The Impact of Peer Coaching on Early Childhood Programs

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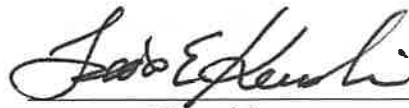
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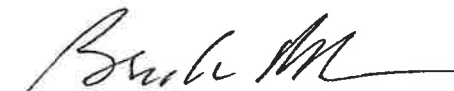
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The familiar phrase is that it takes a village to raise a child, but it also takes a small village to support a doctoral student.

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Abstract

This mixed method action research study explored the benefits peer coaching could provide to further establish a cost-effective professional development opportunity that promotes a collaborative culture among early childhood educators. Serving as a pilot, the study was completed to understand educators' interest in an alternate, interactive professional development option, provide opportunities for educators to collaborate across three different programs, and be exposed to new skills and instructional practices. Three research questions were developed to gain an understanding of educators' perception of peer coaching, perceptions of the other early childhood programs within the educational organization, and changes to their instructional practices after participation. The research design consisted of an electronic collection of quantitative data obtained before and after the intervention, through twenty survey questions. Qualitative data was gathered through six open-ended reflection questions completed by the educators following each of the three completed observations. Through data analysis, the results indicated participation in the study, did alter educators' perceptions of peer coaching and other early childhood programs, and changed instructional practices. Based upon these findings, the peer coaching study was a successful pilot and should be utilized, studied, and analyzed across all three early childhood programs in future research.

CHAPTER I

Peer coaching provides teachers with the opportunity to receive non-evaluative feedback on their practices, increase their knowledge and gain first-hand experiences on new instructional practices and learning platforms, thus facilitating their own professional growth. Peer coaching also allows teachers to be removed from isolated classrooms and interact with other teachers to increase a collaborative, positive school climate.

Three early childhood programs coexist at the Berks County Intermediate Unit (BCIU); Early Intervention, Head Start, and Pre-K Counts, some located within the same building and others located in standalone sites or within district buildings. A misconception across early childhood programs exists regarding the program expectations, instructional practices, and level of educational performance. Group professional development: workshops and seminars has occurred within homogenous program groupings. However, there are minimal opportunities for individual professional development and no facilitated cross-program professional development. Peer coaching within and across programs would provide opportunities for educators to engage in observations of other classrooms and programs, explore alternate instructional practices and classroom management techniques. This research project serves as a pilot of peer coaching intervention providing recommendations for expansion across all early childhood teachers and programs within BCIU organization.

As an early childhood teacher for twenty-seven years, fifteen years of my career has been within the BCIU organization. I have progressed through several positions, first starting as an Itinerant Special Education teacher and now am the Assistant Director of Early Childhood Services. In my current role, I oversee all three early childhood programs as

described above, providing internal support to the programs, community connections and advocacy efforts with state and federal legislators.

In a previous role as an Itinerant Special Education Teacher, substituting in specialized classrooms within the Early Intervention classroom was a weekly requirement of the position and each week I would often be in a different classroom. While providing substitute coverage, new ideas and instructional practices would be gained during this time. As an itinerant, I would then be in Head Start, Pre-K Counts, and community preschool classrooms providing special education supports for students with Individualized Education Program (IEP), sharing with their teachers the ideas and strategies obtained from the specialized classrooms. In addition, relationships developed, and a sense of community was established between myself, the specialized classroom staff, and the typical classrooms that I visited.

One specific community preschool classroom had a new teacher that had a student who was demonstrating challenging behaviors. After providing the new teacher with many strategies and suggestions to support the student, I inquired if the teacher could observe an experienced teacher in a specialized classroom. This observation provided the new teacher with a first-hand understanding of implementing the strategies and suggestions provided by the experienced teacher, which I had offered previously. After this observation, and along with the ongoing guided practice, this new teacher was able to better support the student with challenging behaviors and more effectively support the other students in her class. These experiences have led me to inquire if I could gather new strategies and skills from the indirect observations while substituting, and the observation was beneficial for one new teacher, why wouldn't peers observing each other not be beneficial for all teachers? A peer

coaching opportunity would also allow teachers to be out of their classrooms interacting with other teachers within their programs and across programs.

The projected outcomes for this research study encompass teachers gaining an understanding of other early childhood programs and developing an appreciation for the educational quality and services available to students regardless of the program they are attending. Through the observations, teachers will establish collaborative relationships across programs. These initial relationships could begin to establish a cohesive, positive organizational culture. Teachers could gain new instructional practices and strategies by observing their peers. These practices could be taken back to their classrooms and implemented the next day or in upcoming following weeks. As a result of the observations, teachers could identify strengths and needs to facilitate their own self-growth and professional development areas. Grimm et al. (2014) states too often teachers are not involved in selecting the topics or focus of professional development sessions, which may not address their daily challenges.

Peer coaching will permit leveraging the internal expertise of teachers. Outside experts offer strategies that seldom transfer into practice, reducing the costly one-time professional development provided by outside experts. Collaborative learning requires the assumption that those involved will share responsibility for learning and work toward a common goal while adopting a collaborative approach that recognizes each member's expertise (Wald & Castleberry, 2000). Attempts to increase camaraderie among staff and programs are anticipated to increase staff investment in being part of a community and reducing attrition rates. Unfavorable working conditions and/or school climate are cited as reasons for attrition and difficulty filling open positions in high-needs schools (Berry et al.,

2007). Recruitment and hiring are both costly and timely, impacting programs and the entire organization, but more importantly, impacting student achievement. Educators will have the opportunity to observe alternate teacher/student interactions and implemented classroom behavior management practices. Effective classroom management practices decrease behavioral challenges and increase student attention and engagement to instruction. Teacher efficacy contributes to achievement because teachers with high efficacy use effective management strategies to encourage student autonomy, meet the needs of low ability students, and positively influence student perception of their abilities (Bruce & Ross, 2008).

This research study will provide valuable opportunities for teachers to gain or improve their instructional practices through in-person and virtual platforms, obtain a more in-depth understanding of expectations and parameters for comparable early childhood programs, and establish personal connections to bolster a positive school culture. Through shared internal teacher's expertise, professional development can be adapted and personalized. Thoughts and feedback from the participants will help derive a larger scale peer observation model for all early childhood program teachers to perpetuate high-quality preschool programming for students in future years.

The following research questions frame the study to further investigate the impact of peer coaching on early childhood educators' perceptions:

1. In what ways does active participation in peer coaching alter an early childhood educator's perception of peer coaching?

2. In what ways does an educator's perception of other early childhood programs change through participation in a peer coaching program?

3. In what ways do early childhood educators' instructional practices change through participating in a peer coaching program?

The three noted research questions will guide the study, throughout the upcoming chapters providing a review of the literature, methodology, data analysis and results, and conclusions with recommendations for future research. As captured above, peer coaching is viewed as a financial savings for the organization with no direct costs for the observation but some supplemental costs for substitute coverages and possible travel reimbursement. Throughout the upcoming chapters fiscal implications are identified to further support the financial savings aspect.

CHAPTER II

Literature Review

This chapter describes three early childhood programs that coexist within one organization and the factors that impact camaraderie and peer relationships, contributing to a positive school climate and overall school culture. Through a review of the literature, contributing factors to the research are discussed, including regulations, operating guidelines, and funding streams attributing to similarities and differences among programs. Some similarities and differences include the teacher's role, teacher qualifications, ratios, caseloads, and data reporting. The literature review also includes how adult learners can improve their knowledge and skills through effective professional development including different coaching models, which consist of virtual platforms and framework options. Lastly, this chapter incorporates how implementing a peer coaching model supports staff opportunity for reflection, feedback, collaboration, and ultimately, self-efficacy. These items are all aspects that bolster early childhood experiences for students and staff.

Early learning programs can provide children the opportunity to change the course of their life (Irving, 2018). High-quality early childhood programs benefit all students, although an increased effect is on students identified as at-risk, such as those living in poverty or low socioeconomic homes or students identified with a developmental delay or disability. Children living in poverty often experience insufficient health care, and inappropriate housing, and have unpredictable childcare arrangements (National Education Association, 2016). Multiple types of early childhood programs are in existence within Pennsylvania to support students' early learning. Several programs are provided within the Berks County Intermediate Unit (BCIU) that support students, offering high-quality programming. Student

benefits are notable, although differences among the programs can elicit some misunderstandings among educators.

Early Childhood Programs

Various studies over the years recognize the benefits of students participating in an early childhood program. The age span, birth to age five, has been identified as critical for developing children's foundational skills. As noted by child development experts, early years predict later functioning for children's development in social-emotional, regulatory skills, cognitive, and linguistic skills (Woolfolk & Perry, 2012). The benefits of early childhood education have an increased effect on students living in poverty, or homes of low-socioeconomic status (Adams et al., 2007; Schweinhart et al, 2005), as well as children identified with disabilities or developmental delays receiving early intervention services. (Meisels & Shonkoff, 2000).

