
UNIVERSITY-COMMUNITY COLLABORATIONS PORTAL (COMMUNITY PORTAL)

A Community-University Partnership to Develop and Implement an Enhanced Model of Coaching for Prekindergarten

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The effects of high-quality pre-kindergarten programs are well documented, including improvements in cognitive, literacy, math, and social-emotional skills. Evidence shows that low-income and minority students tend to benefit most from these programs, potentially helping to reduce academic performance disparities. A commonly employed intervention to improve pre-k classroom quality is coaching; however, there is little consensus regarding what coaching should “look like” in early childhood education and a great deal of variability in coaching quality. This paper describes a community-university partnership to develop a coaching model for a publicly funded prekindergarten program, using a participatory research approach and seeking input from stakeholders at multiple levels to address the particular needs of the school district. This paper describes the origin of the partnership, the development and implementation of the coaching model, and the benefits of using this type of collaborative approach to pre-k coaching. Taking a collaborative approach to the development and implementation of a pre-k coaching model resulted in an intervention that met program needs, achieved buy-in from multiple levels of administrators and staff, and helped build the school district’s capacity to use data to guide decision-making. Challenges encountered throughout the project, how those challenges were addressed, and steps taken to ensure the sustainability of the coaching model are also discussed.

Keywords: Community-university partnership; pre-kindergarten; early childhood education; social-emotional development; coaching; data-guided instruction

Introduction & Background

Considerable research documents the effects of high-quality pre-kindergarten (pre-k) programs on early learning and cognitive development, including language, literacy, reading and math skills (e.g., Magnuson et al., 2004; Weiland & Yoshikawa, 2013; Xiang & Schweinhart, 2002; Yoshikawa et al., 2013). High-quality pre-k programs are also associated with improvements in students' social-emotional skills, such as attentiveness, emotion regulation, initiative, and social relations, which are essential for school readiness and later success (Yates et al., 2008). Moreover, there is evidence to show that high-quality pre-k programs can help to reduce academic performance disparities for low income and minority students (Gormley & Gayer, 2005; Magnuson et al., 2004; Magnuson et al., 2007; Weiland & Yoshikawa, 2013). Given these findings, a great deal of work is done to help improve the quality of pre-k classrooms. One such commonly employed intervention is coaching, wherein school district staff – often experienced teachers who have taken on a new coaching role – support pre-k teachers in their curriculum implementation.

Several definitions of coaching exist. McLeod et al., (2019) recently framed coaching as a partnership that aims to help its members implement and sustain evidence-based strategies by employing “...goal setting and action planning, observation, conversation, reflection, problem-solving, and performance-based

feedback" (p. 175-176). Substantial research demonstrates the benefits of coaching in helping pre-k teachers implement evidence-based curricula, including strategies for improving students' social-emotional development, language and literacy, and math skills (see Artman-Meeker et al., 2015). However, there is also significant variability in coaching quality (Walpole et al., 2010), and limited information is available regarding coaching approaches and what coaching should "look like" in early childhood education (Elek & Page, 2019; Weber-Mayer et al., 2018).

While there is little consensus on what might constitute a model for coaching in pre-k, a recent literature review (Elek & Page, 2019) identified common elements of successful coaching interventions in early childhood education, including observation, feedback, goal setting, and reflection. The authors also noted that these coaching elements should be adapted to each educator's skills and specific context (Elek & Page, 2019). These findings are consistent with other studies, which identify classroom visits, teacher reflection, action planning, setting clear expectations for teachers, and individualized support as key coaching practices (Conners-Burrow et al., 2017). The existing literature also emphasizes the importance of developing a positive and supportive coach-teacher relationship (Conners-Burrow et al., 2017).

