Background Review of Existing Literature on Coaching

Final Report

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TABLES

As part of the Universal Preschool Child Outcomes Study (UPCOS-4), we are conducting a qualitative examination of quality support coaching[1] in the Los Angeles Universal Preschool (LAUP),[2] including an analysis of how coaching is being interpreted and implemented in the variety of contexts found in LAUP. This qualitative study will inform the design of a subsequent outcomes-focused study to be conducted in following years. Ultimately, LAUP leadership would like to be able to examine relationships between the coaching model and desired outcomes, such as classroom quality and child progress. An important step in this study is the review and examination of the existing literature on coaching, analysis of reviews that have been completed recently, and synthesis of what is known about coaching and its effectiveness.

In this report, we identify studies that link coaching and specific coaching models with outcomes for classrooms, providers, and children, while also highlighting critical aspects of coaching. Specifically, we summarize the research base for coaching as a professional development tool, including the strengths and weaknesses of this research. In the appendix tables, we provide considerable detail to support the summary information in the body of the report. We begin by briefly describing the process of the literature review, including its sources of information. In an earlier memorandum, we provided details on the framework for this review (Aikens et al. 2011).

Sources of Information for the Literature Review

The background review draws on several sources. These include recent reviews and meta-analyses of the early childhood professional development literature (for example, Fixsen et al. 2005; Trivette et al. 2009); empirical studies published during the past 10 years (only recently have a specific focus on coaching and an emphasis on documenting its efficacy emerged); the websites of leading coaching and professional development organizations; and expert consultants, including researchers and authors of key studies. Our review of empirical studies includes a variety of research studies published in peer-reviewed sources, including experimental and quasi-experimental studies, case studies, focus groups, and ethnographies. We also include findings from a selection of dissertations and professional presentations. In Appendix Tables A.2, A.3, A.4, A.5, and A.6, we highlight and describe each of the studies included in our review, using information available in each of the published sources.[3]

We focus on studies and major reviews conducted in settings with children in pre-kindergarten and kindergarten. We also include select, relevant studies conducted with children in the early elementary grades, particularly those in the first two years of schooling. In addition, we pay particular attention to studies of models implemented in community contexts similar to Los Angeles

[1] LAUP provides three different kinds of coaching: (1) quality support coaching, (2) fiscal coaching, and (3) starting points coaching. This study focuses only on quality support coaches. These coaches work with LAUP providers to process the results of the star quality rating assessment and develop a quality improvement plan for the year. The review highlighted in this report focuses on coaching in early childhood settings that is intended to support classroom instruction and quality, and children's outcomes,

[2] We recognize that multiple terms are used in the literature to refer to the professional development that may inform the coaching model. Relevant and related terminology, although in some instances much broader, includes "consultation," "communities of learning/practice," "peer coaching," and "reflective supervision." In this document, we adopt LAUP's use of the term "coaching" to refer to the set of practices to be reviewed. We also use the terms coaching model, practice, and approach interchangeably when referring to these practices. We use other related terminology throughout to reflect the language used within individual studies.

[3] Information available in the studies is uneven and thus not always consistent in the appendix tables.

County with regard to populations served, staff, and service settings (that is, family child care, Head Start, center-based programs, public school programs, and private schools). To the extent possible, we highlight, among other characteristics, the experience and background of providers included in each study. We also note the service setting (that is, Head Start, public pre-kindergarten, family child care) for the studies reviewed.

Context for Background Review on Coaching: What Is Coaching?

Rush and Shelden (2005, p. 1) define coaching as "an adult learning strategy that is used to build the capacity of a parent or colleague to improve existing abilities, develop new skills, and gain a deeper understanding of his or her practices for use in current and future situations." Coaching approaches vary in form, duration, and setting. Coaching can be provided one-on-one or in small groups; face-to-face, or through distance- or technology-based methods. It can occur once or in a series of sessions. It can focus on supporting new or innovative practice or curricula or current practice/curricula in classrooms. In addition, the role of the coach may differ across approaches. For example, in an expert model approach, the coach is perceived as someone with more knowledge or expertise, who is there to provide information or guidance to a teacher or provider. On the other end of the spectrum are more collaborative efforts, with peers or colleagues sharing in the provision of support and knowledge (for example, a community of learners approach). Often, coaching falls in the middle of this continuum and is intended to be a collaborative, relationship-based process, separate and distinct from supervisory processes (NAEYC 2011).

Despite this variability, one of the critical components of coaching is that it be ongoing. Indeed, work by Joyce and Showers (1981) has highlighted the role of ongoing support as critical in helping teachers learn new skills and improve current ones. As Fixsen and colleagues (2005) point out in their review, newly learned behavior is typically fragile and less well-developed, and needs support. The ongoing nature of coaching thus lends itself well to supporting teachers' acquisition of new skills. Others (AIR 2001) also have described the coaching or mentoring relationship as ongoing and individualized, building on the strengths and newly-attained skills of teachers and providers, reciprocal between teachers and coaches, and non-evaluative. Hanft and colleagues (2004) provide a similar description of the coaching relationship. In addition, coaching typically is goal-focused, with one or multiple goal(s) collaboratively selected and followed until achieved (NAEYC 2011).

As described in Hanft et al. (2004), there are five critical components of coaching: (1) initiation or joint planning, (2) observation, (3) action/practice, (4) reflection, and (5) evaluation or feedback. In these steps, the goals of coaching are determined and teachers are given opportunities to observe, practice skills, reflect on those activities, and receive feedback on their progress toward planned goals. Each step is intended to support the achievement of specific outcomes and goals. Joyce and Showers (1981) similarly highlight the importance of three aspects of training and professional development—study of the theory underlying the skill or practice, opportunity to observe, and practice and feedback—in supporting teachers. Certainly the extent to which each of these components is in place in particular studies or coaching approaches varies considerably.

Notably, while coaching was first advocated as a form of staff development for educators generally in the 1980s (see for example, Joyce and Showers 1980), only in the past decade or so have a specific focus on coaching and an emphasis on documenting its efficacy emerged. This focus largely has been shaped by the increasing attention to the professional development of teachers and providers in early childhood settings. Specifically, states have increased their attention to training and technical assistance efforts, as tied to quality rating and improvement systems (QRIS) (National

Association for the Education of Young Children [NAEYC] 2011).[4] Thus, much of the literature in this area and described in the current review is relatively recent.

Findings from the Literature

A variety of findings has emerged about coaching and its relationship to outcomes for classrooms, teachers/providers, and children. In subsequent sections of this report, we summarize the research base in five primary areas:

- Classroom instruction
- Curriculum implementation
- Classroom environmental indicators (such as the Early Childhood Environment Rating Scale [ECERS; Harms and Clifford 1980] and the Classroom Assessment Scoring System [CLASS; Pianta et al. 2008a])
- Teacher-child interactions
- Child academic and social-emotional outcomes

Findings for other areas (for example, inclusion of children with disabilities) are sparse and included only in the appendix tables.[5] We also highlight findings on key aspects of coaching, including: variability in how coaching is implemented; the importance of time devoted to and available for coaching; the role of provider mental health, engagement, and other provider characteristics; and the importance of the coach-provider relationship. In addition, we discuss the specificity and focus of coaching, and we also describe findings related to technologically mediated coaching. Throughout, we embed and highlight findings for key coaching models (for example, MyTeachingPartner, Early Reading First). Appendix Table A.1 lists the specific coaching models identified in our review. In Appendix Tables A.2, A.3, A.4, A.5, and A.6, we provide detailed support for the summaries.

Classroom Instruction

A number of studies have found positive relationships between coaching and classroom instruction; we reviewed more than 20 studies that found such a link. While a small number found mixed findings, none had negative findings. Table 1 lists the studies that examined this relationship. For example, Kretlow and colleagues (2011a, 2011b) evaluated the instructional practices of teachers in a North Carolina first grade at baseline, post-in-service, and post-coaching. Using a quasi-experimental, multiple-baseline design, they found that teachers improved their delivery of whole-class math strategies after the in-service, with a second level of growth achieved after coaching.

[4] According to the NAEYC (2008), QRIS "…include tiered reimbursement, rated licensing and voluntary and mandatory rating systems of programs based on indicators of program quality." QRIS are intended to provide clear benchmarks of program quality and typically address the physical environment, staff qualifications and professional development, staff-child interactions, and technical assistance, among other factors. Twenty-four states had statewide early education and care QRIS in July 2010 (NAEYC 2010).

[5] Although, as noted in our framework memo (Aikens et al. 2011), we intended to include a rubric to identify the strength of the research base for each of the reviewed areas, we have not done so in this document. Most studies do not examine coaching in isolation from other professional development activities, which makes it difficult to identify the unique contributions of coaching to outcomes.

Table 1. Studies Linking Coaching and Classroom Instruction

Citation	Positive, Negative, Mixed, Or Null Findings?	Experimental or Randomized Design?	Effects of Coaching Isolated?[a]
Armstrong et al. 2008	Positive	No	Yes
Brown 2010	Positive	No	No
Buysse et al. 2010	Positive	Yes	No
Capizzi et al. 2010	Positive	No	Yes
Diamond and Powell 2011	Positive	No	No
Domitrovich et al. 2009	Positive	Yes	No
Domitrovich 2010	Positive	Yes	No
Hsieh et al. 2009	Positive	No	Yes
Jackson et al. 2007	Positive	No	No
Kretlow et al. 2011a, b	Positive	No	Yes
Lambert and Capizzano 2005	Mixed	Yes	No
Landry 2010	Positive	Yes	No
Landry and Knight 2001	Positive	Yes	No
Landry et al. 2009	Positive	Yes	No
Layzer et al. 2007	Positive	Yes	No
Layzer et al. 2009	Positive	Yes	No
Mercadel-Butler 2007	Mixed	No	Yes
Neuman and Cunningham 2009	Positive	Yes	No
Powell Diamond, Burchinal, and Koehler 2010	Null	Yes	No
Reading First Impact Study: Final Report 2008	Positive	No	No
Reading First Impact Study: Interim Report 2008	Mixed	No	No
Roth and Troia 2006	Positive	No	No
Rudd et al. 2009	Positive	No	No
Scheeler et al. 2010	Positive	No	Yes
Trivette et al. 2009	Positive	No	Yes
Wasik 2010	Positive	No	No

Note: Studies noted as having an experimental or randomized design may not be randomized according to receipt of coaching but instead may be randomized according to some other feature (for example, curriculum).

[a] We refer to studies that employ experimental or randomized designs as those that isolate the effects of coaching. In addition, we consider non-experimental studies that include a coaching component separate from other types of professional development as those that isolate coaching.

Coaching in these studies consisted of a series of individual in-service sessions focusing on teachers' strengths and areas for improvement, as well as a single 30-minute in-class coaching session in which the coach modeled the math strategies for the teacher and provided feedback on the teacher's implementation of the strategies. Capizzi and colleagues (2010) looked at teacher candidates in an urban public school district who received weekly meetings with an instructional consultant focused on the teacher's videotaped instructional delivery, areas for improvement, and subsequent goals. The researchers found that the participating teacher candidates included more components of effective instruction (that is, transitions, lesson introductions, and presentation of tasks) and delivered more behavior-specific praise during instruction. They also included a higher percentage of explicit instructional lesson components (for example, modeling, guided practice, independent practice, checking understanding, and closing the lesson) after meeting with the consultant and reviewing their videotaped lessons. This study did not provide information on the duration of instructional consultation.

Notably, not all of the studies in this area have isolated the effects of coaching from other professional development activities. That is, studies often involve coaching done in conjunction with pre-service or in-service training activities. In addition, among the studies with experimental designs, many were not randomized according to receipt of coaching but typically randomized by factors such as curriculum (for example, Assel 2007; Clements and Sarama 2008). This design makes it difficult to identify whether findings for classroom instruction derive from the use of coaching or other factors.

There are notable exceptions, however. For example, Landry and colleagues (2009) randomly assigned schools primarily serving children and families from low-SES backgrounds to one of five experimental conditions for the duration of the majority of the school year: (1) mentored with detailed feedback on children's progress in language and literacy, (2) non-mentored with detailed feedback, (3) mentored with limited feedback, (4) non-mentored with limited feedback, or (5) control. Bimonthly mentoring visits consisted of helping teachers with classroom arrangement, instructional lessons, and instructional planning. The visits also included reflective followup and written feedback on teachers' videotaped interactions during book reading, center time, and small-group instruction. Having a mentor and detailed feedback on children's progress was associated with the highest overall teaching quality at the end of the school year, as measured by the Teacher Behavior Rating Scale (TBRS; Landry, Crawford, Gunnewig, and Swank 2001),[6] while having neither was associated with the poorest teaching quality. In addition, teachers who received both mentoring and detailed feedback improved the quality and frequency of their instruction of early writing, phonological awareness instruction, letter knowledge, and shared reading than those who did not. Similarly, Neuman and Cunningham (2009) found that coursework alone had negligible effects on improvements in the classroom practices of teachers in child care centers and family day care settings in poor, urban counties in Michigan, but coursework combined with coaching (consisting of reflection and collaborative goal setting) had significant effects on teacher practice. Teachers who received both coursework and coaching scored significantly higher post-test on the quality of early language and literacy practices, as measured by improved scores on the Support for Learning and Teaching Strategies subscale on the Early Language and Literacy Classroom Observation Tool (ELLCO) (Smith et al. 2008).

[6] Goals of the mentoring focused on the quality and frequency of specific teaching behaviors measured by the TBRS; Landry, Crawford, Gunnewig, and Swank 2001, including indicators for Oral Language, Book Reading, Print and Letter Knowledge, Written Expression, Phonological Awareness, and a Total Composite, combining all individual subscales.

Curriculum Implementation

We reviewed 14 studies examining the link between coaching and early childhood professionals' implementation of specific curricula or intervention strategies,[7] with nearly all indicating positive effects and none with negative effects. Table 2 lists the reviewed studies that examined the link between coaching and curriculum implementation. With regard to specific curricula, Brown (2010) found that mentoring and coaching strategies enabled teachers in an urban school district to implement specific components of a pre-kindergarten mathematics curriculum. The degree of curriculum implementation was linked to the amount of support provided, including engaging in cooperative and collaborative activities with the mentor, peer coach, and colleagues. In a report on the third year of implementation of the Bright Futures Early Reading First project, Caverly and colleagues (2010) found multiple data sources to suggest that coaching helped Head Start teachers implement the DLM, Imagine It!, and Breakthrough to Literacy curricula. Here, coaching included modeling and support for curriculum implementation in the context of other professional development activities.

With regard to specific intervention strategies, Benedict and colleagues (2007) found that four preschool classrooms serving early childhood special education (ECSE)-eligible and Head Start preschoolers randomized to receive positive behavior support (PBS) consultation demonstrated a positive correlation between PBS-focused consultation and teachers' implementation of universal PBS practices. Specifically, there was an increase in the percentage level of practices implemented following PBS consultation in each of the four preschool classrooms. Likewise, Carter and Van Norman (2010) found a positive correlation between PBS-focused consultation and teachers' implementation of PBS skills in an early childhood education center in southern Nevada, with between-classroom analyses showing a marked increase in implementation across classrooms following PBS consultation.

Similar to coaching research in the area of classroom instruction, studies linking coaching to curriculum implementation rarely isolate the effect of coaching. Spencer and Logan (2003) provide a notable exception. In a time-series experiment set in a large suburban elementary school, the authors found differences between intervention and control teachers in their ability to learn and implement the Benchmark Strategy Instruction Process. The intervention involved a half-day traditional in-service and the Research Lead Teacher model, including an ongoing teacher study group, coaching, observation, and data-based feedback. The control condition included only the half-day traditional in-service.

[7] Reviewed studies focused on the degree of fidelity (that is, greater or less fidelity following coaching or as compared to others not receiving coaching) rather than a binary, all-or-nothing measure of fidelity to the entire model.

Table 2. Studies Linking Coaching and Curriculum Implementation

Citation	Positive, Negative, Mixed, Or Null Findings?	Experimental or Randomized Design?	Effects of Coaching Isolated? [a]
Benedict et al. 2007	Positive	Yes	No
Brown 2010	Positive	No	No
Carter and Van Norman 2010	Positive	No	Yes
Caverly et al. 2010	Positive	No	No
Clancy-Menchetti 2006	Positive	Yes	No
Clark-Chiarelli et al. 2007	Positive	No	No
Clements and Sarama 2008	Positive	Yes	No
Kinzie et al. 2010	Null	No	No
Knoche et al. 2010	Positive	Yes	No
Kretlow and Bartholomew 2010	Positive	No	Yes
Layzer et al. 2010	Positive	Yes	No
Penuel et al. 2009	Positive	Yes	No
Reading First Implementation Evaluation: Interim Report	Positive	No	No
Spencer and Logan 2003	Positive	Yes	No

Note: Studies noted as having an experimental or randomized design may not be randomized according to receipt of coaching but instead may be randomized according to some other feature (for example, curriculum).

[a] We refer to studies that employ experimental or randomized designs as those that isolate the effects of coaching. In addition, we consider non-experimental studies that include a coaching component separate from other types of professional development as those that isolate coaching.

Classroom Environmental Indicators

A number of studies have found relationships between coaching and changes in classroom environmental markers or ratings. Table 3 lists the reviewed studies that examined the link between coaching and classroom environmental indicators (as measured by various widely-used observation instruments of program quality, such as the ECERS and CLASS). These measures typically focus on the quality and nature of staff-child interactions, classroom materials and provisions for learning, and instruction. While many of the studies found positive relationships between coaching and scores on classroom environmental measures, a handful had null or mixed findings. For example, Caverly and colleagues (2010) found that in the third year of implementation of the Bright Futures Early Reading First (ERF) project, a curriculum-based approach that included coaching and other forms of professional development, teachers in the project were similar to preschool teachers in similar classrooms in another study (Phillips et al. 2009) on the Emotional Support and Classroom Organization domains of the CLASS. In comparison to these same preschool teachers, participating teachers also were rated much lower than expected on the Instructional Support domain. The focus

Table 3. Studies Linking Coaching and Classroom Environmental Indicators

Citation	Positive, Negative, Mixed, Or Null Findings?	Experimental or Randomized Design?	Effects of Coaching Isolated?[a]
Bagnato et al. 2002	Positive	No	Yes
Boller et al. 2010	Positive	Yes	No
Brennan et al. 2008	Mixed	Varies	Varies
Campbell et al. 2005	Mixed	No	No
Campbell and Milbourne 2005	Mixed	No	No
Caverly et al. 2010	Mixed (no findings for CLASS)	No	No
Clancy-Menchetti 2006	Null	Yes	No
Domitrovich et al. 2009	Positive (including for CLASS)	Yes	No
Domitrovich 2010	Positive (including for CLASS)	Yes	No
Fiene 2002	Positive	Yes	Yes
Hardin et al. 2010	Positive	No	No
Jackson et al. 2006	Mixed	No	Yes
Jackson et al. 2007	Positive	No	No
Lambert and Capizzano 2005	Positive	Yes	No
Landry 2010	Positive	Yes	No
Landry and Knight 2001	Positive	Yes	No
Mashburn and Pianta 2007	Positive (including for CLASS)	Yes	No
Mercadel-Butler 2007	Mixed	No	Yes
Neuman and Cunningham 2009	Positive	Yes	Yes
Neuman and Wright 2010	Positive	Yes	Yes
Pearlmutter et al. 2003	Positive	No	No
Pianta et al. 2008b	Positive (including for CLASS)	Yes	No
Powell Diamond, Burchinal, and Koehler 2010	Positive	Yes	No
Raver et al. 2008	Positive (including for CLASS)	Yes	No
Wasik 2010	Positive	No	No
Zan and Donegan-Ritter 2011	Positive (including for CLASS)	Yes	No

Note: Studies noted as having an experimental or randomized design may not be randomized according to receipt of coaching but instead may be randomized according to some other feature (for example, curriculum).

[a] We refer to studies that employ experimental or randomized designs as those that isolate the effects of coaching. In addition, we consider non-experimental studies that include a coaching component separate from other types of professional development as those that isolate coaching.

of coaching in this approach, however, was on modeling and support for the ERF curriculum. Similarly, in a literacy-focused study in Head Start centers and public school programs in Florida, mentoring was found to have no influence on preschool teachers' overall ELLCO score or on any of the 14 items on the ELLCO, even though the mentoring component included modeling of literacy activities, guided practice, feedback on classroom arrangement, and ongoing support for curriculum implementation (Clancy-Menchetti 2006). The mentored teachers did demonstrate greater fidelity or higher levels of compliance in implementing the emergent literacy activities for which they were trained, however.

In general, however, the findings in this area are largely positive. For example, Hardin and colleagues (2010) found that at the end of the project focused on English language learners (ELLs), pre-kindergarten teachers in a school-based setting created more culturally relevant environments. As measured by a self-assessment checklist, this included demonstrating an increase of the use of objects and materials from children's home cultures and their home languages in the classroom. Likewise, Raver and colleagues (2008) found that Head Start classrooms randomized for a treatment of five trainings and weekly coaching visits from mental health consultants on behavior management strategies demonstrated significantly higher levels of Positive Climate, Teacher Sensitivity, and Behavior Management on the CLASS than did the control classrooms. Moreover, Powell, Diamond, Burchinal, and Koehler (2010) examined the effects of Classroom Links to Early Literacy, a semester-long intervention with individualized coaching (delivered both remotely and in person) in five Head Start programs serving urban areas, small cities, and rural areas in a Midwest state. Compared to a control group, the intervention group experienced positive effects on general classroom environment and classroom supports for early literacy and language.

Notably, a study by McNerney and colleagues (2006) highlighted how programs can use classroom environmental tools as a means for guiding coaching. While the study did not attempt to find effects of coaching on classroom environmental ratings (nor did it examine the effects of whether the tool was provider-chosen or chosen in collaboration with the coach), the authors argue that standardized observation tools can serve many important purposes, including (1) helping coaches quickly acclimate to different teachers and classrooms, (2) creating a common language between coaches and teachers, and (3) helping teachers to develop their independent ability to identify needs and goals. In this study, baseline data on the ELLCO were helpful for adapting the coaching and professional development activities to the needs of individual teachers. Similarly, in a separate study, instructional consultants and teacher candidates relied on an instructional quality evaluation form to help guide the consultation process (Capizzi et al. 2010). In family child care homes in Cleveland, focus groups with coaches revealed that they saw the Family Day Care Rating Scale (FDCRS) (Harms and Clifford 1989) as a useful "starting point" for discussions with teachers (Pearlmutter et al. 2003). Some felt, however, that focusing on the measure and providers' scores could compromise the relationship with the provider, particularly if they were perceived as "grading" or "judging" the provider. Coaches in another study in Washington State had difficulty in interpreting observers' ECERS scores for providers and required additional training to help them explain the scores to providers and teachers (Boller et al. 2010). These findings highlight the challenges inherent in relying on classroom environmental indicators as markers for coaching goals and progress.

Similar to coaching research in the other areas, studies linking coaching to changes in classroom environmental indicators often do not isolate the effect of coaching. For example, Zan and Donegan-Ritter (2011) found differences between intervention and comparison classrooms on end-of-year CLASS Emotional Support, Classroom Organization, and Instructional Support dimensions. The intervention used the Coaching and Mentoring for Preschool (CAMP) Quality professional

development model and included workshops, classroom videotaping, teacher reflections, peer coaching, and mentoring to support children's school readiness and teachers' promotion of related practices. Thus, the role that coaching and mentoring activities played in contributing to findings is unclear.

However, a handful of studies isolated the effect of coaching on classroom environmental indicators. Jackson and colleagues (2006) evaluated the effects of *HeadsUp! Reading* (HUR), a professional development literacy workshop series, with and without supplementary mentoring, on the practices of early childhood educators in seven communities (rural and urban) with the highest poverty concentrations in Nebraska. On the ECERS-Revised (ECERS-R) (Harms et al. 1998), the HUR-only group improved its classroom practices significantly more than the control group in terms of total average score ($p<0.01$) and three subscales ($p<0.05$), and marginally better on two other subscales ($p<0.10$). In contrast, the HUR-plus-mentoring group did not improve significantly more than the control group on any ECERS-R subscale and scored similarly to this group. On the ELLCO measures, both treatment groups improved significantly more than the control groups on some measures. Because the focus of the study was primarily on the effects of HUR, the two treatment groups were not compared to each other.

Teacher-Child Interactions

Relatively few studies focused on the link between coaching and the quality of teacher-child interactions (see Table 4). Typically, positive relationships emerge in this area both for studies that rely on observational tools, such as the CLASS or Arnett Caregiver Interaction Scale (Arnett 1989), and for those using more specific indicators of teacher-child interactions.[8] All of the studies we reviewed in this area had positive findings. For example, Fiene (2002) found that center-based infant-toddler providers in a mentoring condition showed improvements on the Arnett in the areas of sensitivity and discipline. This study did not provide details on the frequency and intensity of mentoring, however. Mashburn and Pianta (2007) and Pianta and colleagues (2008b) found that preschool teachers in a state-funded pre-kindergarten program who were randomly assigned to receive both MyTeachingPartner web-mediated consultation and on-demand access to video-clip exemplars of high-quality teacher-child interactions showed significantly greater increases in independent ratings of interaction quality on the CLASS than teachers assigned to receive video-clip access only. On the CLASS dimensions of Teacher Sensitivity, Instructional Learning Formats, and Language Modeling, rates of change were significantly greater for teachers in the consultation condition. The positive effects of consultation were particularly evident in classrooms with higher proportions of economically at-risk children. Moreover, at the conclusion of a 14-week program focused on interactive language stimulation practices in day care centers in Toronto, the experimental group of early childhood educators engaged in practices of interest more frequently, including waiting for children to initiate, engaging them in turn-taking, using face-to-face interaction, and including uninvolved children more frequently than the control group (Girolametto et al. 2003). Specifically, the child care providers increased their talkativeness, became more child-centered (for example, by waiting for initiations or being face to face), and promoted the children's active

[8] Please note that the former types of measures typically are used as measures of classroom quality, while the latter can be interpreted as measures of fidelity. Positive teacher-child interactions are as defined by the study's selected tool. These typically include the CLASS or Arnett, but also include researcher-developed measures of interactions. Thus, the focus of interactions include characteristics such as harshness, teacher responsiveness, disciplinary practices, positive climate, and methods for managing children's behavior, among others.

Table 4. Studies Linking Coaching and Teacher- Child Interactions

Citation	Positive, Negative, Mixed, Or Null Findings?	Experimental or Randomized Design?	Effects of Coaching Isolated?[a]
Campbell and Milbourne 2005	Mixed	No	No
Campbell et al. 2005	Null	No	No
Clark-Chiarelli et al. 2007	Positive	Yes	No
Domitrovich et al. 2009	Positive (including for CLASS)	Yes	No
Domitrovich 2010	Positive (including for CLASS)	Yes	No
Fiene 2002	Positive	Yes	Yes
Girolametto et al. 2003	Positive	Yes	No
Lambert and Capizzano 2005	Positive	Yes	No
Lyon 2009	Positive	No	No
Mashburn and Pianta 2007	Positive (including for CLASS)	Yes	No
Pianta et al. 2008b	Positive (including for CLASS)	Yes	No
Raver et al. 2008	Positive (including for CLASS)	Yes	No
Ray 2007	Positive	Yes	Yes
Shelton et al. 2001	Positive	No	No
Tschantz and Vail 2000	Positive	No	Yes
Zan and Donegan-Ritter 2011	Positive (including for CLASS)	Yes	No

Note: Studies noted as having an experimental or randomized design may not be randomized according to receipt of coaching but instead may be randomized according to some other feature (for example, curriculum).

[a] We refer to studies that employ experimental or randomized designs as those that isolate the effects of coaching. In addition, we consider non-experimental studies that include a coaching component separate from other types of professional development as those that isolate coaching.

participation and turn-taking more frequently than the control group. As in other areas, findings for coaching typically are not isolated from other aspects of professional development and training.

Child Outcomes

Of the 35 studies we reviewed that examined the link between coaching and child outcomes, the findings ranged from positive (twenty-one studies), to mixed (eight studies), to null (six studies). Thus, this area evidences the most mixed or varied findings. Studies have examined associations with children's cognitive outcomes (for example, language, literacy, and math) and their social-emotional and behavioral outcomes. Regarding positive findings, Martin and colleagues (2007) found that preschool children in Early Reading First classrooms—which provided professional

development, classroom coaching, books, and materials in support of a literacy-focused preschool environment, as well as parent education related to early literacy—fared better on measures of early literacy (such as the PPVT-III and DIBELS) than children in non-Early Reading First classrooms. Given the assortment of professional development supports, however, the influence of coaching on children's outcomes cannot be delineated clearly. A number of studies have reported positive associations of coaching interventions with preschool children's positive behaviors (Perry et al. 2010; Raver et al. 2008; Ramaswamy and Bergin 2009), as well as associations with reduced levels of negative and externalizing child behaviors (Perry et al. 2010; Ramaswamy and Bergin 2009). Notably, in their review of 14 studies, Perry and colleagues (2010) uncovered mixed evidence for improved internalizing child behaviors.

Other studies have also reported mixed findings. For example, findings from the Reading First Impact Study: Final Report (2008) indicate that, while there were positive impacts of the Reading First model (which includes curriculum, coaching, and other components) on first through third grade children's decoding skills, there were no impacts on students' reading comprehension scores or their engagement with print. Additional studies have reported no statistically significant findings. For instance, Cusumano (2005) and colleagues (2006) discuss findings from a literacy intervention in which preschool teachers received (1) literacy training and coaching, (2) literacy training and no coaching, or (3) no training or coaching. While positive evidence for the effects of the literacy training on children's outcomes emerged, no such support was found for the coaching component, with children in both treatment groups exhibiting similar growth in phonological awareness. Notably, as in other areas, of the 31 studies we reviewed, only a handful isolated the effect of coaching on child outcomes.

Factors Associated with Coaching Efficacy

The findings we have discussed thus far focus on studies establishing a relationship between coaching and various outcomes. A number of other studies have attempted to highlight factors that may affect the efficacy of coaching efforts. In this section, we highlight and summarize some of the key findings that have emerged from this research, including that variability exists in how coaching is implemented; the importance of time devoted to and available for coaching; the role of provider mental health, engagement, and other provider characteristics; and the importance of the coach-provider relationship. We also discuss the importance of specificity and focus in coaching efforts, as well findings related to the use of technologically mediated coaching.

Time Devoted to and Available for Coaching. Not surprisingly, a number of studies indicate that time is a critical challenge for coaches. For example, coaches and providers in two communities in Washington State described a number of challenges associated with completing coaching visits. These include holidays, vacations, classroom activities, and other commitments, such as attending trainings and conferences (Boller et al. 2010). These issues were heightened among part-time staff. In their review of data about coaches in Reading First schools in five western states, Deussen, Coskie, and colleagues (2007) found that, although coaches dedicated long hours to their jobs, they spent on average only 28 percent of their time working with teachers. This was markedly lower than the 60 to 80 percent of time explicitly requested of coaches in three of the five states. These findings suggest that coaches may face a number of challenges in implementing coaching efforts as intended.

Fixsen and colleagues (2005) point out in their review that the efficacy of coaching is influenced by the amount of time allotted to and available for the work. Certainly the quality and effectiveness of coaching may be affected by lack of time or related barriers to its full implementation. In fact,

Table 5. Studies Linking Coaching and Child Outcomes

Citation	Positive, Negative, Mixed, Or Null Findings?	Experimental or Randomized Design?	Effects of Coaching Isolated? [a]
Alvermann et al. 2005	Positive	No	No
Assel 2007	Mixed	No	No
Benedict et al. 2007	Null	No	No
Buysse et al. 2010	Mixed	Yes	No
Caverly et al. 2010	Positive	No	No
Clancy-Menchetti 2006	Positive	Yes	No
Cusumano 2005	Null	Yes	Yes
Cusumano et al. 2006	Null	Yes	Yes
Diamond and Powell 2011	Positive	No	No
Domitrovich et al. 2009	Positive	Yes	No
Domitrovich 2010	Positive	Yes	No
Jackson et al. 2006	Null	No	No
Jackson et al. 2007	Mixed	No	No
Landry 2010	Positive	Yes	No
Landry et al. 2006	Positive	No	No
Layzer et al. 2009	Positive	Yes	No
Martin et al. 2007	Positive	No	No
Mashburn and Pianta 2007	Mixed	Yes	No
Mashburn et al. 2010	Positive	Yes	No
Mele 2008	Positive	No	Yes
Mohler et al. 2009	Positive	No	No
Penuel et al. 2009	Positive	Yes	No
Perry et al. 2010	Mixed	Varies	Varies
Perry et al. 2008	Positive	No	No
Podhajski and Nathan 2005	Positive	No	No
Powell, Diamond, Burchinal, and Koehler 2010	Mixed	Yes	No
Ramaswamy and Bergin 2009	Positive	Yes	Yes
Raver et al. 2008	Positive	Yes	No
Reading First Impact Study: Final Report 2008	Mixed	No	No
Reading First Impact Study: Interim Report 2008	Null	No	No
Shelton et al. 2001	Positive	No	No
Shidler 2009	Mixed	No	No
Strain and Bovey in press	Positive	Yes	Yes
Upshur et al. 2009	Positive	No	No
Wasik 2010	Positive	No	No

Note: Studies noted as having an experimental or randomized design may not be randomized according to receipt of coaching but instead may be randomized according to some other feature (for example, curriculum).

[a] We refer to studies that employ experimental or randomized designs as those that isolate the effects of coaching. In addition, we consider non-experimental studies that include a coaching component separate from other types of professional development as those that isolate coaching.

several studies highlight the importance of coaching duration and intensity for uptake in instructional practices (for example, Dunst and Raab 2010; Trivette et al. 2009; Shidler 2009; Spencer and Logan 2003; Tschantz and Vail 2000) and for child outcomes (for example, Mashburn et al. 2010). For example, Trivette and colleagues (2009) found that adult learning methods were most effective when used with a small number of learners (< 30) for more than 10 hours on multiple occasions. Among MyTeachingPartner Consultancy teachers, more hours of participation in the consultation process were positively associated with children's receptive language development (Mashburn et al. 2010). Thus, as others have suggested (for example, Ryan et al. 2004), coaching efforts may be supported best by providing adequate time for the work and limiting the number of responsibilities associated with the coaching role. Of course, as we discuss below, consideration must be given not only to the amount of coaching time available but also to the focus and nature of that time (Shidler 2009).

Variability in How Coaching is Implemented. Another important finding from the literature is the amount of variability in how coaching is implemented. Across coaches, there is inconsistency in how they spend their time and expectations of their duties. For example, in Reading First schools in Washington State, Deussen, Nelsestuen, and colleagues (2007) found that, in some schools, reading coaches observed all or almost all teachers regularly, while teachers in other schools reported infrequent observations by coaches. Notably, those teachers observed more frequently had more positive perceptions of their coach. In Reading First schools in other western states, how coaches allocated their time across tasks and how they understood and described the focus of their work varied widely across individuals and settings (Deussen, Coskie et al. 2007). Using both cluster analysis of survey data and qualitative analysis of interviews, these authors identified five types of coaches, highlighting that people holding the same job defined and performed their work in very different ways. Similarly, Downer and colleagues (2009) found that implementation of a language/literacy and social/emotional development curriculum varied as a function of the consultant assigned to teachers. Specifically, there were significant consultant effects on the number of consultation cycles completed and the amount of time spent in web-mediated consultations. The authors suggest that these findings offer support for greater consistency across consultants.

The Coach-Provider Relationship. Research also has highlighted the importance of the relationship between coaches and providers. For instance, coaches and providers in Washington State stressed the importance of relationship building and respecting providers as professionals and experts (Boller et al. 2010). Findings from other studies, including surveys with itinerant consultants, also highlight the value that staff place on building positive relationships with one another (for example, Ackerman 2008; Pearlmutter et al. 2003). In fact, early childhood providers in Early Head Start and Head Start programs in a Midwestern community implementing a parent engagement intervention reported that supportive relationships with coaches were critical to the success of the intervention (Brown et al. 2009). Hierarchical Linear Modeling (HLM) with data from a nationally representative survey found that the most important characteristic of mental health consultants in Head Start programs was their ability to build positive collaborative relationships with program staff members (Green et al. 2006). Moreover, consultants who provided services more frequently were reported to have more positive relationships with staff members. Frankel's case study (2006) also points out the importance of building rapport between the coach and the provider. In this study, consultants suggested that their knowledge and skill in articulating the consultative role was critical, specifically in seeking to acknowledge and build upon the skills that providers already possessed. In a small-scale study with five teachers employed by a publicly funded community child care program, teachers noted that they liked learning from the coach what they were doing well before the coach offered suggestions for improvement (Diamond and Powell 2011). All of these findings underscore

the importance of coaches being respectful and having the ability to build positive, collaborative relationships with teachers and providers.

Finally, while maintaining a positive relationship throughout the coaching process is important, evidence from at least one study suggests that coaches may move toward different aspects of coaching after the relationship has been well established. In other words, the extent to which coaches focus on building relationships may vary over time. In fact, compared to the first and second years, in the third year of implementation of the Bright Futures project, coaches moved beyond building relationships with teachers to the next level of coaching (by providing modeling opportunities, engaging in feedback sessions with teachers, and scheduling meetings/conferences with teachers and paraprofessionals; Caverly et al. 2010). Of course, maintaining a positive and reciprocal coach-provider relationship is important, but barriers to the substantive aspects of coaching itself may occur if this relationship is not established positively from the beginning.

Provider Engagement. A critical element of the coaching dynamic is the active engagement and involvement of providers. For example, Bainter and Marvin (2006) found that coaches spent a considerable amount of time focused on establishing a collaborative partnership with the teacher and less time on actively engaging the teacher in future planning. The authors found that such limited time was insufficient to prepare caregivers for interactions in the classroom once the coach was no longer present. Similarly, adequate planning for the use of instructional practices in the classroom played a critical role in helping teachers achieve criterion (that is, implement a select number of teaching strategies) on all literacy strategies (Hsieh et al. 2009). Specifically, when a plan existed, teachers were better able to practice the strategy in the classroom. When no plan was made, it was much more difficult for them to remember to focus on the strategies. In Trivette and colleagues' synthesis of more than 79 studies (2009), methods and practices that involved the adult learners more actively in acquiring, using, and evaluating new knowledge and practice were associated with the most positive outcomes. Moreover, interviews with program directors participating in the evaluation of mental health consultation programs indicate that directors were most satisfied with coaching efforts when they were involved in planning and understood the consultant's role. All of these findings underscore the importance of ensuring that providers are fully engaged in the coaching process. This includes active planning and practice in engaging with new strategies.

