Integrating Professional Development Content and Formative Assessment with the Coaching Process: The Texas School Ready Model

April Crawford, Tricia Zucker, Bethanie Van Horne, and Susan Landry

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Q1: NAEYC 1994 not in References.
Q2: Please delete issue # from any journal in which each issue doesn’t start on pg 1.

TABLE OF CONTENTS LISTING

The table of contents for the journal will list your paper exactly as it appears below:

Integrating Professional Development Content and Formative Assessment with the Coaching Process: The Texas School Ready Model

April Crawford, Tricia Zucker, Bethanie Van Horne, and Susan Landry
Instructional coaching is becoming common in early childhood programs to provide individualized, job-embedded professional development. Yet relatively few studies have tried to “unpack” the coaching process and delineate the specific features of coaching that contribute to teacher change. In this article, we describe an evidence-based preschool-quality improvement program, Texas School Ready (TSR), attending to the integration of program content and coaching process made possible through a defined competency framework and technology-driven tools that aid coaches in providing high-quality mentoring.

Theoretical Underpinnings of Coaching

Professional development (PD), grounded in adult learning theory (Bransford, Brown, & Cocking, 2000; Putnam & Borko, 2000), is frequently conceptualized as a progression that varies depending on teachers’ knowledge and includes cycles of learning, implementation, feedback, and reflection (Snow,
PD can be delivered in a variety of ways (e.g., training workshops) and should align with these key principles: (a) developing teachers’ content knowledge with clear linkages between theory and practice; (b) using interactive, hands-on approaches to adult learning, including ongoing and personalized training and mentoring; and (c) providing opportunities for feedback and self-reflection (Desimone, 2009; NAEYC, 1994). These principles are difficult to apply in widely available PD offerings like workshops (Garet, Porter, Desimone, Birman, & Yoon, 2001); however, these principles are well aligned with sustained, individualized coaching approaches that, when combined with coursework, have been shown to improve teacher and child outcomes (Landry, Anthony, Swank, & Monseque-Bailey, 2009; Neuman & Cunningham, 2009).

Three key dimensions that vary across coaching models include structural parameters defining the frequency, duration, and intervals of coaching sessions; process features that include the specific behaviors used by coaches to support change; and content that is the substantive, topic-driven focus of the intervention (Powell & Diamond, 2013). Model structure and content are usually specific to particular coaching approaches. Process features, typically under-specified, generally include these key strategies:

1. **Reflective questioning** is used to help teachers notice how children are responding to instruction and interacting with others; it is often embedded into feedback sessions. Video supports reflection as it provides adults an opportunity to see, in the moment, what children are experiencing (Zucker, Crawford, & Landry, 2013). Individualized opportunities to reflect on what is happening in the classroom appear particularly important in high poverty classrooms where children’s needs are greatest (Pianta, Mashburn, Downer, Hamre, & Justice, 2008).

2. **Feedback** linked to data is a defining characteristic of multiple successful coaching models (Denton, Swanson, & Mathes, 2007; Pianta et al., 2008) and typically emphasizes using teacher and child-level data to identify strengths and weakness, target improvement, and measure success. Data collection and reporting is commonplace in schools, but further steps to support interpretation and translation of findings into actions are needed (Coburn & Turner, 2012; Goren, 2012). Coaches can play a vital role in establishing stable organizational routines that include repeated cycles of data collection, collaborative analysis of results, and improvement planning (e.g., Sherer & Spillane, 2011).