In addition to the lack of clarity surrounding standard coaching practices and their effectiveness, the lack of collaboration between researchers and educational professionals when developing coaching interventions leads to a gap between research and practice (McLeod et al., 2019). Traditional approaches, wherein researchers develop an intervention in isolation, without input from school partners, are insufficient (Barab & Squire, 2004; Mayfield, 2001). They result in an intervention that often does not meet the needs of the school staff, is not implemented with fidelity, and is less effective once implemented in the "real world" (Sanzo et al., 2011). Moreover, there is often little guidance on how to transition from a university-based and university faculty-led program to one that is school-based and school staff-led (Sanzo et al., 2011). Furthermore, this approach typically does not achieve sufficient buy-in from school staff, a factor that is critical to program success (Sanzo et al., 2011). Development of such projects without considering the specific context "...results in boutique projects that have little impact beyond the researcher's vita" (Barab & Squire, 2004, p. 12).

The research-practice gap, which refers to educational research that is not informed by practice (and vice versa), is a long-standing problem in education (Phelps, 2019). To address this gap, researchers have called for partnerships between schools and universities to investigate education-related research questions within the context of the school setting (Campoy, 2000; Holmes Group, 1986; Phelps, 2019). School-university partnerships which take this approach have been found to meaningfully address the research-practice gap by, for example, improving buy-in from school district staff (Catelli, 1995), developing data-guided curriculum (Kerr et al., 2006), and improving student outcomes (Snow et al., 2009).

Thus, employing a collaborative approach to developing a coaching model with a specific school district may result in greater intervention utility and better outcomes for children. The sections that follow describe a partnership between the University of North Carolina at Charlotte (UNCC) Community Psychology Research Lab (CPRL) and the Charlotte-Mecklenburg Schools' (CMS) Bright Beginnings (BB) pre-k program to improve curriculum implementation and student outcomes. As part of this effort, the CPRL employed a participatory approach to develop a coaching model focused on the specific strengths and needs of teachers and coaches in BB.

History of the partnership

The partnership between the CPRL and the BB pre-k program began in 2011 (see Kilmer et al., 2021, for more regarding the partnership and its approach). At this time, funding for the program was being threatened because it had not been adequately evaluated and there were minimal data regarding the program's impact on student outcomes. CPRL faculty were involved in advocacy efforts (e.g., addressing the school board at a public meeting, writing to county commissioners) that emphasized the potential benefits of pre-k, the community's need for this programming, and the view that rigorous evaluation of the program was essential to inform such decisions and guide the program's ongoing improvement. Subsequent to significant cuts and programmatic changes, the CPRL partnered with CMS to evaluate the BB program in 2013–14 (Cook & Kilmer, 2014 summarize this evaluation and its findings). Using a combination of classroom observations, surveys, focus groups, and student-focused data collected by the program and school system, the CPRL examined students' academic and social-emotional outcomes, assessed curriculum implementation, and collected information about school climate and pre-k teachers' relationships with their coaches and with school administrators. The classrooms were assessed based on what the cumulative literature (see, e.g., Diamond et al., 2013; Yoshikawa et al., 2013) identified as best practices for pre-k teaching, such as warmth

in interactions and supporting students' reasoning skills, rather than on the specific elements of a particular curriculum.

Findings from this evaluation revealed that students made substantial gains in social-emotional development, a key predictor of later success (Heckman et al., 2013). However, students' social-emotional gains varied based on the quality of the curriculum implementation (including early childhood best practices) in their classroom. Specifically, in classrooms where the key elements and central principles of the curriculum as well as practices believed core to pre-k teaching were implemented with fidelity, students showed greater gains than those in low-fidelity classrooms. In addition, classrooms varied substantially in the quality of curriculum implementation, and classroom functioning overall deteriorated over the course of the school year. This variability in curriculum implementation underscored the need for stronger coaching so that all pre-k students might have a more comparable classroom experience.

Another noteworthy evaluation finding related to communication among teachers, coaches, and principals. As BB program classrooms are nested within elementary schools, school principals were responsible for observing and providing feedback to teachers. However, principals were often unfamiliar with early childhood teaching practices and pre-k curricula. As a result, BB teachers reported that they often received contradictory feedback from their coach and principal. These discrepancies in feedback are problematic, as the coaches' role is to help teachers improve their curriculum implementation and instruction, while principals are responsible for evaluating teachers. Thus, principals' feedback generally carries more weight, while the coach is typically more knowledgeable about specific areas for improvement.

