During a focus group conducted with child-care directors, participants responded to the question, “What are some of the barriers to having research partners?” Program directors discussed experiences that have led them to be cautious about having research partners. The directors discussed the need for researchers to respect the child-care staff and to be aware of the extent of all that early childhood teachers do during the day. Every director had stories about researchers who come into classrooms and criticize or overwhelm staff. “Sometimes they do not respect teachers’ expertise or time.” Directors expressed concern over researchers just telling teachers how things should be done instead of collaborating with them on improving practice. The directors said that it is important that researchers understand the real difficulties of working in early childhood classrooms: staffing challenges, diverse educational backgrounds and experience levels of staff, the demands of schedules and routines, and the need to be flexible. According to one director, “[The classroom] is a real-life setting and researchers need to understand that some days are just not good for observations or meetings.” Directors simply asked that researchers show respect for early childhood teachers and work with them as partners. (Summary of a Child-Care Directors’ Focus Group Meeting, June 2003)
Although early childhood practitioners and researchers share a common goal in working to improve outcomes for young children and their families, they share little in the ways they would realize that goal. While ample research exists to support the effectiveness of early intervention practices, including language-promoting strategies (e.g., Guralnick, 1997; Sandall, McLean, & Smith, 2000; Shonkoff & Meisels, 2000; Warren & Gazdag, 1990), such strategies are used infrequently in community-based child-care or preschool programs (e.g., Roberts, Bailey, Nychka, 1991; Schwartz, Carta, & Grant, 1996; Walker, Harjusola-Webb, Small, Kirk, Bigelow, & Linebarger, 2003). Researchers only rarely produce interventions or strategies that are used, or perceived to be useful, by practitioners; therefore, the gap between research and practice in early childhood continues to widen. As suggested by Carta and Greenwood (1997) and echoed in the focus-group summary, the following variables underlie the lack of communication between practitioners and researchers and contribute to the gap in research to practice:

- A general separation between research and practice communities,
- A perceived lack of relevance of education research to practice,
- The failure of researchers to describe research innovations that are manageable, and
- The lack of opportunities for practitioners and researchers to receive input from each other or to engage in professional development (p. 271).

These acknowledged problems continue to be barriers to the successful implementation of effective practices with young children (Greenwood & Abbott, 2001). Contributing to the mismatch between researchers and practitioners is the lack of social validity of research (McLean, Snyder, Smith, & Sandall, 2002; Wolf, 1978), and the fact that practitioners infrequently have the opportunity to participate in generating research (Carnine, 1997). Rarely are practitioners asked about their needs, their opinions about practices they are expected to use, or the relevance of educational research to the everyday concerns and problems they encounter (Schwartz & Baer, 1991).

The separation between research and practice communities is exemplified by the fact that researchers and early childhood practitioners...
Although research and practice communities share the goal of improving child outcomes, lack of collaboration results in research-based practices that continue to be used infrequently, if at all, by those working directly with young children. Given that practitioners share little responsibility in the generation of knowledge about practices they are expected to deliver (Cuban, 1993), it should come as no surprise that they have little interest in the implementation of those practices. The “top-down” approach, in which research practices are imposed rather than developed through a collaborative process, is unlikely to be sustained over time or to be used with any degree of fidelity by those implementing the practices (e.g., Abbott, Walton, Tapia, & Greenwood, 1999; Rapport, McWilliam, & Smith, 2004). Although research and practice communities share the goal of improving child outcomes, lack of collaboration results in research-based practices that continue to be used infrequently, if at all, by those working directly with young children.

What may bring these communities together are models for research collaboration that approach the goal of improving child and family outcomes through research partnerships. A number of models proposed to promote collaboration emphasize cooperative partnerships and teamwork (e.g., Buysse et al., 2003; Fuchs & Fuchs, 1998; McWilliam, 2000; Rapport et al., 2004). One model, used to form successful collaborative partnerships between researchers at the Juniper Gardens Children’s Project (JGCP) and teachers in preschool and elementary classrooms (e.g., Abbott et al., 1999; Greenwood, 2003), has been adapted for establishing collaborative research partnerships with early childhood educators (Walker et al., 2003). This model, selected because it has
resulted in productive research partnerships, has guided our preliminary research partnerships with early educators in community-based childcare programs (see Table 1). The purpose of this work has been to establish research partnerships with child-care providers to increase the use of evidence-based strategies for promoting communication development of infants and toddlers. Through a team approach that includes close