3. **Demonstration** helps teachers bridge theory and practice by showing teachers “how” effective instruction looks in action (Poglinco & Bach, 2004). Demonstration is a high intensity coaching strategy (i.e., coach directly interacts and does the so-called heavy lifting) that targets specific behaviors (Zucker et al., 2013). Evidence suggests this strategy is underutilized, with coaches spending too little time targeting instructional change (Sheridan, Edwards, Marvin, & Knoche, 2009) and preferring lower intensity strategies (e.g., observing, setting goals, providing feedback; Neuman & Wright, 2010). Demonstration systematically varies based upon the coaching modality. In-class, face-to-face coaching allows coaches to begin with demonstration and move teachers through a gradual release progression (Pearson & Gallagher, 1983). Asynchronous, remote coaching typically relies on video libraries to demonstrate evidence-based practices and lessons rather than seeing how strategies work in one’s own classroom.

**Our Approach to Coaching Competencies**

Since 2003, we have used coaching as part of a comprehensive, statewide PD program that has served more than 25,000 pre-K teachers across the state of Texas. In our experience, implementing a PD coaching model at scale, we find that
Coaches are often unaware of the theoretical underpinnings and suggested mechanisms of change that link coaching with improvements in teaching behaviors. Instead, coaches often view their role as simply supporting teachers’ efforts and showing teachers how they, themselves, would implement a lesson or interact with children—an orientation toward coaching that fails to address key mechanisms of change. To address this concern, we developed a generalized set of coaching competencies, shown in Table 1, that describe five dimensions of coach behavior that support implementation. Within our program, the competencies are used to train coaching staff, set clear expectations for coach engagement, and guide monitoring of fidelity. The competencies articulate coaching behaviors aligned with the theoretical underpinnings of our model. In this article, we explain how coaching competencies are contextualized within specific components of our intervention.

Coaches’ Role in Each Program Component

The Texas School Ready (TSR) project includes five major components: in-service training and sustained teacher PD, provision of teaching resources, community-based technical assistance through stakeholder engagement, web-based child progress monitoring, and individualized data-driven coaching. As we describe in the following, coaches play a central role the program, delivering support for all five components experienced by participating teachers.

Teacher PD. Coaches facilitate: (a) face-to-face introduction to the foundational concepts of the TSR program and its tools; (b) Progress Monitoring Training that highlights the goals of tracking child progress, how to conduct the assessments on our web-based tool, and pulling reports on child progress throughout the year; and (c) eCIRCLE PD, which consists of more than 100 hr of online courses featuring extensive video-based demonstrations of effective instructional practices, as well as application-based assignments and activities. The courses cover a broad range of topics aligned with early learning guidelines, and represent the content focus within our competency framework.

Resources and curricula. TSR provides coach support to encourage utilization of: (a) a high-quality commercial curriculum; (b) state learning guidelines; (c) a tiered supplemental language and literacy curriculum; (d) the CIRCLE Activity Collection, a print and online resource that includes more than 300 hands-on activities that teachers can implement in a variety of instructional settings; and (e) Classroom Startup and School Readiness Kits. Within our competency framework, these resources supplement our content focus and that ensure teachers have the materials needed to follow-through with actionable feedback provided by coaches.

Stakeholder engagement and sustainability planning. Coaches are typically employed by a community agency and play a vital part in building buy-in and encouraging sustainability. To do this, coaches provide routine communication and updates and host meetings that bring principals and directors together to discuss program aims and requirements and learn how to interpret child-progress monitoring results.

Child progress monitoring. Coaches support teachers with implementation of the CIRCLE Progress Monitoring System across the 3-year participation period. This tool (formerly known as C-PALLS+) is a user-friendly, technology-driven tool that is aligned with the Texas Prekindergarten Guidelines and Head Start Early Learning Framework. It includes direct assessments (e.g., picture naming) and observation-based measures (e.g., writing) that allow teachers to quickly assess a child’s progress, access student level reports, view small group recommendations based on child benchmark status, and view instructional activities linked to learning domain and benchmarks that include scripted lessons accompanied by video-annotated demonstrations (Figure 1).