Provider Mental Health. Little research has been done on the role of provider mental health in relationship to coaching and its efficacy, and different messages have emerged from such research. Typically, however, this work highlights the barrier posed for coaching by teacher/provider stress and mental health issues, and the support that coaching can provide for reducing stress. In a study with Head Start teachers in Chicago, researchers found that psychosocial stressors were not a barrier to teachers' attendance at training sessions focused on classroom management strategies, but they were related to the focus of in-classroom consultation visits (Li-Grining et al. 2010). Specifically, although teachers with higher levels of stress attended more training session, they also availed themselves of less support from mental health consultants during classroom consultation visits. They also spent less time during those visits engaging in specific classroom management strategies taught in the trainings and receiving consultation on these strategies. Inconsistent with expectations, Domitrovich and colleagues (2009) found that Head Start teachers' stress levels and emotional well-being were unrelated to variation in implementation.

Investigating the implications of teacher burnout for intervention uptake, Raver and colleagues (2010) found positive impacts of coaching on job stress, including job control, job resources/rewards, and lack of confidence. The authors suggested that, in the context of classroom

behavior management, coaches may serve the useful role of helping teachers to manage their negative feelings while trying to manage children's disruptive behavior effectively. Similarly, in a review of 26 recent studies examining the relationship of early childhood mental health consultation to staff- and program-level outcomes, Brennan and colleagues (2008) found that early childhood mental health consultation helped increase staff self-efficacy/confidence and competence in dealing with troubling or difficult behaviors of young children. Staff receiving consultation had improved sensitivity and lower job-related stress, with consultation also linked to reduced staff turnover. These findings highlight the protective and supportive role that coaching may play for provider stress and mental health.

Other Provider Characteristics. Beyond mental health, research findings underscore other provider characteristics that shape coaching and the efficacy of its implementation. For example, in work with Head Start lead and assistant teachers in Pennsylvania, Domitrovich and colleagues (2009) found that teacher characteristics were associated with perceptions of the intervention. Specifically, teachers who perceived that their program administrators valued the REsearch based, Developmentally Informed (REDI) intervention were more likely to perceive the intervention as having a positive impact. Those who participated more frequently also held more positive perceptions of the intervention's impact. In addition, openness to consultation was positively associated with program fidelity and implementation. Among teachers participating in the MyTeachingPartner (MTP) program, a technologically mediated professional development program that includes video exemplars of high-quality teacher–child interactions and biweekly, web-mediated interactions with a consultant, Downer and colleagues (2009) found that teachers with less experience in teaching pre-kindergarten spent more time on the MTP website accessing video exemplars of high-quality teacher–child interactions. Similarly, in this same study, teachers who were rated as having a higher sense of self-efficacy watched more videos of other teachers online and spent more time reviewing their own videos on the MTP Consultancy web page. Furthermore, teachers who had better-quality interactions with children initially were rated as more responsive by consultants and spent more time in online iChat conferences via the MTP website. Thus, some teachers were more likely to engage with online resources to help support their classroom instruction, with the highest engagement not always occurring among the teachers requiring the most support. Other studies also highlight the importance of individualizing effort, with greater support possibly needed for teachers or providers with more limited teaching skills (Domitrovich et al. 2010).

Specificity and Focus of Coaching. Despite limited research evidence, a growing consensus exists regarding the importance of the specificity of coaching elements. It seems likely that specific and targeted efforts are most effective. For example, in year one of a study of coaching with Head Start teachers, the coaching model focused on instructional efficacy in specific content and teaching methods, while the second- and third-year models lacked a specific content focus (Shidler 2009). Results indicated a significant correlation between the time coaches spent in the classroom and students' alphabet recognition scores in year one, but the author found no significant correlation in years two and three. Thus, a more focused approach in coaching teachers to enhance child outcomes was more effective. Information obtained from queries of authors and researchers further highlights the importance of the specificity of coaching elements.[9] Hsieh and colleagues (2009) and researchers using MTP (Mashburn and Pianta 2007; Mashburn et al. 2010; Pianta et al. 2008b)

[9] As noted in our literature review framework document, we contacted several authors and researchers to obtain additional details about aspects of their coaching models.

acknowledged the crucial role of focusing on specific outcomes and practice/behavior linked to those outcomes. Pianta (personal communication, May 3, 2011) indicated that his work reveals no evidence that generic coaching is helpful. Instead, it seems crucial to have coaching that is "aligned and targeted to a standardized lens, language, and metric for classroom practice." Indeed, the MTP approach uses a standardized framework for defining and observing classroom interactions, as well as providing feedback and support to teachers (that is, the CLASS). Video exemplars of high-quality teacher-child interactions are tied to specific dimensions of the CLASS, and the consultation process focuses on specific dimensions of the CLASS. Curricular content also is focused on key outcomes for children, which are expected to be influenced by changes in teacher-child interactions. Thus, all aspects of the approach are tied to targeted outcomes, and a common language is used throughout.

Technology. Remote coaching is an emerging trend in the literature. In lieu of in-person and on-site coaching, these approaches use technologically mediated coaching. In a randomized study of the effects of remote versus on-site delivery of the professional development intervention, Powell, Diamond, and Koehler (2010) found no differential effects of remote delivery. Other research suggests, however, that web-only approaches may be insufficient without additional support. For example, studies assessing the impact of web-only video demos versus video consultation found the latter to show greater improvements in teacher-child interactions (Mashburn et al. 2010; Mashburn and Pianta 2007; Pianta et al. 2008b). In this work, teachers had the opportunity to receive highly focused video-based analysis of their interactions with children, either in person or via off-site delivery. Further evidence from Powell, Diamond, and Koehler (2010) indicates that usage patterns of both teachers and coaches point to selective engagement of web resources. This suggests that guidance and support for using such resources may be critical. Others also highlight factors that may support the effectiveness of online coaching. For example, in a study of online mentoring with limited licensed teachers (that is, those not fully certified for their positions) who were seeking certification in the area of emotional/behavior disorders, the effectiveness of online mentoring seemed to depend on having mentors able to provide consistent, task-oriented, and timely feedback (Knapczyk et al. 2005). Thus, off-site or other forms of coaching may be efficacious but they are most likely to be effective when accompanied by appropriate and timely guidance.

Summary and Implications

A considerable body of research has demonstrated links between coaching and outcomes for children, providers, and classroom quality. Across a variety of studies, established relationships have emerged for classroom instruction, curriculum implementation, teacher-child interactions, classroom environmental indicators, and child outcomes. This research has not consistently isolated the effects of coaching from other professional development activities, however. Similarly, while a number of studies in this area include randomized or experimental designs, the randomization typically does not occur for the receipt of coaching. Instead, randomization is often for some other feature, most commonly curriculum implementation. This design makes it difficult to identify the unique contribution of coaching to outcomes. Regardless, findings from this body of research suggest that coaching has the potential to affect a number of varied outcomes. Moreover, considering LAUP classrooms and family child care settings specifically, positive findings have emerged for teacher-child interactions and classroom environmental indicators such as the CLASS.

In addition, while some evidence in the research base supports coaching, the most critical aspects of coaching that affect quality and outcomes are still unclear. As Fixsen and colleagues (2005) note in their review, the most effective coaching actions and behaviors have not yet been identified via experimental methods. A number of factors make it difficult to provide a full picture of the critical elements of coaching. For example, there is considerable variability in studies. The

theoretical underpinnings underlying some studies are not always identified, and the reported information on aspects of coaching varies. In addition, the frequency, duration, and nature of coaching elements vary across studies.

A number of studies, however, provide insight into factors that may be important in the implementation and success of coaching. For example, a handful of studies highlight the role of variability in coaching, how it is implemented across coaches, and the time made available for coaching. All of these factors may impede or affect the efficacy of coaching efforts. Specifically, having adequate time to devote to coaching and providing consistent support across teachers and providers is important. In addition, developing positive, respectful relationships can be critical to coaching and the implementation of curricular or intervention practices. This approach requires that coaches have strong interpersonal skills. Actively involving and engaging providers in the coaching process are also integral elements for success. This strategy includes providing opportunities for practice and future planning. In addition, research highlights the role that providers' mental health can play in affecting coaching efficacy, as well as the supportive role that coaching can have for mitigating provider stress and burnout. Finally, the specificity of coaching elements is important. Specifically, research suggests that providing focused and specific coaching is particularly important. Coaching efforts tied to specific curricula also benefit from a focused curricular content.

While there is not yet consensus on the most critical specific elements of coaching, this body of work suggests that efforts in which providers are highly engaged, feel respected and understand and agree with the purpose of coaching goals, and have adequate opportunities for practice and planning are likely to be most effective. In addition, it is critical to have adequate time for coaching and the coaching process as well as specific and focused elements of coaching. Ultimately, Shidler (2009) echoes the sentiment of others (for example, Hanft et al. 2003) and argues that coaching approaches should seek to balance time spent (1) instructing for specific content, (2) modeling techniques and instructional practices, (3) observing teacher practices, and (4) consulting for reflection.

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APPENDIX A

DETAILS OF THE CITED RESEARCH STUDIES, REVIEWS, AND META-ANALYSES ON COACHING

Table A.1. Overview of Coaching Models and Associated Studies and Findings

Model	Brief Description	Findings				
		Classroom Instruction	Curriculum Implementation	Classroom Environmental Indicators	Teacher-Child Interactions	Child Outcomes
Classroom Links to Early Literacy (Powell, Diamond, Burchinal, and Koehler 2010)	The Classroom Links to Early Literacy intervention for preschool included a 2-day workshop (16 hrs total) followed by expert coaching. The workshop provided an overview of the intervention content and promoted the development of supportive relationships between coach and teacher. The expert coaching delivered either on-site or remotely, was comprised of seven coaching sessions across a 15-week semester. The coaching protocol followed an observe–assess-recommend sequence.	Positive	n.a.	Positive	n.a.	Positive
Coaching and Mentoring for Preschool (CAMP) Quality (Zan and Donegan-Ritter 2011)	The CAMP Quality professional development model for preschool included: bimonthly workshops, monthly classroom videotaping, and monthly cycle of teacher reflections, peer coaching, and mentoring.	n.a.	n.a.	Positive	Positive	n.a.

Table A.1 *(continued)*

Model	Brief Description	Findings				
		Classroom Instruction	Curriculum Implementation	Classroom Environmental Indicators	Teacher-Child Interactions	Child Outcomes
Early Reading First (ERF) (Jackson et al. 2007; Martin et al. 2007; Simon 2010)	ERF seeks to enhance preschool children's language, cognitive, and early reading skills through professional development for teachers. Two key elements of ERF are the use of scientifically based language and literacy methods and activities and enhanced professional development to support preschool children's school readiness. Consistent with the statutory definition of "professional development," ERF professional development was expected to be continuous, intensive, and classroom focused. Professional development that includes mentoring and coaching is encouraged. Localities have flexibility in their approach.	Positive	n.a.	Positive	n.a.	Mixed and Positive
ExCELL (Wasik 2010)	ExCELL included monthly group trainings on specific topics focusing on five areas of language and literacy in preschool. In addition, weekly three-hour coaching sessions were conducted including observations, videotaping, modeling, and conferencing to provide feedback and promote discussion. Coaches were provided with at least one two-hour professional development session each month.	Positive	n.a.	Positive	n.a.	Positive

Table A.1 *(continued)*

Model	Brief Description	Findings				
		Classroom Instruction	Curriculum Implementation	Classroom Environmental Indicators	Teacher-Child Interactions	Child Outcomes
MyTeachingPartner (MTP) (Kinzie et al. 2010; Mashburn and Pianta 2007; Mashburn et al. 2010; Pianta et al. 2008b)	MTP included two components: a) access to video exemplars of high-quality teacher-child interactions tied to specific dimensions of the CLASS and b) a consultation process that provides regular, multi-modal, ongoing, targeted feedback to prekindergarten teachers through a standardized protocol that focuses on specific dimensions of teachers' emotional, organizational, and instructional interactions with students, using the CLASS as the basis for a common, validated understanding of teacher behavior. In addition, teachers participated in a 2-day workshop training at the beginning of the year that provided an overview of the MTP—Language & Literacy Curriculum and Preschool Promoting Alternative Thinking Strategies (PATHS) curricula, modeled implementation of various activities, and demonstrated access to the curriculum's companion Web site providing video clips of exemplary instruction.	n.a.	n.a.	Positive	Positive	n.a.

Table A.1 *(continued)*

Model	Brief Description	Findings				
		Classroom Instruction	Curriculum Implementation	Classroom Environmental Indicators	Teacher-Child Interactions	Child Outcomes
Nuestros Niños Community of Practice (Buysse, Castro, and Peisner-Feinberg 2010)	The Nuestros Niños program consisted of three professional development components for preschool teachers: (1) 3-day professional development institutes at the beginning of the school year to promote teachers' acquisition of core content knowledge and skills, (2) individualized consultation sessions to support teachers in implementing new instructional strategies in the classroom, and (3) community of practice meetings to provide participating teachers with opportunities for feedback, reflection, and collaborative problem-solving. Following the initial 3-day institute, each consultant worked with a group of 6-8 teachers for 8 weeks, visiting classrooms every other week and conducting community of practice meetings with her assigned group of teachers on alternate weeks.	Positive	n.a.	n.a.	n.a.	Mixed

Table A.1 *(continued)*

Model	Brief Description	Findings				
		Classroom Instruction	Curriculum Implementation	Classroom Environmental Indicators	Teacher-Child Interactions	Child Outcomes
Reading First	Reading First provides assistance to states and districts to establish scientifically based reading programs for students enrolled in kindergarten through grade three. Reading First funding can be used for: • *Reading curricula and materials* that focus on the five essential components of reading instruction as defined in the Reading First legislation: 1) phonemic awareness, 2) phonics, 3) vocabulary, 4) fluency, and 5) comprehension; • *Professional development and coaching* for teachers on how to use scientifically based reading practices and how to work with struggling readers; • *Diagnosis and prevention* of early reading difficulties through student screening, interventions for struggling readers, and monitoring of student progress.	Positive and Mixed	Positive	n.a.	n.a.	Mixed and Null
(Reading First Impact Study Final Report 2008; Reading First Impact Study: Interim Report 2008; Reading First Implementation Evaluation: Interim Report 2006)	Funding recipients can exercise flexibility in two ways: (1) recipients could allocate resources to various categories within target ranges rather than on a strictly formulaic basis, and (2) states could make local decisions about the specific choices within given categories.					

Table A.1 *(continued)*

Model	Brief Description	Findings				
		Classroom Instruction	Curriculum Implementation	Classroom Environmental Indicators	Teacher-Child Interactions	Child Outcomes
Research based Developmentally Informed (REDI) (Domitrovich et al. 2009; Domitrovich 2010)	The REDI program included 4 days of training for preschool teachers on the developmental model underlying REDI (3-day workshop in early August and 1-day "booster" workshop midway through the program year), along with weekly coaching. The coaches spent 3 hours weekly in each classroom.	Positive	n.a.	Positive	Positive	Positive
Research Lead Teacher Model (Spencer and Logan 2003)	The Benchmark School's 15-step process of strategy instruction for school-age teachers was delivered under two conditions. The first was a traditional ½ day inservice and the 2nd was the ½ day traditional inservice plus the Research Lead Teacher model which included an ongoing teacher study group, coaching, observation, and data based feedback.	n.a.	Positive	n.a.	n.a.	n.a.

Table A.1 *(continued)*

Model	Brief Description	Findings				
		Classroom Instruction	Curriculum Implementation	Classroom Environmental Indicators	Teacher-Child Interactions	Child Outcomes
Teacher-Child Interaction Training (TCIT) (Lyon 2009)	Teacher-Child Interaction Training (TCIT), an approach adapted from Eyberg's Parent-Child Interaction Therapy (PCIT), consisted of didactic training sessions and in-classroom coaching for preschool teachers. TCIT training sessions were held once a week for a total of nine sessions. This included four Child-Directed Interaction (CDI) sessions, four Teacher-Directed (TDI) Interaction sessions, and one "graduation" session. Training sessions lasted 1.5 hours. In-class coaching began following the third CDI session and third TDI session, and it continued for 1 to 2 weeks after the completion of the phase. Teachers received individualized coaching on their skills, during which they were coached between one and three times per week for 20 minutes. Each coaching session involved a period of observation followed by live feedback and concluded with oral and/or written feedback to teachers. The total training sequence lasted between 11 and 13 weeks.	n.a.	n.a.	n.a.	Positive	n.a.

Note. Additional details on the coaching models are presented in Appendix Tables A.2 through A.6.

In providing an overview of the coaching models, we use the terminology provided by authors in the individual studies.

n.a. = not applicable. Outcomes in this area were not assessed in the study.

Table A.2. Identified Coaching Models and Approaches Supportive of Positive Outcomes from Experimental or Randomized Studies

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Article/chapter reference	*Brief description of the approach, highlighting the type, setting, and intensity*	*Description of specific elements of the approach*	*Brief description of child, family, and/or provider outcomes the approach is expected to affect*	*Description of the population(s) involved or participating in study or approach, including community context*	*Brief description of study findings*
Assel 2007	The study focused on the evaluation of two language and literacy curricula within the context of a random assignment study occurring within three settings (i.e., Head Start, Title 1, and universal pre-kindergarten). In addition to a 4-day curriculum training (conducted by the curriculum publishers), the design included a mentoring and nonmentoring condition that was balanced across sites in either curriculum condition. Mentors worked with teachers for approximately 1.5 h (2X monthly). Details on duration are not provided.	**Training.** Training occurred in small groups and included instruction/ experience in all content areas. The training model highlighted aspects of the two target curricula important for supporting language and literacy development, and practices that encouraged strong social/emotional skills. **Mentoring.** Mentors supported teachers in the mentoring condition in terms of curriculum implementation and provided ongoing technical assistance. They encouraged the implementation of the curriculum within a context that recognized children's social-emotional needs. During visits, mentors assisted teachers with lesson planning, demonstration of curriculum components, room arrangement, curriculum fidelity issues, class schedules, provided assistance to teachers around behavior issues that might arise during instruction, and provided side-by-side coaching while the teacher implemented the curriculum. The mentor documented strengths and areas for improvement.	Teacher: Implementation of curriculum, effect of mentoring Child: Language and literacy outcomes	603 typically developing pre-kindergarten children (308 boys and 295 girls) enrolled in full day early childhood programs in greater Houston, Texas where English was the language of instruction.	Results indicated that in many key language/literacy areas, the skills of children in classrooms using either one of the target curricula grew at greater rates than children in control classrooms. The impact of mentoring was less clear and seemed dependent on the type of skill being measured and type of program. In some instances, mentoring was beneficial (in the Title I and universal pre-k programs) but not as necessary in the Head Start classrooms. Specifically, when mentoring showed a positive impact, it was only in the Title 1 or universal pre-K classrooms.
Benedict et al. 2007	Positive behavior support (PBS) is a well-established strategy for addressing problem behaviors in children. It is defined as a collaborative and values-based approach for	During an hour-long initial meeting, the consultant met with the lead teacher and other individuals comprising the leadership team. The consultant provided information about PBS and the classroom's *Preschool-*	Teacher: Implementation of PBS practices	4 preschool classrooms serving ECSE-eligible and Head Start preschoolers in a medium-size U.S. Pacific Northwest community. Classrooms were selected because of low performance	A functional relationship was established between PBS consultation and teachers' implementation of universal PBS practices,

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	developing effective, individualized interventions for people with problem behaviors. In 4 preschool classrooms serving early childhood special education (ECSE)-eligible and Head Start preschoolers, PBS consultation included an initial meeting with a leadership team and subsequent consultation sessions involving the PBS consultant and the lead teacher. Consultation was in addition to the prior PBS workshops Intervention was across 2 month window, and about 6 hours per classroom were spent in consultation	*wide Evaluation Tool* (Pre-SET), which includes categories of universal PBS practices at the classroom level) results and supported the team's development of an action plan to guide all future consultation sessions. The lead teacher was responsible for developing goals and implementing PBS in the classroom. During the initial meeting, the consultant discussed the rationale for and critical features of preschool PBS. The consultant then shared the preschool's Pre-SET information, highlighting areas of strength and identifying skills and supports not yet implemented. This discussion culminated in the collaborative completion of the PBS action plan to target specific goals for consultation sessions. The action plan focused on classroom materials, transitions, and classroom routines. Subsequent consultation sessions involved the consultant and lead teacher only and occurred during regular classroom activities. The consultant observed classroom activities, modeled strategies, and provided feedback on the lead teachers' use of targeted skills and supports. Feedback was directly related to the targeted goals identified on the action plan. The schedule and timing of consultation visits were determined by the consultant's availability.		on the Pre-SET (<=60%). No demographic data were collected for the characteristics of teachers participating. The first author was the positive PBS consultant for the study. The investigator was a PhD candidate in early intervention with training in PBS and 6 years of experience providing behavioral support to educators working with toddlers and preschoolers.	but overall low levels of problem behavior prevented assessment of the impact of these changes on child problem behavior.
Boller et al. 2010	Across two communities, 52 family child care providers and 14 center	As part of the Seeds field test, participants (teachers and center directors) in the treatment group	Classroom: Quality rating system	Two communities in Washington State: White Center, an unincorporated	At follow-up, family child care providers and center-based lead and

Table A.2 *(continued)*

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	based providers were randomly assigned to a treatment or control group as part of Seeds to Success. The treatment group received coaching, quality improvement grants, and funds for professional development opportunities and supports; the control group received funds only for professional development opportunities and supports. The impact evaluation was designed to determine whether the coaching model and financial incentives implemented as part of Seeds to Success affected the quality of services provided by participating child care businesses (in both family home and center settings), compared with those businesses that did not receive Seeds. (Note that this study by Boller et al. 2010 includes both an implementation and impact evaluation. The summary here focuses on the implementation study).	received the following during the period June through December 2009: (1) up to 8 hours of coaching per month, (2) quality improvement grants, based on their Seeds rating (with higher-rated programs receiving more funding), and (3) funds for training and course work, as well as funds to cover the costs of child care expenses, release time, and books. Coaching hours for center classrooms were divided between lead teachers and assistants, with more hours intended for lead teachers. Informed by their Seeds rating and ERS score, providers and coaches developed quality improvement plans to guide the coaching sessions. The goal of the Seeds coaching model is to train coaches to develop a trusting relationship with early learning professionals so that they can help early learning professionals reflect on their practice (1) in the classroom or in their business and (2) during interactions with the other providers in that setting, with families, and with the children that are in their care. The Seeds coaches were also trained to help the treatment group professionals stay motivated to attain their quality improvement goals and to help establish skills and behaviors that support continuous quality improvement.	scores, Environmental Rating Scale (ERS) scores	area just outside Seattle, and East Yakima, a neighborhood in the central Washington community of Yakima. At baseline, nearly two-thirds of family child care providers (57 percent) identified themselves as Hispanic, 15 percent as white non-Hispanic, and 26 percent as of an "other" race or ethnicity. Nearly half have less than a high school education, and only 14 percent reported having an AA, BA, or completed graduate work. Child care center staff most frequently identified themselves as white non-Hispanic. More than half of directors reported having at least an AA or a BA, and approximately 30 percent of lead teachers reported earning an AA, a BA, or a graduate degree. In contrast, only 17 percent of assistant teachers reported having an AA or a BA.	assistant teachers in the treatment group were much more likely than those in the control group to report visits from a coach at least weekly. Child care businesses in the treatment group had significantly higher child care observed quality scores (ERS) at follow-up than businesses in the control group. Despite large differences in observed quality, the overall Seeds scores themselves were not affected by the coaching and quality improvement grants. However, the components of the SEEDS scores depended on other factors besides ERS scores, such as teacher receipt of degree.
Buysee, Castro, and Peisner-Feinberg 2010	The Nuestros Niños program consisted of three professional development components: (1) 3-day	The Nuestros Niños Community of Practice Model combines principles of situated learning and reflective practice with the	Provider: teachers' language and literacy practices	55 teachers and 193 Latino pre-K Dual Language Learners, at various stages of acquiring English.	The intervention classrooms made significantly greater improvements as

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	professional development institutes at the beginning of the school year to promote teachers' acquisition of core content knowledge and skills, (2) individualized consultation sessions to support teachers in implementing new instructional strategies in the classroom, and (3) community of practice meetings to provide participating teachers with opportunities for feedback, reflection, and collaborative problem-solving. Following the initial 3-day institute, each consultant worked with a group of 6-8 teachers for 8 weeks, visiting classrooms every other week and conducting community of practice meetings with her assigned group of teachers on alternate weeks. Consultants participated in intensive professional development and once-a-week reflective supervision meetings, both facilitated by the research team. Participants were selected from a state-funded pre-K program for at-risk 4-year-olds in North Carolina.	Lesson Study approach to offer teachers a structured process for developing and refining instructional strategies through shared inquiry and learning. The consultation approach was adapted from the eight-stage consultation model for early childhood programs developed and manualized by Buysse and Wesley. An implementation plan developed jointly by each classroom teacher and her consultant was used as the basis of bimonthly visits to monitor a teacher's progress and make necessary adjustments related to project goals for improving language and literacy learning for Latino DLLs.	as well as those specific to working with Latino DLLs Child: literacy skills in both English and Spanish	Participants were selected from a state-funded pre-K program for at-risk 4-year-olds in North Carolina.	compared to the control classrooms in both the quality of instructional practices (intervention M= 3.5; control M= .9) and the quality of the literacy environment (intervention M= 2.6; control M= .9). For outcomes assessed in Spanish, there were greater gains for children in intervention than control classrooms on one of the measures: Phonological Awareness (esp. rhyming skills). Effect size for Phonemic Awareness Task was 0.69 and for Rhyme Matching it was 0.68. For outcomes assessed in English, there were no significant differences between intervention and control group classrooms in children's growth on the overall scores for the language and literacy measures.
Clancy-Menchetti 2006	Head Start centers were randomly assigned to a mentoring or non-mentoring condition, i.e., every teacher within a	**Initial training.** Each year at the start of school, the teachers and teacher aides attended an initial workshop on the emergent literacy curriculum to which they	Teacher: Literacy instruction, curriculum implementation	Preschool teachers from Head Start centers and Public School programs. The Head Start centers were in a medium-sized city in	Mentoring was found to have no impact on teachers' overall *ELLCO* score, or on any of the 14 items. However, the

Table A.2 *(continued)*

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	center received the same level of professional development. In contrast, public schools were first randomly assigned to one of the two curriculums (*Literacy Express*, *Open Court/DLM*) and then the classrooms within the schools were randomly assigned to condition. Teachers and aides attended an initial 1½-day professional development workshop (approximately 10 hours) at the start of each year. Every two months (4 each year) all participating teachers attended mini workshop. Mentored teachers had a mentor assigned to them for an average of 2 - 3 hours per week.	had been randomly assigned. The Head Start teachers attended separately from the public school teachers. **Ongoing training.** Mini workshops were held to present upcoming lessons and activities to both the mentored teachers and the non-mentored teachers. Meetings included time for answering any questions, demonstration of upcoming activities, and practice of the new skills. **Mentoring.** The mentor modeled the small group emergent literacy activities, provided guided practice and feedback as necessary, assisted the teachers in arranging their classrooms to make them more literacy rich, helped problem solve behavior management issues, helped with grouping students, and provided ongoing support and encouragement to the teachers as they attempted to implement the new curriculum.	Classroom: ELLCO scores Child: Literacy outcomes	northern Florida. 11 of the public school programs were in the same city, and 1 was in a nearby rural town. The total number of classrooms was 40 (mentored, n = 21; non-mentored, n = 19). The total number of students was 970 (mentored, n = 528; non-mentored, n = 442). The public school teachers had more college education than the Head Start teachers. More than 75% of the former had at least a bachelor's degree, while only 10% of the latter had a BA. 3 project staff served as mentors, all having a college degree.	mentored teachers did have higher levels of compliance to implementing one of the emergent literacy activities. That is, overall a higher percentage of mentored teachers implemented the reading activities they were trained to implement. Children from mentored classrooms had significantly greater growth on the Elision subtest than children from non-mentored classrooms. More differences were found when the student data was analyzed by site than by condition.
Clements and Sarama 2008	Thirty-six preschool classrooms were assigned to experimental (Building Blocks), comparison (a different preschool mathematics curriculum), or control conditions (teachers used their school's mathematics activities). Teachers in both intervention groups received training, including 4 days and 2-hour refresher classes once every other month. Training for both groups	**Training.** Training addressed the following topics but always in the context of the specific curriculum to which they were assigned: supporting mathematical development in the classroom, recognizing and supporting mathematics throughout the day, setting up mathematics learning centers, teaching with computers (including use of the management system and research-based teaching strategies), small-group activities, and supporting mathematical development in the	Teacher: Mathematics instruction, curriculum implementation	35 teachers serving 276 children from low-income households (in Head Start and state-funded preschool programs) or mixed- (low- and middle-) income homes in New York state were randomly selected	Observational measures indicated that the curricula were implemented with fidelity, and the experimental condition had significant positive effects on classrooms' mathematics environment and teaching. The experimental group score increased significantly more than the comparison group score (effect size = 0.47) and the control group score (effect size

Table A.2 *(continued)*

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	also included monthly in-class coaching (16 hours of in-class coaching).	home. **Coaching.** Coaching included monitoring, reinforcing, suggesting alternatives, and collaborative problem solving, emphasizing only one or two issues per visit and focusing on implementation of the specific curriculum.			=1.07). Although the main conclusions concern a curriculum, a second implication is that substantial professional development may be necessary to achieve a high-quality implementation of that curriculum. The 34 hours of focused group work and approximately 16 hours of in-class coaching of the present study is substantially more than offered to most teachers.
Cusumano et al. 2006	Twelve teacher-participants in preschool or prekindergarten centers formed the literacy training and coaching group (LT/C), 10 teacher-participants were assigned to the literacy training and no coaching group (LT/NC), and 19 teacher-participants were assigned to the comparison group (NL/NC). The literacy training consisted of HeadsUp Reading! (HUR), a 15-week, satellite distance learning curriculum for early childhood educators. Half of the teachers participating in the college course were also provided with a Literacy Coach (LC).	**Literacy Training**. College professors facilitate the HUR course, as well as typical college-level group interactions and discussions. **Literacy Coaching**. The goal of the LC was to assist teachers by modeling implementation of strategies in their early childhood settings, observing teachers as they transferred these skills, and providing feedback as to how to refine their skills further. On average, teachers in the LT/C group received seven coaching sessions of 50 minutes in duration across the final 5 to 7 weeks of the 15-week college course.	Child: Literacy skills	41 preschool teachers in preschool or prekindergarten centers and teaching children between 3 and 5 years of age. On average, teachers had 10 years of experience. 22% had a 4-year degree, 15% had an AA, 27% had some college, and 37% had a high school degree.	Teacher participation in the literacy training course accounted for a percentage of children's growth in phonological awareness (IGDI Alliteration scores). This finding did not emerge for the Picture Naming and Rhyming subtests, however. Support was not found for the coaching component. That is, all students in treatment conditions evidenced growth in phonological awareness.
Cusumano 2005	Three groups were	The role of the LC was to	Child:	41 preschool teachers in	Participation in literacy

Table A.2 *(continued)*

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	formed: literacy training only group (LT/NC; N= 10), Literacy Training and Coaching (LT/C) group (N=12), and control group (NL/NC; N=19). The research-based literacy curriculum, HeadsUp! Reading (HUR) was offered to ELO teachers as a college level course. Numerous resources also were provided to ELO teachers in the HUR class, such as books for classroom libraries, props for dramatic play and storytelling, and magnetic alphabet letters with display boards. Approximately half of the ELO teachers participating in the HUR class received a Literacy Coach (LC) who visited teachers in their childcare settings weekly for 1 hour. Teachers in the LT/C group were expected to receive an average of 14 coaching sessions with their LC, of 1 hr each. Finally, a control group of teachers and students also was created (NL/NC). This group did not participate in the HUR training, did not receive any additional resources, nor were they recipients of coaching.	facilitate and guide the application of research-based strategies into participating teachers' classrooms. During coaching sessions, LCs engaged in a cycle of observing the teacher, providing feedback, modeling instructional strategies, and setting goals for the teacher for subsequent coaching sessions. The framework for this coaching model was adopted from the Early Literacy and Learning Model (ELLM) that was designed to assist preschool and early elementary school teachers in their integration of research based literacy instruction into their classrooms. The Early Literacy Observation Checklist (ELOC), an index of the literacy-related environment and teacher-student interaction variables, was completed in all conditions after a 30-minute classroom observation during which a literacy activity had occurred. ELOC data from LT/C and NL/NC classrooms was gathered by the program evaluation team. LCs completed the ELOC for all participating teachers, following a 30-minute observation. LCs also utilized the ELOC information to identify key needs to be addressed during coaching sessions. Teachers in LT/NC and NL/NC settings were not provided with feedback relative to observations made while completing the ELOC.	Early literacy development	Pinellas County, Florida Only 33-37% of teachers in the LT/C and LT/NC conditions reported attaining a post-secondary education, compared to 95% of teachers in the NL/NC condition Three LCs holding bachelor's degree in early childhood education 623 students between the ages of three to five years, with English as their primary language, and no identified disabilities	training emerged as a significant predictor of rates of growth in children's phonological awareness, with students of teachers who had participated in the training demonstrating higher rates of growth than students of teachers not participating (IGDI Alliteration scores). This finding did not emerge for the Picture Naming and Rhyming subtests, however. Coaching variables from both qualitative (having a coach or not) and quantitative (number of visits and duration of visits) perspectives did not account for significant amounts of variance in rate with which children attained early literacy skills. The ELOC served as a source of data-based decision making around which LC.s structured their coaching sessions. The authors argue that perhaps more time is required to assess the outcome of indirect effects (early literacy development) as opposed to direct effects (teacher skill attainment).
Feil et al. 2009	The study's aim was to determine, via a randomized controlled	**Training.** Teachers and other teacher staff attended a monthly 2-hr class as a teaching team	Teacher: Management of child	Two Head Start programs in Oregon (33 classrooms having a teacher, teacher	The intervention program's application was associated with

Table A.2 *(continued)*

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	pilot trial, the efficacy of the preschool adaptation of a Positive Behavior Support (PBS) model in two Head Start programs. The intervention included monthly 2- to 3-hr training and classroom consultation sessions implemented over a school year. PBS is a well-established strategy for addressing problem behaviors in children. It is defined as a collaborative and values-based approach for developing effective, individualized interventions for people with problem behaviors.	with members of each team receiving approximately 14 hr of total training over the school year. In a workshop-type atmosphere within their respective classroom teaching teams, HS staff focused on behavior expectations and consequences; strategies to teach behavioral standards to children; and strategies to positively reinforce behavioral expectations and to address unacceptable behavior, etc. Classroom organization was also reviewed to provide routines for entering and exiting, transitions, and quiet-time areas. **Consultation.** Follow-up coaching and technical assistance were provided as requested by each HS teacher in his/ her respective classroom during instructional hours. Most consultation was focused on classroom management (e.g., coach modeled how to teach interventions such as attention signal, concentration game, and asking for help appropriately). Both the HS site managers and staff from the University of Oregon provided technical and coaching assistance dealing with effectively applying skills taught at the monthly sessions.	behavior and social skills Child: Behavior and social skills	assistant, and approximately 18 children within each). Seventy-three percent of the children were White, and 31% were Hispanic. Participating teachers had an average of 10 years of teaching in HS. Thirty-five percent received a childhood development credential, and 60% had a bachelor's (or master's) degree.	medium to large effect size improvements in participating students' overall social competence as measured through (a) enhancements in their ratings of adaptive student behavior and (b) corresponding decreases in student levels of challenging behavior and aggression as reflected on teacher rating scales. Feedback from participating teachers indicated they viewed their experiences with the intervention quite positively.
Fiene 2002	Randomized design in which self-selected group of center-based childcare programs were randomly assigned to two groups: 1) 4 month intervention in which caregivers were paired with an experienced early childhood	The mentoring model consisted of a problem solving approach in which the mentor spent a good deal of time observing in the beginning weeks in order to develop a trusting relationship with the protege´. Once both the mentor and protege´ felt comfortable then suggestions could be entertained by the	Caregiver: improve quality of the classroom and quality of infant-caregiver interactions	Fifty-two infant caregivers from 27 childcare center-based programs in south central Pennsylvania. Teachers were predominantly Caucasian (77 percent), with 57 percent having high school diplomas.	When the programs and caregivers were measured at the post-test, positive changes occurred for both groups although none were found to be statistically significant. In the aggregate, the programs that

Table A.2 *(continued)*

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	educator/mentor or 2) nonmentoring control group receiving workshop training only. Details on frequency/intensity not provided.	mentor. No additional details provided.			continued with the mentoring project showed improvements in the overall quality of care (ITERS routines, ITERS learning, Arnett sensitivity, Arnett discipline). On the Arnett scale, the mentoring group increased greater than the control group (11 point increase versus a 7 point increase).
Girolametto et al. 2003	The 14-week program in 4 licensed nonprofit day care centers included 8 group sessions to teach program strategies and six individual sessions in the day care. A speech-language pathologist delivered the training program. A control (no-treatment) group was used to control for the effects of history and maturation.	**Group sessions.** The group sessions were 2.5 hr long and took place in the evening after the day care was closed. Each session included various learner-centered activities such as interactive lectures, observation and analysis of videotapes that illustrated program techniques, large and small group discussions, and role-plays of program techniques. **Individual sessions.** Individual videotaping sessions occurred during the 2-week interval between evening sessions, each consisting of a 5-min videotape of caregiver–child interaction followed by 30 min of individual feedback and discussion regarding the use of program strategies.	Child care providers: Interactive language stimulation practices Child: Language outcomes	16 early childhood educators working in 4 licensed nonprofit day care centers in the metropolitan area of Toronto All child care providers had completed high school as well as 2 years of postsecondary education resulting in a diploma in Early Childhood Education. Children involved were typically developing children from the provider's classroom. At pretest, the children ranged in age from 18 to 67 months.	At posttest, the experimental group waited for children to initiate, engaged them in turn-taking, used face to face interaction, and included uninvolved children more frequently than the control group. In turn, children in the experimental group talked more, produced more combinations, and talked to peers more often than the control group. The results support the viability of this training model in early childhood education settings and suggest directions for future research.
Han et al. 2005	The pre-K RECAP (Reaching Educators, Children, and Parents) program is a semi-structured, cognitive-behavioral skills training program that provides teachers with in-	Throughout the academic year, program consultants spent one day (4–6 hr) per week in each classroom for ongoing training of teachers and teaching assistants in weekly group meetings, observation of teachers' program	Child: Social skills and behavior problems	149 children aged 4–5 years from 12 pre-kindergarten classrooms in 6 public elementary/middle schools that serve children from low-income backgrounds. Reflecting the	Pre- and post-treatment data were collected in the fall (September and October) and spring (April and May). Significant treatment

Table A.2 *(continued)*

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	classroom consultation on program implementation and classroom-wide behavior management. Three schools containing six classrooms were assigned to receive the intervention program and three schools containing six classrooms were assigned to the comparison condition. Pre-K RECAP includes (a) a classroom-based curriculum and behavior management system, both of which are designed to enhance children's social skills and adaptive problem-solving; (b) weekly site-based teacher training and consultation on implementation throughout the academic year; and (c) a bi-weekly parent group component. Participating pre-kindergarten classrooms were in 6 public elementary/middle schools that serve children from low-income backgrounds.	implementation, and consultation on implementation. While in the classroom, the consultant helped to reinforce and model the program's principles, and provided teachers and their assistants with feedback on their implementation of program strategies and techniques (e.g., helping teachers to customize the program for the particular needs of their classroom). Consultation focused on program implementation to guide the teachers in administering the classroom social skills curriculum correctly and tailoring the behavioral management system to fit the needs of the classroom. Consultation served two primary functions: 1) to help teachers implement the program accurately and consistently, and 2) to identify sources of positive reinforcement for the teachers' efforts at program implementation, in order to promote teacher motivation. The pre-K RECAP program also included a parallel component for parents. The parent training component was administered by the program consultant and was offered to parents of children in the treatment classrooms in a group format with 16 bi-weekly sessions at the school. To review program implementation and maintain treatment fidelity, the program developers periodically visited the classrooms to observe the consultants, and consultants received weekly individual		neighborhoods in which the families resided, the racial/ethnic composition was 89% African American, 6% Caucasian, and 5% of mixed or other racial background. Two masters-level clinicians served as the program consultant to teachers and the group leader for the parent groups. Consultant training was provided by Susan Han and Bahr Weiss, developers of the RECAP and pre-K RECAP programs.	effects were found for teacher but not parent reports, with treatment group children improving significantly more than comparison group children in their teacher-rated social skills and internalizing and externalizing problems. These results provide some preliminary support for the efficacy of the program on children's social skills and behavior problems, and for a teacher-consultation model for training teachers to implement school-based mental health programs. However, further investigation is clearly needed to establish that the provision of intensive teacher consultation results in long-term sustainability of program implementation by teachers in the real world, even after consultation is subsequently discontinued.