The CPRL developed recommendations for BB program that integrated these evaluation findings with empirical literature showing that students' learning can be improved by enhancing classroom quality, through improved teacher-child interactions and more effective use of the curricula (Yoshikawa et al., 2013). Thus, the CPRL recommended that BB could improve curriculum implementation by coordinating support from school principals and strengthening coaching of teachers through the use of structured observations and data-guided decisions to improve classroom quality.

In 2016, the CPRL received an Institute of Education Sciences grant (with a CMS partner as Co-Primary Investigator and program leadership as key personnel) to carry out the recommendations from the 2013–14 evaluation. Specifically, the group aimed to develop an enhanced coaching model to support teachers' curriculum implementation, assess the effectiveness of data-guided interventions, and improve BB's capacity to collect and utilize data to guide decision-making. A Partnership Management Team, comprised of the pre-k program's administrators and curricular specialist, university faculty and graduate students, and the school system's Director of Research, Evaluation, and Analytics, guided the implementation of the grant's objectives, including the approach to the enhanced coaching effort. The process of developing the coaching model occurred in collaboration with a variety of CMS stakeholders in the spring and summer of 2017, and the coaching model was piloted during the 2017–2018 academic year.

The partnership between the CPRL and the BB pre-k program was characterized by the cultivation of genuine relationships and shared decision-making so that all parties were invested in moving the project forward, which is important for the success of such collaborations (Edwards, 2012). The team prioritized building trust in a mutual partnership with shared practices, rather than a top-down effort to "fix" anything within the school. As is common in collaborative work, there were layers of power and privilege at play (Esmonde & Booker, 2016; Herrenkohl et al., 2019). As a result of the power dynamics within the school district, the research team made explicit efforts to give an equal voice to partnership members and advocate for the needs of school staff at multiple levels. The university partners worked to ensure that the voices of the coaches and, to a lesser degree, the teachers, were heard by the administrators.

Developing the Enhanced Coaching Model

Before the enhanced coaching model could be developed, members of the CPRL team worked collaboratively with key CMS stakeholders to determine the specific needs of BB teachers and coaches. In the spring of 2017, the CPRL held a focus group with a sample of pre-k teachers to ask them about their experiences with coaching, how their coach supports them, and the ways in which their coach could be more helpful to inform decisions related to the development of the new coaching model. Subsequently, an Enhanced Coaching Development Team (ECDT) was assembled to provide input on BB coaching; it consisted of members of the research team, school principals, BB coaches, and a dean of students. In a series of meetings throughout the spring and summer of 2017, the CPRL sought to learn about coaching practices from those who knew BB's current coaching model best. The ECDT members provided input on coaching needs and areas of strength, aspects of the approach that could be improved, and ways that principals and administrators could

be more involved with pre-k coaching. Of note, none of the participants on the ECDT had direct supervisory responsibilities over any others, increasing the likelihood that they would feel free to voice their views about the development of enhanced coaching. To better understand the current approach, CPRL team members were invited to observe meetings between coaches and their teachers, and to review coaching logs documenting coaches' feedback to their teachers.

Through this process, the ECDT identified two main areas for improvement. First, there was a lack of consistency in practices across coaches. While all coaches observed the teachers they coached, there was no standardized measure for recording these observations. Therefore, coaches varied greatly in how they identified areas for teacher growth and provided feedback to teachers. For example, while some coaches focused on a specific interaction with a child during the observation, others emphasized broader classroom practices. Second, consistent with the 2013–14 evaluation findings, school principals did not always understand early childhood teaching practices and what to look for when they visited pre-k classrooms. In turn, feedback provided to teachers by principals may not align with feedback from coaches. These two main findings set the foundation for the development of a new, “enhanced” coaching model that addressed the specific needs of teachers and coaches in BB.