Coaches (a) integrate progress monitoring report analysis into routine instructional planning.
<table>
<thead>
<tr>
<th>Competency</th>
<th>Intensity of Coaching</th>
<th>Content Focus</th>
<th>Actionable Feedback</th>
<th>Supportive Presence</th>
<th>Reflective Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency</td>
<td>Adjust the level of support provided to match teacher needs in a given instructional situation.</td>
<td>Identify gaps in a teacher’s content knowledge and provide accurate guidance regarding skill development and core concepts.</td>
<td>Combine content-related input with specific guidance regarding appropriate pedagogy and teaching behavior.</td>
<td>Transmit information and provide support in a non-threatening and collaborative manner.</td>
<td>Help teachers recognize connections between teacher behavior, child signals, and content aims across contexts.</td>
</tr>
<tr>
<td>Behaviors</td>
<td>Corrects misunderstandings in content or pedagogy in the moment rather than waiting until the lesson is over.</td>
<td>References key learning objectives.</td>
<td>References: specific teaching strategies.</td>
<td>Uses positive language (verbal and non-verbal).</td>
<td>Uses reflective prompts/language.</td>
</tr>
<tr>
<td></td>
<td>Supports teacher to complete actions on his/her own rather than taking over instruction.</td>
<td>Uses domain-specific language directly linked to observation tools and standards.</td>
<td>Encourages collaboration.</td>
<td>Orientates teacher to child signals during instruction.</td>
<td>Connects specific teacher action(s) to child behaviors / response.</td>
</tr>
<tr>
<td></td>
<td>Interjects and offers clues/tips for modification.</td>
<td>Rarely misses opportunities for content talk.</td>
<td>Reinforces existing positive practices.</td>
<td>Minimally narrates or summarizes events.</td>
<td>Connects reflection to standards, objectives, exemplars, assessment results.</td>
</tr>
<tr>
<td></td>
<td>Focuses on teacher behavior rather than issues unrelated to instruction.</td>
<td>Content reference / guidance is age appropriate.</td>
<td>Suggests adaptations / modification / extensions to improve delivery of instruction / support.</td>
<td>Recognizes and responds sensitively if teacher shows discomfort / resistance.</td>
<td></td>
</tr>
</tbody>
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sessions; (b) support teachers to establish small group instruction recommended by CIRCLE-PM; and (c) assign independent review of annotated video demonstrations and associated activity scripts in the online activity library; this technology-assisted extension of coaching helps teachers learn the basics on their own, allowing coaches to focus on more challenging aspects of lesson implementation such as scaffolding child responses. CIRCLE-PM is tightly aligned with our competency framework, automating connections between content focus, reflective guidance, and actionable feedback.

Data-driven coaching. Teachers in our program receive individualized coaching that is delivered in the classroom or through remote feedback linked to recordings of a teacher’s own instruction. Coaching is structured to provide 4 hr of individualized coaching per month during the first year of participation, 2 hr in the second year, and 1 hr in the third year. Three formative assessments, designed specifically to integrate the coaching process with a content focus, form the foundation of individualized coaching sessions: (a) CIRCLE Progress Monitoring System, discussed previously; (b) The Classroom
Environment Checklist (CEC); and (c) the Classroom Observation Tool & Goal Setting System (COT). Our data-driven coaching approach encourages reflection and motivates change through repeated cycles of: (a) observation and data collection using CIRCLE, CEC, and COT; (b) feedback and goal setting based on identified need; and (c) implementing teacher improvement plans alongside well-matched coaching strategies (i.e., the intensity component of our coaching competency framework) and assessment-linked activities.

The CEC is a 21-item observation tool used by coaches and teachers 3 times per year. Items are rated on a 3-point scale and capture evidence that classroom management systems are in place, quantity and quality of content-related centers, presence of instructional planning tools, and the extent of meaningful literacy materials linked to current topics and themes. Coaches complete the CEC during their first classroom visit and collaborate with teachers at the end of the coaching session to set goals for change in aspects of the classroom environment. Coaches enter CEC data into our web-based platform, CLI Engage, which produces a report that organizes items based on lowest to highest score and provides photographs of high-quality examples linked to each item in the CEC.