Several early learning programs are available within the Commonwealth of Pennsylvania to support at-risk students living in poverty or students identified with a developmental delay or disability. Head Start, Pre-K Counts, and Preschool Early Intervention provide a high-quality preschool early learning education to these students identified as at-risk. A rating system determines high-quality Pennsylvania programs through the Keystone Stars Quality Rating and Improvement System (The Pennsylvania Key, n.d.). The system is on a four-level scale, with a Star 4 being the highest rating. Programs are assessed on standards, training/professional development, assistance, resources, and support. All programs at the BCIU are rated as a Star 4. Each program will be discussed on an individual basis to form the foundation of early childhood importance for at-risk students,

followed by how each program views the teacher's role, differences within each program, and various challenges that are encountered collectively.

Head Start

Head Start is a federally governed and funded program to help break the cycle of poverty, promoting school readiness skills for preschool age students from low-income families to support the child's development (Office of Head Start, n.d.). This approach encompasses comprehensive services that include medical and dental services, nutritional services, and family assistance to further support their development. Eligibility for the program requires that the student is at least three years old, and the family's income is equal to or below the federal poverty level (Head Start ECLKC, n.d.-a). Research from the Head Start Impact Study found that student participation in a Head Start program provided children with positive school experiences and improved pre-academic skills, language development, and social-emotional skills (Puma, et al., 2010). To facilitate high-quality programming, the Office of Head Start requires all programs to consistently meet the Head Start Program Performance Standards (Head Start ECLKC, n.d.-a). In addition to the federally funded Head Start program, Pennsylvania provides state supplemental funding to existing Head Start programs to expand their programs and services to include additional children within local communities (The Pennsylvania Key, 2020). The state-funded classrooms follow the same mandates as the federally funded classrooms to maintain alignment.

Pre-K Counts

The Pennsylvania state-funded Pre-K Counts program is a competitive grant-funded program that provides a quality early childhood education program for preschool students, ages three to five, at risk of school failure (Pennsylvania Department of Education, n.d.).

Student eligibility is based first upon the family income level at 300% federal poverty rate or less and other priority at-risk factors (Pennsylvania Department of Education, n.d.). The Pre-K Counts program provides students with high-quality early learning opportunities to support a successful start early in school and later in life success (Bagnato et al., 2009). Similar to the Head Start program, students who participated in Pre-K Counts gained skills in reading, math, and demonstrate an increase in language development. Children who participated in Pre-K Counts have shown an increased performance upon their transition to Kindergarten, indicating a reduction in the need to access special education services. (Bagnato et al., 2009).

Preschool Early Intervention

Preschool Early Intervention is mostly state funded, with a minimal portion through federal IDEA funds (Individuals with Disability Education Act, n.d.). Early Intervention provides individualized education programming for students ages three to Kindergarten eligible, who are identified in need of Special Education as determined through an evaluation process. The purpose of early identification is to identify a delay or disability before it is fully evident to implement interventions that will either prevent or reduce the progression of the disorder (Shapiro, 2011). Early Intervention provides resources and services to enhance students' learning within inclusive settings, as they would attend regardless of their diagnosis or delay (Pennsylvania Department of Education, n.d.). Services to meet identified student's needs should be provided within a defined high-quality early learning environment. When these services are implemented with typically developing peers or across educational settings, high collaboration, and communication among professionals are integral to ensure the services occur effectively (Kaczmarek, 2011). Commonly, adults question the inclusion of students with developmental or behavior delays with typically developing peers, under the

belief that special education students will impede progress of typical peers within the classroom. Bagnato et al. (2009) reports the contrary, noting children with developmental delays and serious social and self-control behaviors upon entrance into a Pre-K Counts program demonstrated progress displaying age-expected skills for Kindergarten.

The Role of the Teacher

The teacher's role in early childhood programs is multi-faceted, emphasizing building trusting relationships, and a continual requirement to facilitate student progress. Often enrollment in an early childhood program is the child's first experience in a structured program, away from their parent; therefore, a trusting relationship between the teacher and student needs to be developed at the onset. Within early childhood programs, a positive student-to-teacher relationship can reduce school failure risks, further increased among children experiencing high-risk factors (Moen et al., 2019). As the relationship develops, the teacher will know the student's interests and experiences, along with their strengths and needs. In addition to relationships, common knowledge is that teachers require an understanding of child development and learning, effective practices, and skills to implement these understandings into appropriate experiences to ensure a high-quality learning environment.

Further exploration into other factors contributing to optimum teacher practices reveals that teachers' belief in their own ability can enhance their teaching. Teachers' self-efficacy is their innate ability and assurance within themselves to be an effective educator of children (Bandura, 2001). Teachers' internal sense of responsibility to students' development and learning could be the motivation that impacts changes to their practices and views about teaching (Cabanoglu et al., 2019). Tounaki and Podell (2005) further indicate that teachers

who possess high self-efficacy establish higher expectations for student achievement. Programs that provide opportunities to bolster teachers' self-efficacy can increase students' outcomes and the program's quality.

Another role of the teacher that can influence the quality of programs is teachers' perceptual accuracy of the degree to which a teacher over-or under-estimated a student's cognitive ability (Ready & Chu, 2015). Teachers consciously or subconsciously assume or estimate a student's future performance based on their informal assessment of the student's current abilities and traits. These estimations then innately contribute to the supports and feedback they provide to students throughout instruction. Research conducted by Ready and Chu (2015) reveals that students whose preliminary skills were overestimated frequently gained more literacy skills in Kindergarten. Contributions to acquiring skills can include increasing the teacher's instructional support, specialized attention, and differential feedback (Ready & Chu, 2015). Providing information to teachers about perceptual accuracy can increase their awareness and perpetuate overestimating all students' skills or not making any estimations to ensure equity among all students in the classroom. Many factors contribute to the teachers' role in the classroom with the critical responsibility to facilitate students' learning. The part that a teacher plays in a child's life has the opportunity to be highly impactful. Teachers who have higher self-efficacy levels can drive higher expectations for their students and, ultimately, a higher quality level for their program.

Differences among Early Childhood programs

High-quality early childhood programs provide valuable experiences for all students. Yet, differences exist in designing and administering early childhood programs based upon regulations, operating guidelines, and funding streams. Such differences can lead to

misconceptions by educators, thus impacting collaboration and professional relationships. The following section discusses key programmatic differences among Head Start, Pre-K Counts, and Preschool Early Intervention regarding service and staffing models, curricula and classroom routines, assessments and progress monitoring, and teacher qualifications. While there are differences between the programs, each program provides a high-quality, valuable experience for all students.

Head Start and Pre-K Counts staffing recommendations are 17 students for one teacher and one aide per classroom (Head Start ECLKC, n.d-a.; Pennsylvania Public School Code, 1949/2010). Staffing Early Intervention requirements are 11 students to one teacher and a minimum of one aide (PA Public School Code, 1949/2008).

Within the three programs, there are differences in the meals or snacks that are provided. Head Start requires that students receive one-half to one-third of a child's daily nutritional needs, equating to breakfast and lunch being served daily in a family-style presentation (Head Start ECLKC, n.d.-d). Head Start is also required to incorporate dental hygiene as part of their daily routine to support oral health (Head Start ECLKC, n.d.-c). Pre-K Counts is required to offer a snack and meal for full-day programs (The Pennsylvania Key, 2020). Early Intervention students in specialized classrooms are provided with a snack, although not required.

All three programs have different forms of assessment and progress monitoring requirements. Pre-K Counts and Head Start have additional reporting requirements with some timelines due in the first 45-60 days of school (Head Start ECLKC, n.d.-e); The Pennsylvania Key, 2020). Early Intervention is required to collect data on students' goals, as noted in their Individualized Education Plan (IEP) (PA Public School Code, 1949/2008). The

IEP is updated every year at a minimum. Head Start is required to support students with IEPs in the classroom to the greatest extent possible (Head Start ECLKC, n.d.-e). Yearly, Head Start has a minimum of 20 percent of students with IEPs. Pre-K Counts regulations (The Pennsylvania Key, 2020) indicate that classrooms should not contain more than 20 percent of students recognized as having a disability or a developmental delay for the start of the program year. Students receiving Early Intervention services and enrolled in Pre-K Counts may not miss significant portions of programming for Special Education services. (The Pennsylvania Key, 2020).

Teacher Qualifications and Professional Development Requirements

As mandated by program requirements, each program has differences regarding teacher qualification requirements and required yearly professional development training. There is a commonality between Pre-K Counts and Preschool Early Intervention as both programs require teaching staff to have a PA Teacher Certification. Pre-K Counts teachers are required to hold an Early Childhood Certification (The Pennsylvania Key, 2020). There is a slight difference for Preschool Early Intervention teachers, which requires certification in either early childhood or Special Education (The Early Intervention Service System Act, 1990). Head Start center-based teachers must have a minimum of an associate degree in Child Development or Early Childhood Education or equivalent coursework (Head Start ECLKC, n.d.-f).

