2015 study used data from the 2011 and 2013 studies, as well as from two previous random-assignment studies, to compare the effectiveness of TRI delivered via web-conferencing technology versus face-to-face (Vernon-Feagans, Bratsch-Hines, Varghese, Bean, & Hedrick, 2015).

Learning Language and Loving It (LLLI) is a professional development program for early childhood teachers to promote their conversational responsivity in the classroom. Participating in an adapted version of LLLI, teachers attended a three-day in-person summer workshop and a one-day in-person workshop during the school year, and also received written feedback from coaches based on 20-minute classroom videos they recorded and submitted every two weeks.

- A random-assignment study of LLLI documented in two journal articles examined its impact on children's language skills (Cabell et al., 2011; Piasta, Justice, Cabell, Wiggins, Turnbull, & Currenton, 2012).

A performance feedback email protocol has been used by a group of researchers in the delivery of a number of professional development interventions.

- In a 2011 study, teachers received one-on-one on-site training on the use of descriptive praise, followed by performance feedback via the email protocol from coaches who observed classrooms in-person two to three times a week. Using a multiple probe single subject experimental design, the researchers examined changes in teachers' use of descriptive praise and children's challenging behavior and engagement (Hemmeter, Snyder, Kinder, & Artman, 2011).
- In a 2013 study, teachers received three hour-long in-person training sessions on three strategies to prevent challenging behavior from the Pyramid model, a conceptual framework to support socioemotional development and address challenging behavior. Following the training sessions, coaches videotaped the classrooms twice a week and offered performance feedback via the email protocol. A multiple baseline design was
used to examine changes in teacher practices and children's challenging behavior (Artman-Meeker & Hemmeter, 2013).

- A 2014 study also involved teacher participation in training on the Pyramid model. All the teachers attended a daylong in-person workshop, with teachers in the treatment group subsequently receiving eight coaching sessions via the email protocol, based on classroom video recordings made by a professional videographer. The study used random assignment to explore the effects of the email coaching on classroom interaction quality (Artman-Meeker, Hemmeter, & Snyder, 2014).

Another performance feedback email approach was combined with an hour-long online interactive training to support the instructional behaviors of preschool teachers during book reading sessions. After videotaping a book reading session, the coach sent the teacher an individualized email on target strategies and practices. A multiple baseline study examined changes in teacher behavior and children's engagement before and after the training (Dennis & Horn, 2014).
References


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