Taking a collaborative approach to the development of a new coaching model helped increase buy-in from principals and administrators and gave coaches a voice in how the new model would function. The resultant model involved multiple levels in the school system (teachers, coaches, and principals) and addressed the elements of coaching which everyone agreed were important. The final Enhanced Coaching (EC) model had three main elements: 1) engagement of school principals, 2) the use of structured observations in pre-k classrooms, and 3) the use of data to guide coaching decisions (**Figure 1**). The EC Model was piloted with two BB coaches and their 28 teachers beginning in fall, 2017 (because this was framed as a “proof of concept” pilot, coaches were selected based on their willingness to volunteer and engage the new approach; selection was not randomized). During this time, the CPRL continued to meet with pre-k administrators and coaches to refine the details of the EC Model and determine the best methods for implementation.

To develop a standardized observation measure for coaches to use in BB classrooms, the CPRL collaborated with pre-k administrators and coaches to update the classroom observation measure used during the 2013–14 evaluation. The original measure was designed for research and evaluation purposes, not as a means of providing feedback to teachers, and it was too long to be used as a coaching tool.

During the measure refinement process, the coaching staff and administrators frequently articulated the need to maintain the coach's role as a supportive figure for teachers; they did not wish to have an observation measure that would be scored and would allow teachers to be compared (with the resultant rating used for salary determination and other decisions). Administrators and coaches expressed concern that, if teachers perceived the measure as evaluative, its use could damage coach-teacher relationships. Notably, the importance of preserving a supportive coach-teacher relationship is common throughout the literature (e.g., Connors-Burrow et al., 2017; McLeod et al., 2019).

Because of these issues, the team collaboratively worked to modify the measure to meet the needs of BB coaches and teachers by reducing the number of items and making sure the language was clear and relevant for the provision of feedback to help teachers improve their teaching. Based on input from pre-k

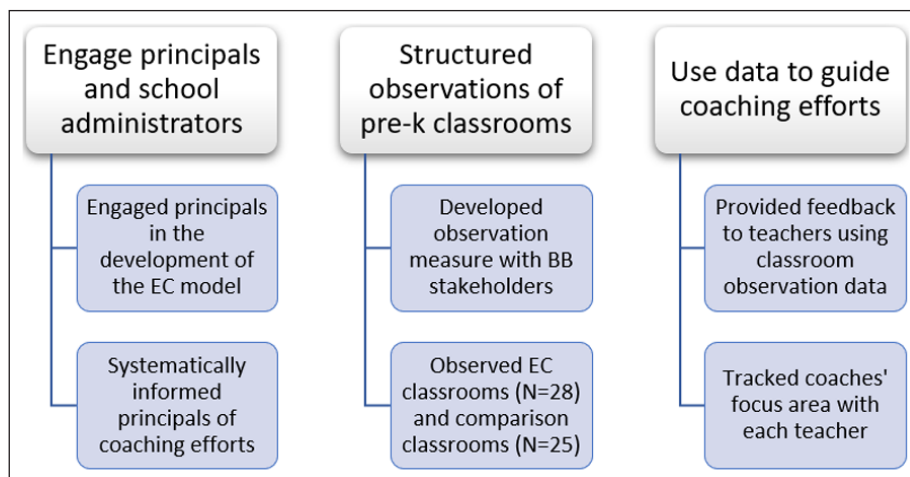


Figure 1: Overview of the Enhanced Coaching Model.

administrators, the measure was renamed the 'Classroom Visit Guide,' to make clear that the goal of the measure was to support teacher growth throughout the year rather than evaluate teacher performance. The final measure contained 41 items across ten different domains of curriculum instruction (see domains listed in Appendix A). Because coaches wanted to be sure that the teachers clearly understood the domains used in the measure, they recommended, and the research team (in consultation with the coaches and the administrators) developed a self-assessment for teachers, which allowed them to assess themselves on all domains included in the Classroom Visit Guide and openly discuss their progress with their coach (see Appendix A).