There are also differences in professional development training requirements. Pre-K Counts and Preschool Early Intervention teachers are required to complete six credits of collegiate study or continuing professional education courses or 180 hours of continuing professional education courses, activities or learning experiences or defined combinations

within a five-year period (Continuing Professional Education Requirements, 1999). Head

Start teachers must complete 15 hours of training per year to include handling suspected

child abuse, implementing family engagement strategies, and implementing effective

curricula (Head Start ECLKC, n.d.-f). The differing program requirements for teacher

qualifications and professional development attributes to a disparity in educational

backgrounds between teachers across programs.

Challenges among Early Childhood Programs

The regulations differences in classroom ratios, caseloads, daily nutrition, and

supports for students requiring special education present challenges in collaboration,

understanding, and acceptance of program variances and affects professional relationships.

All educators strive to provide the best experience for the students they serve but with

noticeable variances as programs are located within shared buildings.

Ratios and caseload

The student to teacher ratio regulations differ among programs. Early Intervention has

a reduced ratio to accommodate individualized attention and increased opportunities for

differentiated instruction to further support students with identified special needs. This

differs from Pre-K Counts and Head Start as the regulations permit more students to be

supported with less adult supervision. Head Start and Pre-K Counts both have students

attending a four or five-days per week program in which they have a consistent number of

students on their caseloads across classrooms. Early Intervention programming is based on

students' needs; therefore, one student might attend programming two days a week. At the

same time, another student in the Early Intervention program might attend three days per

week opposite the first student resulting in a higher caseload for Early Intervention classroom teachers.

Nutritional Requirements

Head Start and Pre-K Counts classrooms are both required to provide meals and snacks. Head Start regulations require that each child receives meals and snacks, meeting one-third of the student's daily nutritional needs (Head Start ECLKC, n.d.-d). The program also provides meals in a family-style approach to foster communication. Pre-K Counts regulations require both a meal and a snack to be provided. Head Start is also required to implement nutrition services that include oral health support, ensuring all children are assisted in brushing their teeth daily (Head Start ECLKC, n.d.-d). Early Intervention does not have nutritional requirements but does provide a snack as part of the routine. Oral health and family-style meals for Head Start requires additional time to be allocated within the daily routine to accommodate these tasks.

Special Education Student Supports

Some students are dually enrolled in Early Intervention, and Head Start or Pre-K Counts to receive education in an inclusive environment depending on their level of needs. This inclusive environment requires additional commitment and support from Head Start or Pre-K Counts educators to support children with special needs. Additional data collection may be needed to support these students in addition to program-specific data collection and reporting requirements. Head Start does allow flexibility with Special Education students' weekly structure, allowing them to attend two days in a Head Start classroom and two days in an Early Intervention specialized classroom. Since this is not permissible according to Pre-K Counts regulations, it is common for Head Start classrooms to have students with more

significant special needs than a Pre-K Counts classroom. By the end of the school year, Head Start students with IEPs are often 30% of their total student population. Early childhood educators need to be open and willing to learn from Early Intervention educators (Mattern, 2015).

Lastly, the differing program requirements for teacher qualifications and professional development expands the gap in educational backgrounds among teachers across programs. Vu et al. (2008) found a more significant classroom quality difference when teachers hold less than bachelor-level credentials. Further, their study notes when classroom teachers had a bachelor's degree or higher, they scored higher on the Early Childhood Environment Rating Scale-Revised (ECERS-R) than teachers at any other credentialing level. While many factors contribute to the teacher's role and the classroom's quality, teacher qualifications can be an initial consideration regarding their skill set.

Summary of Early Childhood Programs

There are similarities across early childhood programs, but the variances and nuances differ due to the programs being regulated by different governing agencies. All programs are considered high-quality, with the teachers' role being an integral factor. Head Start is the only program mandated to provide comprehensive services. Head Start and Pre-K Counts classrooms are required to provide meals and snacks, while Early Intervention only provides snacks. Ratios and caseloads are similar between Head Start and Pre-K Count programs, although Early Intervention has several distinctions. Teacher qualifications are equivalent among Early Intervention and Pre-K Counts, with both requiring a bachelor's degree and teacher certification, and Head Start requiring an associate degree for teachers. In addition to

understanding the foundation of early childhood programs, staff professional development is vital in understanding the impact that coaching can have on a program.

Professional Development

Professional development is an effective measure to increase teachers' knowledge and enhance the teachers' instructional practices. Inservice and pre-service teacher development is an integral aspect of ensuring that children receive high-quality experiences in early childhood programs (Haslip & Gullio, 2018). Bagnato et al. (2009) further notes that to support an increase in high-quality early childhood education, a wide range of professional development activities is needed, focusing on teacher's interactions towards students. Traditional forms of professional development include workshops or administrators, developed in-service training which presume that exposure to new information or merely hearing information indicates that the attendees have learned the presented skills. Being provided and hearing information does not ensure participants have a thorough understanding of the content, nor are there any measurable tools ensuring they can apply the information. This section explores ways that adult learners learn and will be further discussed in addition to professional development opportunities that exist and how coaching is a form of successful staff development.

Adult Learners

Many different brain processes happen simultaneously, and multiple strategies are necessary for learners to obtain new information. (National Academies of Sciences, 2018). A learner needs to synchronize their own learning by coordinating several cognitive processes and networks in the brain for successful learning to occur (National Academies of Sciences, 2018). These brain processes are then coupled with previous learning styles and strategies,

often developed as part of a person's early years of learning. Adult learners carry these

learning styles with them, understanding which approaches are most effective for themselves.

They have past experiences contributing to their ability to acquire new information, either

positive or negative. These varied experiences can either enhance or hinder professional

development making the presentation of information challenging (Jarvis, 2009). Recognizing

adult learners' experiences and allowing them to be integrated into their own learning will

enhance the professional development experience (Shi, 2017). Furthermore, connecting

professional development experiences and focusing on activities that highlight content will

bolster participants' knowledge and skills (Garet et al., 2001).

Adult learners are often self-motivated to learn something due to an encountered

concern or a topic of interest, using a problem-center learning approach (Knowles et al.,

2005). Shidler and Fedor (2010) further note that teachers successfully implement a new

method or strategy when they want to change. They need successful, newly acquired

information relevant to their job, impacting job satisfaction, and quality of life (Knowles,

1990). For adult learners to engage in learning, they need to know they will gain new insight

and acquire new applicable skills. Beyond personal improvement, adult learners want to

update their skills, reestablish best practices, and even prepare for new opportunities (Shi,

2017).

Traditional Forms of Professional Development

The world is continually changing, requiring the field of education to change and

prepare the next generation of students to perpetuate societal progress. This progression

requires teachers to be lifelong learners, participating in pre-service learning until retirement

through various professional development opportunities. The most common types of

traditional professional development include in-service training, seminars, conferences, and workshops. These professional development types frequently involve a presenter providing information in a lecture format to a large group of passive recipients for a definite period of time. Often it is assumed that learning happens merely from participants being exposed to new information (Wald & Castleberry, 2000). While these forms of professional development can fulfill mandated training topics and contractual requirements, key factors are missing to ensure teacher learning occurs. Joyce and Showers (2002) note that less than 10% of teachers successfully implemented practices into their instructional repertoire from participation in traditional professional development forms. These professional development forms continue to be standard regardless of their ineffectiveness in increasing teachers' knowledge and impacting meaningful classroom changes (Loucks-Horsley et al., 2010).

For professional development to be more effective and transferrable to classroom practices, modifications to the delivery need to occur. More important than the type of professional development is active participant engagement, an increased focus on duration, and identifying core features (Garet et al., 2001). It is common to provide students with hands-on activities to ensure active engagement in learning and repetitive practice opportunities; this common practice is also effective for teachers' learning. When learners are actively engaged instead of passive participants, an increase in a variety of learning occurs (National Academies of Sciences, 2018). Further, skill improvement is noted when teachers engaged in activities that emphasized content or were connected to the teacher's other professional development practices (Garet et al., 2001). When professional development is continued across an extended period of time and has an increased participant time commitment, there is a higher quality experience (Garet et al., 2001).

Coaching as a Form of Professional Development

Coaching allows individuals to connect gathered information from traditional professional development formats and transfer that knowledge into classroom practices. When professional development courses are standalone, the connection between learning and how to apply the concept is absent compared to when courses are connected with coaching (Neuman & Cunningham, 2009). There is growing evidence that on-site coaching is a practical form of professional development bridging workshop experiences into classroom applications (Sandefur et al., 2010). Fundamentally, coaching occurs when two professionals work collaboratively to reach a common goal. Coaching provides an opportunity to identify a teacher's areas of need within the classroom through observation, obtain specific relevant examples, and then acquire suggestions to transfer back into practice. Incorporating opportunities to reform types of professional development, such as coaching, into a teacher's workday provides a connection with actual teaching, which is sustainable over time (Garet et al., 2001).

In addition to collaboration, coaching encourages teacher reflection on instruction. Reflection allows teachers to determine their instructional areas that need improvement, ascertain goals, adapt their instruction, and practice the changes. Coaching educators can become reflective and creative, ultimately improving their job satisfaction, and contributing to their professional development (Othman, 2014).