The COT was designed specifically for coaches to improve alignment with the content foci of our teacher PD program and to encourage more intentional coach-teacher goal setting behavior (Crawford, Zucker, Williams, Landry, & Bhavsar, 2013). The COT captures snapshots of a teacher’s behavior and instruction during a 2-hr classroom observation that can be used to develop improvement plans and track a teacher’s progress over time (see Appendix A). The goal-setting system is an extension of the COT that leverages technology to routinize feedback and goal setting, allowing for greater accuracy and efficiency than generally achieved through more manual methods. Teacher and coach collaborate to set goals at the conclusion of each coaching session by selecting indicators they want to appear on the Short Term Goals Report. By reviewing the individualized COT report, they identify gaps in teaching skill and prioritize goals based on: (a) student progress monitoring reports; (b) current PD topics; or (c) an area of instruction the teacher is highly motivated to improve. To strengthen the fidelity of our goal setting approach, an extensive set of high-quality teaching examples has been aligned with each item from the COT. These clips ensure that teachers have an opportunity to see what good performance looks like before attempting to implement agreed upon changes.

The following is an example of how pairing coaching competencies with the COT shapes coach–teacher interactions in our program: During a coaching session, a teacher is implementing a lesson focused on sorting plastic letters into two groups—letters in the child’s name and those not in the child’s name—as compared to a child’s printed name card. Some children have successfully completed the task and are waiting while the teacher helps the remaining children recognize the features that distinguish the letters in their names. The coach provides reflective guidance by asking the teacher what she notices about the engagement level of the children who have already finished the task. After the teacher responds, the coach provides actionable feedback by suggesting a modification to the activity for children who have mastered the objective. Using specific content-focused language from the COT, the coach cues the teacher to upward scaffold by removing the children’s name cards and encouraging them to sequence the letters in their own names, and to downward scaffold by bringing the name card back for comparison or support when needed. These scaffolding goals are new for the teacher, and the coach is prepared to model the strategy if the teacher is missing an opportunity or requires that level of coaching intensity to work toward more effective practice.

As we worked to unpack the coaching process within our own program and increase our coaches’ intentionality, we recognized the need for an integrative approach that provides coaches (a) clear articulation of underlying assumptions driving change in teaching that are reflected in a set of coaching competencies; (b) data-driven tools to inform instruction and goal setting; and
ongoing coach training and supervision to support continuous improvement. Integration among these ingredients is strengthened by leveraging technology to directly link formative assessments with feedback and recommendations for additional training and instructional activities, and to allow for cost-efficient supervision and training.

**Synthesis of Evidence Supporting the Program**

Since 1999, components of what is now called the Texas School Ready program have been evaluated and refined in three separate large-scale studies. An initial study, carried out across Head Start programs in multiple communities in Texas, demonstrated the importance of implementing eCIRCLE online PD courses in small-group formats, where teachers were actively engaged in learning, combined with in-classroom mentoring (Landry, Swank, Smith, Assel, & Gunnewig, 2006). Next, a four-state experimental study was conducted with a design that allowed us to determine the added benefit of combining our CIRCLE Child Progress Monitoring System with coaching and eCIRCLE PD (Landry et al., 2009). A third random assignment study, conducted across Head Start, public school, and child care, examined the effectiveness of the combined approach (i.e., eCIRCLE PD + coaching + CIRCLE PM) with 215 classrooms across 11 communities (Landry, Swank, Anthony & Assel, 2011). Each of these studies show that participants in the intervention conditions make greater gains in instructional practices and child outcomes, and that the combination of eCIRCLE PD, coaching, and CIRCLE PM resulted in the most optimal changes in teachers’ instructional practices and children’s school readiness outcomes.