Table 1

Model for Partnership and Collaboration

<table>
<thead>
<tr>
<th>Components</th>
<th>Activities and Outcomes</th>
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| Partnership        | • Make decision to join in research partnership with programs and researchers.  
                     | • Build and preserve relationships between program staff and researchers.  
                     | • Discuss needs and goals of infants/toddlers, families, early educators.  |
| Collaboration      | • Identify strengths and areas for improvement in professional development.  
                     | • Discuss intervention components and build on existing strengths.  
                     | • Identify early care routines and best times for intervention.  
                     | • Discuss meeting format and preferences of teachers and research staff.  
                     | • Individualize the intervention plan for children to maximize effects.  
                     | • Discuss preferences for monitoring implementation of intervention.  |
| Consultation       | • Collect data on strategies and child performance to be used for planning.  
                     | • Share and review data during regular feedback meetings.  |
| Professional Development | • Use a scientific inquiry to guide decision-making, planning intervention implementation, and progress monitoring.  
                     | • Ensure opportunities for sharing intervention successes and challenges.  |
collaboration and consultation, professional development activities are linked to program, teacher, child and family needs, and to progress toward early communication outcomes.

In the section that follows, we describe the individual components of the collaborative model and highlight examples of how this model has been used to develop research partnerships between community-based early childhood programs, families, and researchers to promote the development of infants and toddlers with and without disabilities. Although the examples highlight the benefits of research partnerships for enhancing infant and toddler communication, this work has much broader implications for use across intervention contexts. This model has been piloted with 15 teachers and 11 infants and toddlers from nine child-care centers (Harjusola-Webb, 2004; Walker et al., 2003). This partnership model was successful in increasing the use of evidence-based language-promoting strategies by teachers across three cohorts of infants and toddlers with and without disabilities; in general, when children received the intervention, they were more likely to have positive communication outcomes (Harjusola-Webb, 2004).

Model Components

Partnership

The partnership component includes both the process uniting researchers and teachers in a common mission as well as the process of sustaining that partnership.

Identify programs interested in partnerships. To establish partnerships between early educators and researchers, we either contact program administrators and teaching staff who have expressed an interest in having a research partner or programs contact us. Reasons for wanting a research partner vary, but often, early childhood program administrators and educators express an interest in having a research partner because of the potential benefits and support including, (a) support for professional development activities; (b) technical assistance and ongoing support for developing interventions; (c) assistance with monitoring and evaluating program outcomes and individual child progress; (d) assistance with meeting certification or accreditation standards. In the identification of potential research partners, it is important that the program and the research team share common goals related to professional development and the potential to improve child outcomes. Articulating these shared goals in a clear and meaningful way (e.g., a partnership
agreement specifying the purpose, expectations, roles, and benefits) is another way of building the foundation of a research partnership.

**Build and preserve relationships between program staff and researchers.** Establishing the foundation for a research partnership entails building rapport between program administrators, the teaching staff, and the researchers on the team. This goal may be accomplished through a number of activities. As part of the relationship-building process, researchers get to know the teachers, children, and families in the program through interacting and participating (as appropriate) in the classroom and child-care program. One way to promote this relationship is by keeping the researchers involved with the program consistent. It is recommended that when possible, the same research staff members be paired with programs and teachers over time (Hart & Risley, 1989). To further build this relationship, program staff identify their needs and ideas about what they would like to accomplish through the partnership, and they describe the practices they use to promote intervention goals. Program staff should have the opportunity to voice their opinions regarding partnership activities, and researchers should ask questions, listen, and not always be in the position of answering questions.

As part of the process of building relationships, the strengths of each program are acknowledged, the needs are identified, and researchers, administrators, and teaching staff are committed to supporting the partnership. This commitment, which may include an agreement specifying roles and expectations, is important so the partnership and intervention program have ongoing support to implement the program and promote its maintenance once the research is completed. To build a lasting research partnership, researchers and program staff
should listen to team members, respect contributions from partners, remain flexible and willing to make adaptations in the intervention to meet changing needs of staff, children, and families over time, and to recognize and respect the ethnic and cultural diversity of the team.