Summary of Professional Development

Brain processes are coupled with learning styles and strategies to enable adult learners to acquire new information and applicable skills. Using practical forms of professional development, such as job-embedded experiences, will facilitate teachers'

motivation to continue on the life-long learning path. Coaching is a different experience for teachers to support their learning further, providing a more significant impact on children's learning (Skiffington et al., 2011).

Coaching

Coaching is a robust, confidential, non-evaluative process through which two or more colleagues work together to reflect upon and analyze teaching practices, expand, refine, and build new skills (Robbins, 2015). There are many types of coaching models, some of which target a broad range of student ages and support specific content areas, such as math and literacy coaching. These models are more practical for students within the K-12 system presenting limitations for early childhood programs, due to being located in closer proximity.

Coaching Models

Coaching models have been selected for this research to provide effective supports for early childhood programs. Three specific coaching types will be highlighted: instructional, practice-based, and peer coaching. Regardless of the coaching model type, all require a teacher to engage in some form of reflection, perceive an area of weakness or necessity to try a new approach to implement new strategies successfully (Shindler & Fedor, 2010).

Instructional Coaching

An instructional coach is an experienced, highly accomplished individual whose primary responsibility is to support teachers in implementing evidence-based practices through instructional coaching processes to increase student engagement and achievement (Pennsylvania Institute for Instructional Coaches, n.d.). Knight (2009) extends instructional coaching aspects to include a theoretical framework, a partnership approach, establishing a

partnership between coaches and teachers. Because instructional coaches are spending time within the teacher's classroom and providing feedback, an equitable relationship should be set at the onset. The teacher and coach relationship needs to be collaborative, with the teacher feeling that their thoughts and beliefs are valued.

In simplistic form, the instructional coaching process incorporates a three-phase approach; pre-observation planning conference, observation and analysis, and reflective conference (Skiffington et al., 2011). The pre-observation planning conference includes the teacher setting goals for the students' learning, developing activities towards the goals, and establishing an action plan with strategies/steps to achieve them. The observation and analysis phase encompasses coaches spending time in the classroom, modeling an evidence-based practice, or observing the teacher's implementation of the method. Through this phase, the teacher gains a firsthand perspective of a new approach simultaneously being implemented as usual daily routines and classroom challenges occur (Jones & Vreeman, 2008). An additional step in the observation process could include the teacher recorded through video during instruction, allowing the teacher to view occurrences directly. The reflective conference follows the observation phase, encompassing interactions between the coach and teacher to analyze the data and collaboratively determine positive feedback and improvement areas.

As noted above, instructional coaching relies on an identified external individual to enter the classroom and provide feedback to the teacher. Trust and mutual respect are vital components at the forefront of the progression to ensure the teacher welcomes the support, actively engages in the process, and successfully implements recommended changes before relevant changes are visible. Instructional coaching is a cyclical process, addressing the topic

identified as the most needed, working through the steps, and then transitioning to the next area of need. Over time, instructional coaching's strategic implementation can impact teachers' practices when coupled with quality instructional programs (Medrich et al., 2013). A limitation of the Instructional Coaching model is the requirement of an expert who does not have daily classroom responsibilities coupled with limited funding.

Practice Based Coaching Collaborative Partnerships

Similar to Instructional Coaching, Practice-Based Coaching is an effective model for ongoing professional development. This model was developed specifically for and is an integral part of the Head Start program (Head Start ECLKC, n.d.-b). Within the parameters of collaborative partnerships, Practice-Based Coaching concentrates on improving teachers' use of evidence-based practices to enhance students' progress on school readiness goals (Head Start ECLKC, n.d.-b). The goal is to implement a defined set of research-based practices with fidelity. Similar to Instructional Coaching, there are three defined cyclical components: shared goals and action planning, focused observation, reflection and feedback. (Head Start ECLKC, n.d.-b). Before beginning any of the components, a collaborative partnership is essential to understand that both participants, coach and coachee, provide critical information to the process. After the defined collaborative partnership is in place, a specific set of practices to support student learning is described. An information gathering period occurs, followed by goal setting and then the development of an action plan. The focused observation occurs at defined times to align with the goals ensuring an opportunity for capturing the identified content. Reflection occurs by both coach and coachee, formulating thoughts regarding what happened in the setting. Three feedback types ensue in

the follow-up to reflection: supportive feedback and constructive feedback, which are essential to this component, as possible data-based feedback should occur.

Practice Based Coaching differs from other coaching options as there is variability in who is the identified coach. Based upon the Head Start program and the identified structure, a coach, could be a recognized external expert employed by the program or working as a consultant to the program (Head Start ECLKC, n.d.-b). There are options for the program to recognize a reciprocal peer approach or a self-coach model, including the teacher capturing a video of themselves. Depending on each program's format, there is further delineation within each component to accommodate how Practice-Based Coaching will occur (Head Start ECLKC, n.d.-b).

Peer Coaching

Peer Coaching is a collaborative undertaking in which two educators work together to offer non-evaluative feedback to improve educational practices (Murray, 2010). As peer coaching is not an evaluative process, the feedback received can be accepted and implemented into instructional practices or disregarded, allowing the teacher to control their situation. Implementation of a new skill will depend on its perceived value and necessity for classroom practices (Robbins, 2015). Slater and Simmons (2001) regard peer coaching as a process where coworkers collaboratively learn from one another by sharing new ideas, reflecting on current practices, and problem-solving in their classrooms. Peer coaching provides teachers the opportunity to work together collaboratively, receive feedback, and acquire skills as demonstrated in an authentic environment. Peer coaching offers job-embedded learning to improve professional practices (Robbins, 2015). This enables the observing teacher to determine the effectiveness of practical skills and the level of effort

needed to implement those skills into their own classroom. Experience with real practices allows teachers to analyze how they can then transfer the learned strategies with their own students (Porras et al., 2018). Peer coaching affords an element of active learning, providing teachers with the opportunity to observe other teachers, be observed teaching in their classroom, and obtain feedback on their practices. This structure allows teachers to continually study and review their practices (Showers & Joyce, 1996).

All three coaching models offer valuable options supporting teachers to embark on improving their knowledge and teaching skills. Unlike instructional coaching, peer coaching does not require the hiring of additional staff. It will allow teachers to work collaboratively to strengthen relationships within and across programs, support students across programs, and develop an understanding of the programs' differing regulations. As there are several coaching model options, there are also multiple frameworks available to structure a coaching session to support teacher outcomes.

Frameworks for Coaching

Educators can use protocols or frameworks to support collaborative conversations among peers targeting effective strategies to improve instructional practices (Danielson, 2009). Protocols are beneficial to clearly outline each group member's responsibilities and establish guidance for conversations (Norman et al., 2005). Three different frameworks are outlined as effective options for use within educational coaching. Consistencies among the first two frameworks, STRIDE and Grow, include goal setting, focusing on what is already in place, and then developing a plan. The third framework, 2+2 performance appraisal, provides a backward design approach in which the coachee receives feedback first and can determine the next steps.

STRIDE

The STRIDE (Strengths, Target, Reality, Ideas, Decisions and Evaluation) model is a flexible framework to be used by coaches to assist changes in coachees through a goal-oriented positive growth mindset (Thomas & Smith, 2009). Although developed as an acronym, it should be used more as a checklist and does not need to be utilized in the linear format. "Strengths" focus on having the coachee positively provide feedback recognizing the importance of developing and maintaining high self-esteem levels to facilitate significant change (Thomas & Smith, 2009). The coachee will identify their "Target" or goal, with the coach assisting the coachee in exploring what they want to achieve (Thomas & Smith, 2009). The "Reality" step consists of the coach reviewing the coachee's strengths. It identifies any barriers that could impact the coachee from achieving the defined goal (Thomas & Smith, 2009). The use of questioning occurs between the coach and coachee to elicit creative solutions to meet the target for the "Ideas" step. For the "Decision" step, the coach reviews the goal and assists the coachee on the most appropriate method to achieve the goal (Thomas & Smith, 2009). The "Evaluation" step is divided into two parts; determining the coachee's immediate commitment to the plan of action and identifying a time to follow up on the activities following the decision (Thomas & Smith, 2009).

GROW

The GROW framework uses this mnemonic sequence to depict the four stages; Goal, Reality, Option, and Will for coaching with the understanding that for successful implementation, it must be within the context of awareness and responsibility (Whitmore, 2010). Goal identifies realistically what the coachee wants to achieve, focusing on a performance goal and an end goal. If a goal is not realistic, it will not be obtainable, but there

won't be motivation to complete it if the goal is not challenging (Whitmore, 2010). Within the Reality stage, the coach and coachee need to objectively review the current situation to determine effective steps to achieve the defined goals. An exhaustive list created by the coach and coachee is required to determine what Options will direct the course of action to ascertain the goal (Whitmore, 2010). The coaching framework's fourth stage, Will, is to construct an action plan to identify the best opportunity to achieve the goal (Whitmore, 2010).