Additional research on our coaching model is being fueled primarily by advances in technology-mediated approaches that have the potential to lower the costs of delivering services and increase access for geographically or linguistically hard-to-reach programs. We are currently conducting a randomized control trial in which teachers are assigned to one of three conditions: (a) business-as-usual control group, (b) TSR with remote coaching, and (c) TSR with face-to-face coaching. Teachers in the remote coaching condition upload videos of instruction for coaches to provide careful reflection via annotated feedback (e.g., subtitled comments, praise, observations, and questions). Teachers review these annotated videos during a feedback phone call with their coach to set goals for improvement. In the face-to-face condition, teachers experience traditional, live classroom coaching including modeling, coteaching, and feedback sessions. This study will shed light on the importance of mechanisms of change within coaching as we examine whether strategies such as modeling within one’s own classroom context are more effective than the online approximations of these strategies that use pre-recorded video exemplars as models. We conducted a preliminary analysis of global classroom quality from our first cohort of 55 teachers; we will include 210 teachers across all cohorts. Preliminary findings show significant changes for face-to-face teachers versus controls, with a large effect size (Cohen’s $d = 0.92$, $p < .05$). Teachers receiving remote coaching also showed greater gains than control teachers ($d = 0.41$). Although teachers receiving face-to-face coaching made greater gains than remotely coached teachers, these differences were not significant ($d = 0.50$) and require further data collection to confirm the extent of differences across the coaching models. This study will conclude with a comparison of the cost-effectiveness of our remote and face-to-face coaching models to determine if potential trade-offs in effectiveness are outweighed by the cost and scalability of each approach.

**Next Steps to Refine Coaching**

Although instructional coaching is quickly gaining popularity, the availability of evidenced-based, coach-specific, training and support models is limited. Many questions remain regarding the specific coaching strategies that improve teaching practice, and the school- and program-based conditions that support or constrain the impact
of a particular approach. In particular, research is needed to further unpack the coaching process and to identify the key drivers of change that characterize effective coach-teacher partnerships. The emergence of coaching competency frameworks can facilitate this line of inquiry by clearly articulating the range of strategies that need testing. For example, by assigning teachers to coaching groups that vary in intensity (e.g., reflective feedback only, side-by-side coaching only) we can determine the importance of providing support in-the-moment versus outside of instructional time. By extension, does the level of directness or specificity in coach goal-setting practices with teachers’ impact effectiveness? The answers to these questions may vary in important ways based on specific teacher characteristics, such as prior content knowledge or general receptivity to change.

Beyond the coach–teacher partnership, many more questions remain regarding the school- and policy-level factors that influence the fit and feasibility of a particular coaching model. For example, coaching approaches implemented by in-house staff members may differ in important ways from services delivered by external organizations. Specifically, in-house staff members may be expected to wear multiple hats, and are therefore less likely to hone their coaching skills; they may also be more likely to work across multiple grade levels that require a broad range of instructional knowledge, without which coaching content focus may suffer. We also need to examine the role that school leaders’ play in establishing and maintaining conditions favorable to coaching, including setting the tone for continuous improvement and building buy-in for the coaching program among teaching staff. Perhaps most important are questions regarding the impact of explicitly linking coaching with performance appraisals, corrective actions, and financial incentives.

Identifying effective training and professional development for coaches is another important next step in refining instructional coaching. In our own work implementing at-scale, we are focused on building coaches’ competencies by establishing a culture of continuous improvement that includes a 5-day in-person training at the beginning of each school year to learn about or reemphasize our coaching framework and provide practice opportunities. Coaches also participate in monthly web-based lunch-and-learns focused on evidenced-based practices linked to current teacher PD topics, and engage in monthly small-group collaborative coaching web-conferences in which selected coaches share a video of themselves engaged in coaching to receive feedback grounded in the coaching competencies from peers and program leadership. Additional study is needed to determine the effectiveness of such approaches at improving coaches’ skills and ensuring adherence to research-based programs.

References


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605