Administrators and coaches participated in piloting the observation measure in classrooms throughout the spring of 2017. In addition to assuring that the measure was appropriate for use in BB classrooms, having these stakeholders use the measure to observe classrooms had two important implications: 1) the involvement of administrators in the observation process was essential for coach and teacher buy-in, and 2) the administrators saw first-hand the benefits of using a standardized observation measure to assess curriculum implementation across classrooms. For example, one administrator noted that, because the measure assessed instruction in a variety of different domains, she was better able to identify areas needing improvement, even for teachers who evidenced strong curriculum implementation overall. Consequently, coaches and administrators became advocates for the use of the Classroom Visit Guide after seeing first-hand how this measure better enabled them to provide useful feedback to teachers and help improve curriculum implementation.

Implementation of the Enhanced Coaching Model

The EC model involved stakeholders at multiple levels in the school system, and support and leadership from pre-k administrators was essential for engaging school principals in its implementation. In fall, 2017, pre-k administrators organized a meeting between the CPRL team and principals of the seven schools in which the EC Model was being piloted. This meeting allowed for a discussion about the goals of the EC Model and the ways that principals could be involved in supporting teachers' instruction in BB classrooms. Principals were able to ask questions about what coaching entailed at the pre-k level and to provide input regarding the kind of information that would be most helpful for them to receive from coaches. They also shared early feedback, such that they were receiving more detailed information from coaches regarding the areas on which they were focusing. To help align feedback that teachers received from their coach and principal, the CPRL team shared the teacher self-assessment (as an uncompleted form) with principals to help familiarize them with the positive teaching behaviors for which coaches were looking in BB classrooms. This meeting also allowed the CPRL team to encourage open communication between principals and coaches and point out the benefits of everyone agreeing about teacher goals (e.g., principals being aware of the area of curriculum instruction that coaches are working on with BB teachers in their school).

The implementation of the EC model included the use of the Classroom Visit Guide in observations of the EC coaches' classrooms (three times during the year – at the beginning, midway through the year, and at the end of the year) and comparison classes (at the beginning and end of the year). Critically, two members of the CPRL team accompanied an EC coach for each observation, with each completing the Classroom Visit Guide independently. Following the observation, the three observers met and reconciled their ratings. When disagreements arose, the observers worked for consensus – each individual shared his or her rationale for the rating, referring to the visit guide's manual as needed. The reconciled final scores were reported on a form that also tracked the three original ratings (as described in Salim et al., 2020).

Closely related to the observations, the final element of the EC Model was the use of data to guide coaching decisions. Through conversations with coaches and observations of coach-teacher meetings, it became clear that there was very little standardization in how coaches provided feedback to teachers or tracked teacher progress. The development of a standardized observation measure and accompanying teacher self-assessment allowed coaches and teachers to set specific and focused goals for teacher growth within different domains at the beginning of the year. Coaches could then track teachers' progress in each domain using data gathered through classroom observations. The observations also permitted coaches to make data-guided decisions about what feedback to provide to teachers and identify areas on which to focus their coaching efforts. Coaches tracked the specific domain of the observation measure they were focusing on with each teacher and provided this information to the CPRL.

To facilitate the use of observation data to guide coaching, the CPRL analyzed data from the first two classroom observations to examine teacher growth from the beginning to midway through the year. The CPRL provided results of these analyses to coaches in color-coded tables to help them interpret teachers' progress

and determine each teacher's strengths and areas for growth (see Appendix B). To increase utility, the CPRL also highlighted the domain that coaches had focused on with each teacher, representing visually how their coaching efforts may have contributed to teacher development. After reviewing these tables with coaches, the coaches requested that they receive a version of the feedback that they could provide to each teacher. Consequently, the CPRL team worked with coaches to develop a version that they did share with individual teachers to facilitate reflection and goal setting for the remainder of the year. At the end of the pilot year, the EC coaches reported that the use of observation data helped them guide their coaching efforts during the year, and that the midyear observation feedback was an important coaching tool for depicting teachers' strengths and needs in a visual way.