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		supervision. For supervision purposes and to help maintain treatment fidelity, consultants completed weekly reports of teachers' implementation activities in each classroom and any adaptations to or deviations from the intervention protocols. Throughout the duration of the project, the consultants also participated in weekly group supervision meetings with the program developers and other RECAP consultants involved in other projects, to monitor treatment fidelity and address ongoing clinical and implementation issues within the program's framework.			
Li-Grining et al. 2010	Head Start classrooms randomized to the treatment group received access to 1) teacher training (5 monthly trainings of 6 hours each, held from October to March) and 2) weekly visits of 5 hours each (from October to June) of a master's level mental health consultant (MHC) in the classroom.	**Training.** Each training session addressed proactive classroom management strategies (adapted from Webster-Stratton et al. 2004). A program coordinator visited teachers in treatment classrooms and provided logistical support, including signing teachers up and confirming their plans to attend training sessions, scheduling onsite child care for teachers' children, and coordinating timely reimbursement for teachers' payments. At the end of each training session, both teachers and MHCs evaluated the session. **Mental health consultant visits.** A master's-level social worker was assigned to each site to provide in-classroom mental health consultation through weekly visits. S/he "coached" teachers as teachers implemented behavior management strategies in the classroom. At the conclusion of	Teacher: Classroom management strategies	48 Head Start lead and assistant teachers in 18 classrooms throughout the South and West Sides of Chicago. Most teachers belonged to a racial/ethnic minority group	MHCs rated teachers' use of classroom management techniques as somewhat successful. From the teachers' perspectives, the trainings were extremely helpful, and MHCs were rated by teachers as somewhat to very helpful in terms of implementing classroom management strategies and providing consultation to teachers and children. Findings suggest that psychosocial stressors are not a barrier to teachers' use of intervention services. Contrary to expectations, teachers reporting more stressors attended

Table A.2 *(continued)*

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		each visit, MHCs reported on teachers' attempts at classroom management techniques; teachers' concerns; the activities that the MHCs had pursued as part of mentoring and coaching; and the types of social services that MHCs had provided to teachers, children, and parents.			more training sessions than did teachers reporting fewer stressors. Teachers reporting higher levels of stress availed themselves of less support from mental health consultants during classroom consultation visits offered to treatment group classrooms as part of the intervention. Specifically, teachers who reported higher levels of stress and more depressive symptoms, availed themselves of less support from mental health consultants during classroom consultation visits and spent less time receiving consultation on specific classroom management strategies taught in the trainings.
Knoche et al. 2010	The implementation efforts of early childhood professionals involved in the Getting Ready project, an integrated, multi-systemic intervention that promotes school readiness through parent engagement for children from birth to age five, were investigated. Adherence, quality of intervention delivery, differentiation between groups, and participant responsiveness were assessed as multiple dimensions of fidelity.	The model is focused on supporting the dyadic parent-child relationship, and an exchange of ideas and developmentally appropriate expectations for children between parents and early childhood professionals (ECPs). *Triadic* and *collaborative* strategies are used by professionals, which involve establishing relationships, maintaining positive communication, asking for and building on parental observations of child development, recognizing parental strengths and offering	Teacher and parent: intervention strategy use Teacher: Implementation fidelity, outreach to parents	65 early childhood professionals in Early Head Start (n = 38) and Head Start (n = 27). Early Head Start ECPs averaged six years of experience. Their length of time enrolled in the Getting Ready study averaged 14.2 months. Head Start ECPs averaged nine years of early childhood experience, and the mean length of time they were involved in the Getting Ready study averaged 21.3 months.	Early childhood professionals in the treatment group relative to the comparison group demonstrated greater frequency of adherence to some intervention strategies, as well as higher rates of total strategy use. In addition, significant positive relationships were found between years of experience, education and quality of intervention delivery. Quality intervention

Table A.2 *(continued)*

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	Sites were randomly assigned to treatment by buildings and/or workgroups. EHS programs were in three community service agencies in rural counties in a Midwestern state; each agency housed 5 - 21 ECPs. HS classrooms were within elementary schools in a district in a midsized, Midwestern community. All early childhood professionals in the treatment group received general training via a structured training institute, booster sessions, and on-going group and individualized coaching twice monthly, with efforts instituted to move professionals toward internalization and full conceptual and practical integration of the Getting Ready strategies. ECPs in the comparison condition participated in training sessions that were child-focused as compared to family- and child-focused as in the treatment group. Specifically, they received training on social-emotional development and learning competencies of young children. They did not receive specific training on working with parents, or strategies to involve parents in their children's	affirmations, supporting parents via the provision of developmental information, and encouraging them to discuss and prioritize concerns and needs for their child while at the same time focusing on child strengths, Specifically, ECPs observe parent-child interactions frequently, often in home settings, in an effort to support parental practices and interactions with their children. Additionally, ECPs brainstorm effective approaches to support children's development, model strategies that have been shown to advance children's attention, motivation, and understanding of new concepts and skills, and provide feedback (affirmations, suggestions, and demonstrations) on parental efforts to engage children in natural and structured learning opportunities, Children's responses are noted, and the need for adjusting intervention components is discussed based on these shared observational data, and plans for future directions are developed.			delivery was different by program type (Early Head Start versus Head Start). Adherence in the treatment group was correlated with the rate of contact between parent and early childhood professional during the home visit.

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	development. Comparison ECPs received supervision at the agency or school level for case management.				
Lambert and Capizzano 2005	Two Head Start agencies located in two different southeastern states. The Treatment teachers received training and technical assistance to enhance the implementation of The Creative Curriculum. The control teachers continued to implement the existing curriculum and did not receive any additional training or technical assistance beyond what their Head Start programs provided. Site I received high quality training and moderate quality technical assistance over the two years. Study tracked intervention for two years. Site II received moderate quality training during the first year and high quality training during the second year. However, Site II received high quality technical assistance over the two years.	**Training.** High quality training for the purpose of this study is defined as clear and explicit delivery and discussion of CC content, effective participant involvement in learning opportunities, and trainer observations of the participants' implementation of the curriculum which provided the opportunity for individualized feedback and follow-up training based on observed needs. **Technical assistance (TA).** High quality TA is defined as a systematic process of formative evaluation that involves classroom observation using the CC Implementation Checklist and feedback on the teacher's implementation of the curriculum. An individualized classroom development plan guides the teacher's efforts to enhance teaching practices. The TA is focused on building long term, teacher self-reliance in implementing of CC. No additional information provided on intensity/duration of TA.	Classroom: classroom quality	At the end of year two, there were four Treatment and three Control teachers at Site I and five Treatment and five Control teachers at Site II. Teachers were in two Head Start agencies located in two different southeastern states.	There were gains across all measures, although these gains were confined to the second year of the study. These effect sizes represent the difference between the treatment and control classrooms within site in standard deviation units. The ECERS-R yielded the following results at the end of the second year in the study. Site I had an effect size of .14 and Site II .39. The Caregiver Interaction Scale scores showed the following effect sizes: Site I was .08 and Site II was .36. The Teacher Behavior Rating Scale yielded the following effect sizes on each of its subscales: Book Reading Behaviors – Site I .39 and Site II -.25; Print and Letter Knowledge – Site I .06 and Site II .90; Oral Language Use – Site I -.26 and Site II .87; Math Concepts – Site I -.21 and Site II 1.23; Written Expression – Site I .09 and Site II 1.20; and Phonological Awareness – Site I -.51 and Site II .36. Site II scored higher on

Table A.2 *(continued)*

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					all of these measures, which supports the idea that having both high quality training and technical assistance results in better implementation of CC, which leads to higher quality classrooms.
Landry 2010	4 "treatment" (professional development) groups versus "business as usual" control. Groups defined based on whether received detailed or limited feedback (via palm personal digital assistant [PDA]), and whether received mentoring. Groups included preschool teachers in Head Start, child care, and public school pre-K programs.	Professional development for teachers includes: • 2 days of language and literacy training • Web-based professional development with facilitator (20 sessions per year for 2 years) • 1 day of face-to-face progress monitoring training • Ongoing mentoring	Teacher: Literacy instruction Child: Literacy outcomes	265 preschool teachers in 158 schools (Head Start, child care, and public school pre-K) in Ohio, Maryland, Florida and Texas 1786 children assessed: 17% Caucasian, 34% African American, 42% Hispanic American, 2% Asian, 5% Other	Effects were found for the mentor+palm condition for TBRS teacher total quantity rating scores and for children's post-test phonological awareness, written expression, and print and letter knowledge. Author concludes: intensive professional development improves instruction and child outcomes, and effective programs can be scaled in all types of low-income early childhood settings.
Landry and Knight 2001	Head Start teachers either 1) participated in the professional development model or 2) received "typical" training and support (comparison teachers). The professional development program began with a 3-day workshop with program administrators, coordinators, and mentor teachers. Ongoing, weekly in-classroom coaching for targeted teachers was also	**Training.** Teachers were trained in 4-day, 2-hour small group, interactive workshops on specific ways to teach early literacy skills including language. Teachers also spent time developing lesson plans with literacy objectives and role playing activities related to these lesson plans. **Coaching.** Once the initial training workshops were completed prior to the start of the school year, all targeted teachers received, weekly, 1-hour in-class coaching with follow-up "grows & glows"	Teacher: Literacy instruction Child: Literacy outcomes	20 Head Start programs with 500 target teachers who participated in the professional development model, and 210 comparison teachers. Approximately 8,000 children were in target teacher classrooms. The programs are located throughout Texas with 60% located in urban areas and 40% in rural settings.	Target teachers made significantly greater gains than comparison teachers in all areas on the teacher behavior checklist, with average gains of about .75 on a five point scale on oral language, literacy activities, team teaching, and best practice subscales. Conducting effective book reads showed the most dramatic change (1.5 pts). Midpoint in the project,

Table A.2 *(continued)*

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	part of the model.	meetings concerning their progress. To assist mentors and classroom teachers in identifying targeted areas for change, a teacher observation checklist was used to guide mentoring and provided information for the evaluation of the model. Classroom mentors and program coordinators attended monthly full day training meetings across September through May conducted by CIRCLE training staff. At these monthly training programs, mentors received in-depth training on how to coach early literacy areas and problem solving regarding how to implement change with all types of teachers.			approximately 65% of the programs show positive gains in the language and/or literacy areas. Seven programs show the strongest gains with both language and literacy areas improving to a greater extent in the target vs. control children. Six additional programs show moderate gains for target vs. control children in language and literacy areas. The authors argue that implementation of the program highlights that side by side coaching is an important component for professional development. Also, training needs to be step by step and include many "how to's". While it involves additional time investment, it is also critical to work with all levels of program staff to achieve "buy in" and facilitate change.
Landry et al. 2009	Participating schools were randomly assigned to one of five experimental conditions: (1) mentored with personal digital assistant (PDA)-based progress monitoring (detailed feedback), (2) non-mentored with PDA-based progress monitoring, (3) mentored	During initial classroom visits, the facilitators assessed the instruction being used in the classroom and evaluated the classroom environment using the Teacher Behavior Rating Scale (TBRS). Subsequent mentoring visits consisted of helping teachers with classroom arrangement, instructional lessons, and instructional	Teacher: Classroom management; best practices and responsive teaching; and setting the stage for children's language, literacy, and math development.	Participants included 262 early childhood educators who were housed in 158 schools. These teachers were distributed across Ohio, Maryland, Florida, and Texas. Participating schools primarily served children and families from low-SES backgrounds.	Individual group comparisons showed that teachers in the two professional development groups who received detailed feedback from the PDA-based progress monitoring tool were observed engaging in more teaching than

Table A.2 *(continued)*

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	with paper-and-pencil progress monitoring (limited feedback), (4) non-mentored with paper-and-pencil progress monitoring, or (5) control. Teachers in the 4 professional development conditions attended 2-hour online classes 2 times a month for nearly the entire school year (eCIRCLE). For groups 1 and 3, facilitators mentored teachers twice a month for 2 hours each visit.	planning. Facilitators also provided teachers with reflective follow-up and written feedback. Written feedback was provided using the CIRCLE Glows and Grows Mentoring Tool Across the year, facilitators videotaped teachers during book reading, center time, and small-group instruction. The facilitators rated each videotape and provided feedback.			teachers in the control group, for mentored PDA and non-mentored PDA groups, respectively. A significant Mentoring X Feedback interaction, $t(65) = 2.70$, $p < .01$, revealed that being provided with both a mentor and detailed feedback on children's progress was associated with the highest quality teaching and that being provided with neither a mentor nor detailed feedback was associated with the poorest quality teaching among intervention groups. When comparing teachers in the two intervention conditions with mentoring with teachers in the two intervention conditions without mentoring, results showed that mentored teachers had significantly higher quality phonological awareness instruction than those who did not receive mentoring, and teachers in all four of the facilitated online intervention conditions demonstrated higher quality instruction in written expression at the end of the year. In addition, teachers who received both mentoring and detailed

Table A.2 *(continued)*

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					feedback improved the quality and frequency of their instruction of early writing, phonological awareness instruction, letter knowledge, and shared reading than those who did not.
Layzer et al. 2007	Project Upgrade was a two-year experimental test of the effectiveness of three different language and literacy interventions, implemented in child care centers in Miami-Dade County that served children from low-income families. One hundred and sixty-two centers were randomly assigned to one of three research-based curricula or to a control group that continued with its existing program. The curricula, while grounded in a common set of research findings, differed in intensity, pedagogic strategies and use of technology. In each center, one classroom that served four-year-old children was selected for the study. Teachers and aides assigned to the three treatment groups received initial and follow-up training as well as ongoing mentoring over a period of approximately 18 months, from Fall 2003 to Spring 2005. All classrooms in the study, whether treatment or	During the year, each curriculum was assigned two mentor coaches, paid for by the SRC, and supervised by on-site coordinators employed by the developers. Each mentor was responsible for approximately 18 classrooms, which she visited twice a month, on average. The site coordinators also conducted mentoring visits, especially to new teachers or to teachers who were experiencing difficulty implementing the curriculum. The visits were similar across curriculum models, with each mentor visiting one or two classrooms in a morning, one or two classrooms in the afternoon, and completing paperwork at the end of the day. Each team developed a systematic way of recording and rating implementation progress and providing instructional feedback to teachers. The forms used by the coaches reflect the developers' ideas about key components of the curriculum and effective strategies to communicate them. They were used to identify specific areas for teachers to work on, such as conducting more activities in small groups, spending less time in whole-group activities, using graphic organizers to build vocabulary from the book of the	Teacher: teacher behavior and interactions with children Classroom: Aspects of the classroom environment that support children's language and literacy development, measured through direct observation; Child: Language and preliteracy skills, measured by their performance on a standardized assessment.	Staff who teach four-year-old children in 162 centers in Miami-Dade Across all the classrooms in the study, 54% of the children were predominantly Spanish-speaking, 41% spoke English as their primary language, less than 1% spoke Haitian Creole. In 36% of the classrooms, all the children spoke English as their primary language; in 48% all the children spoke Spanish as their primary language. In 16% of classrooms there was a mix of languages. In classrooms with one or more Spanish-speaking children, at least one staff member spoke Spanish. The average observed ratio was one staff member to 10 children, with an average group size of 15 children.	There was a small but significant relationship between teachers' educational attainment and some aspects of their behavior with children before the interventions. The effect of the training and on-going mentoring provided as an integral part of the interventions was to eliminate this effect. That is, as a result of the training and mentoring, less-educated teachers looked remarkably similar to their better-educated counterparts in the extent to which they provided activities that supported literacy. Consequently, the impacts of the interventions on child outcomes were not affected by teachers' educational achievement. Two of the three interventions, Ready, Set, Leap and Breakthrough to Literacy, had significant impacts on all four

Table A.2 *(continued)*

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	control, received an initial package of literacy materials (paper, crayons, books, tape recorders, books on tape etc.).	week, strategies for classroom management to help children focus.			measures of emergent literacy outcomes for children: definitional vocabulary; phonological awareness; knowledge and understanding of print; and the overall index of early literacy. The impact of the two effective interventions was much greater for children in classrooms with Spanish-speaking teachers than for children in classrooms with English-speaking teachers.
Layzer et al. 2009	Project Upgrade was a two-year experimental test of the effectiveness of three different language and literacy interventions, implemented in child care centers in Miami-Dade County that served children from low-income families. One hundred and sixty-four centers were randomly assigned to one of three interventions, each of which used a research-based curriculum, or to a control group that continued with its existing program. The curricula, while grounded in a common set of research findings, differed in intensity, breadth, pedagogic strategies and use of technology. In each center, one classroom that served four-year-old children was selected for the study.	**Training**. The interventions involved two kinds of training; first, mentors who would visit classrooms and support curriculum implementation had to be trained in the curriculum and in the developer's approach to mentoring; and then the classroom staff who would implement the curriculum had to be trained. Training for mentors was provided through a two-day training session, with one day devoted to the curriculum itself and the second to the mentoring process. The schedule was similar across the three interventions. In addition, the on-site coach/trainer provided ongoing consultation as well as weekly in-person meetings of the curriculum team. Each curriculum developer provided three in-service training sessions, each lasting two days, off-site, for all teachers and aides who were involved in implementing the	Classroom: Aspects of the classroom environment that support children's language and literacy development Teacher: Teacher behavior and interactions with children Children: Language and preliteracy skills	One hundred and sixty-four centers serving low-income families In each center, one classroom that served four-year-old children was selected for the study. The initial observations, conducted before the interventions, showed that, across all groups, teachers engaged in few of the behaviors and interactions that have been shown to support children's development of language and literacy skills. As a result of the training and mentoring, less-educated teachers looked remarkably similar to their better-educated counterparts in the extent to which they provided activities that supported literacy. Teachers' educational qualifications	All 3 interventions produced significant impacts on teacher behaviors and interactions with children that supported their language and literacy development; there were significant impacts on the number of classroom activities that involved literacy, and on literacy resources in the classroom. The interventions had significant positive impacts on teacher behavior. These impacts were generally stronger for teachers whose primary language was Spanish than for their English-speaking counterparts. Ready, Set, Leap and Breakthrough to Literacy had significant

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	Teachers and aides assigned to the three treatment groups received initial and follow-up training as well as ongoing mentoring over a period of approximately 18 months, from Fall 2003 to Spring 2005. All classrooms in the study, whether treatment or control, received an initial package of literacy materials. To reduce staff turnover, teachers in all four groups who remained in centers received $500 in July, at the end of each year of the study	curricula, as well as interested directors. The first and second sessions were intended to cover all elements of the curriculum; however, rather than dealing with all aspects of the curriculum at the initial training, the plan was to introduce some more difficult concepts and activities such as child assessment at the second training session. The third training session was intended as a refresher training that would build on the experience of several months of implementation (1 day) but also provide training for replacement staff (2 days). **Mentoring.** For this study, the assignment of two mentors to each curriculum, each of whom would be responsible for 18 classrooms, reflected two different considerations: the developers' recognition that, for child care center staff, with widely differing levels of education and training, some ongoing support would be essential; and the ELC's budget constraints. The decision to assign 18 classrooms to each mentor assumed bi-monthly visits to each classroom, but there was no prior assumption made about the length of the visits.		did not modify the impacts of the interventions on child outcomes.	impacts on all four measures of emergent literacy outcomes for children. The impact was much greater for children in classrooms with Spanish-speaking teachers. These two interventions brought children close to or above the national norms on three of the four outcomes. On the fourth, although children in the two treatment groups had significantly higher scores, they still lagged considerably behind the national norms. The interventions resulted in a substantial increase in the time spent on language and literacy activities.
Mashburn and Pianta 2007	MyTeachingPartner (MTP) is a professional development program for preschool teachers designed to support effective teacher-child interactions through a collaborative, web-mediated consultation	Two models of training : 1) Web Only, in which teachers received workshop training in the curriculum (MTP—Language & Literacy Curriculum and Preschool Promoting Alternative Thinking Strategies [PATHS]) and had access to the video exemplars, and 2) Consultancy,	Teacher: Interaction quality Child: Development of language and literacy skills	Preschool teachers. No other info available.	First year results indicate that teachers participating in the Consultancy condition had more positive growth compared to teachers in the Web Only condition for each of the dimensions of

Table A.2 *(continued)*

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	process and web-based video exemplars of effective practices. MTP included two components: a) access to video exemplars of high-quality teacher-child interactions tied to specific dimensions of the CLASS and b) a consultation process that provides regular, multi-modal, ongoing, targeted feedback to pre-k teachers through a standardized protocol that focuses on specific dimensions of teachers' emotional, organizational, and instructional interactions with students, using the CLASS as the basis for a common, validated understanding of teacher behavior. Report describes an experimental study of the effects MTP tested whether it was possible to provide professional development experiences for early educators that enhance their classroom interactions with children and children's development of literacy skills. Web-based consulting was given every 2 weeks for two years.	in which teachers received the same workshop training as the other condition but who also received the regular, web-mediated consultation. Every two weeks, teachers videotaped their implementation of an instructional activity and shared this footage with the research team. Consultancy condition focused on: a) observing the video footage and identifying a teacher's behaviors with students and their effects; b) problem-solving to identify and implement alternative approaches as needed and receiving feedback on such attempts; and, c) establishing a non-judgmental and non-evaluative supportive relationship with a knowledgeable individual. Teachers in both conditions participated in a 2-day workshop training at the beginning of the year that provided an overview of the MTP—Language & Literacy Curriculum and Preschool Promoting Alternative Thinking Strategies (PATHS) curricula, modeled implementation of various activities, and demonstrated access to the curriculum's companion Web site providing video clips of exemplary instruction.			teacher-child interactions. For three dimensions of interaction quality on the CLASS—Teacher Sensitivity, Instructional Learning Formats, and Language Modeling—the rates of change were significantly different between teachers who participated in the Consultancy condition and teachers who participated in the Web Only condition. For Teacher Sensitivity and Instructional Learning Formats, when classrooms had 50% of children classified as poor, no differences in rates of change. However, in high poverty classrooms, teachers who received the consultation supports had greater increases in the quality of teacher-child interactions than teachers who did not receive these supports. Year 2- Children whose teachers participated in the consultation made significantly greater gains in receptive language skills than children whose teacher participated in the web-only condition. In addition, the impacts of the consultancy on children's development of pre-literacy skills

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					were stronger during the second year of the study compared to the first, and among teachers with fewer years of experience teaching pre-school.
Mashburn et al. 2010	MyTeachingPartner (MTP) is a teacher professional development program designed to improve the quality of teacher-child interactions in pre-kindergarten classrooms and children's language and literacy development. The program includes language/literacy activities and two Web-based resources-video exemplars of effective interactions and individualized consultation---designed to support teachers' high quality implementation of these activities. This study examined the impacts of the MTP Web-based resources on the language and literacy development.. Some teachers were randomly assigned to receive access to both the video exemplars and participated in consultation (MTP Consultancy n = 65) while others were randomly assigned to receive access to the video exemplars only (MTP Video Library n = 69).	MTP Consultancy condition received access to Language & Literacy activities and video exemplars of effective interactions as well as individualized consultation to support these language/literacy activities. Teachers in the MTP Video Library condition received the Language & Literacy activities and access to web-based video exemplars of effective teacher-child interactions. The video exemplars included dozens of brief (1-2 minute) video clips with annotations describing teachers' behaviors and interactions. Teachers in both conditions participated in a 2-day workshop training at the beginning of the year that provided an overview of the MTP—Language & Literacy Curriculum and Preschool Promoting Alternative Thinking Strategies (PATHS) curricula, modeled implementation of various activities, and demonstrated access to the curriculum's companion Web site providing video clips of exemplary instruction.	Child: Language and literacy development	1,165 children during pre-kindergarten 65 teachers in treatment, 69 teachers in comparison	Children whose teachers were assigned to receive access to both the video exemplars and participated in consultation made greater gains in receptive language skills during pre-kindergarten compared to children whose teachers were randomly assigned to receive access to the video exemplars only. Further, among MTP Consultancy teachers, more hours of participating in the consultation process was positively associated with children's receptive language development, and more hours implementing the language/literacy activities was positively associated with children's language and literacy development.
Neuman and	Teachers from child-care	Coaches engaged teachers in	Teacher:	Teachers from 291 sites	Neither treatment

Table A.2 *(continued)*

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Cunningham 2009	centers and family day cares were randomly assigned to one of 3 groups: 1- Professional development (PD) Only. This consisted of a 15-week, 3 hour early language and literacy course offered at community college. 2- PD + Coaching. Same course as Group 1, plus weekly coaching sessions, one on one, and on site, for approximately 1 to 1-1/2 hours, for a total of 32 weeks. 3- Control.	reflection and goal setting; the coaches helped to identify desired outcomes and strategies to achieve these outcomes; collaboratively, they developed an action plan for the implementation of new practices the following week, which became the source of further reflection and action. An initial 2-day coaching institute was held, providing an orientation and training to coaches. Course syllabi were discussed and distributed to coaches. Alignment between the course topic and the coaching activity for each week was discussed, along with specific, key, research-based practices that would be highlighted throughout the course. Social etiquette was emphasized, reminding coaches that they were neither a friend nor a supervisor but a professional "guest" in the setting. Coaches role-played specific scenarios and brainstormed solutions to common problems. Based on geographic locations, coaches were randomly assigned to participants in both center- and home-based settings. Based on a review of the literature, the coaching model was designed to include the following elements: • On site • Balanced and sustained • Facilitative of reflection • Highly interactive • Corrective Feedback • Prioritizes	Language and literacy practice and knowledge for working with second-language learners	recruited from child-care centers and family day cares in four priority areas, serving the very poorest children in Michigan's poorest cities. Detroit and midsized cities in urban counties, including Flint, Grand Rapids, and Lansing, constituted priority urban centers.	condition significantly outperformed the control group on posttest knowledge scores. The ELLCO effect size was d= 0.23 for Group 1 and d= 0.77 for Group 2. On the CHELLO, d=0.01 for Group 1 and d= 0.82 for Group 2. Professional development alone had negligible effects on improvements in quality practices. Coursework and coaching together (Group 2) had significant effects on teacher practice. Teachers who received the professional development course and coaching scored significantly higher at posttest on the quality of their early language and literacy practices. These differences included quality improvements in the Book area, $F(2, 173) = 6.02$, $p < .01$; in the Writing area, $F(2, 173) = 12.63$, $p < .001$; and in the Physical Environment, $F(2, 173) = 4.60$, $p < .01$, as well as in Support for Learning, $F(2,173) = 4.60$, $p < .01$, and in Teaching Strategies, $F(2, 173) = 6.20$, $p < .01$.

Table A.2 *(continued)*

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Neuman and Wright 2010	Center-based child care teachers in community centers or public schools were randomly assigned to 1 of 3 groups. Group 1 received a professional development course. Participants randomly selected for Group 2 received professional development through on-site individualized coaching. Participants in Group 3, the wait-list comparison, received no professional development. Coaching sessions were conducted on a weekly basis, one-on-one, and on site for approximately 3 hours over a 10-week time period (between September 2007 and Spring 2008). Coaching began during the same week as the professional development coursework and ended after the 10-week semester was completed.	**Language and literacy course.** Each class used a lecture format to present the week's topic, followed by simulation and hands-on activities designed to link theory to practice. Instructors used videotaped examples frequently in class to augment instruction and to demonstrate examples of quality practices. Assignments required participants to use course content in their instructional practice and to reflect on their effectiveness. The courses were taught by experienced early childhood education faculty who also served as coordinators for each of the six community colleges. Instructors covered the topics in weekly 3-hour classes over a 10-week period. **Coaching intervention.** Coaching was conducted on site, involving teachers in ongoing practice rather than just a temporary infusion of activities. The model was designed to facilitate reflection, not to dictate a correct answer. Further, the model emphasized co-teaching through modeling and demonstration—highly interactive strategies—rather than observation and post-feedback. Coaches were encouraged to establish rapport, build trust, and provide useful suggestions rather than evaluate or judge teachers' performances. Coaches were provided with the course syllabus and readings, and encouraged to emphasize similar content and skills, though in a manner appropriate and specific to the needs of	Teacher: Knowledge of language and early literacy, teacher practices in language and literacy	148 early childhood educators who were housed in 148 community centers or public schools. These teachers were distributed across the sites as follows: Detroit (10%); Cadillac (9%), Flint (24%); Grand Rapids (10%); Jackson (24%); and Lansing (24%). Most teachers were White. 41 percent of those in Group 2 had a 2 year college degree or higher (compared to 37 percent of those in Group1 and 54 percent in Group 3). Thirty coaches were Caucasian and two were African American. Approximately half of the coaches had their BA degrees, with an additional credential in early childhood, and half had their master's degree.	Analyses of variance and covariance indicated that neither treatment condition significantly outperformed the control group on posttest knowledge scores. Further, scores at posttest were essentially equivalent for participants in both treatment groups, indicating that neither condition appeared to improve teacher knowledge of early language and literacy. However, coaching was a more effective professional development form than coursework for improving the structural characteristics in classrooms as measured by the ELLCO (e.g., quality improvements in the Book area, F (2, 145) = 3.92, p <.05, the Writing area, F (2, 145) = 10.62, p< .001, and the Literacy Environment overall (F 2, 145)= 8.97, p <. 001). These improvements were maintained, and to some degree, enhanced five months after the intervention was over. In fact, follow-up analyses indicated that these improvements were maintained for the coaching group (ES .45

Table A.2 *(continued)*

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		individual teachers. A number of common procedures were used to ensure fidelity of coaching across sites. For example, coaches were required to fill out coaching logs and meet weekly in debriefing sessions with the instructional coordinator at each site.			compared to Group 1; ES .57 compared to control).
Penuel et al. 2009	Preschool teachers were randomly assigned to implement either a 10-week technology-supported literacy curriculum or a 10-week technology-supported science (comparison) curriculum. In addition to the literacy curriculum and materials, teachers received ongoing professional development with a coach, beginning with a 2-hr orientation. Coaches made an average of eight visits to each class during implementation, with the average visit being about two hours long.	Centers participating in the literacy curriculum received teachers' guides containing daily scripts and 10 weeks of activities, as well as manipulatives. Professional development began with an orientation led by a coach to familiarize them with the materials and key elements of the curriculum. After this initial training, coaches provided on-site support that included examples of good teaching practice, observing, and assisting the teachers with implementation. Between coaching visits, coaches provided support by telephone and e-mail.	Teacher: Curriculum implementation Child: Early literacy skills	398 low-income children from 80 preschool classrooms in New York City and the San Francisco Bay Area	Children who participated in the literacy curriculum outscored children in the comparison curriculum on all five measures of early literacy used in the study; four of the five differences were statistically significant. Also with the help of training and coaching visits to classrooms, the preschool teachers delivered the curriculum with a high degree of fidelity and in ways that supported the active engagement of children. Teachers showed the children videos an average of nearly two times per week, almost exactly as the curriculum intended. The authors state, "Although the professional development aspect of the curriculum needs more study, our belief is that the coaching provided early childhood educators

Table A.2 *(continued)*

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					was critical to success."
Pianta et al. 2008b	Random assignment at the district level. Describes effects of MyTeachingPartner (MTP), a web-based system of professional development resources that include video exemplars and web-mediated consultation on specific dimensions of interactions with children for 113 teachers in a state-funded pre-k program. Treatment teachers received online consultation and feedback. The conceptual basis for the MTP approach is that effective professional development for pre-k teachers requires extensive opportunities for (a) observation of effective instructional, language, and social interactions between teachers and children, through analysis and viewing of multiple video examples based on validated observation tools, and (b) repeated opportunities for individualized feedback and effectiveness-enhancing support related to a teacher's own interactions with children Conducted within a state-funded pre-kindergarten program in a single state. The program is targeted to serve an "at risk"	Districts randomly assigned to two conditions: one that received only on-demand access to video-clip exemplars of high-quality interactions (Web Only) and another that received the same access to video and was also engaged in a web-mediated MTP Consultation process (Consultation). Web Only condition served as a low-intensity support that provided teachers with exemplars of other teachers' interactions in the form of 1-2 min video clips pertaining to a specific dimension of interaction accompanied by a text description of that teachers' behavior, using language and terms drawn from the CLASS manual and tailored to the clip. These resources were made available through access to the MTP website that teachers used at their own choice. Consultation condition teachers were assigned for the entire year to one consultant. Teachers videotaped their implementation of an instructional activity in either language/literacy development or social competence. Their consultant edited the tape into a series of 1-2 min segments that focused on a specific aspect of interaction and were paired with specific written feedback that explicitly focused on interactive behaviors of the teacher and the children's cues and responses. In addition, teachers in both conditions participated in a 2-	Teacher: Interactions with children over the course of a school year	113 pre-kindergarten teachers participated in this analysis of the first full year of MTP support-61 in the Consultation group and 52 in the Web Only group. Teachers represented 24 different school districts statewide. 95 percent of the teachers in these classrooms were women. The majority reported their race as Caucasian (72%), 24% reported African American, and 4% reported multi-racial. 66% had a BA degree and 35% had advanced degrees, while 85% were specifically certified to teach 4-year-old children. Teachers had an average of 16 years of classroom experience, with a range of 1-43 years. Over 98% of the teachers reported using a formal curriculum, with High Scope and Creative Curriculum most common. Teachers were assigned randomly to one of four consultants. Each was experienced in teaching young children and trained on the CLASS Consultants met weekly with a supervising staff member for problem-solving, case presentations, and fidelity checks.	Treatment teachers showed significantly greater increases in independent ratings of the quality of interactions than did those only receiving access to a website with video clips. The positive effects of consultation were particularly evident in classrooms with higher proportions of children who experienced economic risks. Implications of these findings for models of professional development and widespread needs for teacher access and support are discussed in relation to the effectiveness of early education.

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	population determined by meeting the following risk indicators for early difficulties in school: (1) family income below FPL; (2) homelessness; (3) parents are school dropouts, have less than high school education, or are chronically ill; (4) family stress; (5) developmental delays; or (6) limited English proficiency.	day workshop training at the beginning of the year that provided an overview of the MTP—Language & Literacy Curriculum and Preschool Promoting Alternative Thinking Strategies (PATHS) curricula, modeled implementation of various activities, and demonstrated access to the curriculum's companion Web site providing video clips of exemplary instruction.			
Powell, Diamond, Burchinal , and Koehler 2010	One-semester professional development (PD) intervention, entitled Classroom Links to Early Literacy, using technologically mediated (remote) versus in-person (on-site) delivery of individualized coaching with teachers. In the first comparison, intervention effects were examined in relation to classrooms randomly assigned to a wait-listed control group that received intervention in the spring semester. Remote and on-site coaching conditions of the fall PD intervention were combined and compared to the control condition in this analysis. In the second comparison, effects of remote versus on-site delivery of the PD intervention were examined in classrooms randomly assigned to one of the two intervention conditions in either	The intervention comprised a 2-day workshop (16 hr total) followed by expert coaching. **Workshop.** The 2-day workshop, attended by teachers in both coaching conditions, provided an overview of the intervention content and promoted the development of supportive relationships between coach and teacher. **Coaching.** The main purpose of coaching was to provide individualized feedback to teachers in improving the implementation of evidence-based practices emphasized in the intervention. The coaching protocol followed an observe–assess–recommend sequence. In the on-site coaching condition, the coach observed classroom activities for approximately 90 min during each visit; the coach met with the teacher for approximately 30 min to provide and discuss the two types of feedback specified above. In the remote coaching condition, teachers submitted a videotape, approximately 15 min in length. Coaches provided	Classroom: Classroom environment Child: Letter knowledge, blending skills, writing, concepts about print, oral language Teacher: Supports for early literacy and language development, teaching practices General: The goal was to improve teachers' use of evidence-based literacy instruction that in turn would lead to significant improvements in children's literacy achievement.	The study was conducted in 88 classrooms located in a total of 24 centers across five Head Start programs that collectively serve 11 counties in a Midwest state. Covered urban, small cities, and rural areas. 88 teachers and 759 children. Most of the teachers were women (97%). A majority of children (69%) represented ethnic–racial minority backgrounds. Per federal Head Start regulations, children were from low-income families. On average, children were 54 months of age (SD _ 5.4) as of September 15 of the year of their study participation. A majority of participants (60% of teachers, 57% of children) were in classrooms located in a large urban area. Others were in classrooms located in small cities (22%	Hierarchical linear model analyses revealed positive PD intervention effects on general classroom environment (d _ 0.99) and classroom supports for early literacy and language development (d _ 0.92), and on children's letter knowledge (d _ 0.29), blending skills (d _ 0.18), writing (d _ 0.17), and concepts about print (d _0.22). No significant intervention effects on teaching practices and children's outcomes related to oral language were found. There were no differential effects of remote versus on-site delivery of literacy coaching.