2 + 2 Performance Appraisal

The 2+2 Performance Appraisal model for teachers emphasizes the benefit of feedback, dialogue, and collaboration to improve instruction (Allen & LeBlanc, 2005). Voluntary participants complete classroom observation of other participating members based on the length of time needed to provide the teacher being observed with two compliments and two suggestions for improvement. From the onset, everyone involved is conscious of the expectation that compliments, and suggestions will be provided at the end of the observation, forcing them to focus on these two areas and avoid any accusatorial undercurrents. The mutual acknowledgment of strengths and the teacher's decision to accept or reject the suggestions allow for continued non-threatening professional growth. Educator engagement in this process reduces teacher isolation and creates the expectation for follow-up discussion regarding teaching and learning. Summative reflection is possible by teachers reviewing their 2+2 feedback forms at the end of a defined period. A review of the feedback allows teachers to identify their most valued compliments and suggestions. The 2+2 Performance Appraisal approach was determined to be the most effective for peer coaching, allowing the adult

learner to experience reflection, feedback, collaboration, and, ultimately, self-efficacy within the early childhood setting (Allen & LeBlanc, 2005).

Coaching through Virtual Platforms

Historically coaching has occurred primarily through in-person observation, face-to-face interactions, or the most technological option, video recordings shared during a post-observation meeting. As technology and digital tools have progressed, there is an increased option to coach through virtual platforms. A combination of video and digital tools coupled with coach feedback and consultation has been shown to increase teachers' instructional practices (Pianta et al., 2008). Coaching in any format is often constricted due to time commitments by both the coach and the teacher. Further impacting collaborative coaching opportunities are distractions that occur in the classroom or after student dismissal due to many additional obligations for both parties. Electronic tools could provide practical solutions in addressing busy daily schedules. A study conducted by Vernon-Feagans et al. (2015), comparing face-to-face to webcam literacy coaching, states that while coaches provided in-person support, unrelated classroom needs, and children's interruptions increased the length of time coaches remained. When webcam coaching was used, the coaching time was more focused, as the webcam only captured the participants eliminating other room distractions, therefore reducing the allocated coaching time. Also, webcam coaching reduced the allocated time coaches and teachers spent discussing non-work-related topics (Vernon-Feagans et al., 2015).

Additionally, digital tools could circumvent financial factors affecting coaching experiences, such as eliminating travel if programs are in different locations and needed substitute coverage based on the type of implemented coaching format. Ottley et al. (2016)

utilizes "Bug in the Ear" technology, a blue tooth headset worn by the teacher, and a coach observing the classroom through a webcam, allowing the coach to be located in any location, outside of the building or in another state. This study provides preliminary research that Bug in the Ear can be a useful peer coaching model to increase early childhood teacher implementation of evidence-based strategies.

With current digital technology and the recent increase in virtual platforms, coaching through a virtual option is a more viable option. Studies indicate virtual coaching can be valuable when both parties use the communication tools efficiently, and clear intent is established for the sessions (Boyce & Clutterbuck, 2011). In all forms of coaching, clear purpose and efficient communication are essential.

Benefits of Peer Coaching

Peer coaching provides personalized learning opportunities allowing teachers to focus on self-determined areas for improvement and experience firsthand practice. These opportunities permit teachers to improve their instructional strategies within the safety and security of a classroom environment. It is within safe environments where people feel comfortable exploring and investigating their current practices and assessing the positive and negative impacts of those practices (Robbins, 2015). Ongoing engagement and connection with peers working together within classrooms establish collaborative relationships. These positive and trusting relationships further enable teachers to explore and experiment outside of their internal safe limits. Relationship-based learning and positive outcomes for educational practices have been consistently connected in various studies (Bryant, 2008; Layzer et al., 2007; Raver et al., 2008). Through collaboration with a peer, teachers actively engage in discussion, reviewing received feedback, which leads to self-reflection. Collegial

coaches or peer coaches utilize self-reflection to bolster their learning. This self-reflection leads to the improvement of instructional practices (Joyce & Showers, 2002).

Collaboration with a perceived equal reduces any feelings of a threat as there are no negative consequences, but instead the inverse, receiving encouragement from a supportive partner. Peer coaching provides teachers with a chance to engage in new or alternate instructional methods, feeling safe and supported by their peers (Porras et al., 2018). Baker and Showers (1984) note more appropriate use of new teaching models increased the retention of recently learned strategies when teachers participated with a peer. The retention of learned techniques easily enables teachers to implement them into practice. As a personalized learning approach, peer coaching positively impacts teachers' curriculum implementation and teaching abilities (Ma et al., 2018). Thus, overtime benefitting teachers' individual professional growth.

Peer coaching also provides teachers with the opportunity to work outside of their classrooms. Isolation is a common phenomenon for teachers, limiting their professional growth. Based on the work of Darling-Hammond and McLaughlin (1996), Hindin et al. (2007) indicated to support teachers' classroom practice they must be taken from their isolated classrooms and empowered in areas of thinking. Further, when teachers can be removed from their isolated classroom and experience being observed by a peer, there is an anxiety reduction, better preparing them for future evaluative observations. Robbins (2015) indicates that observing and visiting with peers helped staff "lower the temperature" when administrators came to complete observations for their evaluations. Through collaboration, academic achievement is four times greater than schools where teachers work in isolation (Robins, 2015). Peer coaching benefits include supporting teachers' instructional practices,

increasing their knowledge, problem-solving skills, and self-efficacy (Jang, 2010; Latz et al., 2009; Slater & Simmons, 2001). Peer coaching provides valuable opportunities for teachers to establish positive, supportive relationships, supporting a growth mindset increasing camaraderie across programs and facilitating a positive school culture. Peer coaching and mentoring depend upon collaboration and dialogue with an emphasis on teaching and learning activities that perpetuate reflection, creating new knowledge that can be publicly shared (Hanh, 2012).

Summary of Coaching

Peer coaching allows teachers to observe and acquire skills demonstrated in an authentic environment, working together collaboratively, outside of their classroom, reducing isolation. This format provides personalized learning opportunities allowing teachers to focus on self-determined areas for improvement and experience firsthand practice. Baker and Showers (1984) note more appropriate use of new teaching models increased the retention of recently learned strategies when teachers participated with a peer. Through the 2+2 Performance Appraisal approach, adult learners can receive feedback supporting opportunities for self-reflection. Peer coaching commonly occurs in an in-person format. However, electronic tools provide practical solutions in addressing busy daily schedules allowing for collaboration and peer coaching to occur through virtual connections. Peer coaching and the 2+2 model are effective ways of engaging early childhood educators in coaching. School culture and camaraderie among staff need consideration to support change in teachers' perceptions of other early childhood program guidelines, regulations, and instructional practices.

School Culture

School culture and school climate are frequently used interchangeably, although school climate impacts the school culture. Fullan (2007) defines school culture as the guiding beliefs and values demonstrated in how a school operates. Everything that is heard, seen, smelled, and felt are all relics of the culture. The culture influences the senses' reactions which impacts individual's belief system and establish preferences (Gruenert, 2008). Mitchell et al. (2010) define school climate "as the shared belief, values, and attitudes that shape interactions between the students, teachers, and administration." It is shifts and changes in these aspects of the school climate that will improve the school culture.

As culture is embedded in the school, it has impacted the way things have been done over many years. Therefore, change will occur slowly over an extended period of time. Fullan (2007) depicts an effective option to improve school culture through re-culturing, creating more inclusive opportunities, facilitating educators in discussions to question their beliefs about teaching and learning, and engaging in a collaborative change process, shifting values and beliefs. These collaborative processes include exploring multiple solutions to complex problems by providing professionals opportunities to learn from others and share their expertise (Waldron & McLeskey, 2010).

Positive School Climate

Changes to school culture occur through school improvement efforts to alter the environment, supporting a positive school climate. School climate consists of multiple factors but with a significant focus on quality interactions. This starts at the top with the quality of interactions among leaders to teachers, within professional staff groups, professional staff to non-professional staff, and then staff to student interactions (Freiberg,

1998). A positive climate is an environment where there are interactions among all school members and an established learning environment perpetuating continual growth (Khan, 2019). Along with an increase in interactions, schools must facilitate a more collaborative approach instead of a top-down mentality to support a positive school climate. A change from a hierarchal to a reciprocal culture encompasses shared decisions (Lambert, 2003). A reciprocal culture increases staff morale, developing the idea that everyone contributes to the school's success, and the leaders do not purely determine outcomes. These changes can be facilitated by providing opportunities for staff to participate in the decisions and change process, leadership supporting and providing reassurance of proposed ideas, aligning personal and organizational goals, and increasing staff perceptions of how their work is essential to the school's success (Hanson et al., 2016). Leadership's investment in staff contributes to their confidence and increases their commitment to the school, causing a ripple effect for staff supporting and working collaboratively with colleagues. Collaborative work among professional colleagues over time perpetuates engagement with each other, allowing for problem-solving opportunities to address challenging problems and the establishment of creative solutions (Robbins, 2015). This staff collaboration is critical because it bestows a foundation for building relationships and develops partnerships among teachers (Cranston, 2009). These positive teacher relationships are paramount as they provide concrete examples to students of the value of developing positive relationships (Rosenow, 2012). Coaching is a tool that can be used in developing collaborative teams, while occurring in schools with a positive school climate of respect and interdependence, stakeholders are encouraged to establish trusting relationships, share thoughts and ideas, and work collaboratively to support students effectively (Reitzug & Burrello, 1995). Allen and LeBlanc (2005) note allotting time

for teachers to engage in peer coaching through the "2+2 Performance Appraisal Model" is an investment in facilitating a collaborative school culture. These multiple facets of creating a positive climate within the school inevitably contribute to establishing camaraderie among staff and across programs.