In addition to regular check-ins with administrators, the CPRL distributed surveys to teachers, principals, and coaches throughout the year to get first-hand accounts of their experiences with the EC Model. The EC coaches completed monthly surveys on which they reported on their efforts to engage principals and shared ways that principals were making efforts to become involved, such as attending weekly planning meetings between the coach and the pre-k teachers in their school. Principals of schools where the EC Model was piloted also received bimonthly surveys on which they were asked how communication with their pre-k coach had changed and whether they were aware of the instructional domains on which each pre-k teacher in their school was focusing. All of the principals who responded to the survey (five of the seven participating principals) reported that they received more specific information from coaches and that they had a better understanding of pre-k classroom standards. Teachers in the EC Model pilot were surveyed twice during the year and asked how their coaching was different compared to previous years. Of the eight teachers who completed the survey and had the same coach the prior year, five reported that their coach's feedback was more helpful and more detailed compared to the previous year.

Consistent with best practices in university-community partnerships in education (Barab & Squire, 2004; Coburn et al., 2013; Sanzo et al., 2011; McLeod et al., 2019), this project employed a collaborative approach to the development and implementation of a coaching model. This participatory approach – characterized by joint decision-making and shared governance, collaborative discussion of methods and findings, dual ownership of partnership processes and products, and equitable opportunities for participation (e.g., Balcazar et al., 1998; Kilmer et al., 2018; Viswanathan et al., 2004) – strived to ensure that all stakeholders were equal partners and resulted in a coaching model that met program-specific needs and could be implemented in the context for which it was designed.

Given the lack of empirical clarity regarding key aspects of pre-k coaching models, focusing the development of a coaching model on meeting the needs of a specific school district may increase its effectiveness for improving curriculum implementation and student outcomes (see Salim et al., 2020). Although there are benefits to this collaborative approach, several challenges should be noted.

Challenges navigated by this community-university partnership

An inherent challenge in the development and execution of any intervention is the need to tailor the program to unique aspects of the implementation setting. To help address this challenge and increase the likelihood of the intervention's success, the partnership between the CPRL and CMS pre-k was maintained throughout the implementation of the coaching model. The CPRL team met regularly with pre-k administrators throughout the pilot year to discuss the implementation of the model and seek feedback on how each element of the model took shape in practice. Thus, the CPRL team was able to treat the implementation as an iterative process and allow for adjustments to the model in response to the individualized needs and feedback from CMS personnel.

Adjusting the model during implementation can increase the complexity of the research, but it may also improve the sustainability of the intervention, an area which poses additional challenges to partnership work with school districts (Coburn et al., 2013; Phelps, 2019). As part of the iterative approach to implementation, the CPRL collected regular feedback from administrators, coaches, teachers, and principals throughout the pilot year using surveys and meetings. Feedback from pre-k administrators and coaches resulted in some adjustments to the model implementation and to some of the measures being used. For example, in the fall, the EC coaches shared that their monthly survey was too lengthy, and it was difficult for them to complete the full measure accurately. The CPRL worked with the coaches to refine items and shorten the measure so that the information collected would still be useful for tracking the model's implementation but did not burden coaches. A similar approach was used with the Classroom Visit Guide. After using the measure to observe some of their classrooms, the EC coaches shared that some items were unclear or redundant. They provided input on how these items could be refined or removed to increase the guide's utility

as a coaching tool. From a research perspective, making changes to the measure during implementation led to some inconsistency across administrations, increasing the complexity of coding and analyzing data. However, these adjustments improved the intervention's sustainability and the measure's real-world utility for coaches.

An additional challenge inherent in this type of community-university partnership is the balance between research requirements and the needs and capacity of the program and school system. Balancing the goals of multiple institutions is a common challenge in this type of partnership (Kaimal et al., 2012; Phelps, 2019) – the challenge of maintaining this balance is reflected in the need to collect data about the coaching model implementation without adding undue burden to CMS staff. To minimize this burden, principals were surveyed bimonthly, as opposed to the monthly surveys for coaches, and teachers were surveyed midway through the year and again at the end of the year. By reducing the number of surveys participants had to complete, the CPRL sought to improve the response rate and accuracy of data and decrease the time-intensity of our requests of CMS staff. In addition, other demands on school personnel's time, such as standardized testing, had to be prioritized above data collection regarding enhanced coaching. In particular, working around testing increased the challenge of scheduling classroom visits. Although observations within each window (i.e., fall, winter, spring) were scheduled as close together as possible to reduce differences due to time, there were occasionally multiple weeks between the first and last teacher observed in a given window.