Table A.2 *(continued)*

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	semester. Classroom observation and child assessment data were collected at the beginning and at the end of the intervention. The study was conducted across two years, with a separate cohort of teachers and children participating in each year. Seven coaching sessions across a 15-week semester. The study was conducted in 88 classrooms located in a total of 24 centers across five Head Start programs that collectively serve 11 counties in a midwest state. Covered urban, small cities, and rural areas.	reviews using computer software that provided a split screen arrangement, with coach-selected segments of the teacher-submitted videotape on the left and written coach feedback on each video segment on the right side of the computer screen. Coach feedback also included direct links to video exemplars or other pertinent material in the intervention's hypermedia resource.		of teachers, 23% of children) or rural communities (18% of teachers, 20% of children). Three early childhood specialists served as literacy coaches. Each had a master's degree in early childhood education or child development and experience (range: 3–20 years) as lead teacher of a prekindergarten classroom. The coaches were women.	
Ramaswamy and Bergin 2009	This article reports on an intervention to help teachers implement two strategies that foster pro-social behavior in the preschool classroom—reinforcement and induction. This study uses a quasi-intervention nonequivalent comparison group pretest-posttest design. There were three intervention groups—reinforcement-only, induction-only, reinforcement-and-induction—and one control group. The eight classrooms were randomly	The teacher met with the peer consultant to review typical incidents in the classroom that revolved around children's pro-social and aggressive behavior. Discussions in these sessions centered on the teacher's response (use of induction and reinforcement) to these incidents and how these responses could be more effective. The peer coaching sessions included modeling, recording, feedback, discussion and sharing, feedback and theory presentation, with respect to pro-social behavior.	Child: Pro-social behavior in terms of affection, helping, sharing, comforting, and cooperation. Teacher: Use of reinforcement and inductive behaviors taught by peer consultant: 1) verbal reinforcement, 2) physical reinforcement, 3) problem-solving suggestions in response to an aggressive act, 4) pointing out to the	The study began with two classrooms in each of the four groups, but one classroom in the reinforcement-and-induction group dropped. Five of the eight teachers had a child development associate (CDA) degree, which is awarded after a year's training in early childhood development. A total number of 98 children (50 girls and 48 boys) were in the eight classrooms at the beginning of the study. The children were between 3 and 5 years of age. There were 81 (83%) African American, 15 (15%)	Two aspects of behavior change were addressed in this study—changes in children's prosocial behavior of the total classroom and changes in teacher behavior in the different groups. Results indicated that the intervention groups showed a significant increase in total classroom pro-social behavior compared to the control group. The induction-only group increased dramatically in affection. The reinforcement-only group increased more

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	assigned to one of the four groups. Teachers were trained to use either reinforcement, or induction, or both, using peer coaching from the first author, who acted as a consultant. The study took place in a Midwestern city with teachers of Head Start-affiliated child care settings. Baseline scores were obtained. The intervention was implemented for about two months, after which post-test scores were obtained.		aggressive child that his/her behavior did not solve the problem, and 5) explanations that focused the aggressive child's attention on the feelings of the other person. Teachers also were asked for their perception of how they were using the intervention in order to check for intervention implementation.	white, and 2 (2%), and Latino children.	in helping, sharing, and cooperation than in affection and comforting. Teacher behaviors in the classroom did not reflect conclusively that they were using the intervention strategies, possibly due to inadequate measurement.
Raver et al. 2008	A primary aim of the Chicago School Readiness Project was to improve teachers' emotionally supportive classroom practices in Head Start-funded preschool settings. Our long-term goal was to test whether this package of classroom-based services reduces children's risk of behavioral difficulty and increases their chances of school readiness by improving teachers' classroom practices. The more immediate goal for the following study was to test whether CSRP's intervention services had an impact on teachers' management of children's disruptive behavior and on teachers' ability to foster an emotionally	A behaviorally and evidence-based teacher training package was selected and purchased, and a seasoned trainer with Licensed Clinical SocialWorker (LCSW) qualifications delivered the 30 hours of teacher training over fall and winter, adapting the Incredible Years teacher training module. MHCs were trained following a manualized approach and were matched to sites on the basis of racial/ethnic and cultural similarity, Spanish proficiency, and the judgment of supervisory staff. MHCs were expected to provide equivalent hours of service to each site, regardless of teachers' participation in the training sessions. MHCs were also required to complete service provision forms designed to heighten their sense of	Classroom: Classroom climate Teacher: Teacher sensitivity, and behavior management	94 teachers, 602 children. Among teachers willing to provide survey data, teachers were 40-years-old on average (SD = 11), nearly all teachers were female (97%), and most teachers belonged to an ethnic minority group (70% of teachers were African American, 20% were Latina, and 10% were European American). A majority of teachers held an associate's degree or higher, with over one-quarter having a high school degree or some college experience, almost one-half holding an associate's degree, and nearly one-quarter having a bachelor's degree or higher.	Head Start classrooms randomized to the treatment condition were found to have statistically significantly higher levels of positive classroom climate, teacher sensitivity, and behavior management on the CLASS than were classrooms in the control condition (with effect sizes ranging from d = 0.52 to 0.89).

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	positive classroom climate. Teachers in the treatment condition were invited to participate in behavior management training and their classrooms were visited weekly by mental health consultants who "coached" teachers as they implemented behavior management strategies. Setting: 35 classrooms in 18 Head Start sites in high-poverty neighborhoods in Chicago All treatment-assigned teachers (including lead teachers and assistant teachers) were invited to participate in five trainings on Saturdays, each lasting six hours. MHCs provided an average of 4.54 h (SD = 0.45) of weekly service and 82 h (SD = 12) of total service to classrooms from September through March.	accountability to CSRP and to their classroom placement. In addition to their role as "coaches," MHCs maintained stress reduction roles in the winter of the school year. In March, April, and May, MHCs were free to work individually (or "one-on-one") to provide child-focused consultation with a small number of children in the classroom after obtaining a second written parental consent.			
Ray 2007	This article discusses a study investigating the impact of two school counseling interventions, child-centered play therapy (CCPT) and teacher consultation, on teacher-child relationship stress. Students were randomly assigned into three treatment groups: CCPT only, teacher consultation	**Play therapy only**. The first intervention was designed to impact the problem behaviors of identified children, thereby creating an effect on teacher-child relationship stress. Thirty-two students were assigned to the PT-only group, which consisted of 16 sessions of play therapy over 8 weeks. Each student received two sessions per week of 30-minute individual CCPT sessions.	Teacher: Teacher-child relationship stress	93 students experiencing emotional and behavioral difficulties in the classroom and 59 teachers. Students included 68 males and 25 females. Grade-level distribution for the whole study and treatment group was as follows: 5 pre-kindergarten; 24 kindergarten; 18 first grade; 16 second grade; 15 third grade ; 9 fourth grade;	Results of this study indicate that play therapy and consultation are possible effective interventions in reducing teacher-child relationship stress. The three treatment groups, PT, CO, and PTC, all yielded statistically significant reductions in teacher stress response to student

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	only, and a combined CCPT and teacher consultation group. Three elementary schools in the Southwestern United States. All three schools served students from pre-kindergarten to fifth grade. All three are considered Title 1 schools targeted by the state for school-wide assistance due to high percentages of children qualifying for free or reduced lunch.	**Consultation only.** The second intervention was consultation delivered directly to teachers and designed to impact the support level of teachers, thereby reducing teacher-child relationship stress. Twenty-nine students were assigned to the CO group, which consisted of eight consultation sessions with a counselor consultant. Each teacher of the assigned students received 10 minutes of person-centered consulting per week over the 8 weeks, totaling eight sessions. A person-centered consultation model was chosen. Students assigned to Consultation Only received no direct intervention and were placed on a waiting list to receive play therapy following the study **Play therapy and consultation.** Thirty-two students were assigned to the PTC treatment group. Students assigned to this group received two sessions per week of 30-minute CCPT sessions totaling 16 sessions. Teachers of students assigned to this group received 10-minute consultation sessions each week for 8 weeks totaling eight sessions.		and 6 fifth grade. Ethnicity breakdowns were as follows: 12 African American; 38 Hispanic; 39 Caucasian; and 4 biracial.	characteristics, student behaviors associated with ADHD, and teacher characteristics. The effect size for three of the scores, Total Stress, ADHD, and Student Characteristics, demonstrated a large effect indicating the practical significance of the findings. Play therapy and consultation, alone and combined, appeared to positively impact the teacher-child relationship. The absence of a statistically significant difference between groups signifies that the treatments had an equal effect on teacher-child relationship stress. However, statistical differences were noted across time, which could indicate that the passage of time alone was a possible variable in determining significant change. An alternate likely explanation for the change over time is the effectiveness of the interventions, a supposition that is based on previous literature that a play therapy intervention yields a large positive effect compared to no intervention.
Strain and Bovey	For this study, the LEAP	Preschools assigned to the full	Child:	LEAP programs in Colorado,	The intervention was

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
in press	model was implemented by existing preschool staff in inclusive preschool settings around the United States. 60 programs, matched on characteristics such as number of days per week and adult-child ratio, were randomly assigned to two groups. Preschool staff received either the full-scale, 2-year LEAP training and mentoring (treatment group), or the commercially available LEAP intervention manuals and training materials only (comparison group).	LEAP replication protocol entered a 2-year training and mentoring relationship with project staff. In order to instruct replication site participants in the basic LEAP components, the intervention employed a seven-phase educational model, comprised of: a) presentation of skill area to be learned in written format; b) discussion of skill area between trainee(s) and trainer(s); c) demonstration of skills by LEAP trainers with simultaneous observation by trainee(s); d) in-vivo practice by trainee(s) with observation and feedback provided by trainer; e) evaluation of trainee competency based upon direct observation or permanent product; f) training of on-site supervisor to support direct-line replication staff; and g) follow-up training and maintenance checks on a three month basis. Preschools assigned to the comparison condition were provided LEAP's intervention manuals for: a) family skill training; b) social skills training and c) design and operation of the inclusive classroom. No follow-along training was provided at the sites.	Social behavior, autism symptoms, cognitive development, and language development	Pennsylvania, Minnesota, and New Jersey serving 240 3–5 year old children with autism and their families	implemented with high fidelity in the treatment group, with a much higher percentage of program components in place than in the comparison group. Although equivalent on all measures prior to intervention, children in the treatment group demonstrated greater developmental gains in cognition and language, reduction in autism symptom severity, growth in social skills, and reduction in problem behavior compared to children in the manual-only group after the intervention. Furthermore, within the treatment group, children who experienced the intervention implemented with greater fidelity also experienced the most positive outcomes.
Zan and Donegan-Ritter 2011	The Coaching and Mentoring for Preschool (CAMP) Quality professional development model included: workshops, classroom videotaping, teacher reflections, peer coaching, and mentoring. Head Start teachers were assigned to an	The professional development for CAMP teachers included: • Bimonthly workshops • Monthly videotaping • Monthly cycle of: (1) Teacher reflection (individual teachers, using video and Reflection Guides); (2) Peer coaching (teaching teams, using	Teacher: Promotion of language, academic, social, and emotional development Supervisor: Increase effectiveness in mentoring and supervising teachers	Experimental Group: –21 Head Start teachers with BA degrees, 5 with AA degrees, 12<AA Comparison Group: –5 Head Start teachers with BA degrees, 10 with AA degrees, 8 <AA Mentor education	Differences were found between the intervention and comparison classrooms on end-of-year CLASS Emotional Support, Classroom Organization, and Instructional Support dimensions. Degreed and

Table A.2 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	experimental (38 teachers from 19 classrooms) or comparison group (23 teachers from 12 classrooms).	video and Peer Coaching Guide); and (3) Mentoring (teaching teams [of lead and assistant teacher] and mentor, using Mentoring Guide with structured format for conducting meetings) Mentors had monthly development meetings where they gained skills for active listening, questioning, communicating strengths and recommending changes; and had CLASS reliability checks, among other activities.	Child: Educational and social-emotional outcomes	background: - 32% AA, 58% BA, 10% MA	nondegreed teachers benefited from CAMP Quality to the same extent.

Table A.3. Identified Coaching Models and Approaches Supportive of Positive Outcomes from Other Quantitative Studies

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Article/chapter reference	*Brief description of the approach, highlighting the type, setting, and intensity*	*Description of specific elements of the approach*	*Brief description of child, family, and/or provider outcomes the approach is expected to affect*	*Description of the population(s) involved or participating in study or approach, including community context*	*Brief description of study findings*
Ackerman 2008	To learn more about the coaching process and the issues that affect efforts to raise Quality Rating Scale (QRS) scores, a survey was conducted of the coaches participating in the pilot QRS initiative. The study focuses on an itinerant consultative initiative in nonprofit agencies Frequency/intensity and duration of coaching are not described.	Quality Rating Scale (QRS) coaching involves four sequential phases. First, coaches brief a program on the initiative. Next, after researchers from a local university assess program quality using the appropriate *Environmental Rating Scale*(s) and note other QRS criteria, coaches explain the resulting Quality Performance Profile (QPP) to participants. Coaches then use the QPP to develop a Quality Improvement Plan. In the final stage, the coach helps a program implement the plan, with the aim of attaining a higher QRS rating when reassessed in a year.	n.a.	17 QRS coaches working for the nonprofit agencies affiliated with the pilot initiative. All but 1 had at least a BA degree. Coaches worked in both family child care homes and center-based programs	Despite their itinerant status, coaches' survey responses suggested that they highly valued building a professional relationship with teachers. As part of this process, they affirmed the things that teachers did well – to avoid alienating teachers and to encourage their buy-in for program improvement. The authors argue that programs might benefit from more consistent pre- and in-service training for coaches and a method for supporting coach mentoring and networking.
Alvermann et al. 2005	Reports on the external evaluation of Georgia Reading First (RF): 106 Cohort 1 schools completing their third year of RF, and 44 Cohort 2 schools completing their first year of RF. Reading First is a federal initiative providing funding and focused support for the improvement of K–3 reading instruction, with the ultimate goal of ensuring that all children read at grade level by the	The Georgia Department of Education provides the following professional development and support activities for schools implementing Reading First: Teacher Reading Academies, Regional Reading First Consultants (RRFCs), Literacy Coaches, study groups on Scientifically-Based Reading Instruction (SBRR) across the five components of reading and assessment, and Leadership Forums. Literacy Coaches explain, demonstrate, and model best practices in reading instruction.	Teacher: Literacy instruction Child: Literacy outcomes	Teachers of children in grades kindergarten through 3 in Georgia Additional information not provided	**Cohort 1.** Teachers and their literacy coaches agree that what coaches do to assist with assessment and instructional interventions was helpful. Literacy coaches were more confident then teachers of the helpfulness of observing and providing instructional feedback to teachers. Literacy coaches are confident that they are providing teachers with specific and effective

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	end of third grade.	They also lead the study groups.			feedback on instruction. Teachers, though, are less confident that this is occurring. Teachers are confident that they are providing effective vocabulary and comprehension instruction, but coaches are not as confident. Among kindergartners, there was a decrease in the percentage of children in the risk categories of several DIBELS measures. Also, the majority of kindergartners made gains on the PPVT. **Cohort 2.** There were substantial discrepancies that surfaced when literacy coaches and teachers were asked to respond to various statements about the kinds of support offered and the kinds actually received. Generally, the literacy coaches more strongly agreed with various statements about the level of support they provided than did the teachers. Among kindergartners, there was a decrease in the percentage of children in the risk categories of several DIBELS measures. Also, the majority of kindergartners made gains on the PPVT.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Armstrong et al. 2008	*HeadsUp Reading!* (HUR) is a 15-week, satellite distance learning curriculum for early childhood educators, which served as the literacy training. Teachers were also provided with a Literacy Coach (LC), half in the spring or summer, the other half in fall or winter. There were seven LC sessions in the spring and 4.5 in the summer. 3 groups were formed: HUR with Coaching, HUR without Coaching, and Control. 76 early childhood educators in Head Start sites, privately run sites, family home day care sites, and centers participated in the spring (n = 29) and summer (n = 47) cohorts. 19 early childhood educators served as a control group. Control group participants did not partake in any intervention activities or receive any literacy resources or support during that time.	**Literacy Training**. The HUR curriculum served as the framework for the literacy course provided to early childhood educators. Each HUR class began with participants watching a satellite feed that included researchers talking about aspects of learning and their efforts to implement research-based strategies in real classroom settings. Next, participants discussed the particular topic presented in the session and focused on implementation. Participants then completed action plans describing their intentions for using the strategies presented. **Literacy Coaching**. All were trained in the Early Literacy and Learning Model (ELLM) of coaching, which employs observation, feedback, and modeling activities. LCs attended all HUR class meetings.	Teacher: Literacy knowledge, beliefs about practice, instructional practices	76 early childhood educators in Pinellas County, Florida. Participants were employed at Head Start sites, privately run sites, family home day care sites, and centers that espoused a religious affiliation.	Results indicate that all participants benefited from their involvement in the professional development activities with respect to changes in knowledge beliefs, and attitudes, and improvements in the literacy environment. Pretest scores from the spring cohort indicated that none of the participants achieved 80% or higher mastery level of knowledge, while 50% of the posttest participants achieved or surpassed the cutoff score. Results also indicated that there was a significant difference between the total and subscale scores at Time 1 and Time 2 in participants' beliefs about the importance of implementing literacy-based strategies into their instructional practices. While the participants who received coaching showed a slight advantage in skill implementation as compared to those without coaching, both exceeded the control group (HUR with Coaching = 30.02, HUR without Coaching = 31.80, and Control = 27.25on the Early Literacy Observation

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					Checklist [ELOC]; note: ELOC Total scores of 33 or higher (out of a possible 41 points) serve as indicators of successful transfer of skills and strategies). As a result of their involvement, participants reported a sense of confidence and competence, as well as an increased understanding of the importance of infusing strategies into their classrooms.
Bagnato et al. 2002	Reports on the first-phase results of Pittsburgh's early childhood initiative (ECI), a privately funded effort to implement high-quality early care and education options for children in high-risk neighborhoods. Weekly collaborative consultation to teachers and caregivers by consultants about program quality using tile National Association for the Education of Young Children (NAEYC) standards as "best practice" benchmark s was a core component of the ECI model.	ECI implemented an on-going model of onsite consultation and mentoring for program quality based on the functional consultation approach. This approach involved a combination of flexible didactic sessions with teachers and caregivers about specific NAEYC standards, collaborative goal-planning to improve various programmatic dimensions , modeling of "best practices" by consultants , observations of caregiver behaviors, collaborative feedback to caregivers and supervisors, and follow-up observations and documentation. Such a collaborative approach attempts to operationalize the "scaffolding "concept proposed by Vygotsky (1975) that is posed as essential for learners to proceed to the next level of skill acquisition and applied knowledge under the guidance of capable mentors. The ECI style of mentoring is one of a balanced partnership, reflecting collaborative	Child: School readiness	155 urban preschool children in Pittsburgh, participating in ECI for the longest time periods	First-phase results indicate that those who participated in high-quality ECI programs for the longest periods of time demonstrated patterns of progress that exceeded maturational expectations. However, at this early stage, we cannot determine the specific factors that are responsible for that enhanced effect. Over 2 years of ECIM onsite consultation and mentoring, 58% of the ECI programs attained observational ratings on the NAEYC-based PQP that exceeded the 70% cut-off for attainment of NAEYC quality standards. Program quality improvements over 20 months were functionally significant. Authors suggest that

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
		consultation and problem-solving.			the style, content, and extent of consultation and mentoring are vital for on-going quality improvements and eventual success.
Bainter and Marvin 2006	The program included: weekly home visits to families or community-based preschool teachers and/or childcare providers; speech-only services; and an ECSE center-based preschool. In addition, weekly team meetings were held to provide opportunities for colleague-to-colleague coaching The coaching sessions used for this study took place in the family home (4), the child's preschool classroom but outside of the actual preschool session (1), and a school conference room (1).	For the study, 6 sessions were videotaped, each one an interaction between one practitioner and one caregiver during a regularly scheduled visit or meeting. The videotaped observations were carried out over a period of approximately three and a half weeks, with visits of 30-60 minutes in length. Details of the coaching approach are not provided.	Coach/teacher: Relationship and partnership with one another	5 practitioners (three teachers with master's degrees in early childhood special education (ECSE) and two speech-language pathologists) and six caregivers (four mothers and two teachers) in a Grand Island Public School in Nebraska. The practitioners had 3-20 years of professional experience and 2-4 years experience.	Practitioners spent comparable amounts of time establishing the caregiver as a partner as well as encouraging them to reflect upon daily routines and learning opportunities for the children. The practitioners' rate of efforts for establishing the collaborative partnership and even for promoting reflection and brainstorming of new ideas exceeded the rate of behaviors used to promote active participation between caregiver and child or from the caregiver for future planning. The relatively small amount of time spent in promoting or demonstrating active participation does not seem sufficient to prepare the caregiver for what will happen once the practitioner has left the visit. Mean ratios of practitioner to caregiver behaviors shows a possible imbalance in favor of eager caregiver partnerships and heavy practitioner effort for

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					little caregiver response once the partnership was established. The researchers recommend that teams establish means of encouraging the action/participation of caregivers during the visit.
Boller et al. 2010	Across two communities, 52 family child care providers and 14 center based providers were randomly assigned to a treatment or control group. The treatment group received coaching, quality improvement grants, and funds for professional development opportunities and supports; the control group received funds only for professional development opportunities and supports. The goals of the implementation study were to determine whether Seeds to Success met its goals of providing intensive, high-quality coaching and other supports to participating providers and to capture the lessons learned about implementation during the field test. (Note that this study by Boller et al. 2010 includes both an implementation and impact evaluation. The summary here	As part of the Seeds field test, participants (teachers and center directors) in the treatment group received the following during the period June through December 2009: (1) up to 8 hours of coaching per month, (2) quality improvement grants, based on their Seeds rating (with higher-rated programs receiving more funding), and (3) funds for training and course work, as well as funds to cover the costs of child care expenses, release time, and books. Coaching hours for center classrooms were divided between lead teachers and assistants, with more hours intended for lead teachers. Informed by their Seeds rating and ERS score, providers and coaches developed quality improvement plans to guide the coaching sessions. The goal of the Seeds coaching model is to train coaches to develop a trusting relationship with early learning professionals so that they can help early learning professionals reflect on their practice (1) in the classroom or in their business and (2) during interactions with the other providers in that setting, with families, and with	Classroom: Quality rating system scores, Environmental Rating Scale (ERS) scores	Two communities in Washington State: White Center, an unincorporated area just outside Seattle, and East Yakima, a neighborhood in the central Washington community of Yakima. At baseline, nearly two-thirds of family child care providers (57 percent) identified themselves as Hispanic, 15 percent as white non-Hispanic, and 26 percent as of an "other" race or ethnicity. Nearly half have less than a high school education and only 14 percent reported having an AA, BA, or completed graduate work. Child care center staff most frequently identified themselves as white non-Hispanic. More than half of directors reported having at least an AA or a BA, and approximately 30 percent of lead teachers reported earning an AA, a BA, or a graduate degree. In contrast, only 17 percent of assistant teachers reported having an AA or a BA.	The coaches and providers were able to implement the intensive coaching component of the Seeds model. On average, the amount of coaching providers received adhered to the Seeds model; however, participants had a range of experiences. On average, family child care providers, center directors, and lead teachers received between 6 and 11 hours of coaching per month. Assistant teachers in White Center received, on average, less than two hours of coaching per month; in East Yakima, they received, on average, nearly six hours per month. Other key findings: coaches and providers described a number of challenges associated with completing coaching visits. Coaches said that holidays, vacations, and other commitments, such as attending

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	focuses on the implementation study).	the children that are in their care. The Seeds coaches were also trained to help the treatment group professionals stay motivated to attain their quality improvement goals and to help establish skills and behaviors that support continuous quality improvement. Implementation data are from baseline (June 2009) and six months after implementation (November 2009).			trainings and conferences, limited their ability to complete all of the coaching visits they planned for a given month. Providers reported that some days they were too busy to meet with their coaches because of specific activities going on in their classrooms or centers. Balancing the time dedicated to coaching visits with the time dedicated to administrative tasks can be challenging, especially for part-time staff with other commitments. Coaches and providers also stressed the importance of relationship building and of respecting providers as professionals and experts. Finally, coaches faced challenges interpreting observers' ERS ratings and requested additional training to help them explain the scores to providers and teachers.
Campbell et al. 2005	283 directors and child caregivers in an infant-toddler or preschool training program participated in 1 of 15 courses that used the infant-toddler (n=8; First Beginnings) or preschool	**Class sessions.** Curricula for infant-toddler caregivers is offered in 5, 3-hour sessions (15 hrs total), while preschool courses include 10 sessions offered for 2.5 hours (25 hrs total)	Teacher: Practice and instruction for children with disabilities Classroom:	283 directors and child caregivers in infant-toddler or preschool training program in a northeastern inner-city area The majority of participants in both training programs	Following participation in the training program, quality of care on the increased in infant-toddler (per the ITERS; mean of 3.20 increased to 3.48) and preschool (per the ECERS; mean of

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	(n=7; Preschool) curricula of the training program. Each training curricula presented age-specific content in didactic class sessions scheduled across a 3- to- 4-month time period. Class sessions were combined with 3 on-site consultation visits and an out-of-class assignment.	**On- site consultation visits.** The purpose of the on-site visits was to promote adoption of class-presented content in participants' work settings. During the initial on-site visit, the consultant met with child care staff to develop a written consultation plan jointly that targeted two outcomes the provider wanted to address. The plan identified (1) consultation strategies to be used, (2) steps to be completed, (3) persons responsible and dates for completion, and (4) criteria for knowing that the outcomes had been accomplished. Possible consultation strategies included modeling, providing resources, discussing challenges, brainstorming, rearranging rooms, modifying teaching strategies, making written plans or acquiring materials. The second and third visits were used to implement the plan and determine the extent to which outcomes were met. In addition, each consultant maintained a visit log and recorded who was present, how long the visit lasted, focus of the visit, overall tone of the classroom, and degree of interest and staff response to the visit.	Environmental indicators (ITERS, ECERS, Arnett CIS)	were females of African American or Latino backgrounds. 11 percent had associate's degrees, 22 percent had bachelor's degrees, and 55 percent had a high school degree or GED.	3.15 increased to 3.34) classrooms. On the ITERS, the largest pre-post differences were on the listening and talking and interaction scales. The number of classrooms rated as adequate increased from 41 (59 percent) to 46 (66 percent) and as good from 2 (3 percent to 4 (6 percent). 21 of the (30 percent) classrooms showed post-training increases of at least 0.50 in the mean total scores. On the ECERS, 15 of the 71 (21 percent) classrooms showed post-training increases of at least 0.50 in the mean total scores. There were no pre-post differences in Arnett caregiver-child interaction scores in infant-toddler classrooms.
Campbell and Milbourne 2005	160 infant-toddler caregivers in 48 childcare programs participated in a 3-month training course with a standardized curriculum of 1) five 3-hour group classes, 2) an out-of-class project, and 3) two 2 to 3-hour onsite	The training component used the *First Beginnings* program. Material during the training sessions was presented through active, hands-on, participatory activities. The instructional strategies in the training were geared to the education and experience levels of the	Provider: Quality infant-toddler care, as measured by the ITERS and Arnett CIS	160 caregivers in 96 infant–toddler rooms in 48 childcare programs; additional consultation provide to 123 caregivers working in 70 infant-toddler rooms A majority of the	Observable change in ITERS scores was evident in 15 (21.4%) infant–toddler rooms in the consultation group, in comparison to 2 (7.7%) infant–toddler rooms in the no-consultation group. The

Table A.3 *(continued)*

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	observation visits to administer program quality measures (ITERS and Arnett CIS). 123 participants also received onsite consultation. The consultation group received three 1-hour consultation visits in each infant–toddler room across the 3 to 4 months when the group training sessions were held. Visits were spaced between each of the class/group sessions.	participants (e.g., experienced, noncollege-educated adults) and based on principles of adult learning. The content of each consultation visit followed a specific protocol. During the initial training session, participants completed a program-designed self-assessment. One self-assessment was completed together by all staff when two or more staff assigned to the same infant–toddler room participated in the training. Before the initial consultation visit, the assigned consultant completed a summary sheet that recorded the areas of improvement identified in the self-assessments and the ITERS areas where subscale scores placed the classroom at the *inadequate* level of quality. This summary sheet formed the basis of discussion with participants to identify two outcomes to be targeted through consultation. During this initial visit, a written consultation follow-up plan was developed jointly by the participants and the consultant. The second and third consultation visits were used to implement the plan and assess the degree of attainment of the outcomes.		participants in the consultation and no-consultation groups were middle age, African American women. On average, the participants in the no-consultation group reported higher levels of formal education, whereas those in the consultation group reported more years of experience in childcare. 8 consultants, each having a minimum of 3 years experience with child care. Half had a master's degree, and the remainder had bachelor's degrees.	consultation group also showed changes on a greater number of ITERS subscale mean scores than the no-consultation group. These data, in combination with the significant interaction found between pre- and posttraining mean ITERS scores and consultation group, suggest that the addition of the three onsite consultation visits may have contributed positively to infant and toddler childcare quality. Consultation rooms showed greater gains on the interaction and program structure subscales but smaller gains on the listening and talking and learning activity subscales.
Capizzi et al. 2010	During baseline, teacher candidates in an urban public school district videotaped their instructional delivery. After teacher candidates videotaped their instructional delivery, they met with an instructional consultant and evaluated	During the consultation phase of the study, each teacher candidate videotaped his or her lesson delivery and continued to be observed by his or her university supervisor every 2 weeks. Teacher candidates met weekly with the instructional consultant for approximately 1 hour to review a videotape of a	Teacher: Classroom instruction	3 teacher candidates enrolled in a graduate-level special education teacher preparation program at a Southeastern university. All were working in a field-based practicum placement in classrooms in an urban public school district.	Consultation was effective in increasing the number of lesson components and amount of behavior-specific praise delivered during instruction for all participants. All participants included a higher percentage of

Table A.3 *(continued)*

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	the components of instruction included in the lesson, received feedback and guidance from the instructional consultant, and established goals for subsequent instruction. Information on duration of coaching is not provided.	recently delivered lesson. The consultant discussed components of effective instruction and identified when the teacher candidate should include more opportunities to respond or behavior-specific praise during the lesson. The consultant and teacher candidate used an instructional quality evaluation form to guide this process. At the end of the session, the consultant and teacher candidate identified three effective teaching behaviors exhibited by the teacher candidate and three suggestions for improvement in the future lessons.		The instructional consultant was currently enrolled in a doctoral program with an emphasis on high-incidence disabilities.	explicit instruction lesson components after meeting with the consultant and reviewing their videotaped lessons. Effects varied by participants for rates of opportunities to respond.
Carter and Van Norman 2010	This study investigated the effects of consultation on preschool teachers' in an early childhood education center implementation of universal Positive Behavior Support (PBS) practices and children's academic engagement. PBS is a well-established strategy for addressing problem behaviors in children. It is defined as a collaborative and values-based approach for developing effective, individualized interventions for people with problem behaviors. PBS consultation included an initial meeting (1 hr) and at least one subsequent consultation session (30 mins) between the PBS consultant and the classroom teacher.	All consultation sessions were conducted in the classroom, during a time when children were not present. The initial meeting focused on providing information and sharing observations. The PBS consultant's role was to share data from classroom observations, provide information about PBS, and assist the teacher in the development of an action plan. The teachers' role was to develop individual goals and action steps for implementing PBS in her classroom. Teachers received at least one follow-up consultation session 2 weeks after their initial meeting. Follow-up consultation sessions began with sharing observation data of the teachers' implementation of the targeted key features of classroom implementation. Teachers were given a graph documenting the	Teacher: Implementation of PBS practices	4 preschool classrooms serving children from 33 to 63 months of age in an early childhood education center in southern Nevada PBS consultants included the first author and graduate-level students in early childhood special education. No background information on teachers provided.	A strong relationship was documented between consultation and teachers' implementation of PBS skills. Between-classroom analyses showed a marked increase in the level of implementation across classrooms following PBS consultation. High levels of academic engagement were maintained following consultation.

Table A.3 *(continued)*

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	Each teacher received at least one follow-up consultation and then was provided with the choice of having additional sessions. Only one teacher opted to have an additional consultation session.	comparison between their baseline data and data from the past session. Teachers were also given written feedback from the consultant on a standardized consultation notes sheet. In collaboration with the teacher, the consultant completed the remainder of the notes sheet and identified an updated action plan, focused on no more than 3 target skills and specified what the teacher and consultant would do by when.			
Caverly et al. 2010	This report describes the third year of implementation of the Bright Futures Early Reading First (ERF) project. The Bright Futures project includes implementation of the DLM curricula in 3-year-olds' Head Start classrooms and Imagine It! And Breakthrough to Literacy (BtL) in 4-year-olds' Head Start classrooms. In year 3, several professional development opportunities were provided, including 5 trainings, 8 study groups, a two-day summer institute, and coaching. The ERF coaches and coordinator aligned their professional development with the implemented curricula, and findings from the year 1 and year 2 evaluation reports.	**Training.** Trainings present key topics related to phonological awareness, meaningful differences, classroom management, and early literacy development. **Study groups.** Study groups focus on key topics related to children's early literacy and language development. The groups are co-led by the ERF coordinator and coaches. **Coaching.** It was expected that the level of coaching intensity would build from level 1 (informal; helps to develop relationships) to at least level two (more formal; somewhat more intense; begins to look at areas of need and focus). The ERF coaches provided one-on-one modeling and support for the ERF teachers and their paraprofessionals implementing the ERF curricula, while the ERF Coordinator supported the coaches and assisted in leading professional development opportunities (e.g., study groups, book studies, and data workshops) for the teachers and	Teacher: Language and literacy instruction Child: Language and literacy development Classroom: Rich language and literacy environments	244 children during the third year of implementation across 15 classrooms in two Parish schools and one Head Start center in Tallulah, Louisiana. The 15 ERF teachers varied in background and education attainment. Three had a graduate degree (i.e., M.A. or Ed.D.) related to education. Two teachers had a Bachelor's degree and five had an Associate's degree. 3 ERF coaches, all with Bachelor's degrees in education and one had a Master's of Arts in education.	In comparison to the first and second year, coaches moved beyond building relationships with teachers and into the next level of coaching by providing modeling opportunities, engaging in feedback sessions with teachers, and scheduling meetings/conferences with teachers and paraprofessionals. There was limited evidence of level 3 coaching. Multiple data sources suggest the coaching support provided was helpful to teachers in implementing the curriculum and gaining knowledge/skills related to early literacy and language development. The ELLCO checklist demonstrated that teachers had created a language and literacy enriched environment

Table A.3 *(continued)*

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		paraprofessionals. All teachers were visited at least once a week by their coach.			for their children. Writing and early literacy materials were provided to children. The instructional portion of the ELLCO suggests the ERF teaching teams are providing a basic environment for children. CLASS findings demonstrate that teachers were similar to preschool teachers in similar classrooms in another study (Phillips, Gormley, and Lowenstein, 2009) on the emotional support and classroom organization. However, in comparison to these same preschool teachers, the ERF teachers were rated much lower than expected on the instructional support domain. Children enrolled in the ERF program demonstrated statistically significant gains, across the year, in their receptive vocabulary skills on PPVT-III, and letter recognition and print awareness on the PALS.
Clark-Chiarelli et al. 2007	The goal of this four-year project is to examine the efficacy of two models of preschool professional development in the area	**Elements of intervention** • Use of videotape exemplars to illustrate complex interactions • Carefully sequenced analyses from others' practice to self-	Teacher: Literacy instruction Child: Literacy outcomes	110 preschool teachers and assistant teachers and 2,200 4-year-olds from Head Start, child care, and state-sponsored pre-k in Cabell, Putnam, and	After 6 months of mentoring, teachers report new learning in: • Differentiating the purpose of multiple

Table A.3 *(continued)*

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	of language and literacy —LEEP (traditional) and T-LEEP (technology-enhanced). Teachers from Head Start, child care, and state-sponsored pre-k programs were randomly assigned to one of three conditions: LEEP, T-LEEP, and Control. Professional development involved 1) a course spanning 5 months (and involving online activities) and 2) mentoring spanning 6 months with bi-weekly visits.	reflection • Videotape and analyze practice in assignments and mentor/protégé interactions • Use of children's work samples to illustrate the interaction between instruction and learning • Use of performance-based assignments that draw on direct evidence of practice • Adaptation to local context through in-class mentoring • Monitoring of fidelity of implementation in the professional development settings and classrooms **Course delivery** • Delivered in West Virginia by EDC and local instructors with expertise in literacy • *Literacy Village Website* designed to reinforce class content and extend learning through online activities **Mentoring delivery** Mentoring provided by literacy experts, experienced in early childhood education, and knowledgeable about teacher development. • Coaching strategies help focus on observation, feedback, and reflection • Ongoing training and support provided to mentors by EDC experts		Kanawha counties, West Virginia	readings of the same book • Extending language and literacy from book reading • Practicing phonological awareness through the day • Integrating writing into all areas of the classroom • Actively supporting the development of writing • Incorporating more small-group activities and coordinating the tasks of the other professionals in the classroom for this purpose Mentors report that teachers are: • Having more intentional conversations with children • Following the child's lead, not taking over conversations, and allowing turn-taking • Having curriculum-based conversations • Selecting appropriate, challenging vocabulary during book reading with child-friendly definitions • Supporting children's writing throughout the

Table A.3 *(continued)*

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					classroom Intervention children demonstrated higher TERA-3 Sum of Standard Scores than did control children after one year of intervention. The Intervention has a significant positive effect on the rate of growth in the language and literacy curriculum. (LLC). The Intervention applied to teaching teams has a marginally significant positive effect on the rate of growth in LLC.
Deussen, Coskie et al. 2007	Reading First is a federal initiative providing funding and focused support for the improvement of K–3 reading instruction, with the ultimate goal of ensuring that all children read at grade level by the end of third grade. This report reviews data about coaches in Reading First schools in five western states. Reading First incorporates professional development that includes institutes, workshops, and site-based literacy coaches.	NA	Teacher: Reading instruction Child: Reading outcomes	Focuses on 203 Reading First schools in five western states: Alaska, Arizona, Montana, Washington, and Wyoming Survey data collected from 190 coaches 22 percent of reporting coaches had a bachelor's degree, 38 had an advanced degree Reading First focuses on low-performing elementary schools serving children in grades kindergarten through three	Key findings: • Coaches were mostly experienced teachers who were relatively inexperienced in the coaching role. • While coaches dedicated long hours to their jobs, they spent on average only 28 percent of their time working with teachers. This differs from the 60 to 80 percent explicitly asked of coaches in 3 of the 5 states. • How coaches allocated their time across tasks and how they understood and described the focus of their work varied widely across individuals and