*Discuss needs and goals of infants, toddlers, and families.* It is important to establish that the priority of the partnership is to work collectively as a team toward improving important outcomes for infants and toddlers and their families. To do so, the research partners meet regularly (weekly/biweekly) to discuss issues related to the curriculum used (either formal or informal) to promote development and/or any Part C or other specialized services received, the beginning level and progress of individual children, and any concerns the research partners may have about a child’s development initially or over time. Families are actively included in this process through home visits by the research staff and through regular contact with teachers. During initial home visits, and regularly throughout our project, parent(s) are asked about their child’s strengths and whether the parent(s) have any concerns about their child’s development. Parent(s) are kept informed about the project activities through regular newsletters and through communication with the researchers and teachers through the child-care center. Parent input in terms of preferences for services and ongoing involvement are solicited regularly (e.g., Trivette & Dunst, 2000).

**Collaboration**

This component of the model focuses on efforts to bridge the gap between research and practice at a local level (e.g., Abbott et al., 1999). The collaborative aspect of the model includes the activities that teachers and researchers engage in to promote the goals of the partnership.

*Identify strengths and areas for improvement in professional development.* Recognizing the strengths of a program allows the research partnership to begin with a positive focus; identifying areas for improvement allows some emerging goals to be addressed. During initial meetings between the research team, (administrators, teaching and intervention staff, and researchers) areas of professional development activities are discussed. Administrators and teachers are asked to describe the professional development opportunities available to them, and identify other areas that they would like to address through the research partnership. These suggestions are added to a menu from which center staff may select options over time. Discussed next are the areas in which researchers can provide support to the early childhood program or, if necessary, suggest other resources for addressing needs.
Discuss intervention components and build upon existing strengths. Relating intervention components to the existing strengths of a classroom allows research partners to discuss the intervention within the context of the teacher’s classroom. In our research partnership, intervention components are presented and discussed using a manual developed by the researchers with input from research partners who previously implemented the intervention. Providing clear descriptions of the intervention strategies with examples of how they may be implemented with infants and toddlers who have diverse skill levels, across different routines, and using different materials (e.g., toys and books) facilitates the use of the strategies. Sections of the manual are reviewed with attention to whether the area is a particular strength or need of the teacher. For example, if a teacher indicated an interest in promoting communication during storybook reading, related examples would be emphasized because they would be most relevant to that teacher. During team meetings, strategies are reviewed and the teacher is asked whether the intervention plans continue to be compatible with the teacher’s planned classroom activities. Again, this inquiry is made to ensure that the intervention continues to be relevant for the teaching staff. Finally, in reviewing the intervention strategies, special consideration is placed on using examples from the teacher’s classroom. If, for example, the teacher is observed following a child’s lead and commenting about the child’s activity, that example would be incorporated into the discussion of the strategy. Therefore, examples are drawn from what is observed to occur in the teacher’s classroom, and they recognize the strengths of the teacher’s current practices.

Identify early care routines and best times for intervention. Asking teachers for their ideas and suggestions regarding optimal routines and activities during which to implement an intervention promotes teachers’ successful use of strategies. During initial meetings between the researchers and teachers, the research team discusses routines and activities that teachers find most conducive to implementing the intervention and the times interventions typically occur. Those routines and activities are used when the intervention is first being implemented so that teach-
ERS have the opportunity to maximize their use of the strategies. Over time, the research team discusses ways to use the strategies across all routines and activities in the classroom to promote generalization of the child’s communication or developmental goals.

**Discuss meeting format and preferences.** Team meetings between research partners provide an opportunity to collaborate on the development, design, and implementation of the intervention. It is therefore important that meetings are scheduled at times most convenient for teachers. In our projects, regular, 15- to 30-minute weekly or biweekly meetings are arranged for the team to discuss the intervention, the progress of the child(ren), and teachers’ use of the strategies. Teachers are asked about their preferences regarding the implementation of the intervention. For example, some teachers prefer to have feedback while they are engaged with children, others to discuss their implementation of the intervention during team meetings. Our research partners usually do not have regular release or planning time to use for meetings. Because infants do not typically have a regularly scheduled naptime but nap on their own schedule, team meetings may be arranged at times when it is most likely that there will be several infants napping or during a time of day when fewer children are present (e.g., beginning or end of the day). For teachers in toddler classrooms, team meetings are typically scheduled during naptime.