Camaraderie Through Peer Coaching

The definition of camaraderie is "a feeling of friendliness, goodwill, and familiarity among the people in a group" (Merriam-Webster, 2020). Peer coaching provides an opportunity to develop relationships, increase staff camaraderie within and across programs, facilitating a positive school climate. Coaching offers a tool for professional learning, focusing on establishing a vision for effective instruction, creating a path to build competence in defined areas, and constructing common language within the practice. This process generates norms of continual improvement within a culture encouraging learning for everyone (Robbins, 2015). A culture of learning in an educational environment is assumed to be focused on students, although with peer coaching, learning can also encompass teachers' learning. Peer coaching offers staff a format to live their values (Robbins, 2015). As teachers integrate their values into their teaching practices, their beliefs need to be considered and respected by peer coaches to establish trusting relationships, allowing for increased self-confidence.

By implementing peer coaching and utilizing the 2+2 performance appraisal, teachers will be provided with the opportunity to reflect on their practices. Reciprocal interactions allow teachers to support their own learning, exhibit care and commitment towards each other's growth and share mutual ideas that can provide a useful means of professional development (Porras et al., 2018). Peer coaching as a form of professional learning will

ensure teachers receive feedback from the observing teacher for areas that could be enhanced as well as defined areas of strength. Jones and Vreeman (2008) note two purposes when individuals analyze their strengths; identification of an area that can benefit from additional supports and increased awareness of skills that can be shared with others. This form of engagement can assist in facilitating an increase in teachers' self-confidence and self-efficacy. Teachers' self-efficacy is their internal ability and confidence within themselves to be an effective educator of children (Bandura, 2001). Firestone and Rosenblum (1988) ascertain that when teachers are provided with opportunities to engage and share resources and information, it reduces uncertainty and facilitates independence, perpetuating teacher commitment. This engagement will support camaraderie and promote a positive school climate. Peer coaching is a method to develop a community of learners devoted to every member of the school's learning by establishing an increased support system to access resources, curriculum ideas and solve problems jointly (Robbins, 2015).

Summary

Early learning programs can provide children the opportunity to change the course of their life (Irving, 2018). High-quality early childhood programs benefit all students, with an increased effect on students identified as at-risk, living in poverty or within low socioeconomic status, or identified with a developmental delay or disability. Three early childhood programs Head Start, Early Intervention and Pre-K Counts at the BCIU provide high-quality preschool programming for at-risk students with some variations due to governing agencies and funding streams. Within all programs, the teachers' role is highly impactful in supporting students and facilitating success. Further attributing to supporting student progress is teachers' self-efficacy and perceptual accuracy. Teachers' self-efficacy is

their innate ability and assurance within themselves to be an effective educator of children (Bandura, 2001). A teachers' perceptual accuracy, or to what degree a teacher over-or under-estimated a student's cognitive ability (Ready & Chu, 2015), is also impactful on students' achievement level. Differences in program requirements for teacher qualifications and professional development creates a gap in teachers' educational backgrounds. Program regulations also differ in several other areas, including classroom ratios, caseloads, daily nutrition requirements, and supports for students with disabilities requiring special education. While these differences could be perceived as minimal variances, they can present challenges in collaboration, understanding, and acceptance of other programs and impact professional relationships.

Professional development is in place to increase teacher's knowledge and enhance their teaching. Traditional forms of professional development commonly involve a presenter providing information in a lecture format to a large group of passive recipients for a definite period of time. While the benefits of traditional professional development can fulfill mandated training and contractual requirements, often a key missing factor is ensuring teacher learning and a transfer of skills into the classroom occurs. When professional development courses are standalone, the connection between learning and how to apply the concept is absent compared to when courses are connected with coaching (Neuman & Cunningham, 2009). There is growing evidence that on-site coaching is a practical form of professional development bridging workshop experiences into classroom applications (Sandefur et al., 2010). Also, job-embedded experiences can facilitate teachers' motivation to continue on the life-long learning path.

Coaching is a practical form of professional development. Three specific coaching models, instructional, practice-based, and peer coaching, were reviewed. An instructional coach is an experienced, highly accomplished individual whose primary responsibility is to support teachers in implementing evidence-based practices through an instructional coaching process to increase student engagement and achievement (Pennsylvania Institute for Instructional Coaches, n.d.). The Practice-Based Coaching model was developed specifically for and is an integral part of the Head Start program. This model's parameters encompass collaborative partnerships and focus on improving teachers' use of evidence-based practices with fidelity to enhance students' progress on school readiness goals (Head Start ECLKC, n.d.-b). Peer coaching offers an element of active learning, providing teachers with the opportunity to observe other teachers, be observed teaching in their classroom, and obtain feedback on their practices. This structure allows teachers to continually study and review their teaching (Showers & Joyce, 1996). Teachers learn best when they can facilitate their learning. Experience with real practices allows teachers to analyze how they can then transfer the learned strategies with their own students (Porras et al., 2018).

Three different frameworks are outlined as effective options for use within coaching models. Goal setting, a focus on preexisting circumstances, and developing an action plan are consistent factors among two of the three frameworks outlined. The third framework outlined is 2+2 performance appraisal. This framework offers an alternate option using a backward design approach. This framework provides the coachee with feedback first and then the opportunity for them to reflect on the feedback and determine their next steps. Peer coaching and the 2+2 model are effective ways of engaging early childhood educators in coaching.

Traditionally coaching has often occurred in an in-person format. As technology and digital tools have improved, there is an increased option for coaching to occur through virtual platforms. A combination of video and digital tools coupled with coach feedback and consultation has been shown to increase teachers' instructional practices (Pianta et al., 2008). Studies indicate virtual coaching can be valuable when both parties use the communication tools efficiently, and clear intent is established for the sessions (Boyce & Clutterbuck, 2011).

Peer coaching provides valuable opportunities for teachers to establish positive, supportive relationships, reinforcing a growth mindset thus, increasing camaraderie across programs and facilitating a positive school culture. Occurring over time, changes to a school's culture happen through school improvement efforts to alter the environment and support a positive school climate. Peer coaching can provide this opportunity to develop relationships, increase staff camaraderie within and across programs, facilitating a positive school climate. Coaching offers a tool for professional learning, focusing on establishing a vision for effective instruction, creating a path to build competence in defined areas, and constructing common language within the practice. Firestone and Rosenblum (1988) note that when teachers are provided with opportunities to engage and share resources and information, it reduces uncertainty and facilitates independence, perpetuating teacher commitment. This engagement supports camaraderie, promoting a positive school climate, and over time, alters the school culture.

Throughout this chapter relevant research was provided regarding benefits and differences of early childhood programs, and areas of focus surrounding professional development for educators, highlighting peer coaching as a viable option. This section

concluded with research supporting the advantages of establishing a positive school culture.

The upcoming chapter will elaborate on the methodology used for this action research study.

CHAPTER III

Methodology

The review of the literature provides the various similarities and differences among three early childhood programs; Head Start, Early Intervention, and Pre-K Counts. Increasing high-quality early childhood education requires a range of professional development experiences focusing on teacher's interactions with students (Bagnato et. al, 2009). Peer coaching allows teachers to immediately determine their own personalized, targeted areas for professional development while observing alternate instructional strategies and new material to implement within their classroom. At the same time peer observations provide opportunities for teachers to establish relationships with other professionals. These relationships begin to build camaraderie across programs to facilitate a positive school culture. This chapter will provide the purpose and methodology of this research study. A detailed explanation of the setting is included. Participant information is provided with a further description of each program. A mixed method research design was used in which quantitative and qualitative data were collected to inform three separate research questions. Lastly, this chapter will explain the triangulation of the data and validity measures incorporated to support the research study.

Purpose

The purpose of this action research study is to gain a further understanding of the potential benefits peer coaching can have on early childhood teachers' perceptions of professional development, program differences, and instructional practices. A robust, confidential, non-evaluative process, coaching allows two or more colleagues to collaborate, reflect upon and analyze their teaching practices, thus expanding, refining, and building new

skills (Robbins, 2015). Although each program included in this study operates under differing federal and state regulations and requirements, there are many similarities. All components contribute to ensuring the end goal of providing students with a high-quality early childhood education. The role of the teacher focuses on building trusting relationships with the students and families contributing to ongoing student advancement. A positive student-to-teacher relationship in early childhood years can diminish the risk for school failure, which is increased among children experiencing high-risk factors (Moen et. al., 2019).