Furthermore, scheduling meetings with pre-k administrators, coaches, and principals throughout the development and implementation of the EC Model was necessary for maintaining a participatory approach. However, this was often difficult given CMS staff members' day-to-day responsibilities and limited time flexibility, a common challenge of this type of work (Herrenkohl et al., 2019). In turn, some meetings were delayed or did not come to fruition. For example, although a variety of stakeholders at multiple levels within BB participated in the development and planning of the EC Model, efforts to engage pre-k teachers in the process were unsuccessful beyond the initial focus group with teachers in the spring of 2017. While teachers were invited and encouraged to attend ECDT meetings, no teachers were able to participate. ECDT meetings were held at times when most school district stakeholders were available (the end of the spring and throughout the summer of 2017); however, teachers were engaged with end-of-year standardized testing and on summer break during this time, which likely resulted in their lack of participation. This poses a potential limitation to the participatory approach to this project, given that teachers are an important voice when discussing the strengths and areas for growth in pre-k coaching and would have provided valuable insights throughout the development process. However, the ECDT had active participation from multiple pre-k coaches, who are former teachers serving in a special role, and who were able to serve as advocates for teachers' needs. The CPRL also planned to hold a focus group at the end of the academic year with teachers involved in the EC pilot to learn about their experiences with coaching under the new model. However, despite support from the program, the Partnership Management Team was unable to identify a time that worked for the pre-k teachers' schedules due to the demands of the end-of-year standardized testing schedule. As a result, the research team relied on survey responses to gather teachers' impressions of the strengths and weaknesses of the EC Model.

Collaborating with stakeholders at multiple levels within the school system often created a challenge for communicating information and, at times, making and implementing decisions. Developing communication and decision-making structures is often a challenge of partnership work (Hasslen et al., 2001; Phelps 2019). For example, because coaches and teachers could not attend all team meetings, pre-k administrators often had to make decisions that affected coaches and teachers, and individuals in those varying roles may hold different opinions regarding what reflects an optimal course of action. As one case in point, midway through the pilot year of the EC Model, pre-k administrators felt it would be useful to have teachers complete the self-assessment a second time to reflect on their progress in the domains assessed by the Classroom Visit Guide. When this decision was communicated to the EC Model coaches, the coaches felt that the review of the mid-year observation feedback would provide ample opportunity for teacher reflection, and a second administration of the self-assessment would unnecessarily burden teachers and coaches. As the CPRL was in regular communication with all school staff involved in the intervention, the research team often took on the role of intermediary between stakeholders to help improve the flow of information and, at times, ensure that the concerns of those with less power were heard. Recognizing the need to reduce burdens on coaches' time, the CPRL communicated the coaches' position to pre-k administrators and made sure all parties understood the benefits (and costs) of omitting a second self-assessment. As a result, pre-k administrators agreed not to have teachers complete the self-assessment a second time. Maintaining open communication among stakeholders and being flexible and responsive to each party's needs were critical to the model's success.

The CPRL worked closely with the coaches most involved with the EC Model implementation, and it was important to build trusting relationships with them, advocate for them with administrators, and respond effectively to their needs to improve the partnership and sustainability of the coaching model (Phelps, 2019). The CPRL also supported coaches' work with teachers whenever possible. For example, when the CPRL provided coaches with mid-year summaries of teacher growth using classroom observation data, the coaches' desire to use those data to provide feedback to teachers required changing the format, with individualized summaries for each teacher. Because they were scheduled to meet with their teachers within a few days, developing those summaries required quick turnaround, but the CPRL worked quickly to provide individual teacher summaries so that coaches could provide individualized feedback. This helped maintain the CPRL's relationship with coaches.