Table A.3 *(continued)*

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					settings. • In addition, utilizing both a cluster analysis of survey data and a qualitative analysis of interviews, the authors distinguished five categories of coaches: data-oriented, student-oriented, managerial, and two teacher-oriented categories. The authors emphasize that this highlights the fact that people who held the same job defined and performed their work in very different ways.
Deussen, Nelsestuen et al. 2007	Reading First is a federal initiative providing funding and focused support for the improvement of K–3 reading instruction, with the ultimate goal of ensuring that all children read at grade level by the end of third grade. Reading First at the federal level requires that grantee schools send their principal, coach, and K–3 staff members to professional development offerings and utilize an on-site reading coach to support teachers in the implementation of their core reading program and in the use of data to make instructional decisions, among other activities.	Within schools, coaches observed instruction and provided feedback to teachers, helped to administer assessments and interpret results, and assisted with the creation and delivery of interventions. Outside of the individual school buildings, the implementation of Reading First was supported by professional development and technical assistance provided by the Reading First state project staff and a team of regional coordinators.	Teacher: Reading instruction Child: Reading outcomes	88 Washington Reading First schools serving children in grades kindergarten through 3 Washington Reading First schools served a high proportion of students living in poverty, with the majority of students at most schools eligible for free or reduced-price lunch (FRL). They also served a high number of English language learners (ELLs); nearly half (46%) of students in Washington Reading First schools were current or former ELL students and/or came from homes where English was not their first language.	In general, teachers valued the support of coaches. At the same time, coaching occurred very unevenly across schools. In some schools, coaches observed all or almost all teachers regularly while, in contrast, teachers in other schools reported infrequent observations. Teachers who were observed more frequently had more positive perceptions of their reading coach. Higher-than-average rates of principal, coach, and teacher turnover means that many schools need to train new people each

Table A.3 *(continued)*

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	Reports on the annual evaluation of Washington Reading First				year. In general, when schools expressed concerns about sustainability, their biggest concern was the funding of the coach's position. Given the wide range of responsibilities that fall on the coach, the loss of the coach position could pose issues for schools. Concerns about ELL students were among the most pressing issues for Washington Reading First schools in 2007. Nearly half of coaches expressed a need for future professional development about working with ELLs.
Diamond and Powell 2011	The authors describe 5 sequential, small-scale studies that influenced their approach to a professional development (PD) intervention that employs coaching aimed at helping Head Start teachers improve their language and literacy instruction originally titled Classroom Links to Early Literacy (CLEL). Components of the PD intervention included a one-day workshop followed by 12 individualized coaching sessions plus teacher access to a case-based hypermedia resource that included approximately 100 video exemplars of	**Study 3.** This study was a formative evaluation of our approach to coaching at a distance. In this coaching approach, each teacher submits eight videotapes of her instruction of specific skills (about 20 min in length) over a 10- to 12-week period and the coach provides feedback on a CD in which the coach's comments are aligned with portions of the teacher's videotape. The coach also embeds in the feedback links to specific video exemplars or other resources in the hypermedia resource. Teachers and coaches agree, in advance, on the focus of two consecutive videotapes. There is a lag time of about 10 days between a teacher's taping and receipt of coach feedback.	Teacher: Vocabulary and phonological awareness instruction	**Study 3.** Five female teachers employed by a publicly funded community child care program serving low-income, at-risk children. Teachers' backgrounds ranged from some college courses to a bachelor's degree, a range similar to that of teachers in Head Start programs. **Study 5.** 34 Head Start teachers randomly assigned to either intervention (n = 18) or control (n = 16) groups from five different programs in urban, small-city, and rural communities.	**Study 3.** Overall, teachers had positive reactions to the experience and endorsed it as a valuable approach to PD. It was clear from teachers' comments that a challenge for coaches would be limiting the length of feedback and the number of links to video exemplars while including both positive comments and suggestions for improvement. Finding the time to review the coach's lengthy feedback was a challenge, and teachers were unanimous in

Table A.3 *(continued)*

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	literacy and language instruction. 2 of the 5 studies are described here.	**Study 5.** On-site coaching visits include observation and teacher consultation. Four 2-hour coaching visits were made to each teacher, with 30 minutes of that time devoted to consultation. As in Study 3, teachers submit 8 tapes and coaches provide feedback on a CD.			recommending that feedback be provided in short paragraphs or with bullet points. Teachers liked learning from the coach about what they were doing well before the coach offered suggestions for improvement. **Study 5.** There was an average of 8.6 calendar days between coaching contacts but there was substantial variation in time between contacts. Examination of the interval between coaching sessions and submission of tapes suggests that a scheduled visit from the coach prompted teachers to submit a scheduled videotape. Intervention teachers provided more vocabulary instruction, including defining and reviewing more novel words (M = 7.12 words defined) than control teachers (M = 3.7 words, d = 0.69) at the end of the semester. There were more child utterances (M = 163 intervention vs. 119 control), teacher utterances (M = 185 vs. 137), and teacher questions (M = 66 vs. 54) during large group sessions in intervention classrooms compared to control classrooms at the end of the semester

Table A.3 *(continued)*

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					(*d*s = 0.55 to 0.73).
Domitrovich 2010	The REsearch based Developmentally Informed (REDI) professional development seeks to foster the integration of research-based practices to support social-emotional and language /emergent literacy skills for children in Head Start. It supports teachers' professional development with curricula enhancements (scope & sequence of lessons & activities) & individual mentoring Specifically, professional development for lead and assistant Head Start teachers included: • Initial 3-day training workshop on the developmental model underlying RED • Mid-year 1-day booster training workshop • Weekly classroom visit from REDI trainer (x = 3 hrs/week) • Weekly meeting with REDI trainer (1 hr/week)	Additional details on coaching not presented in presentation	Child: Social-emotional and language/literacy outcomes	356 4-year-old children in 44 Head Start classrooms 84 Lead & Assistant Teachers in Pennsylvania Additional details not presented in presentation	Several teacher factors were associated with variation in implementation: • Professional development • Stress level & emotional well-being • Perceptions of the work environment • Perceptions of the intervention • Engagement in consultation Intervention effects were found for: teaching quality (positive emotional climate [TSRS; es = .42) and positive discipline (es = .66) and teacher language use (CLEO statements [es = .72], questions [es = .77], decontextualized talk [es = .62], and rich-sensitive talk [es = .62]). Author concludes that while there are some improvements in teaching quality that result from interventions that include coaching, more targeted interventions may be need to be offered simultaneously to teachers who lack basic teaching skills.

Table A.3 *(continued)*

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Domitrovich et al. 2009	The REsearch based Developmentally Informed (REDI) professional development seeks to foster the integration of research-based practices to support social-emotional and language /emergent literacy skills for children in Head Start. It supports teachers' professional development with curricula enhancements (scope & sequence of lessons & activities) & individual mentoring Specifically, REDI included 4 days of training on the developmental model underlying REDI (3-day workshop in early August and 1-day "booster" workshop midway through the program year) and weekly coaching. Head Start teachers were encouraged to reflect on what had been working well and discuss ongoing challenges during the booster workshop.	**Training.** There was approximately a half day of general orientation, one day of language and literacy emphasis, one day of social–emotional emphasis, and a half day of program-specific meetings about the logistics of implementing REDI. **Coaching.** In addition to 4 days of training (conducted by the program developers), teachers received weekly coaching from local educational consultants, who were experienced master teachers supervised by two project-based senior educational supervisors. Consultations were intended to enhance the quality of implementation through modeling, coaching, and providing ongoing feedback. The coaches spent 3 hr weekly in each classroom. Coaches also held weekly 1-hr meetings with the lead and assistant teachers individually following an agreed-upon format: First, the teachers presented their weekly implementation form, describing what they had done, reflecting on the effectiveness of the various activities and lessons, and recording any teaching questions or challenges. This served as a platform for the REDI coaches to comment on specific positive teaching practices and to provide suggestions for improvements or offer solutions for challenges encountered. During the second half of each meeting, the REDI coaches reviewed specific teaching strategies that were a formal part of the intervention.	Teacher: Teacher-child interactions Child: Social-emotional and language/literacy outcomes	22 lead and assistant teachers across three Head Start programs in central Pennsylvania	Variations in teachers' perceptions of the intervention and engagement in the coaching relationship were generally not predicted by the teachers' professional characteristics, personal psychological resources, or perceptions of the workplace (i.e., only 2 reliable associations out of 40 tested). The most consistent training process predictor of training content outcomes was the degree to which the REDI coaches perceived teachers as being open to consultation. The importance of openness was somewhat greater for lead teachers as compared to the assistants. Ratings made by the REDI coaches based on weekly meetings with teachers and classroom visits over a 3-month period were reliably correlated with corresponding dimensions rated by outside observers who visited the classroom for 2 hr on one occasion. This supports the viability of using coaches' ratings to track training outcomes.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
		In presenting the teaching strategies, the REDI coaches used examples and videotaped models to introduce skill concepts, encouraged discussion about the specific use of the strategy in the classroom, and suggested practice activities for the coming week. Teachers were encouraged to identify personal goals regarding their planned use of the teaching strategies in the coming week. REDI coaches followed the same progression through these strategies with all teachers, but the pace was adjusted to match teachers' mastery of the material.			
Downer et al. 2009	Participation in the larger study of state-funded preschools involved receiving 2-year professional development focused on implementation of a language/literacy and social/ emotional development curriculum. Near the start of the academic year, teachers completed a 2-day professional development workshop that provided an overview of the MTP—Language & Literacy Curriculum and Preschool Promoting Alternative Thinking Strategies (PATHS) curricula, modeled implementation of various activities, and demonstrated access to the curriculum's companion Web site	Consultants were not assigned randomly. Consultants were experienced in teaching young children and trained to reliability on the CLASS because of its emphasis as a standardized/common lens for observing and providing feedback on teacher–child interactions. Consultants met weekly with supervising staff for problem-solving, case presentations, and fidelity checks. Teachers videotaped their implementation of an instructional activity every 2 weeks, mailed the tape to their consultant, who then edited the tape into a series of 1- to 2-min segments focused on a specific aspect of interaction. Edited segments were paired with specific written feedback focused on interactive behaviors of the teacher and the children's cues and responses. Also, questions designed to call the teachers'	Teacher: Teacher-child interactions Child: School readiness	62 teachers involved in the consultancy condition for two consecutive years as part of a professional development study of state-funded preschools in one mid-Atlantic state All the teachers held bachelor's degrees, and 35% had advanced degrees.	Variation existed in the degree to which teachers demonstrated responsiveness to participation in the consultancy and were exposed to key elements of the in-service professional development model. There is evidence that implementation varied as a function of the consultant assigned to teachers, as well as the professional and training experiences, belief systems, and initial teacher–child interaction quality levels of participating teachers. Specifically, there were significant consultant effects on the number of cycles completed and the amount of time spent in iChats. These factors

Table A.3 *(continued)*

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	providing video clips of exemplary instruction. Teachers in the consultancy condition also received a MyTeachingPartner (MTP) teaching consultant. These teachers have access to video exemplars of high-quality teacher–child interactions and experience biweekly, Web-mediated interactions with a consultant guided by the CLASS framework. These consultation interactions focus on (a) observing video footage from the teacher's classroom to identify effective teacher–child interactions; (b) providing the teacher with feedback about alternative approaches to interacting with students; and (c) establishing a non-judgmental, non-evaluative supportive relationship with a knowledgeable individual. MyTeachingPartner (MTP) is a professional development program for preschool teachers designed to support effective teacher-child interactions through a collaborative, web-mediated consultation process and web-based video exemplars of effective practices.	attention to aspects of their behavior were included. Videos, written feedback, and questions were posted on a private Web site for the teacher. Teachers and consultants then engaged in an online video conference to discuss the prompts and feedback and to problem solve. This cycle was spread over 2 weeks and repeated throughout both years of participation.			suggest a need for more consistency across consultants in the way consultation is conducted, and require future study of consultant characteristics that may contribute to the uptake of professional development resources by teachers. Teachers were less engaged in some intervention components during year 2. Teachers with less experience teaching pre-K spent more time on the Web site accessing video exemplars of high-quality teacher–child interactions. Self-efficacious teachers watched more videos of other teachers online and spent more time reviewing their own videos online. Finally, teachers' initial quality of interactions with children was associated with their engagement in the professional development intervention.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Duda et al. 2004	Positive behavior support (PBS) is a well-established strategy for addressing problem behaviors in children. It is defined as a collaborative and values-based approach for developing effective, individualized interventions for people with problem behaviors. The PBS procedures for this study in a small, faith-based inclusive community preschool included team development, functional assessment, support plan development, and intervention. During the intervention phases, a PBS consultant provided coaching. All steps were facilitated by university-based PBS consultants (the first and fourth authors). Information on duration of coaching is not provided.	ABAB designs were used to analyze the effects of the PBS interventions for both children across the two activities of opening circle and planning. The first A phase consisted of collecting baseline data. The first B phase involved implementing the intervention components, which were subsequently withdrawn in the second A phase. Finally, the second B phase reintroduced the intervention components. **Coaching.** The PBS consultant coached and modeled individualized procedures for the classroom teacher before implementation of each session. The consultant also provided positive feedback at the end of each session to support the teacher's use of the PBS interventions and to remind the teacher to include in future sessions any components or supports that had not been implemented. The PBS consultant refrained from providing feedback or interrupting the teacher during the group activities to avoid disrupting the activity. Coaching sessions ranged from 5 to 10 min and were conducted prior to the initiation of intervention sessions. The PBS consultant reviewed the targeted strategies, modeled the use of materials or a teaching technique, and asked the teacher if he or she had questions or needed clarification in regards to implementing the strategies. Immediately following group activities, the PBS consultant	Child: Problem behaviors	Classroom staff for two 3-year-old girls in a small, faith-based inclusive community preschool No descriptive information on staff provided	Within the context of A-B-A-B designs, the data indicated reductions in challenging behaviors and increases in engagement for both girls in two separate group contexts. Fidelity data indicated that some components of the PBS plans were implemented but others were not. The findings support the efficacy of PBS with young children in natural settings.

Table A.3 *(continued)*

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		commented on strategy use and the children's behavior during the group activity. The consultant also provided reminders about strategies that had not been implemented.			
Dunst and Raab 2010	Participants worked in preschool, Head Start, child care classrooms, or another type of center-based program as teachers, related services personnel, or supervisors of classroom personnel. They attended either 1) conference presentations, 2) 1-day or 2- to 3-day workshops, or intensive training (weeklong institutes or on-site training in their classroom). Conference presentations, included sessions lasting between 1 and 3 hours, made at either state or national conferences. Two types of workshops were provided: 1-day workshops lasting 4 to 6 hours and 2- to 3-day workshops lasting 10 to 14 hours. The training institutes were conducted on 5 consecutive days. On-site training was provided during three to four visits to a participant's classroom over a 6- to 7-month period, with each visit lasting between 2 and 3 days.	The training institutes were conducted on 5 consecutive days in an interactive workshop format, including role-playing and other activities to promote understanding of the classroom practices. Each on-site training visit involved observations of practitioners' teaching, trainer demonstrations and feedback to practitioners, and practitioners' active participation in all aspects of using the practices. The three types of training differed in a number of ways. First, they differed in number of hours of training, varying between 1 and 60 hours. Second, they differed in depth of content covered, ranging from cursory coverage (conference presentations) to extensive coverage (intensive training). Third, they differed in number of examples used to illustrate the practices, varying from only a few during conference presentations to multiple examples during the 2- to 3-day workshops and both types of intensive training. Fourth, they differed in the number of participant opportunities to engage in some type of exercises to learn the practices, varying from none during conference presentations to many during the institutes and on-site training. Fifth, they differed in whether performance checklists were	Teacher: Perception of training usefulness and classroom practices	255 participants from 26 states Respondents worked in preschool special education, preschool, Head Start, child care classrooms, or another type of center-based program as teachers, related services personnel, or supervisors of classroom personnel. 51% had a bachelor's degree, and another 45% had a master's or doctoral degree. The trainers included six early childhood professionals with either master's (n = 4) or doctoral (n = 2) degrees in early childhood special education, child development, psychology, or speech and language pathology.	Results show that both types of intensive in-service training are more effective than either conference presentations or workshops (i.e., participants rate content more useful and more changes in their classroom practices). Also that on-site training is more effective than weeklong institutes in affecting study participants' judgments of the in-service training.

Table A.3 *(continued)*

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		used as benchmarks for assessing mastery of the classroom practices, where only the intensive training included participants' use of checklists to make explicit the behavior that was consistent with the classroom model. Sixth, they differed in the "real life" use of the practices, where participants who received on-site training were the only practitioners who had the opportunity to use the procedures in the context of their own classrooms or center-based programs.			
Early Reading First: Final report to Congress/ Jackson et al. 2007	The study uses a regression-discontinuity (RD) design to assess the impact of Early Reading First (ERF) funding and program support for preschools on the language and literacy preparedness of preschool children. ERF provides grants to school districts, other public, nonprofit, and private organizations, and collaborations of the same entities that serve 3- to 5-year-olds, especially those from low-income families. Two key elements of ERF are the use of scientifically based language and literacy methods and activities and enhanced professional development to support preschool children's school readiness. Consistent with the statutory definition of "professional development," ERF	ERF teachers reported receiving an average of 72 hours of professional development during the previous year. All in funded programs reported receiving professional development in phonemic and phonological awareness. The vast majority received training in six other language-development and early literacy topics, including literacy-rich print environments, concepts of print writing and prewriting, oral language, facilitating emergent literacy, alphabetic knowledge, and oral comprehension and cognition. 9 out of 10 reported receiving training in child assessment. Three-fourths of ERF teachers reported receiving training in traditional early-childhood topics, including children's development and ways to manage children's behavior in the classroom. ERF teachers reported that most of the professional development topics on which they received training were covered through	Child: language and literacy skills Teacher: Language and literacy instruction, practice, and materials	ERF participants appeared to be more disadvantaged than the national average in terms of family income and assessment scores. Children in this cohort were also more likely than children nationally to come from single-parent households, be Hispanic, and have foreign-born parents. About 4 out of 10 ERF parents reported that the primary language spoken in the home was not English. The treatment group consisted of 4-year-olds attending preschool in 28 of 30 ERF grantee sites, whereas the comparison group consisted of children attending preschool in 37 of the 67 unfunded applicant sites that had the highest application scores and that agreed to participate in the study. Approximately three classrooms were selected	Overall, we find that ERF had positive impacts on the hours of teachers' professional development during the 12 months preceding the spring 2005 survey and that it increased the proportion of teachers receiving professional development through mentoring. ERF increased the number of hours of professional development that focused on language and early literacy topics by 48 hours. The program's impact on the proportion of teachers receiving mentoring or tutoring on language and literacy topics was 41 percentage points. The program's impact on the proportion of teachers receiving workshop training on language and literacy

Table A.3 *(continued)*

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	professional development is expected to be continuous, intensive, and classroom focused. Professional development that included mentoring and coaching is encouraged. Three-quarters of ERF preschools are full-day programs, 62 percent have a class size of 20 children or fewer, and almost 70 percent have a staff-to-child ratio of 1:10 or better.	in-service training. We did not ask teachers how their professional development hours were distributed across the various types of training (including mentoring or tutoring).		from each participating site, and approximately 11 4-year-old students per classroom. 75 % of the ERF teachers have bachelor's degrees, 67 % have teaching certificates or licenses. 87 % had completed college-level courses in early-childhood education or development, 67 % had completed courses in teaching reading to elementary-school children, and 79 percent had completed courses in teaching language and literacy skills to children in a preschool setting.	topics was 41 percentage points. ERF had pervasive impacts on the general quality of the preschool classroom—the classroom language environment, materials, and teaching practices that support early literacy, and child-assessment practices. Overall, we find that ERF had a statistically significant positive effect on children's print and letter knowledge but no statistically discernable impact on phonological awareness or oral language. We find no evidence of negative impacts on children's social-emotional skills.
Green et al. 2006	Findings from a nationally representative survey are presented about the nature of mental health consultation, organizational characteristics, and staff members' attitudes and opinions about the effectiveness of mental health consultation services. Details of consultative approaches within responding programs are not provided	Details of consultative approaches within responding programs are not provided	n.a.	74 Head Start programs and 655 Head Start directors, staff members, and mental health consultants who responded to the survey Head Start staff members and managers were almost entirely female (96%). About one fourth (27%) of respondents were African American, 51% were White/Caucasian, 11% were Hispanic/Latina(o), and 8% were of other ethnic backgrounds. On average, Head Start staff members, not including mental health consultants, reported working for Head Start for 5.57 years.	Using Hierarchical Linear Modeling (HLM), the authors present results suggesting that the most important characteristic of mental health consultants is their ability to build positive collaborative relationships with program staff members. The frequency of consultant activities was important, primarily because consultants who provided more frequent services were reported to have more positive relationships with staff members.

Table A.3 *(continued)*

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					These results were significant even after controlling for program-level characteristics, such as program size, budget for mental health services, and ratio of consultant hours to number of children.
Hardin et al. 2010	The purpose of the Teachers, Families, and Communities Supporting English Language Learners (TFC) project was to implement and evaluate a sustainable model of high-quality professional development focused on improving inclusive pre-kindergarten services for English Language Learners (ELL) and their families. The professional development program consisted of three interactive training sessions (3 hours each) and on-site classroom coaching visits. Information on duration not provided	Topics during the training sessions were based on feedback from pre-kindergarten teachers and administrators during the previous school year. The training sessions were interactive (e.g., roundtable discussions, community and parent panels, small group activities, and question/answer sessions). At the end of each session, teachers met in small groups to reflect on the training content and to begin developing action plans with doctoral student coaches. Doctoral student coaches were assigned 4 classroom teams. They met with their classrooms at the end of each training session. Additionally, the doctoral student coaches conducted on-site classroom visits following the training sessions. Coaches supported teachers through an inductive and strengths-based process and engaged with teachers through discussion in their classroom settings. They discussed matters unique to teachers' individual concerns and areas of interest. During these interactions, coaches assisted teachers in further developing and/or implementing strategies they identified within their action	Teacher: Classroom practices for ELLs	48 teachers and teacher assistants in classrooms with enrollments of significant numbers of children from multiple language groups Classrooms were in a countywide, metropolitan school district in central North Carolina Approximately half of the teachers reported having a bachelor's degree (51%), 16% had a master's degree	Results indicate that the professional development program supported pre-kindergarten teachers in their efforts to be responsive to ELL children in their classrooms and with their families. The pre–/post–classroom environment self-assessment indicated that there was a statistically significant improvement in the physical environment, materials, and resources in the classroom at the end of the project, with teachers creating more culturally relevant environments, including an increase in the use of objects and materials from children's home cultures as well as their home languages in the classroom. In the postsurvey, participants indicated teachers were sending home more documents translated into children's home languages than at the

Table A.3 *(continued)*

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		plans.			beginning of the project.
Hsieh et al. 2009	This single-subject study assessed the effects of in-classroom coaching on early childhood teachers' use of emergent literacy teaching strategies. The coaching process included two primary components: a brief initial meeting to introduce a cluster of teaching strategies, and semi-weekly observation with follow-up discussion using data collected during the observation. A third booster component was added when the teacher did not achieve a pre-established criterion. The intervention phase lasted approximately 6 weeks for each teacher. Introductory and booster sessions lasted 15 to 20 minutes, usually in the morning before children arrived. Observations lasted the entire morning session unless the teacher and children left the classroom. Discussion following each observation lasted approximately 15 mins and usually occurred shortly after the observation if the teacher could take a few minutes away from the classroom. The settings for the intervention were child care programs and public school pre-kindergarten	The coaching model used in this study was based on a cycle of clinical supervision originally described in the early teacher supervision literature. The components of this cycle include collaborative planning, practice while being observed, reflective feedback, and collaborative planning for the next coaching visit. The study also incorporated two additional aspects of early clinical supervision: a focus on a targeted cluster of teaching strategies and the use of data collected on those strategies during observation as a basis for feedback and reflection. Teacher-coach collaboration was also built into the model in several ways: by building on current routines and practices in the classroom; by having teachers choose the routines in which they would practice using each skill; by involving teachers in looking at data from observations; and by engaging teachers in joint problem-solving about ways to increase their use of the strategies. Coaching was as follows, Component 1: introduction to the cluster (overview of child outcomes related to the cluster, description of the teaching strategies included, and joint discussion of plans for practicing the strategies). Component 2: practice/observation/feedback occurring 2 to 3 times per week, usually 3 to 6 visits (practice by teacher/observation by coach in activity selected, feedback and	Teacher: Literacy instruction	5 early childhood teachers, 3 in child care programs and 2 in public school pre-kindergarten programs in two towns in the Midwest One teacher was Asian and the remaining teachers were Caucasian. Of the two public school teachers, one had a Bachelor's and Master's degree in early childhood education. Of the three child care teachers, two had Bachelor's degrees in family and consumer science and one had a Master's degree in special education.	Results indicated that this approach to coaching was effective for increasing the number of teaching strategies that teachers used in each cluster. The teachers used the strategies more during intervention than during baseline, and after the intervention was discontinued on each cluster, teachers continued to use the strategies at rates that were above baseline levels. The extent to which the five teachers eventually used the three clusters of strategies varied considerably, as did the time needed to reach criterion on each cluster. In general, planning for how the strategies could be embedded and practiced appeared to play a critical role in helping teachers achieve criterion on all strategies. When there was a plan, teachers were better able to practice the strategy cluster. When no plan was made, it was much more difficult for them to remember to focus on the strategies.

Table A.3 *(continued)*

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	programs.	discussion, including joint planning for next time and extensive note-taking by coach). Component 3: booster if needed (review of child outcomes related to the cluster, review of the teaching strategies, and joint discussion of plans for practicing the strategies).			
Jackson et al. 2006	This study evaluated the effects of HeadsUp! Reading (HUR), a professional development literacy workshop series, with and without supplementary mentoring on early childhood educators' (ECEs) practices and its subsequent effect on preschool children's literacy skills. ECEs from seven communities (rural and urban) with the highest poverty concentrations in Nebraska participated in a l5-week satellite broadcast training series. Settings included Head Start centers, child care centers, federal Even Start Family Literacy programs and state-funded prekindergarten programs. Once the intervention centers were identified, control group ECEs were selected who were matched based on the ethnicity and language of the children and income of the families served. The goals of HUR were to strengthen teachers'	Project mentors participated in initial one day training on effective mentoring practices and were provided with guidelines to support their work. The project co-director provided the initial training and provided ongoing telephone follow-up consultation to the mentors. The mentor provided guidance in helping the mentee choose realistic and meaningful goals to be pursued. The resulting individual plan was mutually developed based on the assessment data and the interests and identified needs of the mentee. The mentor met with each participant four to six times for 2-4 h per session over a 2-month period. The mentors were compensated for their time. Examples of mentoring activities included: identification of ways to enhance children's use of the reading center, promoting time each day for children to journal, re-organization of the writing center and incorporation of phonetic awareness activities into small group activities.	Children: The primary purpose of this study was to evaluate the effectiveness of HUR in improving children's early language and literacy experiences.	The sample for analysis included 14 ECEs with HUR-only, 8 ECEs with HUR+mentoring and 17 ECE controls. The education background of ECEs varied, ranging from masters degrees in education-related fields to those who had completed high school. The majority of the teachers had some college. 21 percent of ECEs served primarily children who were ELL. 31 percent served children in Native American communities on reservations. 143 preschool children had both pre- and post- scores. Of those: all were between 2.8 and 6.5 years old (M = 4.4); 51 % boys and 49%) girls; Spanish spoken at home by 25.2%, English for the others; ethnic distribution of was Caucasian (35%), African-American (22%), Hispanic (22%), Multiracial (3%), Asian (4%) and Native American (14%). Mentors were selected based on educational background (a minimum of a master's degree), a	Participants in HUR and HUR + mentoring significantly exceeded the control ECEs on the quality of their classroom environments. Children's literacy skills improved more in the HUR classrooms than in control classrooms. Mentoring did not enhance preschool children's literacy skills more than HUR alone. The treatment was equally effective for Spanish- and English-speaking children. Early childhood educator participation in HeadsUp! Reading can enhance the effectiveness of classroom literacy practices and has subsequent benefits on language and literacy skills of preschool children from poverty backgrounds. These findings further support the crucial role of high quality programs for the development of children's literacy skills.

Table A.3 *(continued)*

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	practices and improve children's language and literacy skills.			minimum of 10 years of experience as an early child hood consultant and demonstrated skills in establishing a supportive relationship.	
Kinzie et al. 2010	MyTeachingPartner (MTP) is a professional development program for preschool teachers designed to support effective teacher-child interactions through a collaborative, web-mediated consultation process and web-based video exemplars of effective practices. Teachers using MyTeachingPartner (MTP) curriculum received either basic or plus supports. "Basic" teachers received the traditional supports. These teachers have access to video exemplars of high-quality teacher–child interactions and experience bi-weekly, Web-mediated interactions with a consultant guided by the CLASS framework. "Plus" teachers also received online embedded supports (e.g., demonstration videos, teaching tips, weekly "5-minute challenges"). They also received similar other curricular and professional development supports. Both groups of teachers implemented the MTP	The specifics of Plus supports: • **Demonstration videos** included field videotapes and in-house videos to emphasize specific pedagogy. • One **teaching tip** per activity was provided. • The **5- minute quality challenges** were anchored to a math or science activity of the week and embodied a CLASS dimension. • A **quality teaching video library** was also made available. • Finally, eight 3-hour on-site teacher **workshops** were provided. The workshops encouraged teachers' reflective use of web-based supports.	Teacher: Math and science instruction Child: Math and science development	Information is not provided	Teachers in both groups showed fairly high fidelity, with no significant difference found in adherence. "Plus" teachers submitted more activity tapes that fit selection criteria (es = .77). For the "Plus" group, findings for time spent on the MTP website and curricular dosage approached significance.

Table A.3 *(continued)*

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	curricula over the course of the 36 week school-year. Teachers participated in a 2-day workshop training at the beginning of the year that provided an overview of the MTP—Language & Literacy Curriculum and Preschool Promoting Alternative Thinking Strategies (PATHS) curricula.				
Knapp-Philo et al. 2004	The Hilton/EHS Training program supports EHS and M/SHS staff, family members, early interventionists, and child care personnel to develop skills and strategies for assessing and using services, resources, and technology to include infants and toddlers with significant disabilities and their families. Professional development included 3- to 4-day group training events, supported by Learning Coaches. Learning Coaches also provided on-site follow-up, for up to 3 days per year, along with ongoing technical assistance.	Participants attended 3-4 day training events, called Special Quest, for up to four consecutive years. In addition to group sessions, highly-skilled consultants, known as Learning Coaches, facilitated team process during each Special Quest and assisted teams to identify recommended practices that they wished to adopt in their programs. Learning Coaches also provided on-site follow-up, for up to 3 days per year, to support teams to achieve goals and implement new practices. In addition, Learning Coaches provided ongoing technical assistance through phone, fax, and e-mail. Learning coaches participated in ongoing training prior to each SpecialQuest and via conference calls and reflective supervision meetings with project staff. Specific description of 12 program elements NA in this report.	Specific description of 45 program outcomes NA in this report. Classroom: Overall goal: assessing and using services, resources, and technology to include infants and toddlers with significant disabilities and their families.	Between 1998 and 2002, over 2,500 participants representing 264 teams from across the U.S. (18% of participants attended all 4 SpecialQuest, 13% attend 3, 26% attended 2, and 43% attended only 1). 140 Learning Coaches worked with 265 program teams.	Attitudinal changes were widely reported and many new practices were in place in some programs, even halfway through the training cycle. Participants rated themselves as more knowledgeable, more skilled, and having changed in all 45 of the targeted outcomes measured at the end of each SpecialQuest. Using a pre-post methodology, all comparisons of means were significant at $P<.001$ for all of the outcomes. 3-5 months after training, participants indicated that because of SpecialQuest their skills in working with infants and toddlers with disabilities and their families in EHS/MHS have improved, coordination between EHS/MHS and Early Intervention in their community have strengthened, and they

Table A.3 *(continued)*

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					were more comfortable working with infants and toddlers with significant disabilities and their families.
Kretlow et al. 2011a	This study examined the effects of in-service plus follow-up coaching on first grade teachers' accurate delivery of three research-based strategies during math instruction. Teachers were trained to use a combination of whole-class instruction strategies, including model-lead-test for introducing new concepts and correcting errors, choral responding, and response cards. Three phases were evaluated, (a) baseline (no professional development), (b) post-in-service, and (c) post-coaching, during which each teacher entered the intervention in the multiple-baseline staggered fashion. During baseline, no training was provided to teachers. Teachers attended a 3-hour in-service conducted by the first author, then received individual pre-conferences (15 to 20 minutes) and in-class coaching (30 to 45 minutes during one scheduled math lesson). 15- to 20-minute individual post-conferences were also	During baseline, teachers were asked to audiorecord entire daily lessons in CM and NPS. Teachers audiorecorded their lessons without any suggestions to make changes from their typical lesson delivery. During pre- and post-conferences, the researcher gave the teacher feedback regarding strengths and areas for improvement. The researcher also modeled strategies and co-planned the in-class coaching session with the teacher. During the in-class session, the researcher modeled each strategy, prompted the teacher to try the same strategy, and used specific praise and non-evaluative error correction. Five sessions after the initial coaching session, the researcher conducted a feedback meeting with each teacher to follow up on the skills coached in the first session. At the feedback meeting, the researcher provided verbal feedback from audio recordings, answered questions, and provided corrections if necessary.	Teacher: Whole-class math instruction strategies	Three 1st grade teachers in a suburban North Carolina school district, all with bachelor's degrees in elementary education	Results indicated that all teachers improved their delivery of the strategies after the in-service, with a second level of growth achieved after coaching. Improvements also generalized to untrained math sessions. Teachers reported very high levels of satisfaction with the training model.