Coaching provides increased opportunities to enhance instructional practices that benefit student growth and development. Peer coaching observations will offer an increased opportunity to enhance teacher's instructional practices. These observations will give the teachers first-hand professional development opportunities to cultivate their knowledge and skills. Peer-coaching allows teachers the chance to reflect on their current practices, share new ideas, and problem solve in their classrooms, learning collaboratively (Slater & Simmons, 2001).

Through the observations, teachers will interact with one another, develop relationships, and understand program expectations to facilitate a deeper appreciation of each program's contribution to the education of the population of students they support. A more collaborative positive school climate can develop through establishing relationships, perpetuating a high-quality instructional environment for all early learners. Within a positive climate and culture, interactions among all school members establish a learning environment perpetuating continual growth (Khan, 2019). Finally, this research study serves as a pilot

program to facilitate a larger scale self-evaluation component within future teacher's annual evaluations.

Three research questions were developed to help the researcher ascertain the direct benefits and draw conclusions from teacher's participation in peer coaching observations. From research question one, "In what ways does active participation in peer coaching alter an early childhood educator's perception of peer coaching," the researcher seeks to acquire information about teacher's perceptions of their direct experiences in peer coaching. The analysis of results will help to determine the effectiveness of peer coaching. The results will also determine if peer coaching could be implemented as a part of all staff's yearly evaluation to support their self-identified professional growth.

Research question two, "In what ways does an educator's perception of other early childhood programs change through participation in a peer coaching program?," is included to determine if professionals can develop an appreciation for teachers of other programs and their value in supporting students with varying needs. Data gathered from this research question will provide the researcher with an understanding of teacher's perceptions regarding other programs and how their perceptions may have been altered as a direct result of participation in the study. When teachers can understand other programs and teachers' roles and responsibilities, there is an opportunity to develop an appreciation of others to establish a cohesive organization to create a positive culture.

Finally, increasing teacher's knowledge, problem-solving skills, supporting instructional practices, and self-efficacy are all benefits of peer coaching (Jang, 2010; Latz et al., 2009; Slater & Simmons, 2001). "In what ways do early childhood educators' instructional practices change through participating in a peer coaching program?" is the third

research question. Results from this question will indicate if teachers felt their instructional skills had been enhanced through participation in the study. Instructional skill enhancement will further develop teacher's practices supporting a high-quality learning environment for students. An early learning environment experience provides children the opportunity to alter their life course (Irving, 2018). This opportunity provides at-risk students an increased opportunity for success in their upcoming K-12 school experience

Setting

The research occurred at the researcher's place of employment, the Berks County Intermediate Unit (BCIU). An Intermediate Unit offers cost-effective, operational, and instructional services from highly trained staff to the public, non-public, private and charter schools within the local area. As the BCIU is a regional educational service organization, all three early childhood programs have classrooms located throughout the county. Berks County demographically is comprised of rural, suburban, and urban communities. The estimated population of Berks County is 421,164, with 24,098 children under the age of five-years-old (U.S. Census Data, 2019). The poverty rate of Berks County is 10.1% (U.S. Census Data, 2019). Reading is a large urban city within Berks County. The 2019 estimated population of Reading is 88,375, with 5,954 children under the age of five years old (U.S. Census Data, 2019-a). Reading's poverty rate is 32.7% (U.S. Census Data, 2019-a).

There are 18 public school districts within Berks County. Across Early Intervention, Head Start, and Pre-K Counts programs, approximately 3,500 students who reside within the boundaries of the 18 school districts are provided educational programs annually. Throughout all programs and across the service catchment areas, there are 74 classrooms and 22 specialized instructional groups offered. The classrooms are located within 27 sites, as

immersing classrooms in the community establishes neighborhood unity. Classrooms are located within school districts, churches, and other community buildings. Some sites within school districts have one classroom from one program per site, but the ideal is a minimum of two early childhood classrooms per site in community locations for internal supports. There are three larger early childhood hubs in which there is representation from all three programs at the site. The largest hub has a total of 17 early childhood classrooms. These hubs provide an increased opportunity for all students to benefit from inclusive opportunities. Early Intervention specialized classrooms provide instruction to only students with disabilities. Within these hubs there is opportunity for students from specialized classrooms and typical early childhood classrooms to interact in shared spaces such as on the playground, gross motor room, bathroom, and hallways. These interactions provide opportunities for all students to develop an acceptance and appreciation for each other regardless of differences. Head Start and Pre-K Counts programs provide educational services to preschool-age children considered at risk economically and/or due to other contributing risk factors as described previously. A larger concentration of these classrooms is located within the large urban community in the city of Reading.

COVID-19 Pandemic Impacts

Over the past year, all early childhood programs have been impacted by the COVID-19 pandemic. The 2019-2020 school year ended with all early childhood programs providing virtual instruction. This instructional format continued into the start of 2020-2021 school year. Instead of the typical August return to school for in-person instruction, all three programs delayed their return continuing with virtual instruction until mid-September 2020. To facilitate the options for in-person instruction, the BCIU Pandemic Team collaborated

with other Intermediate Units to develop safety protocols to accommodate in-person

instruction as the pandemic continued. In following the Pennsylvania Department of

Education (PDE) and Center for Disease Control's (CDC) recommendations, the BCIU has

implemented mitigation efforts to reduce the spread of the COVID-19 virus. Although virtual

instruction occurred for the start of the 2020-2021 school year a slow transition of students

back to in-person instruction has occurred throughout the school year. A hybrid approach for

student instruction was implemented. Some programs returned to full in-person instruction.

Some programs have a few classrooms with reduced in-person student instruction, and the

remainder of the classrooms have continued with virtual instruction. A brief explanation of

each program follows to provide an awareness of the program's enrollment factors,

educational setting, and COVID-19 impacts.

Head Start

The Berks County Head Start provides services to 695 students in 40 classrooms, 35

classrooms are federally funded, and five classrooms are state funded. Of the forty

classrooms, five classrooms currently provide in-person instruction, a reduction from the

usual seventeen students per classroom to ten students. This reduction is to accommodate the

Center for Disease Control's six-feet social distancing recommendations. The remainder of

the students are receiving virtual instruction. Thirty-five virtual teachers have a higher

caseload than the usual 17 students for in-person instruction to accommodate for the smaller

class sizes. However, enrollment numbers have declined as a result of the virtual instruction

format. In addition to educational services, students and families also receive comprehensive

services, including social services, physical and mental health, nutrition, family engagement,

and supports for students with disabilities. The majority of students who qualify for services

live at or below the federal poverty level. Additional priority factors are established to identify further at-risk students and enrollment eligibility requirements, including homelessness, foster care, and parent incarceration.

Pre-K Counts

The Berks County Pre-K Counts provides services to 290 students in 15 classrooms. Of the 15 classrooms, seven classrooms are currently providing in-person instruction. Each of the in-person classrooms accommodates ten students instead of the usual 17 students. The remainder of the classrooms and students are receiving virtual instruction. The eight virtual teachers currently have a higher caseload to accommodate the reduced in-person class structure. This program provides services for students whose family income is at 300% of the poverty level or less. Pre-K Counts has additional factors elevating a student on a risk rating scale to prioritize enrollment in addition to the family income. These factors include the student's age as a four-year-old student would be given precedent over a three-year-old. Family demographics such as a military family, teen parent, or single-parent status receive a higher risk rating. If a student has a disability or social and/or domestic concerns, they receive a higher enrollment priority.

Preschool Early Intervention

The Berks County Preschool Early Intervention program provides a continuum of services to over 2500 students. Twenty specialized early childhood classrooms are providing more intensive specialized services to approximately 690 students. Although some families have chosen to remain with virtual instruction for their children, all classrooms offer in-person instruction. Classroom teachers are offering varying options to accommodate both the in-person and virtual students per classroom. All students within this program are identified

with a disability as defined by federal and state regulations for Special Education

(Individuals with Disabilities Education Act (IDEA), n.d., PA Act 212, 1990). Students are

evaluated and determined eligible for Special Education. All students have an Individualized

Education Plan (IEP). The IEP indicates the level and frequency of service the student

receives. A student with more significant needs often receives all services within a

specialized classroom. In addition to educational instruction, students might receive some or

all related services, including speech, occupational and physical therapy, and psychological

services, based upon their need for specialized designed instruction as identified in their IEP.

Participants

Across the programs, there are 74 classroom teachers and 12 Itinerant Special

Education teachers. Itinerant teachers provide students with identified special needs, services

in a typical community early childhood setting, offering instruction to supplement the typical

curriculum as identified in the student's IEP. Seven of the 12 Early Intervention itinerant

teachers provide instruction to small groups of Special Education students targeting specific

skill development as identified in the student's IEP. These groups meet one to three times per

week.