Another common challenge for community-university partnerships is staff turnover within the community organization(s) (Herrenkohl et al., 2019; Phelps, 2019), and this project is no exception. Towards the end of the pilot year of the EC Model, the director and the assistant director of the pre-k program retired. These two individuals were key members of the Partnership Management Team that oversaw the intervention and were strong and committed advocates not only for this intervention but for the enduring partnership between the CPRL and the school district. Their departures raised questions about the sustainability of the intervention and the degree to which elements of the EC Model would be implemented after the pilot project concluded. Moreover, there was a delay in hiring their replacements, thus reducing the opportunities to introduce the new directors to the project and garner their support and investment in the partnership.

Challenges with balancing research requirements, organizational capacity, staff turnover, and communication are common issues when doing participatory work with school districts (Hartman, 2018; Levin, 2013; Phelps, 2019). Ultimately, in this partnership, employing a participatory approach for the effort and collaborating with stakeholders to address challenges led to an intervention that was more useful for the school staff who would be responsible for its ongoing implementation. Adjusting measures and schedules when needed and maintaining open communication channels among stakeholders helped to increase buy-in from CMS personnel. It is also likely that these adaptations helped to maintain the consistency of data collection, including the completion of surveys by principals, coaches, and teachers. While some limitations exist, this collaborative approach to addressing the challenges that arose had a substantial impact on the final "product".

Conclusions

This article describes the use of a participatory approach to education research as a means of addressing issues inherent in traditional research, such as the research-to-practice gap (McLeod et al., 2019) and limited applicability and buy-in at the school level (Sanzo et al., 2011). Taking a collaborative approach to the development and implementation of a pre-k coaching model resulted in an intervention that met program needs, achieved buy-in from multiple levels of administrators and staff, and helped build the school district's capacity to use data to guide decision-making. This ultimately resulted in a coaching model that led to increased social-emotional growth for children relative to standard coaching (Salim et al., 2020).

Despite the challenges in sustaining the project, particularly due to the turnover of the pre-k directors, pre-k coaches and administrators expressed the desire to maintain some aspects of the coaching model after the project ended. The participating coaches reported that they would continue to communicate with principals regarding their instructional areas of focus with the teachers they coach, helping to improve principals' understanding of pre-k and facilitating alignment between the feedback that teachers receive from their coach and their principal. These coaches also planned to continue using a standardized observation measure across all pre-k classrooms, using the data to inform their feedback to teachers and to focus their coaching efforts throughout the year.

This project highlighted the importance of using data to inform decision-making for pre-k coaches as well as pre-k administrators. The use of a standardized observation measure demonstrated areas of curriculum implementation in which pre-k teachers overall were performing well (e.g., teacher-child interactions) and areas in which teachers needed more support (e.g., early childhood reasoning skills). This information helped guide coaches' focus for the year, and pre-k administrators reported that they found it useful in planning professional development sessions for coaches and teachers. Thus, this partnership suggests that engaging stakeholders at multiple levels (e.g., teachers, coaches, principals, administrators) and using data to guide improvements to curriculum implementation could contribute to improved outcomes for children.

Additional Files

The additional files for this article can be found as follows:

- **Appendix A.** Teacher Self-Assessment Pre-K. DOI: <https://doi.org/10.33596/coll.67.s1>
- **Appendix B.** Midyear Observation Feedback. DOI: <https://doi.org/10.33596/coll.67.s2>

Competing Interests

The authors have no competing interests to declare.

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How to cite this article: Simmons, C. J., Morris, V. G., Cook, J. R., Kilmer, R. P., Armstrong, L. M., Gadaire, A., Salim, K. B., Babb, J., Day, P., & Messinger, L. (2020). A Community-University Partnership to Develop and Implement an Enhanced Model of Coaching for Prekindergarten. *Collaborations: A Journal of Community-Based Research and Practice*, 3(1): 20, 1–11. <https://doi.org/10.33596/coll.67>

Published: 16 February 2021

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