Table A.3 *(continued)*

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	planned.				
Kretlow et al. 2011b	This study examined the effects of in-service support plus coaching on kindergarten teachers' accurate delivery of group instructional units in math. Teachers were trained to use a combination of whole-class instruction strategies, including model-lead-test for introducing new concepts and correcting errors, choral responding, and response cards. Three phases were evaluated, (a) baseline (no professional development), (b) post-in-service, and (c) post-coaching. Baseline lasted between 8 and 10 days for all teachers. The post-in-service phase lasted between 18 and 35days. Postcoaching lasted between 9 and 33 days.	During baseline, no training was provided to teachers. Teachers audiorecorded their lessons without any suggestions to make changes from their typical lesson delivery. Teachers received a 3-hr group in-service training, conducted by the first author. The in-service program provided teachers with an overview of three whole-class strategies. Then teachers received individual pre-conferences (15 to 20 minutes) and in-class coaching (30 to 45 minutes during one scheduled math lesson). 15 to 20 minute individual post-conferences were also planned.	Teacher: Whole-class math instruction strategies	Three kindergarten teachers at a Title 1 elementary school in the southeastern region of the United States. 79% of students in the school were from low-income backgrounds and 46% were English language learners (ELL). All three teachers had or were pursuing their master's degree.	Results of a multiple-baseline-across-teachers design indicated that teachers' instructional accuracy improved after the in-service, with a second level of growth achieved after coaching. Teachers also reported high levels of satisfaction with the strategies and the training model.
Landry et al 2006	A quasi-experimental, statewide intervention targeting preschool teachers' enhancement of children's language and early literacy was evaluated. Across 2 years and 20 Head Start sites, 750 teachers participated (500 target, 250 control), with 370 classrooms randomly selected to conduct pre- and posttest assessments (10 randomly selected	Teachers receiving their first year of training, whether it occurred in the first or second year of the project, participated in a 4-day, small-group (n = 15), interactive workshop. Teachers receiving their second year of intervention participated in 2-day refresher. The coordinators and mentors were asked to participate in a 1-day, monthly meeting. In addition to the monthly meetings, ongoing problem solving regarding program implementation was conducted,	Teacher: Content areas for training included: (a) professional practices (including room organization, daily routines, and supportive interactive teaching styles); (b) language enrichment and "scaffolding" language and learning throughout the day; (c) conducting book	Across 2 years and 20 Head Start sites, 750 teachers participated (500 target, 250 control), with 370 classrooms randomly selected to conduct pre- and posttest assessments (10 randomly selected children per class). The selected program sites included urban (60%) and rural (40%) programs. Head Start students are 3- and 4-year-olds from low-income	Effect sizes reported: small = 0.20–0.49; moderate =0.50–.079, large $\geq$ 0.80. Year 1 results: One third of the sites demonstrated large and moderate effect sizes in auditory comprehension, and 26% demonstrated large effect sizes for gains in expressive language skills. More sites showed small to large

Table A.3 *(continued)*

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	children per class). Mentors coached 1 hour per week for each Head Start teacher in their first year of training and twice a month for teachers in the second year of training. During their visits, they provided expertise with lesson planning, assessment, side-by-side coaching, and demonstration lessons. Systematic training procedures across both intervention years included multiday summer training for coordinators, mentors, and teachers. Procedures for ongoing training throughout the school year were similar.	with the primary contact being the assigned intervention staff. These staff members also made at least two site visits to their assigned sites across the school year. Intervention staff also developed training videos for language, literacy, and coaching, which were made available to each mentor to use with target teachers in update trainings conducted across the year. The target teachers' initial training was supplemented with ongoing small-group training during the year conducted by the site coordinator or mentors. Decisions regarding the content of this ongoing training were informed by the needs of the target teachers.	readings in ways that promote language and literacy skills; (d) using effective teaching strategies to build language comprehension and expression; (e) print and book awareness; (f) motivation to read; (g) phonological awareness; (h) alphabet knowledge and early word recognition; and (i) written expression. Child: Language and literacy outcomes	families.	gains in vocabulary development than in syntactic and semantic language skills. 55% of the sites showed small to large effect sizes for gains in children's knowledge of vocabulary (PPVT-3), and 40% in children's ability to label objects and actions (EVT). Year 2 results: 50% of the sites showed gains in children's alphabet knowledge, and 45% in phonological awareness, both in favor of the target teachers. For 50% of the sites, meaningful effect sizes were seen in phonological awareness skills. Comparing 1 year of training to 2 years: Additional professional development resulted in only a small number of sites showing significantly greater gains across these two groups.
Lyon 2009	We evaluated effectiveness of Teacher-Child Interaction Training (TCIT), an approach adapted from Eyberg's Parent-Child Interaction Therapy (PCIT). Preschool teachers at an urban, religiously affiliated day care center in Chicago. Group trainings for participating	Teachers participated in small-group workshop sessions with in vivo coaching on their use of skills in the classroom. A multiple baseline design across four classrooms (3 teachers each) evaluated effects of training on teacher behaviors during weekly classroom observations. TCIT incorporates the core elements of PCIT while making	Teacher: Positive attention skills and consistent discipline Child: Psychosocial functioning and mental health problems	A total of 12 preschool teachers (4 classrooms). All teachers were female of diverse ethnicities, ages, and levels of experience. Although not all teachers were certified by the state, the term teacher was used by the center for all classroom service providers in lieu of a more general term such as caregiver.	Findings indicated systematic increases in trained skills during intervention, and consumer evaluations showed that the training was rated positively. Our results suggest that TCIT is a promising approach for enhancing positive teacher-child interactions in a

Table A.3 *(continued)*

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	teachers were conducted in the center's conference room, and individualized coaching was conducted in the preschool classrooms where the teachers worked. TCIT consists of eight didactic training sessions and in-room coaching. TCIT training sessions were held once a week for a total of nine sessions. This included four Child-Directed Interaction (CDI) sessions, four Teacher-Directed (TDI) Interaction sessions, and one "graduation" session. Training sessions lasted 1.5 hours. In-class coaching began following the third CDI session and third TDI session, and it continued for 1 to 2 weeks after the completion of the phase. Teachers received individualized coaching on their skills, during which they were coached between one and three times per week for 20 minutes. Each coaching session involved a period of observation followed by live feedback and concluded with oral and/or written feedback to teachers. The total training sequence lasted between 11 and 13 weeks.	adaptations in order to enhance its appropriateness for the preschool setting and use by classroom teachers. PCIT draws from attachment, social learning, and developmental theories in the treatment of young children's (aged 2-7 years) externalizing behavior. The program proceeds in two successive phases, the child-directed interaction (CDI) and the parent-directed interaction (PDI, called TDI in TCIT), each of which involves a combination of parent didactics, live coaching and feedback, and daily "special time" practice at home. During CDI, parents learn positive attention and nondirective play therapy skills to establish and strengthen a warm relationship with their child (see Table 1). Simultaneously, parents are coached to reduce questions, commands, and critical statements. In PDI, parents are taught to incorporate positively stated effective commands and discipline/ behavioral management strategies into their interactions.		A total of 78 children between the ages of 3 and 5 years old, with a distribution of 19-21 students per classroom, received the intervention. The center was comprised of 90% low-income children, all of whom were charged a reduced fee. The center's overall ethnic composition as a whole was: 73% African American, 14% Latino, 9% non-Hispanic White, 2% Asian/Pacific Islander, and 2% other.	preschool setting and should receive further investigation. Findings indicated that TCIT was effective in bringing about meaningful teacher behavior change across classrooms. Nevertheless, these changes only represented small to moderate effects. Specifically, teachers' use of positive behaviors increased systematically, although modestly, from baseline to the completion of CDI and then remained consistently higher than baseline through TDI. The negative trend observed during follow up observation, although partially attributable to the loss of two teachers at follow-up who had shown positive behavior changes during intervention, suggests that additional support (e.g., booster sessions) may be necessary in order to sustain long-term behavioral change for a subset of participating teachers. Despite wide variety in teacher participation, overall satisfaction ratings indicated uniformly high levels of teacher acceptance of the TCIT program.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Martin et al. 2007	This paper presents results of Year 2 of an Early Reading First project in a low-income, primarily African American community. Goals of Early Reading First include preparing at-risk preschoolers for school success. This project provided professional development, classroom coaching, books, and materials in support of a literacy-focused preschool environment, and parent education related to early literacy. The treatment group included two classrooms in an Even Start program operated by the local school district, one state-funded pre-K classroom operated by the school district, two small classrooms operated by a local independent church-supported child care center, and six classrooms operated by a county-wide Head Start program. The comparison group consisted of 10 classrooms in a large, local church-supported child care center.	**Coaching**. A highly skilled early childhood teacher with at least a master's degree worked directly with teachers in their classrooms, modeling best practices for literacy instruction, curriculum planning, and implementation. No additional details on specific coaching elements provided. **Professional development**. This project required both teachers and aides to take two different semester-long college courses in preschool language and literacy development during the first year of project participation. In subsequent years, followup professional development was provided through twice-monthly workshops. This project provided college-level coursework at three different levels (community college, bachelor's, graduate), based on the education level of teacher participants. Tuition was paid for the college courses, and stipends were paid for successful completion of courses and for attendance at workshops.	Child: Early literacy skills	The sample consisted of the 4-year-old group in Cohort 2, numbering approximately 100 children (treatment) and 30 children (comparison). The kindergarten group in the second year (Cohort 1) numbered 31 (treatment) and 29 (comparison). The comparison group was assumed to reflect higher SES since those children attended fee-for-service child care, while the treatment group attended free child care. Grant objectives required service to a low-income population, who, in this community, primarily attend Head Start and public school-sponsored classrooms. Children from working class or middle-class families in this community primarily attend unlicensed church-sponsored child care programs. Two project classrooms included significant proportions of children whose home language was Spanish.	On the PPVT-III, more treatment group children moved from lower to higher stanines than did comparison children. Treatment children gained significantly in letter recognition. Additional subtests showed statistically and practically significant gains. Treatment children made substantial gains on all subtests of the DIBELS during kindergarten. At kindergarten's end, the treatment children had higher average scores in Letter Naming Fluency and Nonsense Word Fluency than did comparison children. Treatment children experienced less "summer regression" between kindergarten and 1st grade in Letter Naming Fluency and Phoneme Segmentation Fluency than did comparison students. Findings suggest positive effects of this Early Reading First project in preparing at-risk students for future success.
McNerney et al. 2006	The purpose of this study was to investigate how a standardized assessment observation tool, selected to gather summative information for grant-evaluation purposes about	The coaches were responsible for attending professional-development workshops with the teachers and for providing ongoing, on-site support to help the teachers implement ideas from the workshops. They met	Teacher: Early literacy environment instructional practices	23 teachers in 5 preschools in a high poverty, urban area 9 of the teachers were employed by the school district and 14 by the community based	Results indicate that a standardized observation tool (ELLCO) can be used formatively in three ways: (1) to guide decisions about

Table A.3 *(continued)*

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	preschool teachers' early literacy instruction environment and practices, could be used to guide the implementation of an early literacy peer-coaching professional-development program involving 23 teachers in 5 preschools. This early literacy peer-coaching professional-development program included both group and individualized professional development opportunities: workshops and weekly meetings with teachers. Information on duration of coaching is not provided.	weekly with teachers, set goals, modeled teaching behaviors, and helped with room design, and organization of materials, as well as with planning and coordination of family literacy materials and events. Coaches used the ELLCO results to shape their work with each teacher. Self-evaluations and "strengths and concerns" were derived from the ELLCO and used to set teacher goals and monitor progress towards goals. ELLCO evaluations were conducted at baseline and in mid-fall. Leading the professional-development implementation were 2 project co-directors, guided by a university professor. They were responsible for ordering materials, orchestrating the professional-development workshops, and providing guidance for the coaches.		preschools. Majority of the teachers were African American or Hispanic. Their educational backgrounds varied. 4 literacy coaches 2 project co-directors, guided by a university professor	material purchases; (2) to adjust professional-development workshop sequence and delivery; and (3) to guide coaches as they work one-on-one with teachers. Using a standardized observation tool was seen as an effective way of acclimating quickly to the different teachers and their classrooms. The self-assessment component also helped teachers to be reflective about their teaching, and using the standardized tool also created a common language between coaches and teachers. The authors suggest that using the tool could be instrumental in helping teachers to develop their independent ability to identify needs, etc. Baseline ELLCO data and one-on-one interactions were also critical to adjusting the professional development to better meet the needs of teachers.
Mele 2008	The present study evaluated the effects of systematic transition strategies. Teachers received initial in-vivo coaching session during which strategies were modeled and teachers	Following baseline and intervention strategy selection procedures, the researcher conducted one in-vivo coaching session with each teacher, during which they were guided in the implementation of the selected interventions, as applied to	Classroom: Mean percent classroom engagement and percent occurrence of challenging behavior, measured across all	3 Head Start teachers: A. African-American female with a BS in Human Services, 8 yrs experience B. African-American female	Results, evaluated in a multiple baseline probe across classrooms, indicated that with implementation of systematic transition strategies, mean percentages of

Table A.3 *(continued)*

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	were provided feedback on accurate and inaccurate rehearsal of components, as well as ongoing debriefings and feedback on independent strategy implementation. The site of the present study was that of a Hillsborough County Head Start Center. The center was on a full year, full day schedule	transitions targeted for intervention. The researcher began by modeling the correct implementation of individual strategies, with prompts to teachers to rehearse the modeled strategy. Following teachers' rehearsal of each strategy, the researcher provided descriptive praise for accurate implementation, as well as corrective feedback for strategies implemented inaccurately. Prior to independent implementation, the researcher met with teachers to review scripts of strategies, as well as to provide an opportunity for questions and concerns. During debriefings following these sessions, the researcher provided teachers with verbal and written feedback. These debriefings also served to provide an opportunity to address any questions or concerns. Coaching continued until teachers achieved a minimum of three consecutive sessions with treatment integrity measures of at least 90%. Contingent upon achieving this criterion, coaching procedures were withdrawn entirely.	phases of the study (i.e., baseline, coaching and independent implementation).	with an Associate's degree in Criminology and CDA, 8 yrs experience C. African-American female with a MA in Community Counseling, BS in Early Childhood Education, 10 yrs experience A. 16 children, 10 (i.e., 62.5%) of whom were African-American, four (i.e., 25.0%) of whom were European-American, and two (i.e., 12.5%) of whom were Hispanic. B. 15 children were enrolled in Classroom B, five (i.e., 33.3%) of whom were African-American, four (i.e., 26.7%) of whom were European-American, four (i.e., 26.7%) of whom were Hispanic C. 12 children, two (i.e., 13.3%) of whom were African-American, three (20%) of whom were European-American, seven (46.7%) of whom were Hispanic	classroom engagement within intervention phases (i.e., coaching and independent implementation) were higher and relatively more stable than those observed in baseline, within and across all three participating classrooms. Furthermore, mean percent occurrences of challenging behavior were lower and relatively more stable within phases of intervention (i.e., coaching and independent implementation) than those observed in baseline, within and across all three participating classrooms. Data on the accuracy with which teachers implemented selected strategies (i.e., treatment integrity) were also documented and presented in the context of results obtained.
Mohler et al. 2009	Over a 3-year period, a grassroots venture consisting of business, university and public school personnel provided teachers in 22 California state preschool classrooms with a literacy-rich curriculum, weekly support from a literacy coach and	Preschool Literacy Project (PLP) coaches were in each classroom 1 day a week, assisting the teachers and working with children to provide intentional literacy instruction in the classroom. The coach modeled, with the teacher observing, a literacy strategy or activity one week, and the following week the coach observed the teacher	Teacher: Intentional literacy instruction Child: Oral language	22 teachers from CA State Preschool classes participated in the program Children were from low socioeconomic status homes (a requirement for state preschool attendance) and approximately 40% were English learners.	In most cases, the results showed significant differences between the Baseline Year and Years 1 and 2 as well as PLP versus control children at the end of kindergarten. Of special note, only 19% of the children in Year 1 and 22% in Year 2 met

Table A.3 *(continued)*

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	professional development on early literacy acquisition and instruction. Teachers participated in in-services once a month during the 1st year of implementation. Two multiday summer in-services and six full-day in-service trainings were provided during the 1st and 2nd years of the project. Weekly coaching visits.	doing a similar activity and provided feedback. Coaches met weekly with the project director for continued professional development regarding coaching and early literacy instruction and to provide feedback and suggestions for project implementation. All coaches submitted weekly reports to the project director regarding their coaching activities.			criteria on the EGI phonemic awareness subtest, *Beginning Sounds*.
Perry et al. 2008	The intervention consisted of the delivery of on-site, individualized consultation to child care providers who identified a target child who was manifesting problem behaviors. The consultation model unfolds over the course of 3 months, from intake to discharge (mean number of months 3.3, SD = 2.3). On average, each child was observed between five and ten times, each lasting between 1.5 and 2 h, depending on the severity of the manifesting behaviors.	Once the baseline data were returned, the assigned behavior specialist scheduled a time to observe the child in their child care setting. During these observations, the frequency of target behaviors was noted in 10-min intervals. The activity in progress during each interval was also recorded. During the observation period, the behavioral specialists offered suggestions for effective strategies to reduce problem behaviors and increase prosocial skills. Frequently, the specialists modeled appropriate interactions and strategies so the staff could see the impact of these suggestions on children's behavior. As an adjunct to the individualized interventions with specific children, training was also provided at no or minimal cost to further improve the abilities of child care professionals to cope with antisocial behaviors. Seminars were developed based on the	Child: Social skills and problem behaviors Child Care Provider: Impact of consultation on Child Care Providers	Young children between the ages of 10 months and 7 years identified as having problem behaviors and enrolled in licensed child care programs in Anne Arundel County, Maryland. Target children were identified most often by their primary child care provider; some were referred by the parents. Data on 192 children. Overall, children were referred for services at a mean age of 4.4 years. Over three-quarters (78%) of the children were boys. The majority of the children served were Caucasian (77%), 15% were African American, and 2% were Hispanic; the remainder was another race/ethnicity. Parents were well-educated with an average of 14 years of education. These demographics reflect the overall composition of the county in terms of education level and race.	**Child Outcomes** The mean score on the PKBS social skills subscale increased 25%. Likewise, there was a statistically significant decrease in the mean score for problem behaviors at referral. Decreases were observed in the ratings of both internalizing and externalizing problem behaviors. Only one child did worse or stayed the same in both social skills and problem behavior. **Impact on Child Care Providers** A random selection of child care providers (n = 25) revealed that (80%) found the program very valuable. Child care providers found the suggestions of the behavior

Table A.3 *(continued)*

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		needs of specific programs and were offered on-site at a time most convenient to staff to assure maximum participation. Formal classes addressing a large variety of behavioral issues were also offered through Anne Arundel Community College at a reduced rate of tuition.		(57%) were living with both of their biological parents, 26% were living with their mother only. Two master's-level behavior specialists delivered consultation on effective strategies to reduce specific problem behaviors. One specialist had a master's degree in special education while the other had a master's degree in psychology; both had substantial clinical experience with young children.	specialists extremely helpful in building their skills in working with children who were exhibiting problem behaviors. These providers also viewed the specialist as a trusted ally who was able to model appropriate ways of reducing problem behavior and improving prosocial skills. The minority of child care providers who did not find the services helpful, reported that they felt the suggestions offered by the behavior specialists clashed with their program philosophy or approach. Interestingly, the vast majority of this small group were family day care home providers—which suggests that the behavior strategies offered by the consultants may have been a better fit for child care center staff and environments.
Podhajski and Nathan 2005	This study investigated the potential benefits of offering childcare providers professional development to promote preliteracy skills in young children. Providers participated in a 2-day workshop focused on language and literacy activities.	**Training.** Caregivers attended an intensive weekend education program on the curriculum Building Blocks for Literacy. The workshop focused on language and literacy development in young children and translating this information into practice. Throughout the two days, providers were shown how to develop a range of phonological	Teacher: Literacy instruction Child: Preliteracy skills	Sixty-seven providers of 88 children (age 3 to 5) from 44 settings in Vermont All of the providers were female and the sample was typically representative of Vermont where more than 98% of individuals are white. There was a wide range of educational attainment among the	The data suggest that those who were instructed and mentored on emerging literacy concepts had an increase in that knowledge over a six-month training period. In addition, results demonstrated that children of participating

Table A.3 *(continued)*

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	During the six months that followed the workshop, trained mentors visited providers at their childcare centers and taught them how to incorporate key concepts and activities within their daily routines. Mentors visited providers for 45 minutes to one hour, once a month over the next six months In addition, providers received a large packet of related instructional material, a set of blocks to be used in phonological awareness activities, and 16 books over the 6-month mentorship to keep at their childcare setting.	awareness activities, methods to engage children in shared book reading, ways to stimulate verbal interaction and enrich vocabulary, and strategies to explicate relationships between speech and print. **Mentorship.** At the end of the two-day workshop, providers were randomly assigned a mentor. The mentor lessons focused directly on preliteracy skill development. During each visit, the mentor brought a book to leave at the site Upon their arrival at the daycare, mentors took over the group of children to model focal activities for the provider. Later, the providers were encouraged to invent a lesson of their own or try one of the many lessons provided for them in a resource notebook while the mentor observed. Time was always set-aside during each mentoring visit for mentors to provide comments and the providers to discuss questions or concerns with the mentor. Later, mentors met together as a group monthly to review how the lessons were going and to discuss any on-going issues and concerns.		subjects, with 50% having attained a college or advanced degree. All mentors were Master's level educators	providers showed significantly greater preliteracy gains than did controls. More importantly, a larger proportion of target children rose from below to above a level considered at risk for reading failure. All participants found the mentoring sessions to be useful and on an open-ended question listed a variety of reasons. Some examples of their responses included: Increasing awareness of and applying concepts learned in the course; reinforcing the use of the new materials; sharing of ideas with another professional; watching their children work with another adult; and learning to use children's literature in a variety of ways.
Powell, Diamond, Koehler 2010	Use of a case-based hypermedia resource (HR) was examined in a Web-based early literacy coaching intervention with pre-kindergarten teachers of at-risk children. Web usage logs, written records of coach feedback to teachers on their instruction, and a teacher questionnaire were the	The HR was developed to serve as a video-intensive library of information and illustrations on promoting children's literacy outcomes. The HR comprised 16 cases organized into 5 content areas (reading, writing, conversations with children, phonological sensitivity, and individualization and responsiveness). Each case included video exemplars of	Teacher: Frequency with which various HR items were accessed; teachers' views of the helpfulness of video exemplars in the HR and the time of day and number of days and months teachers typically engaged the	Teacher participants were lead teachers in Head Start classrooms serving urban, rural, and small city communities. On average, the teachers had 9.33 years of teaching experience (SD = 7.04), with 3.68 years in their current position (SD = 3.14). Nineteen of the 33 teachers had a bachelor's degree (57.6%), 3 had	Visits to the HR content pages were unevenly distributed across literacy topics, with 9 of 16 cases in the video-intensive HR receiving a majority of all page visits. Usage patterns of both teachers and coaches point to selective engagement of the Web's resources

Table A.3 *(continued)*

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	primary data sources. The intervention was implemented in each of 4 semesters across 2 school years (2005-2007). The current study is based on all teachers who were randomly assigned to and participated in the technologically mediated coaching condition during one of the second, third, or fourth semesters. We omitted teachers from the first semester because Web log software was not installed on their laptops. Teachers submitted and received coach feedback on an average of 7.3 videotapes of their teaching practices.	evidence-based instruction, generally 2 to 3 minutes and paired with bulleted text that. Cases also included narrative pages on details of and research-based rationales for teaching strategies highlighted in the case, published articles written for early childhood educators, research citations, and links to related cases. Teachers were expected to use the HR for (a) planning literacy learning activities they wished to implement in their classroom and (b) reflecting on instructional improvement suggestions offered by their literacy coach as part of feedback on teacher-submitted videotapes of their teaching practices. Teachers were expected to submit videotapes of specific instructional practices related to the intervention's primary focus on oral language skills, phonological awareness skills, and letter knowledge. The coach reviewed each teacher-submitted videotape and provided feedback on coach-selected segments.	HR.	completed some graduate work or a master's degree (9.1%), 10 had an associate's degree (30.3%), and 1 teacher had secured a Child Development Associate credential. All but 2 of the teacher participants were females. Three early childhood specialists served as literacy coaches. Each had a master's degree in early childhood education or child development and experience (range: 3 to 20 years) as lead teacher in a pre-kindergarten classroom. The coaches were females.	rather than usage driven by the available number of items in each of the HR's content areas. Teachers provided highly favorable assessments of the video exemplars, including their ecological validity.
Raver et al. 2010	Presentation examines the implications of teacher burn out for interventions and uptake of classroom change. Reviews relevant findings from the Chicago School Readiness Project (CSRP). A primary aim of CSRP was to improve teachers' emotionally supportive classroom practices in Head Start-funded preschool settings. CSRP	No details are provided (details on CSRP noted here are pulled from Raver et al. 2011).	Teacher: Emotion regulation Child: Emotion regulation	No details provided	Author suggests that coaches may help teachers to • Manage negative feelings in the context of trying to effectively manage a child's disruptive behavior • Direct attention toward positive behaviors among compliant children • "Re-frame" instances

Table A.3 *(continued)*

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	provided teachers with training in strategies that they could employ to provide their classrooms with more effective regulatory support and better management. Additional components of on-going classroom-based and child-focused consultation were provided by a mental health consultant (MHC), who supported teachers while they try new techniques learned in the teacher training. As an additional component, MHCs spent a significant portion of the school year conducting stress reduction workshops to help teachers limit burnout. No details on professional program are provided in the presentation (additional details on CSRP noted here are pulled from Raver et al. 2011).				of classroom management to see both successes and areas for improvement They find positive impacts on job stress, including job control (es=0.74), job resources/ rewards (es=0.53), and lack of confidence (es=0.51). Author argues that workforce development should target teachers' emotional regulation, even when outcomes of interest may be primarily to boost instruction/cognitive input.
Reading First Impact Study Final Report 2008	Study employed a regression discontinuity design (and one random assignment site) Reading First funding can be used for: • Reading curricula and materials that focus on the five essential components of reading instruction as defined in the Reading First legislation: 1) phonemic awareness, 2) phonics,	NA – Varies. Professional development on the implementation of scientifically based reading practices; states must offer comprehensive professional development on how teachers should work with academically struggling students, as well as how teachers can implement research-based reading instruction. States could make local decisions about the specific choices related to professional development.	Child: Reading achievement Teacher: Classroom reading instruction	The final study sample of 248 schools, 125 of which are Reading First schools. The study deliberately endeavored to obtain a sample that was geographically diverse and as similar as possible to the population of all RF schools.	• Increased time spent on the five essential components of reading instruction in grades one and two. • Positive impact on the use of highly explicit instruction in grades 1 and 2 and on the amount of high quality student practice in grade 2. • No impacts on student engagement with print

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	3) vocabulary, 4) fluency, and 5) comprehension; • Professional development and coaching for teachers on how to use scientifically based reading practices and how to work with struggling readers; • Diagnosis and prevention of early reading difficulties through student screening, interventions for struggling readers, and monitoring of student progress. Funding recipients can exercise flexibility in two ways: (1) recipients could allocate resources to various categories within target ranges rather than on a strictly formulaic basis, and (2) states could make local decisions about the specific choices within given categories. The hypothesis underlying Reading First is that these outcomes will only be achieved through successful implementation of appropriate research-based reading programs, teacher professional development, use of diagnostic assessments, and appropriate classroom organization and provision of supplemental services.				• Positive impact on the amount of professional development in reading teachers reported receiving • Greater proportion of teachers reported receiving coaching from a reading coach than would be expected without Reading First. Positive impact on the amount of time reading coaches reported spending in their role. • Positive impact on time spent on reading instruction per day. • Positive impact on teachers' provision of extra classroom practice in the essential components of reading instruction in the past month. • No impacts of on the availability of differentiated instructional materials or on use of assessments. • No impact on students' reading comprehension scores. • Positive impact on average scores on the TOSWRF, a measure of decoding skill.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Reading First Impact Study: Interim Report 2008	Study employed a regression discontinuity design (and one random assignment site) Reading First funding can be used for: • Reading curricula and materials that focus on the five essential components of reading instruction as defined in the Reading First legislation: 1) phonemic awareness, 2) phonics, 3) vocabulary, 4) fluency, and 5) comprehension; • Professional development and coaching for teachers on how to use scientifically based reading practices and how to work with struggling readers; • Diagnosis and prevention of early reading difficulties through student screening, interventions for struggling readers, and monitoring of student progress. Funding recipients can exercise flexibility in two ways: (1) recipients could allocate resources to various categories within target ranges rather than on a strictly formulaic basis, and (2) states could make local decisions about the specific choices within given categories.	NA – Varies. Professional development on the implementation of scientifically based reading practices; states must offer comprehensive professional development on how teachers should work with academically struggling students, as well as how teachers can implement research-based reading instruction. States could make local decisions about the specific choices related to professional development.	Child: Reading achievement Teacher: Classroom reading instruction	Sixteen districts plus the state program were chosen from this pool to participate in the regression discontinuity design; the final selection reflected wide variation in district characteristics and provided enough schools to meet the study's sample size requirements. One other school district agreed to randomly assign some of its eligible schools to Reading First or a control group. The 17 school districts and one state Reading First program are referred to as study sites. The regression discontinuity sites provide 238 schools for the analysis and the randomized experimental site provides 10 schools. Half of these schools at each site are Reading First schools and half are non-Reading First schools; the study schools comprise some, not all, of the RF schools in study sites. Almost all are eligible for Title I support, they enroll high percentages of students eligible for free or reduced price lunch, and their past third grade reading scores are near their state averages for Reading First schools.	Average impacts thus represent the average study school. On average: Reading First did not improve students' reading comprehension. Reading First increased total class time spent on the five essential components of reading instruction promoted by the program. Reading First increased highly explicit instruction in grades one and two and increased high quality student practice in grade two. Reading First had mixed effects on student engagement with print. Study findings indicate that: The impacts of Reading First on classroom instruction and student reading comprehension have not changed consistently over time. The estimated impacts of Reading First were consistently positive for late award sites and mixed for early award sites. It is not possible to determine which of numerous differences between early award sites and late award sites may have caused observed differences in Reading First impacts, only some of which were statistically significant.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Reading First Implementation Evaluation: Interim Report 2006	The intent of Reading First is to ensure that teachers in kindergarten through third grade use reading programs and materials that are research-based. Additionally, Reading First intends to increase access to and the quality of professional development for all teachers of these grades, including special education teachers, to ensure that they have the necessary skills to teach these researched-based reading programs effectively. The programs and the professional development provided to school staff must use reading instructional methods and materials that incorporate the five essential elements of effective primary-grade reading instruction, as specified in the legislation: 1) phonemic awareness; 2) decoding; 3) vocabulary development; 4) reading fluency, including oral reading skills; and 5) reading comprehension strategies. Funding recipients can exercise flexibility in two ways: (1) recipients could allocate resources to various categories within target ranges rather than on a strictly formulaic basis, and (2) states could make local decisions about the specific choices	n.a. – Varies. Professional development on the implementation of scientifically based reading practices; states must offer comprehensive professional development on how teachers should work with academically struggling students, as well as how teachers can implement research-based reading instruction. States could make local decisions about the specific choices related to professional development.	Teacher/Classroom: Reading First program implementation, reading instruction Child: reading achievement This interim report addresses questions 1 and 2.	Surveys completed in spring 2005 by 6,185 K–3 teachers, 1,574 principals, and 1,318 reading coaches in nationally representative samples of 1,092 Reading First schools and 541 non-RF Title I schools. Interviews with Reading First state coordinators, and reviews of states' applications for RF awards The non-RF Title I school sample was constructed purposefully to provide a context for understanding how reading programs in a sample of Reading First schools differ from those in schools serving similar populations of students.2 The non-RF sample includes only Title I schoolwide project (SWP) schools with at least 40 percent of the students eligible for free or reduced price lunches, which is comparable to the RF school population. The two groups of schools are demographically similar in staff experience, attendance rates, mobility, and stability of enrollment. RF schools are, however, on average, larger than the Title I schools, and have larger proportions of K–3 students reading below grade level.	Reading First schools appear to be implementing the major elements of the program as intended by the legislation. Reading First schools received both financial and nonfinancial support from a variety of external sources. Classroom reading instruction in RF schools is significantly more likely to adhere to the RF legislation than that in Title I schools. RF teachers in three grades (kindergarten, second, and third) were significantly more likely than their counterparts in Title I schools to place their struggling students in intervention programs. Assessment plays an important role in reading programs in both RF and non-RF Title I schools. Principals in Reading First schools were significantly more likely to report having a reading coach than were principals of non-RF Title I schools. Principals in Reading First schools were significantly more likely to report having a reading coach than were principals of non-RF Title I schools

Table A.3 *(continued)*

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	within given categories.				
Roller 2006	n.a. In 2005, The International Reading Association surveyed reading/literacy coaches to determine what qualifications they were required to have for their positions and their duties and responsibilities. This brief describes findings from the survey.	n.a.	Teacher: Reading/literacy instruction Child: Reading/literacy outcomes	The survey went to 1053 individuals, and 140 completed surveys were returned for a 13.2% return rate. Of 182 responses, 86% report working at the primary level, 41% at the intermediate level, 17% at middle school level, and only 5% and 7% respectively at preschool or high school levels. No further details were provided on participating respondents.	Reading coaches work primarily at the elementary level with only 17% reporting working at middle school and 7% reporting working at the high school level. They spend very little time evaluating teachers and working directly with students. When they are working with individual teachers, they spend the most time in assessment and instructional planning activities (close to 5 hours per week) and approximately 2–4 hours a week each in observation, demonstration teaching, and discussions after such lessons. They report spending less than an hour a week in planning specific lessons with teachers. The reported job requirements are a BA and 1–3 years of teaching experience with some emphasis on communications skills, presentations, and group facilitation.
Rudd et al. 2009	In an effort to determine the most efficacious manner to deliver professional development training to early childhood	**Training.** Two weeks after agreeing to participate in the study, a 2 hour training session was conducted by the lead researcher. The training included	Teacher: Usage of math mediated language	12 early childhood educators with 4-year degrees teaching in a university child development center. 33	Results indicate a 56% increase of math mediated language following the professional

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	educators, this study investigated the effect of a 2-hour workshop followed by side-by-side classroom coaching. Twelve early childhood educators with 4-year degrees teaching in a university child development center participated in the study.	lecture, live demonstration of concepts, hands-on engagement with materials and planning with co-teachers. Following training, the coaching phase was staggered. Teachers were observed twice weekly for 30 minutes to determine their level of implementation of the training: **Coaching.** During the coaching phase, the researcher observed the teacher interacting with children in the classroom. The researcher made notes and shared these notes with the teacher. A second observation allowed the teacher to implement any further suggestions. Each teacher received 2 weeks or 4 sessions of in-class coaching.		percent reported that they had completed some graduate level hours.	development; however, the greatest increase (39% increase over professional development condition) occurred during the side-by-side coaching phase of the treatment. These results corroborate previous findings that implementation of teaching strategies presented in professional development trainings can be enhanced by coaching teachers on the use of the strategies.
Scheeler et al. 2010	The authors used a multiple-baseline, across-participants design to assess the effects of peer coaches' giving immediate corrective feedback via bug-in-ear technology on a specific teaching behavior during instruction – TTC trials. The study was conducted in the general education teachers' classrooms (setting for inclusion) from April through June. Dyad 1 taught in a large rural school district and Dyads 2 and 3, in a large urban school district. Both districts were in southeastern Pennsylvania. TTC trials - a strong predictor of effective	In this study, peer coaches gave immediate corrective feedback to teachers conduct TTC trials via bug-in-ear technology. Before beginning the study, teachers were trained in using BIE technology to deliver immediate feedback, feedback phrases that were specific to the teaching behavior (completing TTC trials), positive, delivered within 3 seconds after the target behavior was observed (completing or not completing TTC trial), and corrective. Feedback may be in the form of either praise or error correction. Each time that the co-teacher presented an antecedent to the "student"/teacher (usually in the form of a verbal question), it counted as the start of a TTC trial. If the teacher then responded with an answer and the co-teacher either provided	Teacher: Percentage of TTC trials completed by the co-teacher; ease and usefulness of receiving and delivering feedback through wireless technology (BIE).	Three dyads, each consisting of a general education teacher and a special education teacher/ Dyad I consisted of (1) a special education teacher with a master's degree in reading and 20 years of teaching experience and (2) a middle school math teacher in her first year of teaching with a total of 21 students. Dyad 2 consisted of (1) a special education teacher with a master's degree in special education and 11 years of teaching experience) and (2) an elementary education teacher with 3 years of teaching experience)who taught third-grade math to 27 students. The third dyad consisted of (1) a special	Each teacher met criterion (three consecutive sessions at 90% or higher) in just three sessions, maintained the behavior at high levels postintervention, and generalized the behavior to a different setting without the peer coach present. Teachers rated the treatment as a beneficial technique that they would recommend to others. Findings suggest that (a) immediate corrective feedback, as delivered by peer coaches using BIE technology, was effective in increasing each teacher's percentage completion

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	instruction- are basic units of instruction in which individuals learn new behaviors by having opportunities to respond to questions and consequently receive feedback on the appropriateness or correctness of their responses. The more opportunities that individuals have to respond and the more frequently feedback is provided, the more their learning takes place. The three components of the TTC trial include presentation of the antecedent (A) by the teacher, response (R) by the student/co-teacher, and the follow-up feedback on the response or consequence (C) by the teacher.	praise or corrected an error, it counted as a completed TTC trial.		education teacher with a master's degree in curriculum and instruction and 11 years of teaching experience and (2) an elementary education teacher with 3 years of experience who taught second-grade language arts to 19 students. None of the teachers had co-taught together before this school year.	of TTC trials to criterion and (b) the behavior was maintained and generalized over time and across settings. In addition, participants rated the BIE device as an acceptable, nonintrusive, efficient way to deliver feedback in real time. To our knowledge, this study was the first in which experienced in-service teachers received and delivered immediate feedback via BIE to each other, and it was the first of its kind conducted in inclusion classrooms.
Shelton et al. 2001	Project Mastery. Semi-urban county of North Carolina's Head Start program. Preschoolers with behavioral difficulties received an individualized intervention based on the family-centered system of care approach. Interventions included: 1) individual and classroom-based behavior management; 2) on site consultation and teacher training; 2) social skills training; 4) parent behavior management training, 5) family support, and 6) coordinated formal and	NA. Details on coaching approach not provided.	Child: Strengths and Needs (psychoeducational, behavioral) Family: Parenting and family support Parent satisfaction Classroom environment: ECERS-R scores Teacher: Teacher strategies	41 preschoolers with behavioral difficulties, 28 of whom were in the intervention group. The remaining 13 formed a control group. Aged 3-4 years. All families reported significant economic difficulties. 82% African American, 14% Caucasian. 67% male. Lower than average IQ, achievement scores, and adaptive behaviors. Families were characterized as having average parenting skills, higher parenting stress, and lower family support relative to	Parents and teachers reported decreases in disruptive behaviors, whereas parents of similar children not receiving the intervention reported that disruptive behaviors remained stable or worsened over time. Teachers reported increased confidence in working with children and families and increased knowledge and use of positive proactive behavior management strategies. Families also reported satisfaction with

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	informal community-based services. Specific interventions were chosen if they had empirical support with diverse groups and were able to be tailored to meet the goals of the family and teacher. All services were delivered at the Head Start Center.			normative data.	services received. However, no significant differences were noted in other family measures of parenting stress, parenting competence, or family support possibly due to the multiple family risk factors characteristic of the group.
Shidler 2009	The purpose of this study was to look at the linkage between hours spent coaching teachers in the classroom for efficacy in content instruction and child achievements/outcomes. Each classroom was assigned a coach who was specifically educated on the curriculum that would be in place for the 3 years of the program and chosen for their years of experience working with preschool classrooms. A Head Start program located in Central Florida over a 3 year period. All classrooms are housed in elementary schools within the same school district.	**Year One.** Teaching staff attended approximately 40 h of a college-level course in emergent literacy. After each session, coaches visited the classroom and emphasized the learning in the coursework as well as model practices that support instruction in emergent literacy, supporting the transfer of theory to practice. Coaches began to focus on literacy instruction. **Year Two.** Coaches spent more time in the classrooms with the teachers, coaching on general teaching matters as well as instruction of literacy. Coaches spent at least 6–10 h per week in the classroom for more than 9 months. Throughout that time, teachers attended various sessions on general classroom issues. **Year Three.** Coaches spent less time in the classroom than in year two, but more time than in year one. Classroom instruction was also reduced compared with the previous 2 years but included various curriculum areas (math, science, literacy).	Child: Alphabet letter recognition, vocabulary	360 children enrolled in 12 classrooms. Of the ~3,000 children served by the Head Start classrooms, Black, non-Hispanic children make up 49%, Hispanic children make up 27%, children who identify as multi-racial make up 5%, and Caucasian, non-Hispanic children make up 18%. 90% are placed in an economically disadvantaged category, 16.8% are English Language Learners, and 15.8% are students with disabilities. The education level of the three coaches consisted of two Bachelor degreed coaches in early childhood education with 7 years of experience in coaching teachers. The third coach holds a doctoral degree in curriculum and instruction with 18 years in teacher education. Each classroom consisted of two teaching staff members. Education for the teaching staff ranged from Bachelor's degree to high	A significant correlation was seen in year one between the time coaches spent in the classroom and students' alphabet recognition scores. The coaching model for year one was one that focused coaching for instructional efficacy in specific content and teaching methods and saw the coaches directly facilitate and support theory to practice. In year two and three, no significant correlation was found. Year two and three used a coaching model which was less specific in focus and increased time spent on site with teachers. The implications for coaching practice includes balancing time between four components to effective coaching; (1) instructing for specific content, (2) modeling techniques and instructional practices,