**Individualize intervention plan for children.** The intervention is individualized to meet the strengths and needs of each classroom, teacher, child, and family. This flexibility permits choice as to how and when strategies are implemented by taking advantage of the naturally occurring routines and activities most conducive to use of the strategies. The intervention is also individualized to maximize its effectiveness for children with diverse skills. For example, teachers and researchers collaborate on how to promote the communication of individual children and use the strategies most effective for each child’s communication level and interests. Intervention plans are also individualized for teachers. Feedback on teachers’ level of satisfaction with the intervention protocol and the process of collaboration is solicited in ways that are both informal (e.g., discussions and team meetings) and formal (e.g., social validity surveys). This information is also used to promote individualization of the program.

**Discuss preferences for monitoring intervention implementation.** To collaborate on gathering information about the implementation of the intervention, or “fidelity of implementation,” the research team participates in collecting data related to the intervention. The researchers
collect information about how the intervention is implemented in conjunction with data about how children respond to the strategies and child outcomes. Teachers collect similar information about their use of the strategies using a self-check form; some teachers prefer to have their co-teachers collect information on their use of the strategies. Administrators also collect information about teachers’ use of strategies. This process helps administrators keep informed about the intervention and promotes continued use of the intervention program.

Consultation
Consultation in this model is the way that research knowledge and resources are shared with teachers to promote partnership with the research team. In this model, intervention strategies may be established, refined, improved, and maintained.

Collect data on use of strategies and child performance. Collecting a variety of data permits objective and individualized monitoring of the intervention. Supporting teachers as they participate in the data-collection process promotes collaboration between research partners. Teachers’ use of the strategies and corresponding child outcomes is monitored regularly by all team members to assist in planning, adapting, and monitoring the intervention. Other indicators of child progress or development are also collected to inform the intervention process. Within this model, teachers are regularly asked about their observations and thoughts about how the intervention is working and whether the outcomes are meeting their goals for their classrooms.

Share and review data during regular team meetings. Sharing and reviewing with team members intervention-implementation data and child progress related to the intervention permits everyone to have the opportunity to monitor the intervention and its impact on the infants and toddlers. Information collected on the implementation of the intervention and its impact on child outcomes is shared during our team meetings by jointly reviewing graphic displays of teachers’ use of the strategies along with the corresponding child outcomes. This review permits members of the research team to understand which aspects of the intervention are being implemented and how the corresponding levels of child communication have been improved as a result of the teacher’s use of the intervention. Using this format, teachers are able to see how their use of the strategies promotes child outcomes. Teachers frequently report that seeing the direct correspondence between their use of the strategies and child communication helped them recognize the effectiveness of the strategies (Gersten & Dimino, 2001;
One early childhood educator remarked, “I really liked having the graphs to look at and actually see the progress of the children in my classroom. I’m very glad I had the opportunity to participate in this project. Others should be able to use these strategies, too!”

Professional Development

The professional development component of the model fosters opportunities for early educators to update and refine teaching and intervention strategies using research-based information collected in their classrooms. The professional-development component contributes to opportunities for team members to discuss issues related to assessment and how such information might be used to inform practice. In this model, early educators participate in defining research questions, designing intervention, and directly impacting intervention delivery.

Using a scientific method of inquiry to guide decision making, planning, intervention implementation, and progress monitoring. Incorporating this practice into collaborative research partnerships provides early childhood practitioners with the opportunity to become familiar with using research to inform their practice. Through professional development activities, teachers have the opportunity to make informed decisions regarding intervention and the progress of individual children based on information collected in their classrooms by the research team. They participate as partners in decision making, planning, implementation, and monitoring of the intervention through regular meetings with the research team.

Ensure opportunities for sharing intervention successes and challenges. Opportunities to discuss participation in the partnership and to have teachers’ successes recognized is an important component of this model. Teachers have the opportunity to participate in sharing strategies, successes, and challenges in implementing research-based strategies with the research team, fellow teachers and administrators, and with early childhood professionals at local and regional conferences.
Conclusion

The partnership and collaboration model described in this article was developed to promote successful research partnerships between teams of early childhood educators and researchers with the purpose of improving outcomes for infants and young children. Through research partnerships that are based on teamwork, collaboration, and the use of relevant and manageable interventions, we may begin to promote the use of research-based practices in early childhood programs and correspondingly improve outcomes for infants and young children with special needs.

Notes
You can reach Dale Walker by e-mail at walkerd@ku.edu.
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