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
				school education with specialized training.	(3) observing teacher practices and (4) consulting for reflection.
Spencer and Logan 2003	The purpose of this study was to evaluate the effectiveness of the Research Lead Teacher model in providing support to general education teachers who were learning and implementing a strategy instruction process in their classrooms. The Benchmark School's 15-step process of strategy instruction was delivered under two conditions. The first was a traditional ½ day inservice and the 2nd was the ½ day traditional inservice plus the RLT model which included an ongoing teacher study group, coaching, observation, and data based feedback. The design was a time series experiment with an intervention and a control group. The school was located in a large (100,000 students) suburban school district. The school was large (1100 students).	The RLT model was implemented over a 9-week period for teachers who were interested in receiving assistance in implementing the Benchmark Strategy Instruction Process in their classrooms. Teachers were told that the RLT model would include: (a) the RLT observing them teaching lessons, modeling the Benchmark Strategy Instruction Process for them, and coaching them on their implementation of the process; (b) a weekly 60 minute teacher study group session for 9 weeks before students arrived for school where the RLT would lead a discussion with teachers on how they were implementing the model in their classrooms and teachers would share with one another how they were implementing the model and the effect it was having on student performance; (c) weekly coaching observations and immediate feedback by the RLT; (d) weekly observations by the trained data collector with feedback by the RLT on what the data showed about each teacher's implementation of the model, and (e) 10 hours of staff development credit. The control group teachers did not receive any feedback from the data collectors or the RLT.	Teacher: Teacher implementation of the 15 steps of the Benchmark Strategy Instruction Process	Participants included 18, K–5 general education teachers. The student body was heterogeneous with 59% white, 18% African-American, 12% Asian, 8% Hispanic, and 3% other. Twenty-five percent were on free and reduced lunch and the school had a 23% mobility rate. Nine teachers participated in the intervention group and 9 in the control group. Teachers in both groups ranged in experience from three to 23 years and from bachelors to specialist (6th year) degrees. Class size was between 19 (kindergarten) and 28 (fifth grade) students. All teachers in 2nd–5th grades had between 2 and 4 students with IEPs for learning disabilities or mild behavior disorders and between 3 and 7 students who were experiencing difficulties learning but who were not eligible for special education services. Kindergarten and first grade teachers had between 2 and 4 students currently either receiving instructional interventions from or being evaluated for special education through the	Overall the data showed that the RLT model was effective in training these general education teachers to implement the Benchmark Strategy Instruction Process. It also showed that these teachers needed between three and six weeks of the RLT model (modeling, coaching, data based feedback, teacher study group participation) before they mastered the 15 steps of the Benchmark Process. And finally, the data showed that traditional inservice without any follow-up was not effective staff development since none of the control group teachers consistently implemented the Benchmark Strategy Instruction Process.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
				Student Support Team.	
Tschantz and Vail 2000	A multiple probe design across participants was used to evaluate the effectiveness of peer coaching on the rate of responsive statements made by general education preschool teachers. Three Head Start teachers who served students with special needs in their inclusive classrooms participated with an early childhood special education teacher conducting peer coaching sessions. Head Start Program in a rural northeast Georgia community-based setting using a collaborative teaching model. Study was completed during a 2 month period	Peer coaching sessions were conducted one on one in an available, empty classroom. Coaching sessions occurred after the children departed on the day of an observation. Peer coaching sessions took place twice per week and lasted 35 to 45 minutes. Sessions were conducted individually for each participant with the early childhood special education teacher, creating three peer coaching dyads. A combination of expert and reciprocal peer coaching methods was used. Both professionals in the coaching dyad observed one another and provided feedback to jointly improve instruction. The focus was not specifically geared toward meeting the needs of children with disabilities only, but improving instructional strategies that are appropriate for all young children. During the intervention phase, observations occurred daily in the same time frame and context as probe conditions. Teacher observations took place in each teacher's classroom, lasting from 15 to 25 minutes during what the High Scope curriculum refers to as "Worktime," a child-directed period where students plan in advance which center they wish to play in and which materials they wish to play with.	Teacher: Rate of responsive statements. Responsive teacher statements included the use of specific activity related questions/ comments or reflective statements made in the context of ongoing play.	3 Head Start classrooms; *-2 lead teachers and 1 assistant teacher. None had experience with peer coaching. All 3 were Caucasian females aged 27 to 40. One had a bachelor's degree in early childhood education and four years of experience teaching in the public schools. This was her third year as a Head Start teacher. Another had a bachelor's degree in health education and had taught at a Head Start for five years. The third had five years of experience at Head Start and ten years of experience with preschoolers and a CDA. Students: aged 3-5 and met economic or disability criteria. Each classroom had 20 mix-aged students. Total of 14 students with identified developmental delays. Early childhood special education teacher (and principle investigator): 2nd year teacher with certification in the intellectual disabilities with preschool endorsement and working on Master's in early childhood special education. She had worked with the teachers 2-6 months prior to the study.	Results indicated that all Head Start teachers increased their rate of responsive statements. Findings of this study suggest that peer coaching may need to be ongoing. The data from all three teachers demonstrated a contratheraputic trend during the maintenance condition. Time constraints did not allow for the use of specific strategies that may have facilitated maintenance.
Upshur 2009	Non-equivalent control group Design and matching	Program-focused activities included observing classrooms and providing in-classroom modeling of how to address	All Children: Teachers assessed children's	Each CDA was a Masters-level mental health or social work-trained clinician under supervision of an	Analysis of outcomes for 47 children and families

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	procedures. This study reports the findings of a pilot demonstration project called Together for Kids, which used a mental health consultation model to address the needs of young children with challenging behaviors who are identified in preschool classrooms. The TFK model blended program-focused consultation with individual child- and family-focused therapeutic services. The study was conducted in four urban community child care centers and one Head Start program serving ethnically and socioeconomically diverse families. A mental health consultant, called a Child Development Advisor (CDA), was assigned to each child care center for 16-20 hours a week. Two full-time and one half-time CDAs were recruited, trained, and assigned to deliver services to the specific sites.	children's behavior, delivering group training sessions on child behavior and development to teachers, and assisting preschools in developing center-wide parenting education activities. Individual child- and family-focused activities for identified at-risk children included assessing child, family, and classroom issues; identifying immediate short-term interventions that could assist the child, the family, and the preschool teacher; and helping link families to other resources and longer term services if needed. The program-focused services were available to each classroom regardless of whether or not the classroom teacher identified children in need of referral for child- and family-focused services. Additional information on specific coaching elements not provided.	externalizing and internalizing behavior. Intervention children only: Child developmental skills Intervention parents only: Parenting stress Parenting skills Parent satisfaction with services Teachers: self-reported ratings of level of knowledge in different areas of understanding and dealing with child behavior problems, level of expertise in managing children with behavior problems in their classroom, and satisfaction with services	experienced LICSW. The five participating child care centers served preschool age (e.g., 2 years 9 month through 6 years) enrollments ranging from 30 to 94 children in 2-6 classrooms, for a total of 21 classrooms. Four of the five sites were urban preschools, while one was a rural Head Start program. Overall, 35.5% of enrolled children were White, 15% Black, 27.2% Latino, and 23.6% multiracial, Asian, or other ethnicity. Family incomes ranged from $5000 to $150,000 per year, with 2/3 of families receiving publicly subsidized child care services due to low income. All sites were state-licensed, and NAEYC accredited and so met adequate standards of care, teacher-child ratios, and programming. This study focuses on the 136 children with externalizing behavior problems, 47 of whom enrolled in services, and 89 of whom were controls.	with externalizing behavior problems who received individualized consultation, compared to 89 control children, and analysis of outcomes of a matched group of 19 intervention and 19 control children, revealed that the intervention was associated with significant improvements in classroom aggressive and maladaptive behavior, and growth in adaptive behavior. Improvements in child behavior were associated with total hours of individual child services provided, and with improvements in child developmental skills. Significant reductions in the rate of children suspended or terminated from child care programs were also found.
Wasburn et al. 2010	This study is based on a sample of 66 randomly selected national boardcertified teachers (NBCTs) in special education in an effort to	NA	Mentor: nature and extent of their involvement in mentoring colleagues	Of the 646 NBCTs in the exceptional needs specialist/early childhood through young adulthood category who were certified in 2006, 100 were	Results indicated that formal mentoring involved more of the 19 identified mentor activities than did informal mentoring.

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	determine the nature and extent of their involvement in mentoring junior colleagues, both formally and informally. Participants asked to answer the following questions: • Are NBCT special education teachers actually participating in such mentoring? • What is the extent of both formal and informal mentoring roles? • What are the teachers' perceptions of these roles?			randomly selected for inclusion, and 66 participated. Participants' mean age was 44, with a standard deviation of 8. Their mean number of years teaching experience was 17, with a standard deviation of 7. Of the participants 94% were female. Nearly all (92%) identified themselves as Caucasian, 3% were African American, 3% were Other, and 2% were Asian. These demographics compare to a population of NBCT teachers in special education that is 95% female and 89% Caucasian, with an average age of 41 and 12 years of teaching experience.	Implications include a need for mentor training for NBCTs and for further exploration of mentoring roles in the professional literature.
Wasik 2010	Study provides a description of an intensive, ongoing professional development intervention—the Exceptional Coaching for Early Language and Literacy (ExCELL) Program. ExCELL includes monthly group trainings for Head Start teachers on specific topics focusing on the five areas of language and literacy. In addition, weekly three-hour coaching sessions were conducted including observations, videotaping, modeling, and conferencing to provide feedback and promote discussion.	Teachers receive ongoing group staff development in 5 interactive modules on language and literacy. Teachers also receive individual guidance on integrating the content of modules into the classroom. Teachers are provided with lesson plans and materials. **Group Training.** Monthly, the ExCELL literacy coaches provide a 3-hour group training for teachers, focused on an aspect of the language and literacy training models. During training, teachers are presented with a conceptual explanation of the importance of the topic of the training module, along with specific strategies and activities for implementing the language and literacy topic in their classrooms. Coaches model	Child: Vocabulary and literacy development	19 Head Start teachers Additional details not provided	In general, teachers trained in ExCELL demonstrated classrooms of high quality as measured by the ELLCO and the CLASS. Videotape analysis of classroom practices showed that ExCELL teachers talked more with young children and used more book-related vocabulary. The impact of teacher behaviors on the children resulted in increases in children's vocabulary development. More important, teachers who demonstrated a high degree of fidelity in

Table A.3 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	Coaches were provided with at least one two-hour professional development session each month. No mention of coaching duration.	these strategies for the teachers during the training. In addition, teachers have opportunities to practice the strategies during group activities. **Weekly Individual Coaching.** The ExCELL coaching model guidelines for working with teachers: • Careful observation and documentation of teachers' behaviors including (a) attention to teachers' language interactions with children and (b) attention to teachers' emphasis on print awareness, phonological sensitivity, and letters • Scaffolding of teachers' knowledge of specific language and literacy strategies • Feedback that includes explicit recommendations of behaviors to implement • Frequent assessment of teachers through observation, conferencing, and questioning			implementing the program-designated strategies also had greater gains on the receptive vocabulary assessment among their preschool students. This suggests that (a) the strategies teachers were asked to do as part of ExCELL were effective and (b) the more teachers implemented the strategies with fidelity, the more vocabulary words children learned.

NA = not available.
n.a. = not applicable.

Table A.4. Identified Coaching Models and Approaches Supportive of Positive Outcomes from Qualitative Studies

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Article/chapter reference	*Brief description of the approach, highlighting the type, setting, and intensity*	*Description of specific elements of the approach*	*Brief description of child, family, and/or provider outcomes the approach is expected to affect*	*Description of the population(s) involved or participating in study or approach, including community context*	*Brief description of study findings*
Al Otaiba et al. 2008	The purpose of this study is to describe the challenges one coach faced during the initial implementation of a school reform project in an urban, high-poverty elementary school serving a culturally and linguistically diverse student population.	In this study, the role of the reading coach was conceptualized as a combination of the behavior-consultation model, the reading specialist/reading coach model, and the coach's role in the professional development model developed by Joyce and Showers (1995). The reading coach in this study was an instructional leader who acted as a consultant to teachers. She began by setting the stage for change, building rapport with teachers, and then gradually, after developing trust, observing teachers, assessing their students, and modeling lessons in grade-level meetings.	Coach: Challenges experienced, as reported by quantitative and qualitative data. Teacher: Growth in knowledge of reading over the year of implementation of the school reform in reading.	This is the population similar to the Reading First population of children, and this coach is an example of what the federal government and the IRA would consider an exemplary reading coach with the knowledge and skills to lead effective professional development. The coach had been an expert classroom teacher; had a private clinical practice that deepened her knowledge of reading assessment and instruction; had experience coaching and collaborating with teachers; was skilled at presentation and competent at observing teachers and providing feedback. She was a national reviewer for Reading First state grants.	A number of challenges existed at the school level to prevent the reading coach from effectively carrying out the level and quality of the professional development she had planned. The reading coach identified four primary challenges to her role: the district-mandated basal reading program, the limited resources, the number of long-term ''seasoned'' teachers who were resistant to change, and the premature end of the project. Findings revealed several challenges that have important implications for research and practice: that teachers encountered new information about teaching early reading that conflicted with their current knowledge, this new information conflicted with their core reading program, teachers had differing perceptions of the role of the reading coach that affected their feelings about the project, and reform

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					efforts are time-intensive.
Bernzweig et al. 2009	As part of the Early Learning Opportunities Act (ELOA) evaluation, interviews of early childhood education directors explored their experience and sought to understand circumstances that influenced their satisfaction with ELOA services. Details on consultation are not provided.	Details are not provided.	Director: Satisfaction with mental health consultation, self-efficacy Child: Social and emotional development Parent: Lower stress	6 directors in early childhood education settings	Interviews with program directors participating in the evaluation of an MHC program showed that director satisfaction was mixed. Several circumstances have an influence on satisfaction. Child care center directors are more likely to be satisfied with consultation when they are involved in planning, when they are clear about the consultant's role, when they are provided with protected time to work with the consultant, and when they experience low staff and consultant turnover. Paradoxically, in this study, measures of children's prosocial behavior show improvements even when directors were dissatisfied. The authors speculate that this may occur through the positive relationships between teachers and consultants, which seemed to occur, in some cases, despite lack of director support. Failing to pay attention to the director-consultant relationship, however, may reduce directors' inclination t o

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					support consultation in the face of competing priorities.
Brown 2010	The professional development opportunities included high-quality facilitation and collaboration during professional development sessions, in-class support through mentoring, and embedded, on-site support through peer coaching. Those participating in the professional development workshops were also given curriculum support materials (teacher edition of the curriculum, resource guide, assessment book, and concrete manipulatives) and technology support. Mentors visited classrooms a minimum of once every two weeks. Information on frequency or intensity of coaching not provided. Setting is pre-kindergarten classrooms in an urban school district.	Mentor responsibilities included: • Conducting on-site visits with teachers to support high-fidelity and teacher needs. • Contact each teacher by phone or e-mail during weeks in which on-site visits do not occur. • Monitor in-class record keeping of activities conducted by teachers during on-site visits. • Determine if additional support is needed for teachers. Report to director of implementation. • Attend professional development sessions and work directly with teachers. • Work with peer coaches. Coaching responsibilities included: • Sharing teaching strategies or information about early childhood teaching and learning mathematics in early childhood. • Sharing information about children's thinking, e.g., learning trajectories for mathematics. • Sharing information about the curriculum components. • Sharing information about effective use of computers. • Offering support by listening and by sharing own experiences. • Giving support and sharing	Teacher: Implementation of math curriculum	3 pre-kindergarten teachers from an urban school district in one of three states: New York, Massachusetts, and Tennessee (dissertation does not specify which). All teachers had master's degrees. The mentor was a retired teacher who had previously worked in the same school district as the teacher participants. She also had a master's degree. A teacher from another participating school served as the peer coach.	Case study approach: Analysis revealed that the mentoring and coaching strategies assisted the teachers in learning and employing new teaching skills and strategies and in implementing specific components of the pre-kindergarten mathematics curriculum. The degree of curriculum implementation was linked to the amount of support that was provided during the implementation process. As the teachers engaged in cooperative and collaborative activities with the mentor, peer coach and colleagues, they became more competent in information delivery to their students.

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
		ideas about curriculum management. • Assisting the teacher in arranging, organizing and/or analyzing the physical setting.			
Brown et al. 2009	Practitioners in this study worked within the context of Early Head Start, Head Start, and Student Parent Programs in local high schools. They participated in a 2-day kick-off training institute, followed by individual and group coaching 2 times a month Information on duration of coaching not provided	The Early Child Care Practitioners (ECPs) were introduced to triadic/collaborative planning (T/CP) strategies in an initial, 2-day institute devoted to T/CP strategies and their use in home visits, socializations, and other interactions with families. Practitioners then received coaching twice per month from a project coach to support their use of the strategies. One session each month was individualized (1 hr), and a second session took place in a group format (1½ to 2 hours). Coaching sessions were augmented with in vivo observations by the project coach of ECPs during interactions with families. On select home visits and socializations, the coach accompanied the early childhood practitioner and made a video recording of the session.	Provider: Self-reported attitudes and behaviors (i.e., use of T/CP strategies in their practice with families)	28 ECPs; practitioners worked within the context of Early Head Start, Head Start, and Student Parent Programs in local high schools, all located in a Midwestern state.	Qualitative data only – findings presented as a case study. Summary of main themes gathered from teacher interviews: (a) ECPs experienced the professional development as a spark that helped promote internalization of a new belief system and way of working that allowed ECPs to put parents much more at the center of their work, along with children; (b) supportive relationships with coaches were felt by ECPs to be critical to the success of the parent engagement intervention; and (c) excessive reporting was encumbering, and lessening the paperwork load was an important part of the utility of professional development.
Caudle 2010	The purpose of this collective case study was to explore how a community of practice comprised of pre-K mentors and a university program coordinator supported the development of shared and individual understandings about	Monthly face-to-face mentor meetings lasted approximately two hours each. The face-to-face interactions were supported through a collaborative online forum. Both aspects of community of practice were facilitated by a university program coordinator and were focused on how to	Mentor: Knowledge about role and mentoring	4 pre-K classroom teachers who mentored preservice teachers in two public schools in the Southeast. All mentor teachers had at least a bachelor's degree. All of the classrooms had a large percentage of children from low-income families and who were dual	Mentors' processes of identifying themselves as mentors were developed within a complex web of relationships from which they re-envisioned their roles as pre-K teachers. As the mentors negotiated the meaning of

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	how to effectively supervise preservice teachers. The approach included an online and face-to-face community of practice for mentors in two pre-K classrooms, spread across twelve weeks (January to April)	effectively supervise preservice teachers.		language learners.	mentoring, they engaged in recursive cycles of reshaping their identities through questioning, hypothesizing, and sharing lived experiences. New identities as educators of both children and adults emerged. For example, initially, the mentors strived to be flexible, but also recognized sharing control and authority with their preservice teachers as a considerable challenge. Over the 12 weeks, they experienced an evolving conflict between when to take over and when to stay on the sidelines, what to expect of student teachers, and how to guide their fledgling attempts at effective mentor practice. The mentors left this study acknowledging that while mentoring was difficult, complex work, it was worthy work.
Cornacchio 2009	This is a descriptive study of how teachers in an early childhood setting in an urban public elementary school collaborated during the school year and summer to better serve students receiving special education services, second language learners and students receiving	Teachers blended the sharing of both students and teaching materials. They shared and subscribed to a common program, vision, philosophy and a specific set of goals for their learning program. Third, the teachers blended teacher created materials with publisher created materials and saw this as essential to providing their students with the best	n.a.	7 kindergarten teachers at an early childhood setting in an urban public elementary school in northeastern Massachusetts that serves a growing population of at-risk learners	Based on the study, the author recommends: (1) school districts provide opportunities and support for meaningful teacher collaboration around evidence-based practices that support academic achievement; and (2) the need to increase mentoring and support for novice

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	free and reduced lunch	instruction. Finally, there was a high level of both formal and informal teacher interaction that took place on a regular basis during the school year and during the summer months.			teachers.
Frankel 2006	n.a.	Four consultative styles intended to overcome barriers associated with inclusionary practices are described. Empathic: consultants established a climate of trust by listening to staff concerns, beliefs and feelings, acknowledging the skills of the early childhood educators, and working within the established routines and curriculum of the program. This style positively impacted on teacher attitudes throughout the consultation process. Directive: one consultant struggled with how to share specialized knowledge about children with physical disabilities without being perceived as an expert imposing her hierarchical power. Facilitative: one consultant struggled with how to maintain equality in her relationship with teachers while still acknowledging the authority of her own knowledge and experience. Collaborative: consultants found when staff, administrators, families and consultant are all involved in decision-making as equals there is a positive impact on the organizational policies supporting inclusion.	Teacher: Inclusionary practices	2 resource consultants working with two preschool children with special needs in a preschool centre and a group child care centre in a large urban metropolis in Canada 6 teachers in the same setting	A case study methodology is used to describe the interactions between resource consultants and early childhood teachers during the consultative process. Teachers changed their instructional strategies and practices as their attitudes and beliefs about inclusion and their perceived sense of efficacy and control over their ability to enhance a child's healthy development improved during the consultative process. The consultants' knowledge and skill in articulating the consultative role emerged as important to building rapport with teachers (i.e., not to disregard, discredit, or marginalize the skills of teachers, but to build upon and adapt skills that they already possess). Teachers report that the consultant's ability to acknowledge that staff members are skilled practitioners increases the teacher's personal

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					teaching efficacy and allows the teacher to be more comfortable with instructional adaptations required for the child with special needs.
Gibson 2011	This study analyzed coaching conversations and interviews of four coach/teacher partnerships for specific ways in which kindergarten and first-grade teachers, and coaches, conceptualized instructional scaffolding for guided reading. Data sources included three cycles of individual interviews and observation of coaching sessions. Transcripts were qualitatively coded, and coding was examined to ascertain coaches' and teachers' viewpoints on instructional scaffolding over time. Instructional scaffolding consists of assistance provided by a more expert person for the performance of a particular task, resulting in the learner's internalization of ways of conceptualizing and acting. In this study, four coach/ teacher partnerships conceptualized and enacted instructional scaffolding, following the coach's observation of guided reading lessons.	Additional details on the specific coaching approach are not provided.	Teachers: Classroom instruction	Coaches were classroom teachers who had transitioned to a full time literacy coach position. Each had received university-based training and support for this role, The coaches' expertise was supported indirectly through professional development sessions, as well as directly through presentation of a coaching framework. All were experienced classroom teachers who had completed seven weeks of university training over a one-year period, as well as a subsequent field year in their literacy coaching positions. A convenience sample was utilized for this study, consisting of the four coaches who agreed to participate. Each coach recruited a teacher. The two kindergarten teachers had 3 and 25 years of experience and were teaching full day. Neither teacher had taught guided reading groups before. The two first-grade teachers were both in their second year of teaching. These two teachers had limited experience teaching guided reading lessons.	The coaches were able to engage teachers in conversations about reading instruction. In spite of this achievement, analyses identified potentially consequential, largely unresolved differences in the ways that coaches and teachers conceptualized instructional scaffolding. Significant tensions were evident between hypotheses describing the need for high levels of instructional support versus opportunities for students to read independently. The coaches were generally not able to implement coaching conversations that both enacted and resolved teachers' understanding of instructional scaffolding. Results indicate that the enactment of instructional scaffolding within coaching conversations may be an important addition to expectations for effective coaching. Teachers' expertise for

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	Coaches also provide assistance to a teacher through supportive conversations following the coach's observation of a lesson. These conversations are typically conducted between the coach and teacher shortly after lesson observation and include discussion of what actually occurred within the lesson and how instruction might be refined to meet the needs of students. A small urban public school district that had recently implemented a district-wide, long-term professional development program for K-2 literacy instruction was the site of this study.				effective instructional scaffolding appeared to be assisted by coaching conversations that enacted instructional scaffolding, demonstrating an analytic, evidence-based approach to instructional problem solving. Such conversations appeared to result in integration across differences in teacher and coach viewpoints on aspects of instructional scaffolding for guided reading lessons.
Onchwari and Keengwe 2008	A mentor–coach approach was used for providing Head Start teachers with support and on the job guidance as they engaged in daily teaching activities. Frequency/intensity and duration are not mentioned.	"Train the trainer" approach used. Mentors were required to provide support to 2 or more teachers in their programs. There was an emphasis on the relationship developed between the mentor and mentee. Regional centers used to provide ongoing support, along with mentor coach specialists for continued support and further training.	Teacher: Teachers' knowledge and skills in literacy development	44 Head Start teachers across two Midwestern states	Teachers were interviewed about their views about the success of the initiative. Classroom observations were also conducted to ascertain aspects of the training that teachers had implemented in their classrooms. While many teachers indicated that training was helpful, those who did not suggested that future initiatives should be tailored to individual teacher needs and backgrounds (e.g., some content already covered in their college courses). Some teachers felt they would

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					implement aspects from the initiative better had one-on-one support been provided. One-on-one support would also allow for more tailoring to specific teacher needs.
Kaczmarek et al. 2000	This manuscript describes transdisciplinary consultation, a classroom-based team model in which team members focus on implementing a transdisciplinary model of service delivery that addresses the common functional needs of all the children in the classroom. The model consists of three phases: (1) organizing the team; (2) facilitating team process; and (3) developing and implementing team goals. The teams participated in approximately 6 hours of workshops devoted to training focusing on the three phases of the model. Initial training in September included an introduction to the model, the principles of change, team structure, team process, team player styles, team goals, and action plans. Additional training, primarily brief sessions after one team meeting each month, focused on team building activities and environmental goals. The teams met every other	Phase 1: Organizing the Team Team members meet to make decisions about team membership and how the team will operate. The object of this phase is to establish procedures for efficient operation, for facilitating relationships, for clarifying "who does what by when," for keeping the team process going, and for encouraging ownership in the process and products of the team. Phase 2: Facilitating Team Process Team members (1) implement the operating principles in team meetings, (2) evaluate and monitor their team development, and (3) receive training on team building. Phase 3: Developing Team Goals Teams (1) determine environmental team goals, (2) develop and implement action plans, and (3) evaluate progress towards the identified goals. Transdisciplinary consultation teams distinguish themselves from other classroom-based teams by selecting and working on common "environmental" goals. An environmental goal is a behavior or skill that will assist children in functioning more fully	Child and teacher: Teams worked on such environmental goals as initiating communication, answering yes/no questions, and following verbal instructions.	Teams from two preschool classrooms in an approved private school for children with disabilities implemented the transdisciplinary consultation model. The classrooms served children ages 3 to 5 years with moderate to severe disabilities. Each classroom core team consisted of a teacher, two classroom assistants (paraprofessionals), speech-language pathologist, hospital coordinator, and supervisor l principal. The last three persons listed were members of both teams. The hospital coordinator was the liaison between hospital and school. The expanded team consisted of occupational and physical therapists based in the hospital and other school personnel such as the art and PE teachers, psychologist, and nurse. Because of confidentiality issues, parents were considered members of the expanded team.	Qualitative evaluation of the model demonstrated that the participants on the classroom teams perceived the transdisciplinary consultation model as having a positive impact on their personal and team development and, to a lesser degree, the programming for the children in the classroom. Personal growth focused on the acquisition of important team behaviors, ranging from awareness of the need for teamwork and consistency in the children's programming to specific skills that assist teams in operating successfully.

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	week for a total of 14 meetings. The meetings, which took place in the classrooms after the children left for the day, lasted about an hour.	in situations that arise naturally: that is, within the usual routines and activities that occur throughout the day.			
Knapczyk et al. 2005	This article describes the use of online mentoring with limited licensed teachers seeking certification in the area of emotional/behavior disorders. Each limited licensed teacher, called a practicum teacher, was assigned one or two mentors. The practicum teachers were responsible for posting weekly progress reports on their practicum activities and engaging in an online dialogue with their mentors. The mentor's role was to provide ongoing guidance and consultation to the practicum teachers. The teachers were enrolled in a 3-credit hour course titled "Practicum in Special Education" which was required for an Indiana license in the area Emotional Handicaps. The practicum course was graduate level and offered in a 15-week academic-year semester.	In a practicum for limited licensed teachers, a natural context for mentoring is helping them learn to use and apply best practices in their current teaching assignment. In this study, such a context was established by having the practicum teachers complete a semester-long project in which they designed, carried out and evaluated an intervention for a learner in their classroom who displayed severe and longstanding emotional/ behavior disorders. Mentors were to serve as online consultants to the practicum teachers by keeping informed of the teachers' progress, asking questions to clarify tasks and activities, offering suggestions and critical feedback, and acting as a professional resource in other ways. The directions emphasized the importance of showing timeliness, responsiveness and initiative in their interactions with practicum teachers. Mentors were given a schedule for making their postings which was to respond within three days to each of the practicum teachers' journal entries.	Teachers: (I) the structure of the practicum, (2) the practicum teachers' and mentors 'perceptions of online mentoring, and (3) the difficulties faced by the practicum teachers and mentors in online mentoring	AGE OF STUDENTS NA. Twenty-six teachers enrolled in the practicum. Twenty-five of them were limited licensed teachers in special education working in urban, suburban and rural communities in southern or central Indiana, and one was a preservice teacher completing her initial license in special education. Six of the teachers were males, and all were admitted to a graduate program in special education and taking the practicum to fulfill certification requirements. In addition, all the practicum teachers were enrolled in a 3-credit graduate-level "Management of Severe Behavior Disorders" course. This course focused primarily on instructional and behavioral methods for addressing behavior disorders and on procedures for planning, implementing and evaluating interventions. Mentors for the practicum teachers were 33 students enrolled in the same course. Thirty-two of them were certified in elementary	Teachers and mentors consistently reported that the structure of the practicum and the mentoring component enhanced their professional development by helping them learn about and apply intervention strategies in teaching. The role of instructors was also well received by teachers and mentors. Instructors primarily served as facilitators of learning by encouraging both the teachers and mentors to engage in peer initiated discussion, problem solving, cooperative learning and peer feedback. The effectiveness of online mentoring seems to depend on having mentors who are able to provide consistent, task oriented, and timely feedback. Mentors must also be sensitive to the teacher's ability to respond to questions and make supplemental postings. Teachers must be sensitive to the expectations they place

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				or secondary education and pursuing a license in special education, and one was working on a masters degree but not a teaching license. Finally, four university instructors oversaw the practicum teachers and their interactions with mentors.	on mentors and keep them informed on such things as the type of feedback they would like to receive and changes in their posting schedule.
Layzer et al. 2010	This report focuses on the design and implementation of the three language/literacy interventions for preschool children that were tested in child care centers in Miami-Dade County. Project Upgrade was a two-year experimental test of the effectiveness of three different language and literacy interventions, implemented in child care centers in Miami-Dade County that served children from low-income families. 164 centers were randomly assigned to three interventions, each of which used a research-based curriculum, or to a control group. In each center, one classroom that served 4-year-old children was selected for the study. Teachers and aides assigned to the three treatment groups received initial and follow-up training as well as ongoing mentoring from Fall 2003 to Spring 2005. All classrooms in	The professional development model had two important features: • a staffing plan with several layers of supervision; and • a training plan that featured three sequenced training sessions over an 18-month period, combined with ongoing mentoring and support over the entire period. **Staffing**. Each intervention had two full-time mentors (a caseload of approximately 18 centers per mentor). To oversee and support the two mentors, each developer would provide an onsite coach (a part-time position, to be filled by a full-time employee who would carry out this in addition to other functions for the developer). **Training.** For teachers, the model called for three sequenced training sessions: the first, a two-day session, introduced them to the curriculum and provided training in the initial activities. A follow-up session after two to three months covered more complex material and activities. A second follow-up session, at the beginning of	Teachers and mentors: Professional development implementation Curriculum implementation Child: Language and literacy development	Teachers, aides, and mentors in 164 centers in Miami Dade County that served children from low-income families. Qualifications for the mentor position included: an educational background in early childhood education (bachelor's degree or higher); and experience in an early care and education setting. In addition, because so many of the teachers and other center staff spoke Spanish as a first language, or were monolingual in Spanish, each developer needed at least one of the two mentors to be bilingual.	Mentors and coaches from all three curriculum models reported independently the same features of successful implementers: a positive attitude towards instructional change, effective management of time, well-organized classroom space and effective classroom management, healthy working relationships among director, staff and parents, and frequent one-on-one interactions between teachers and children. Professional Development Implementation: The professional development model was well-implemented: 23 training sessions and ongoing mentoring were delivered at least as often as the design called for, by well-trained staff, and there was little turnover of

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	the study received an initial package of literacy materials. To reduce staff turnover, teachers in all four groups who remained in centers received $500 in July, at the end of each year of the study.	the second year served as a refresher training for staff remaining in their classrooms as well as a training for newly-hired classroom staff. To support curricula implementation, and to guide teachers' practice, mentors conducted visits to each of the classrooms approximately once every two weeks, but never less than once a month. After the initial round of visits, the mentors, in consultation with their trainers, designed more flexible schedules that reflected the individual needs of classroom staff. Some classrooms required visits weekly or even more frequently, while others in which staff were moving quickly in implementing the curriculum required less frequent visits. The site coordinators also conducted mentoring visits, especially to new teachers or to teachers who were experiencing difficulty implementing the curriculum. The visits were similar across curriculum models, with each mentor visiting one or two classrooms in a morning, one or two classrooms in the afternoon, and completing paperwork at the end of the day. Each intervention used a systematic way of recording progress, rating fidelity of implementation, and providing instructional feedback to teachers.			staff. The coaches and mentors for each intervention were highly-motivated and persistent in their efforts with classroom staff. However, absolute fidelity to a model is neither easy to achieve nor necessarily desirable. The curriculum developers, coaches and mentors had to adapt the plan to meet a set of challenges. These adaptations did not result in deviation from the principles underlying the model. Rather, in all cases, meeting the challenges resulted in an intensification of effort on the part of all three groups. The most serious challenge for mentors and their coaches was teacher turnover. In spite of the agreements signed with Abt and the ELC at the beginning of the study, there were some problems with lack of cooperation on the part of some center owners and administrative staff. Mentors' ability to shape teacher's behavior and classroom practices was also hindered by lack of basic classroom management skills on the part of some of the teachers.

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					Curriculum Implementation: Overall, although large proportions of the teachers implemented the Breakthrough to Literacy (BTL) curriculum strategies and activities, most implementation was only partial. For example, only one or two teachers were observed using small group activities, which meant that all of the others were missing a key aspect of the curriculum, which is differentiation of instruction to focus on individual children's strengths and weaknesses.17 While varying proportions of teachers in all groups implemented some aspects of BTL practices, more of the BTL group teachers than teachers in other groups implemented BTL strategies and activities. Overall, large proportions of Ready, Set, Leap (RSL)! teachers demonstrated evidence of the characteristics of Interaction, and of implementation of the strategies and activities in the Environment dimension, but far smaller proportions (fewer than half of the

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					teachers) demonstrated evidence of implementation on most (seven out of eleven) of the Curriculum dimension items.
Mercadel-Butler 2007	This autoethnography reflects upon the implementation of a peer-coaching program in a state-funded nonpublic pre-kindergarten program during the 2004-2005 academic school year in the Greater New Orleans area. Initially, one purpose of this study was to determine the contribution of peer coaching by measuring the teachers' coaching effectiveness. The other purpose was to investigate the teachers' use of emergent literacy practices in the kindergarten classroom while examining whether peer coaching had an effect on teachers' use of emergent literacy practices in the classroom. When the autoethnography emerged as a more conducive form of inquiry, the actual purpose of this study became the revealing of the experiences, events and consequences, which led to the preparation, implementation, and analysis of this research project. Participating teachers	The entire peer-coaching segment - including the initial visit, the teachers' observations of one another, the scoring of the ELLCO instrument, and the coaching of one another, required approximately four and one half hours to complete. After the first peer-coaching session and administration of the ELLCO, the teachers met on at least two other occasions where they exchanged ideas, feedback and coached each other on related information that was recorded from the previous observations. Six weeks later, after the initial workshop, the teachers re-administered the ELLCO within each other's classrooms, and then mailed the completed forms to a confidential location. The peer-coaching sessions on teachers' use of emergent literacy practice ended with the teachers completing a final Coaching Effectiveness Profile and mailing this with the ELLCO to the program monitor.	Child: Early language and literacy classroom observation instrument Teacher: Coaching effectiveness	Ten teachers volunteered to participate in the newly implemented peer-coaching program. Of the teachers in the program and in the study, 98% are African-American. The teachers instruct twenty students per classroom; each teacher works with a teacher assistant. Of those ten teachers, only two had passed the Praxis Examination. The other eight, like many others in the program, were on the verge of not being retained by their employing schools. This non-public pre-kindergarten (pre-k) program is state-funded and targets children from families of low income. The students in this pre-kindergarten program are considered to be 'at-risk' because they reside in households with low income and are eligible to receive free and reduced-price meals. Prekindergarten instruction, before and after school care, breakfast, snacks, and field trips, are provided for the students through this program at no cost.	At baseline, teachers' strongest competency area was their empathizing ability. This area remained strong. Overall, there was an improvement of peer coaching competencies as reported by the teachers after the peer coaching sessions. It appeared that the peer coaching allowed the teachers the opportunity to guide their own practice. After both sessions of the peer coaching, the book area scores remained the same -- the score was the highest possible and it was consistent after the coaching. The book selection had only a slight increase. There was a slight decrease in the use of writing materials, but writing around the room improved dramatically. Both book use and book reading showed a dramatic and interesting increase in scores. The weakest area of the profile was the teachers' listening skills. This area

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	completed a pre and post competency-based diagnostic instrument related to coaching effectiveness, participated in peer coaching dyads, and twice completed an observation instrument related to teachers' use of emergent literacy practices in the pre-kindergarten classroom.				remained weak after the peer coaching sessions as well. Teachers took ownership of their own professional development and inquired for information from one another throughout the workshop. The teachers completed the coaching effectiveness profiles and the ELLCO observation instruments with minor complications. The teachers organized and planned the peer coaching sessions and determined their own course of action. The inquiry and dialogue was created and sustained entirely by the teachers.
National Early Reading First (ERF) Evaluation /Simon 2010	This case study elaborates on the professional development practices identified as effective by the ERF national evaluation. A primary focus of this grantee's program was intensive teacher training in early reading skills, including coursework that provided college credit and in-classroom mentoring by an experienced early childhood team. Training was provided by a five-member professional development team holding masters or	Professional development included intensive in-classroom mentoring to ensure that teachers know how to provide explicit and intentional instruction that starts with teacher-directed activities and moves to more independent activities. Mentors modeled teaching techniques, observed teachers, provided feedback regarding teaching, and helped with lesson planning. Mentors participated in and helped with professional development, and on-site mentoring was directly connected to teacher skill development and evaluation. Teacher evaluation focused on	Child: Language and literacy development Teacher/Classroom: Year 1 Goals: • implementing the new curriculum • creating a rich classroom environment • creating objective-based lesson plans • integrating small group instruction that supports language and literacy	In 2007, it served 140 preschool children in classrooms housed in Head Start, elementary school, and day-care settings. More than 80% of the children were from low-income households; nearly 60% of students were Hispanic; and at least 50% spoke a language other than English at home. Eighteen percent of the students received special education services. Mentors were early childhood teachers or speech-language pathologists with master's degrees and at least five years experience working in	Overall, the grantee program was successful in implementing the practices identified as effective in the ERF national evaluation report and staff reported a positive impact on literacy instruction. Since ERF ended, program administrators have found ways to sustain several components of intensive and focused professional development implemented. A major challenge has been locating funding for

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	doctoral degrees, with expertise in early literacy assessment and development, reading, special education, and language assessment and development. The grantee was located in an urban area in the southwest United States. Mentors from the elementary school district paired up and spent a minimum of eight hours a week with preschool teachers from two of the grantee's participants—a for-profit day care center and a Head Start program.	specific skills covered in professional development training sessions. Professional development also included guided teacher practice in the classroom to ensure that training had a positive and lasting impact on classroom instruction and teaching team performance, as well as self- and peer-assessment to train teachers how to evaluate and improve their own classroom performance. A cycle approach was used—I do, We do, You do. Mentors would first attend a professional development class. Then for the following two weeks, they would go out to classrooms, model the strategy, and observe the teachers and assistants using the strategy. The cycle was repeated if needed.	development into the daily schedule • assessing student progress Year 2 Goals: • incorporating instruction into music, movement, art, science, and transition times • writing, e.g., journaling • implementation of strategies and bilingual assistance to support language development throughout the school year for English language learners Year 3 Goals: • identifying key pieces of the program they wanted to make sure continued, • developing administrative support for those pieces, and • providing training for staff that had not been part of ERF.	early childhood classrooms.	site-based mentors.

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Pearlmutter et al. 2003	This is an implementation/correlational study of the Cuyahoga County Early Childhood Initiative's Family Child Care component. 1,327 newly-certified providers received technical support visits to assess and improve the quality of care, with approximately 13 visits per provider between summer 1999-summer 2002. FCC providers living primarily in the city of Cleveland.	Objective: newly certified providers receive 15 technical support visits (3 or 4 pre-certification and 11 post-certification). Visits addressed space and furnishings, meals and snacks, and operation a home-based business. Beginning in Year 2, specific attention was given to TA visits as a mechanism for increasing the quality of care. This voluntary quality enhancement program, Care for Kids, also included training opportunities, a lending library, equipment, materials, and other resources for providers. Providers receiving high quality ratings also received an additional 5% in the daily child care fee. Providers who did not enroll in the Care for Kids program typically did not receive post-certification quality enhancement visits.	Classroom: Environmental indicators of classroom quality Coach: Experiences providing technical assistance	TA provider backgrounds varied. Fewer than half held college degrees, although some were pursuing a CDA.	While the quality of care in a few child care homes increased over the 12-month period, the overall quality of care remained poor. For the majority of sample providers, their FDCRS score decreased from Time 1 to Time 2. This does not necessarily indicate that the TA visits were not effective (or were detrimental). Specifically, the more quality enhancement visits, the higher a provider's FDCRS score at Time 2. And, as the number of children increased, then FDCRS mean score decreased. Finally, as the number of children increased, a provider's likelihood of receiving a quality enhancement visit decreased. TA provider focus groups indicated: 1) the importance of building a trusting relationship with the child care provider; 2) TA providers may have difficulty completing specific, planned lessons with FCC providers; 3) Standards for a specific amount of time spent or number of visits conducted detracts from a TA provider's focus on the work; 4) TA providers use creativity to design

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					learning opportunities for and with FCC providers; 5) most TA providers do not prefer FDCRS as an assessment tool; 6) TA provider notions of quality differed.
Peterson et al. 2009	As a part of their ongoing, job-embedded professional development all kindergarten to grade 3 classroom teachers and licensed resource teachers in a school participated in weekly, teacher-led, collaborative study groups to discuss scientifically based reading research, to learn new instructional techniques and to refine their current practices, to examine student data and to adjust daily instruction based on students' progress or needs.	Teachers also shared video clips of their own instruction in their study groups to gain suggestions and insights from their colleagues and to facilitate self-reflection. To assist teachers in this process of learning and reflection, each school had two literacy coaches, one full-time coach provided by the school district and one half-time coach provided by the professional development provider, the University of Minnesota. Coaches were encouraged to work as a team to support the school in its efforts to implement schoolwide instructional reading improvement in kindergarten to grade 3. Coaches had many responsibilities in their schools but were encouraged to spend 80% of their time in classrooms working with teachers on reading instruction.	Coaches: Elements of coaching conversations Teachers: Reflection on instruction Students: Reading and learning	The 24 schools involved in the Minnesota Reading First Professional Development Program (Taylor & Peterson, 2007) were diverse in location (i.e., inner city, suburban, small town, rural), socioeconomic status (32%–95% of their students received subsidized lunches), and percent of students who were ELLs (0%–66%). The 48 coaches were a diverse group of teachers. They ranged in experience from 5 to 30 or more years in teaching, and their educational backgrounds ranged from Bachelor to Doctorate degrees. Some of the coaches had administrative or mentoring experience but the majority of coaches had left regular education classroom teaching assignments to serve as literacy coaches in the Reading First schools. During 2006–2007, all but one of the coaches were female.	Patterns that emerged included the following: • The eight coaches did use the protocols recommended in their professional development to collect data on instruction and to structure their coaching conversations. • The coaches used the data from specific lessons to give concrete examples designed to draw the teachers' attention to crucial elements of the lessons. • The coaches asked questions to elicit conversations with teachers instead of telling teachers what should or should not be done. • The coaching conversations built connections between what the teachers were learning in their weekly study groups, their knowledge of their students' assessment data, and their implementation of research-based,

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					effective reading instruction.
Roth and Troia 2006	Two case studies. In this article, 3 models of collaboration between speech-language pathologists (SLPs) and classroom teachers are discussed to promote emergent literacy and accurate and fluent word recognition. These models are demonstration lessons, team teaching, and consultation. A number of instructional principles are presented for emergent literacy and decoding within the context of collaborative work designed to help a preschool child with oral language difficulties and a second grader with word reading problems. Instructional principles cover the areas of vocabulary, phonological awareness, and narrative discourse in the emergent literacy period, and sounding out, reading by analogy, structural analysis, and routines to build fluency during the period of formal reading instruction.	Demonstration lesson: SLP teaches lesson(s) to target specific learning objectives that benefit all students while the other professional observes. Team teaching: professionals combine expertise and share objectives to co-teach lesson(s). Consultation: SLP indirectly facilitates the implementation of particular learning objectives by serving as a resource for other professionals and families who work directly with students. In this study, SLP provided direct service 3 weeks per month and collaboration 1 week per month.	Teacher: Classroom instruction for the following children and issues: Sarah- emergent literacy skills David- word recognition and reading fluency deficits	Sarah was a 4 1/2-year-old child from a low socioeconomic status (SES) family who attended a Head Start program. Sarah had not been formally identified with a language or learning disability, but the Head Start teacher was concerned about Sarah's progress for a number of reasons. David: 7-year-old in second grade classroom with difficulties reading	Sarah: Demonstration lesson: Sarah and the other students were learning to participate more fully in the shared book reading activities and beginning to use some of the new vocabulary in dramatic play. Team teaching: Lesson capitalized on research-based practices. Consultation: Pooling their expertise enabled the teachers and the SLP to infuse the curriculum in areas known to be related to literacy and further language development. David: As for Sarah, by using these three models, the teacher and the SLP were able to coordinate their expertise to target mutually shared language-based learning objectives more efficiently for David. Demonstration lesson: The SLP and the teacher provided books on tape and CD alongside print versions and they identified the approximate reading levels of all trade books used by the teacher

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					employing a color code so the students knew which books were right for them. In this way, David could select reading in which he could find success at reading fluently. Team teaching: David and the other students discovered how various affixes could be combined with the root to form different words, etc. Consultation: The SLP benefited from consulting with the teacher because David's language and literacy needs were being successfully addressed without the need to pull David out of class. Despite time constraints and resource issues, collaborative service delivery models hold many advantages for professionals in early childhood education settings. Teachers should consider the collaborative service delivery models when seeking to develop partnerships for literacy at the emergency and early stages.
Ryan et al. 2004	This paper reports the findings of a time use study of 35 teacher consultants whose role was to provide curriculum	Teacher consultant responsibilities were to include coordinating and articulating with the district the professional development for child care	Teacher consultants: Time use	35 teacher consultants, required to have a bachelor's degree and teacher certification, 3 to 5 years of experience in areas	On average, teacher consultants worked a 7-hour day, distributing this time primarily among 13 activities.

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	assistance and professional development to preschool teachers in response to a court mandate. Using the retrospective time diary method, the teacher consultants were asked to account for all of their activities in a 24-hour period. The teacher consultants who participated in this study were hired as a direct outcome of the Abbott v. Burke (1998) New Jersey Supreme Court decision. This decision ordered the state's 30 poorest or Abbott districts to provide well-planned, high-quality preschool programs for all eligible 3- and 4-year-old children beginning in the 1999-2000 school year. High-quality programs were defined as those having a class size of no more than 15 students with a certified teacher and teacher assistant in each class, a developmentally appropriate curriculum linked to the state's core curriculum content standards, and the provision of adequate facilities, special education, bilingual education, transportation, health, and other services as needed. To ensure that both large and small districts received adequate	teachers, in addition to directly mentoring and providing support to these teachers. The retrospective time diary method was used. This method involves asking respondents over the telephone to account for all of their activities over a 24-hour period in a structured interview.		related to early education, and some background in providing professional development. Although the Department of Education recommended that teacher consultants were to work with 20 classrooms or fewer, almost half of the sample (48%) was assigned higher numbers of classrooms as part of their caseload. Because many school districts did not have adequate facilities to provide preschool, most teacher consultants either worked solely with teachers in child care classrooms (60%) or in a mixture of public and community-based settings.	Most of the teacher consultants' time was spent on teacher development activities such as providing classroom assistance, planning, and giving workshops. A factor analysis shows that if teacher consultants spend time in activities connected to working with teachers in classrooms, they are less likely to plan or give workshops to teachers. No significant relationships were found when correlations were computed for teacher characteristics in relation to the time distribution in various activity codes and each factor index. That is, teacher consultants regardless of educational background, teaching experience, and professional development expertise used their time in similar ways on a given workday. To ensure that teacher consultants can have their intended impact, policy makers are advised to provide specialized training and limit the number of responsibilities associated with this

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	representation in the sample, a stratified random sampling design was employed.				role.
Salisbury et al. 2010	The Chicago Early Intervention Project (CEIP) was funded to develop and evaluate an adaptation of the Family-Guided, Routines-Based Intervention (FGRBI) approach as a model for providing home-based EI services in complex urban neighborhoods. FGRBI reflects principles of family-centered practices and emphasizes the use of collaborative consultation strategies. An exploratory case study was undertaken to investigate the perspectives and experiences of six early intervention providers as they adopted and implemented a collaborative consultation approach to home visiting in urban neighborhoods. This investigation occurred in Chicago, a city of significant economic, cultural, racial, linguistic, and ethnic diversity.	CEIP adapted the following components for its population: • A clearly defined process for home visiting that is responsive to changing family needs • A collaborative consultation approach to support, assessment, and intervention • A range of collaborative consultation strategies to promote parent learning • Use of family preferred activities and routines as contexts for embedding intervention for functional outcomes • Continuous progress monitoring • Ongoing reflective practice and supervision No additional information available on specific coaching elements.	Provider: Perspectives and experiences of collaborative consultation	6 EI professionals employed at the University of Illinois–Chicago Child & Family Development Center (CFDC) in its EI program. These staff members included one occupational therapist, one physical therapist, two speech therapists, and two developmental therapists. All staff held at least a master's degree, licensure, and appropriate credentialing. Each delivered home-, community-, and/or center-based services with this program for 2 to 12 years. Three were Caucasian, one was African American, and two were of Hispanic origin. All but one of the participants were female. Parents or primary caregivers of infants or toddlers enrolled in our Part C home visiting program. 30% were African American, 49% were Latino, 13% were Caucasian, and 8% were Asian or Other ethnic backgrounds. 60% received public assistance. Their enrolled children (n = 68) included 45 boys and 23 girls who evidenced developmental delays, neurological or sensory disabilities, or Down syndrome or autism. Average age at entry was 18	The intensity of provider concerns about the use of collaborative consultation and routines-based, family-centered home visiting practices improved at posttest. Providers attributed these changes in large part to the culture of the organization as a learning community and its ongoing administrative support for reflective practice and problem solving about implementation issues. Providers also identified specific factors, such as time and opportunity to practice and problem solving with feedback, as having an impact on their ability to move forward in adopting and using family-centered home visiting practices.

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
				months.	
Stover et al. 2011	Experienced coaches describe strategies they use to meet the professional development needs of individual teachers and encourage professional growth. Study tells 3 stories to demonstrate how they fostered reflection and differentiated support with teachers using 3 strategies: • Daybooks, which foster reflection via writing • Surveys, which foster reflection via individualized professional development • Videotapes, which foster reflection via viewing	**Daybooks.** During debriefing sessions, Martha (teacher) read aloud from her daybook, using her reflections as the basis of discussions with Brian (coach). Martha had several short quick-write entries that captured the essence of instruction at the time and allowed teacher and coach to ponder the effectiveness of the lesson, the depth of understanding by the students, and the connectivity of the students as they shared their writing aloud. This differentiated model allowed Martha to set the agenda for the conversation, and she talked with Brian about what happened in the classroom. **Surveys.** Rebecca created a survey to determine the literacy strengths and needs of each teacher. Using the staff's shared vision as the foundation for the survey questions, the first survey asked teachers to rate themselves regarding their understanding and use of the various components of their literacy instruction. Rebecca used the survey results to determine the areas where a majority of teachers had some background knowledge but were ready to learn more. Then, she designed professional development seminars to meet teachers where they were as instructors. **Videos**. Each teacher taught a small group for 30 minutes in his or her classroom while the camera rolled. Karen and the teacher then met for 30 minutes to discuss what went well and what needed work and to help	Coaches: Strategies used Teacher: Classroom instruction	current and former literacy coaches (the authors) No additional details provided	In our coaching stories, teachers were vested in making changes because they managed their professional development. We honored teachers' knowledge and worked with them to build on what they knew in nonthreatening ways. Through reflective writing in daybooks, surveying teachers to create professional development, and videotaping so teachers could observe their instruction, teachers made changes in their habits. Research and practice merged. Differentiated coaching and reflection contributed to the changes in instructional choices teachers made.

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
		the teacher start the reflecting process. Teachers determined how and when they used these artifacts and how to structure the written reflections. Karen suggested tips for viewing. Participants set the agendas of the four subsequent coaching sessions based on their needs. In the hour together, Karen might demonstrate and debrief, might observe and give feedback, or might help the teacher analyze data and re-form student groups. Each session ended with agreement on small steps for the teacher to try before the next meeting.			
Swift et al. 2009	Implementation study. A multi-year partnership between the Institute for Learning at the University of Pittsburgh and the Early Childhood Program of a large urban school district introduced preschool teachers in 101 classrooms to the Text Talk approach to reading aloud and used the Content-Focused Coaching Model (CFC) to prepare early childhood coaches to support teachers' learning about Text Talk. Using a gradual release of responsibility paradigm, the CFC initiative engaged coaches as learners of the literacy and coaching content while providing scaffolded support on the way to independent practice. The coaches studied and learned to	Coaches were systematically prepared to work in three-person teams to facilitate small group teacher professional development on the Text Talk approach in district-wide teacher institutes. They were taught to prompt and support Accountable Talk among adult learners using module materials provided by the IFL facilitator. Teacher institutes engaged teachers in becoming familiar with Text Talk research, understanding the format of a Text Talk lesson plan, and getting a videotaped vision of a Text Talk read-aloud with preschool children. The coaches also facilitated a Text Talk discussion in every teacher's classroom, providing another opportunity for teachers to become familiar with the Text Talk approach.	Teachers: Ability to implement Text Talk Coaches: Features that made the most difference to the coaches in being able to carry out this work	Five district role groups participated in this effort: a central office early childhood leadership team, the early childhood coordinators, the early childhood coaches, the early childhood teachers, and the assistant teachers.	Literacy Lessons Learned: • It is challenging to find books appropriate for a Text Talk discussion with preschool children. • It is equally, if not more, difficult to design a Text Talk lesson appropriate for young children. • Supporting coaches and teachers with prepared Text Talk lesson plans does not result in a stilted or "scripted" facilitation of Text Talk discussions with children. • One of the most challenging moves for a teacher leading children in a Text Talk discussion is asking the kinds of follow-up

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	enact Text Talk read-alouds, were prepared to facilitate professional development to introduce Text Talk to teachers, and learned to engage teachers in a pre-conference/lesson/ post-conference conferring cycle to support their implementation of Text Talk. Using the Content-Focused Coaching Model (CFC), the IFL designed a system-focused professional development initiative for the district's 101 preschool classrooms focused on the Text Talk approach to reading aloud.				questions that probe and extend children's thinking, rather than jumping in to supply a missing "answer." • Initial coach and teacher misgivings about using the Text Talk approach with very young children were largely allayed as they gained firsthand evidence that their children can indeed engage with texts in this way. Coaching Lessons Learned. • The coaches welcomed the opportunity to be supported as learners of the literacy content before being asked to support the learning of others. • The coaches needed the opportunity and the time to be prepared as facilitators of adult learning with access to coherent, rigorous, well-designed materials. • The collaborative, collegial nature of the CFC initiative promoted the development of a professional learning community in which the coaches felt safe to put their practices forward in order to advance their own and

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					their colleagues' learning.
Weigand 2007	This article recounts the author's personal and professional journey through reflective supervision he received as a teacher of toddlers in an early childhood center. He describes the reflective process and the qualities of the supervisory relationship that contributed to the professional growth that it supported.	Reflective supervision involving a shift from considering knowing what to do to knowing how you are. Regular meetings to explore this aspect of supervisee's work with young children. Supervisor never set or followed a predetermined agenda. From the outset, a striking feature of time together was that the process was essentially the supervisee's. Supervision was about supervisee and supervisee's experience with my young clients. Supervisee was free to determine the general direction of the work and the specific tasks and focus for each session. In retrospect the work consisted of three fundamental reflective tasks: relating and re-experiencing emotionally significant events in relationships with children; examining and evaluating the meaning of the feelings, thoughts, intentions, and actions evoked during those events; and considering how to use this understanding for professional growth and development.	Teacher: Self-awareness	Supervisor was university faculty member with a doctorate in counseling and training. Supervisee also taught at the same university, and was a preschool teacher and teacher educator at the university's laboratory school	Change was inconsistent, variable, and sporadic. Some sessions yielded little or nothing in the way of personal or professional growth, at least that the supervisee was able to discern or feel. Periodically, supervisee experienced clarity of vision into who and how he was in his relationships with children, and a deepening understanding about why he was so. This new-found clarity and understanding spawned ideas and plans for trying to be different and better in his work. The most important change was his increasing ability to be psychologically present "in the moment" with a child. Supervisee became better able to focus more exclusively and clearly on what he was doing, feeling, intending, and thinking. Indicates 4 necessary qualities of reflective supervisors: *Presence* - fully present and engaged and not distracted by his or her own personal or professional agenda. *Commitment. Reverence*

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					- profound respect for the intra- and interpersonal processes fundamental to the work of reflective supervision. The relationship contract must be "How can I help?" not "I know what you need and I have the expertise to bestow it." *Mutuality* - recognizes that reflective supervision is as necessary for him or her as it is for me; involves a willingness to own inevitable mistakes, acknowledge them, and work collaboratively, as equals, to resolve them.
Wesley and Buysse 2004	This article identifies issues and challenges specific to early intervention and education that must be considered for itinerant early childhood special education (ECSE) consultants to engage in productive consultation with personnel in child care or other center-based programs. Findings were summarized from two mixed-methods studies that examined professional comfort in providing ECSE consultation (via an abilities index and focus groups). Setting: North Carolina	Although consultants worked directly with children some of the time, reported primary involvement in providing indirect services to child care providers, specialists, and family members. Their average caseload was 13 children and consultation services consisted of visits at least once a week to child care centers or other center-based programs to consult with early childhood teachers and other professionals, or to homes to consult with families. Activities included making recommendations for environmental modifications, addressing children's individual education goals through typical classroom routines and activities, enhancing program quality, and helping to assess the consultees' needs for additional skills, knowledge, and other resources.	Consultants: Professional comfort in providing ECSE consultation. Professional comfort is defined as a feeling of ease or well-being in the professional role. Beliefs and practices about consultation	Participants were 86 early intervention and education consultants. >50% worked for early intervention programs; others for public schools or nonprofit contractual agencies. Diverse levels of educational training (bachelors, masters, and doctorate degrees) in a variety of disciplines that included ECSE, early childhood education, child development, speech–language pathology, social work, psychology, physical therapy, and occupational therapy. Averaged 8.71 years in the early intervention and education field. Worked with children from 0- 5 years in natural and	Factors Affecting Professional Comfort: Comfort varied according to the child's level and type of disability and potential for progress. Comfort level also was affected by (a) the early childhood professionals' knowledge, skills, and beliefs about children and inclusion; and (b) the consultees' attitudes, expectations, and beliefs about consultation. Inadequate staff–child ratios, large group sizes, curriculums that were not developmentally appropriate, high staff turnover, and poorly

Table A.4 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
				inclusive settings. The children were eligible for special services through either early intervention or public preschool programs for children with disabilities.	trained staff were factors that created challenges for consultants. Access to certain resources, including additional information about the process and outcomes associated with consultation practice, also affected comfort. Beliefs and Practices About Consultation Itinerant ECSE consultants' descriptions of their beliefs and practices about consultation were not premised on a model of consulting that involved collaboration between consultants and consultees. A cultural models analysis revealed that itinerant ECSE consultants appeared to be operating from the belief that providing consultation is parallel to providing direct early intervention services.

NA = not available.
n.a. = not applicable.

Table A.5. Identified Coaching Models and Approaches Supportive of Positive Outcomes from Literature Reviews or Meta- Analyses

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Article/chapter reference	*Brief description of the approach, highlighting the type, setting, and intensity*	*Description of specific elements of the approach*	*Brief description of child, family, and/or provider outcomes the approach is expected to affect*	*Description of the population(s) involved or participating in study or approach, including community context*	*Brief description of study findings*
Brennan et al. 2008	n.a. – Twenty-six recent studies were identified that addressed the effectiveness of early childhood mental health consultation with respect to staff- and program-level outcomes.	n.a.	Various staff- and program-level outcomes	Varies, includes children birth through age 6	Across the reviewed studies, there is some evidence that early childhood mental health consultation helped increase staff self-efficacy/confidence and competence in dealing with troubling or difficult behaviors of young children in their care. In several studies, staff receiving consultation had improved sensitivity and lower job-related stress. In addition, consultation was linked to reduced staff turnover. How effective mental health consultation is in improving the overall quality of the child care environment—as measured by the ECERS—is less clear, with some studies reporting positive associations, others finding no relationship, and one even reporting a negative relationship over time.

Table A.5 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Burkhauser and Metz 2009	n.a. – The authors review literature on efficacy of coaching, including coaching for out-of-school staff.	n.a.	Varies	Varies Given focus on out-of-school time, likely includes children of school age only	From literature in the educational field, they assert: (1) Peer coaching is at least as effective as traditional supervision, (2) Peer coaching encourages collegiality and experimentation, and (3) Peer coaching is positively related to teacher change and student performance. They also assert that coaching can have positive effects on: (1) the fragility, awkwardness, and incompleteness of newly learned behavior, and (2) a tendency to backslide. They argue that programs should: (1) Select coaches who are knowledgeable, (2) Promote positive relationships between coaches and staff, (3) Institute frequent team meetings, (4) Allow sufficient time for program staff to develop new skills, (5) Support and promote coaching initiatives fully, and (6) Consider coaching as a long-term professional development strategy.

Table A.5 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Dickinson and Brady 2006	Chapter reviews several language/literacy programs incorporating a coaching element **Spencer Foundation-Funded Pilot Project**: Teacher-researcher model in which the researcher worked with Head Start teaching teams, observing them, discussing observations, making recommendations and reflecting on practice. The researchers also provided resources and readings for teachers. Teachers were required to keep logs, reflect on and discuss their practice, and participate in team meetings and occasional meetings of all teams. **Literacy Environment Enrichment Program (LEEP)**: Two intensive 3-day sessions, separated by 3 months. Between sessions, participants complete assignments. A supervisor track is included, with Head Start teachers and supervisors attending sessions as a team and supervisors providing on-site support. E.g., supervisors observed teacher-child interactions and used a checklist to observe and guide subsequent meetings. **Technology Enhanced LEEP (T- LEEP)**: Enhances the LEEP program with day-long face-to-face sessions (10 sessions,		Teacher: Language and literacy instruction Child: Language and literacy development	**Spencer Foundation-Funded Pilot Project**: teaching teams in a local Head Start program; no additional details are provided **Literacy Environment Enrichment Program (LEEP)**: New England Head Start programs across six states; no additional details are provided **Technology Enhanced LEEP (T- LEEP)**: New England Head Start programs, as well as sites in North Carolina; no additional details are provided **Striving to Achieve Reading Success (STARS)**: early childhood programs in Connecticut serving children from low-income backgrounds in child care, Head Start, and pre-K programs; no additional details are provided	**Spencer**: Lessons learned include, among others: (1) teachers desired focused, didactic guidance, (2) it was helpful to embed strategies in curriculum or day-to-day classroom organization concerns, and (3) the need for leadership support **LEEP**: quasi-experimental study found that LEEP participation predicted higher spring scores on all portions of the ELLCO, checklist data, ratings of literacy activities, and children's receptive vocabulary and phonemic awareness. Follow-up qualitative study found that 2 years after LEEP implementation, enduring changes were seen in how books were read, how often books were read, the types of material read, and in teachers' use of thematic approaches to instruction. **T- LEEP**: quasi-experimental study found that T-LEEP predicted higher postintervention scores on all portions of the ELLCO and children's receptive vocabulary, phonemic awareness, and emergent literacy. **STARS**: primarily

Table A.5 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	spaced 2-3 weeks apart, over 6 months), interactive TV and web-based resources and discussions, and learning opportunities distributed. Utilized a community of learners approach for Head Start teachers. **Striving to Achieve Reading Success (STARS)**: Similar approach as in LEEP, but a new approach to supervisors was incorporated. The supervisor component was altered to build their capacity to recognize misconceptions and intervene. Moved away from clinical supervision to infusing literacy content. STARS also incorporated more videotaping, asking supervisors to tape teachers and analyze those tapes, and to videotape themselves engaged in supervisory sessions with teachers. Setting was child care, Head Start, and pre-K programs.				anecdotal evidence
Fixsen et al. 2005	n.a. – The authors review literature on implementation, offering an overview of what is known about coaching.	n.a.	Varies	Varies, likely includes children of school age	Some assertions: • Newly-learned behavior is crude compared to performance by a master practitioner • Newly-learned behavior is fragile and needs to be supported • Newly-learned behavior is incomplete

Table A.5 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					and will need to be shaped to be most functional Other findings from the literature: • The amount of time devoted to coaching often is not reported, but seems to vary widely. • Coaching is influenced by factors such as the amount of time allotted to and available for the work and expertise/training and preparation of the coach. • Implementation occurs primarily when training is combined with coaching in the classroom. • While there's evidence in support of coaching, it's not yet clear (experimentally) what a coach should do or say to be most effective.
Kretlow and Bartholomew 2010	Reviews 13 studies on the impact of coaching on changes in preservice and in-service teachers' implementation of evidence-based practices. Coaching was related to an evidence-based practice with support for improving academic performance or appropriate classroom behavior.	Coaching models in studies vary and include side-by-side, supervisory, peer coaching, supervisory+side-by-side, and technologically mediated. Studies also vary in duration of coaching and other aspects of professional development	Teacher: teaching accuracy or "effective instruction," extent to which teachers found coaching activities beneficial	Participants were 110 preservice or in-service teachers in general or special education working with students from preK to Grade 12	13 studies that examined the impact of a specific coaching intervention on quantitatively measured changes in teachers' classroom practices. In general, coaching improved the extent to which teachers accurately implement evidence-based practices such as ClassWide Peer

Table A.5 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					Tutoring, Direct Instruction, Learning Strategies, and Positive Behavior Support in classrooms or practicum settings. The retrieved studies also suggest that highly engaged, small-group initial training, followed by multiple observations, feedback, and modeling are critical components across coaching interventions. A few studies also provide promising data to support the consequential effects of coaching on improvements in student achievement.
Perry et al. 2010	Three different approaches to early childhood mental health consultant (ECMHC) services emerged across the 8 of the 14 studies that provided detailed information on their consultation approaches. Two studies described their mental health consultation programs as manualized, which refers to an approach driven by a manual or a set of program guidelines. Four studies described using an established curriculum for providing ECMHC services: three implemented the Incredible Years curriculum and one implemented the	Overall, the ECMHC programs reviewed varied widely in the frequency and duration of consultation services provided.	Child: The 14 studies included in this research synthesis reported on three dimensions of child-level outcomes: internalizing behaviors, externalizing behaviors, and prosocial behaviors.	The mental health consultation had to have taken place in programs that provided care and educational services for children from birth through 6 years of age. Many of the studies included in this review reported on mental health consultant characteristics, including level of education, training in ECMHC and related topics, and supervision. The majority of the studies employed mental health consultants with a master's degree or higher, and many provided these mental health consultants with additional training and supervision.	ECMHC was consistently associated with reductions in teacher-reported externalizing child behaviors, but the evidence for improved internalizing child behaviors was more mixed. This research synthesis found evidence that ECMHC was associated with increased social and emotional outcomes for young children.

Table A.5 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	Skillstreaming social skills curriculum. Three other studies described their ECMHC model as individualizing the delivery of the core program components based on the needs of teachers, classrooms, or programs.				
Trivette et al. 2009	The effectiveness of four adult learning methods (accelerated learning, coaching, guided design, and just-in-time training) constituted the focus of this research synthesis. Findings reported in How People Learn (Bransford et al., 2000) were used to operationally define six adult learning method characteristics, and to code and analyze the relationship between the six characteristics and the study outcomes (learner knowledge, skills, attitudes, and self-efficacy beliefs). The synthesis included 79 studies using either randomized controlled trials or comparison group designs (N = 3,152 experimental group participants and N = 2,988 control or comparison group participants).	Studies were included if the: (1) participants were adult learners (defined as post high school age), (2) sufficient information was included to code the use of the different adult learning method characteristics, (3) the adult learning method was compared to some control or contrasting condition, and (4) either a randomized controlled trial or comparison group design was used to evaluate the effectiveness of the adult learning methods. Exclusion criteria. Studies were excluded if the participants were elementary or secondary school students, insufficient information was included about specific elements of the adult learning procedures, and preexperimental or single participant research designs were used.	Adult learner (e.g., provider): Knowledge, skills, attitudes, and self-efficacy beliefs The learner outcomes in the studies included teaching practices, foreign language learning, nursing and medical practices, science and engineering, mathematics and statistics, economics, and rare vocabulary, among other outcomes.	Participants were adult learners (defined as post high school age). The learners included classroom teachers, student teachers, undergraduate students, graduate students, medical personnel, counselors, English-as-a-second-language learners, and business personnel (e.g., sales and customer service personnel). The settings in which the adult learning methods were implemented included college classrooms; elementary, junior and high schools; special education classrooms; hospitals and private physician practices; and various business and work settings.	Results showed that all six adult learning method characteristics were associated with positive learner outcomes, but that learning methods and practices that more actively involved learners in acquiring, using, and evaluating new knowledge and practice had the most positive consequences. Results also showed that the adult learning methods were most effective when used with a small number of learners (< 30) for more than 10 hours on multiple occasions.

n.a. = not applicable.

Table A.6. Identified Coaching Models and Approaches Supportive of Positive Outcomes from Discussion/Position Papers

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Article/chapter reference	*Brief description of the approach, highlighting the type, setting, and intensity*	*Description of specific elements of the approach*	*Brief description of child, family, and/or provider outcomes the approach is expected to affect*	*Description of the population(s) involved or participating in study or approach, including community context*	*Brief description of study findings*
Dinnebeil et al. 2009	This article describes and differentiates approaches to itinerant early childhood special education as a primary service delivery option, with an argument made for itinerant consultative services. The focus is on direct service and consultative approaches, with evidence bases for the latter as a "promising practice" provided.	n.a.	n.a.	n.a.	The authors argue that many variables must be in place in order to maximize the success of an itinerant consultative approach: Teachers must have the resources and supports they need to fulfill their responsibilities. A clear and consistent understanding of everyone's roles and responsibilities, including teachers, therapists, administrators, and parents must exist. Itinerant professionals who serve as consultants must have the proper knowledge, skills, and dispositions, including a thorough working knowledge of recommended practices in early childhood intervention. They must also feel comfortable and confident in their role as consultant and be able to transfer those feelings of comfort and confidence to their general education partner.

Table A.6 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
Gasbarro 2008	n.a. – The author reviews and identifies effective practices in teacher training, professional development, and curriculum instruction.	n.a.	Varies	Varies	The author concludes that teachers benefit from professional development that is: (1) specialized and directly applicable to classroom needs and experiences, (2) Sustained over longer periods of time through regular mentoring or coaching after participation in initial workshop trainings, and (3) Collaborative and encourages support for teachers from different grade levels. The author suggests that novel uses for technology in teacher training and professional development be developed, as they offer a cost-effective means for direct mentorship and coaching to teachers, regardless of geography or logistical barriers.
L'Allier et al. 2010	The authors synthesize the findings from their studies (Bean et al., 2007; Bean et al., 2008; Bean et al., 2003; Bean & Zigmond, 2007; Elish-Piper & L'Allier, 2007; L'Allier & Elish-Piper, 2006, 2009) and the related literature to develop seven guiding principles that literacy coaches can use to focus their work on the improvement of literacy	Coaching approach is guided by the following principles: Principle 1: Coaching Requires Specialized Knowledge; Principle 2: Time Working With Teachers Is the Focus of Coaching; Principle 3: Collaborative Relationships Are Essential for Coaching; Principle 4: Coaching That Supports Student Reading Achievement Focuses on a Set of Core Activities; Principle 5: Coaching Must Be Both Intentional and Opportunistic; Principle 6: Coaches Must Be	Coaches: Principles to guide work	NA	First and foremost, literacy coaches must have specialized knowledge that goes beyond just knowing how to teach reading well; they must also understand how to work effectively with adults. Additionally, literacy coaches need to spend at least half of their time working directly with teachers because when literacy

Table A.6 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
	teaching and learning in the elementary grades. In addition, a vignette is provided to illustrate each guiding principle in action. Authors developed the vignettes based on several years of work with literacy coaches during professional development and research activities.	Literacy Leaders in the School; Principle 7: Coaching Evolves Over Time			coaches are working directly with teachers, they are more likely to produce positive growth in teacher practice and in student learning. Furthermore, literacy coaches must develop productive working relationships with the teachers they coach. Such relationships are the foundation for all coaching work; therefore, building trust, maintaining confidentiality, and communicating effectively with teachers must be primary considerations for literacy coaches. In addition, literacy coaches must prioritize research-based practices associated with student achievement gains: Conferencing with teachers, administering and discussing assessments with teachers, observing classroom instruction and offering supportive feedback, and modeling instruction in classrooms. Literacy coaches also need to balance intentional coaching with opportunistic coaching to make the best use of their time and to support teachers in meaningful and relevant

Table A.6 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
					ways. Additionally, literacy coaches must view themselves and be viewed by others in their schools as literacy leaders who set goals and directions for the literacy program, support teachers and other school personnel in providing high quality literacy instruction for all students, and redesigning the school organization to meet literacy goals. Finally, because literacy coaching evolves over time; educators must be patient and mindful of the goals of coaching while providing time for new literacy coaches to lay the foundation for their coaching work.
Poglinco and Bach 2004	The authors examined coaching as a professional development tool on two fronts: the in-class support that coaches provide to individual teachers and the group-focused professional development activities that coaches lead. Group focused activities include all-staff meetings, teacher meetings, and study groups. Both the individual and group approaches seek to help teachers effectively implement new instructional formats and practices in their classrooms.	n.a.	n.a.	n.a.	Teachers respond particularly well to in-class coaches, and so coaches need to be proficient in a variety of techniques for providing in-class technical support. Although teachers meet regularly, these group meetings do not translate into the creation of professional learning communities or changes in instructional practices at the classroom level. Some teachers are unable to use the suggested instructional

Table A.6 *(continued)*

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	The authors share the overarching themes and nuanced insights identified in their research on the coaching model of professional development for teachers.				guidelines for improving instruction because they don't understand, and the materials don' t define, how to change their instructional practices While the coaching model of professional development is being implemented in many schools, neither its individual nor its group component emphasizes performance standards This professional development model greatly emphasizes the capacity and abilities of the coach, but even the most capable of coaches cannot do it alone. The ambiguity of the coaching role and the uncertainty of what the coaches' relationship should be to teachers, the principal, and the leadership team can impinge on coaches' effectiveness. The importance of the role coaching plays in helping teachers change their instructional practices cannot be underscored enough. Being an effective classroom teacher is no guarantee that one will also be an effective coach. The use of different

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					coaching strategies need not be confined to the teacher-coach relationship.
Rush et al. 2003	n.a. – Text reviews and describes practices for effective coaching.	n.a. – Reviews and describes practices for effective coaching	n.a.	n.a.	Three key issues must be addressed in order to realize the benefits that a coaching approach can provide: 1) Providing professional development for effective teaming; 2) Securing support from administrators and third-party payers; and 3) Meeting family expectations. All coaching interactions share three attributes- personal discovery, focus on meaningful performance, and a process orientation. These three commonalities are reflected in the following principles for effective coaching: 1) Ensure that coaching is a voluntary process based on collaborative relationships; 2) Ensure the learner's success by taking small steps toward positive change; 3) Create opportunities for the learner to master new competencies before moving on; 4) Provide ongoing encouragement and support as new skills are learned; 5) Mutually analyze situations and

Table A.6 *(continued)*

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					problem-solve solutions to facilitate self-discovery; and 6) Reflect on results together in order to promote self-discovery of options for ongoing improvement. In early intervention, two goals guide all coaching sessions: 1) to support learners in making positive changes in their interaction with young children through observation, action, and reflection; and 2) to ensure that child/family outcomes are actually achieved. The five phases of the coaching process include: 1) initiation, 2) observation or action, 3) reflection, 4) evaluation, and 5) continuation or resolution. Coaching is not a linear process; rather, the individual situation determines the order in which the coaching phases occur.
Walker-Dalhouse et al. 2010	The authors examine authentic literacy coaching conversations, and coaches' reflections on these conversations, to identify instructional problems coaches and teachers face.	NA	Teacher: Classroom instruction	Two coaches, one employed as a literacy coach for 8 years, has 14 years of experience teaching in urban schools. She works primarily with K–8 grade teachers in an urban school whose population includes 75% African American students. The second coach works with ELL teachers in an urban school whose	Conversations built on a reciprocal relationship of trust can help teachers and literacy coaches to collaborate to meet the instructional needs of struggling readers. Reflections about teaching and student learning are critical to modifying instructional

Table A.6 *(continued)*

Reference/ Citation	Overview of Approach or Model (i.e., type, setting, intensity)	Specific Components of Approach or Model	Outcome(s)	Population/Participant(s)	Evidence of Efficacy and Study Findings
				population includes 30% Hispanic and 40% African American students. Twenty-four percent of the student population is eligible for the second language program. Susan, employed as a classroom teacher at her present school prior to becoming the reading specialist/literacy coach, has been a literacy coach for the past four years.	practices and implementing personally meaningful and culturally relevant curriculum for students. Dialogue is a major benefit of collaboration because it involves learning with and from others.

NA = not available.
n.a. = not applicable.

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