Participants were recruited to participate through email and in-person conversations

with the researcher. An initial email request was sent on December 15, 2020, explaining the

research study and invitation to the intervention session. A cover letter and consent form

approved by the Institutional Review Board (Appendix A and B) was attached to the email.

The cover letter included an overview of the study, location and length of the study, benefits

to the participants, expectations, the minimal risk factors, direction if the participant chose to

end their participation, and the researcher's contact information (Appendix B). A follow-up

request email was sent on January 5, 2021. In-person conversations occurred during the week of January 4, 2021. All participants signed the consent form before their participation.

Fifteen teachers volunteered to participate in the research study, five teachers or 33% participants from each of the three programs. Of the participants, 14 are teachers in a classroom, and one participant is an Early Intervention Itinerant teacher of a specialized instructional group. Of the fifteen teachers, two provide only in-person instruction, five teachers provide in-person and virtual instruction, and eight teachers provide only virtual instruction. Teachers' education levels ranged from an associate degree to a graduate degree with additional credits. Participants self-reported their highest level of education; five associate degrees (33.3%), one bachelor's degree (6.7%), six graduate degrees (40%), and three graduate degrees + additional credits (20%). Teachers' years of service in early childhood education ranged from less than a year to thirty years. Participants self-reported their years of service: five teachers with one - five years of experience, three teachers with six-fifteen years of experience, three teachers with sixteen - twenty years of experience, four teachers with twenty-one to thirty years of experience. A visual representation of the data is summarized in Table 1.

Table 1

Teacher Demographics

Participants	No. Teachers (n = 15)	% Participants
Program Association		
Head Start	5	33%
Pre-K Counts	5	33%
Early Intervention	5	33%
Educational Level		
Associates Degree	5	33.3%
Bachelor's Degree	1	6.7%

Graduate Degree	6	40%
Graduate Degree +	3	20%
Years of Experience		
1-5 years	5	33%
6-15 years	3	20%
16-20 years	3	20%
21-30 years	4	26%
Method of Instruction		
In-person only	2	13.3%
In-person and virtual	5	33.3%
Virtual only	8	53.3%

Intervention and Research Plan

The research plan was developed following a past experience the researcher had with a community preschool teacher observing an early intervention teacher. Following the observation, the community preschool teacher was able to easily implement strategies that had been described and modeled for her previously. This experience, coupled with a review of Pollara's action research, Peer coaching: teachers as leaders, teachers as learners (2012), led to the development of the research plan. In a follow-up conversation with Pollara, indicated while there have been some modifications to the implementation of peer coaching model over the years, the elementary school where she is the principal continues with peer coaching observations eight years after her initial research.

Joyce and Showers (1980) indicate that coaching was introduced as a critical element in effective professional learning, providing teachers with opportunities to implement newly learned skills and strategies. The intervention was designed to provide participants with an overview of peer coaching and capturing the essence of obtaining new strategies and ideas from each other. Promotion of even the smallest gained idea or concept for their practices was noted as beneficial to the teacher's instructional practices. The intervention phase began

with a one-hour virtual presentation for all 15 participants. The presentation provided an explanation of peer coaching, including the roles of the observer and teacher being observed. The potential benefits of engaging in the observations were outlined, noting opportunities to explore alternate instructional practices, classroom management, and routines. Darling-Hammond et al. (2009) note teachers want learning experiences based on their identified needs, inclusive of classroom management and their specific content areas.

The number of observations and expectations for the duration of each observation were provided. Forms that would be completed after each observation were introduced. The participants viewed a virtual preschool lesson presented by an unknown teacher randomly selected from YouTube by the researcher. An example of the observation feedback form (Appendix C) that would be provided to the teacher following the observation was provided based upon the viewed virtual lesson. An example of the completed open-ended reflection form (Appendix D) was also provided in connection with the viewed virtual lesson.

A portion of the intervention included small group interactions occurring in virtual break-out rooms. The fifteen participants were divided into five groups. Three ice breaker questions were provided, and each participant was asked to answer one question within their group to facilitate discussion. "My guilty pleasure during the pandemic has been..." is an example question used as an ice breaker. As many participants did not know each other, the ice breaker questions promoted interactions and established preliminary relationships prior to the peer observation sessions.

Documentation

The feedback used in this research study for the observed teacher is based upon the 2+2 performance appraisal model by Allen and LeBlanc (2005). The 2+2 performance

appraisal model for teachers highlights the benefit of supportive discussions, and

collaboration to facilitate instructional improvement (Allen & LeBlanc, 2005). This model

provides the observed teacher with two compliments and two areas of suggestion

documented on the teacher observation feedback form (Appendix C). The observed teacher

then reviews the feedback form and can accept the value of the compliments and suggested

areas. They can then determine their next steps based upon the suggested feedback or

disregard the feedback based upon their internal interpretation of the observation that

occurred. The 2+2 Performance Appraisal approach aligns with a peer coaching model, as

the teacher can reflect upon the experience, determine the value of the feedback, while

engaging in opportunities of collaboration. The mutual acknowledgment of strengths and the

teacher's decision to accept or reject the suggestions allow for continued non-evaluative

professional growth.

Observation Plan

To ensure a random selection, each participant was noted on a slip of paper and

placed into three containers aligned with the program they teach. Starting with the Head Start

container, a participant was chosen. A participant from each of the three-program containers,

Early Intervention, Pre-K Counts and Head Start, were randomly drawn to pair with the first

selected Head Start participant, establishing groups of three. Those three participants were

captured on a chart. This process continued until all of the participants for Head Start were

grouped. Then all slips were returned to the program designated containers, and the process

was repeated, starting with a participant drawn from the Early Invention program container.

Once all Early Intervention participants were drawn, grouped, and documented, the same

process was repeated a final time for the Pre-K Counts participants. If the participants were

duplicated at any point in the process, the participant was returned to the container, and another participant was chosen until all three participants in each program had a group of three with no duplication.

A master schedule was developed and provided to all participants for their review. The direction was given that the first participant noted on the scheduled date would be the observer. The observer would complete the peer observation of the teacher, the second teacher noted on the time slot would be the participant being observed. These observations occurred within whichever classroom platform was being used; in-person or virtual. The observer would provide the teacher with an observation feedback form within 24 - 48 hours following the observation. This teacher observation form (Appendix C) would only be shared between the observer and the teacher. This feedback form would never be provided to the researcher to ensure the peer coaching was non-evaluative. The observer made individual decisions as to what changes they chose to implement. Following the observation, the observer also completed open-ended reflection questionnaire through Google Forms (Appendix D) and submitted it to the researcher.

Each participant completed a total of three observations, observing three individuals, one time each. Each participant was observed three times, each time by a different participant. Each participant completed one observation in each of the three early childhood programs; therefore, this also included an observation within their own program in which they teach. Of the 15 participants, 13 completed at least one in-person observation. Participants provided the researcher with a schedule noting the best days and times for them to observe others as well as the best days and times have someone observe them. These days

and times were based upon their classroom model and daily routine. A master sheet was created capturing this information obtained from the participants.

Fiscal Implications of Intervention

The noted peer coaching intervention provides a cost-effective option to address teachers' professional development. Peer coaching leverages teachers' internal expertise implementing their skills in practice, providing observers with first-hand experiences of the effectiveness. Thus, peer coaching serves as a professional development experience reducing costly one-time professional development provided by outside experts, offering strategies that seldom transfer into practice. As noted by Grimm et al. (2014), too often, teachers aren't involved in selecting the topics or focus of professional development sessions, which then may not address their daily challenges. As each teacher has differing strengths and needs providing multiple professional development opportunities for those differing needs could become costly. Peer coaching permits an educator to observe another classroom and gain new ideas and strategies directly while also providing the teacher being observed with feedback. Peer coaching offers financial savings for the organization as there is no direct cost for the observation but ancillary costs for substitute coverages and possible travel reimbursement.

As noted previously, the COVID-19 pandemic has resulted in many classrooms in all three programs providing only virtual instruction for the 2020-2021 school year. This instructional format has provided an alternate option for peer coaching. Observers are able to join synchronous classroom sessions and provide feedback to the teacher. Since preschool programs do not provide several consecutive hours of synchronous instruction, observers are able to complete peer observations without the need for substitute coverage. For classrooms

providing in-person instruction, 360-degree live feed through camera technology is an option

to enable observers to conduct observations of in-person classrooms without needing to

attend the in-person classroom or leave their locations. As all programs provide services to

students throughout Berks County, the Early Childhood classrooms are in 27 of the 42 BCIU

sites. The use of the live feed cameras has reduced substitute coverage time as some

observers chose not to travel from their site to visit other sites to complete observations. The

virtual platform has also reduced the cost of travel from one building to another. Moving

forward, the technology continues to be available. Therefore, even as all classrooms return to

in-person instruction in the near future, peer observations can continue through the 360-

degree live feed camera technology.

Research Design

A mixed method research design was used for the study to respond to the research

questions resulting in quantitative and qualitative data. Quantitative data was obtained

through a nineteen question pre- and twenty question post-survey (Appendix E). Questions

one through four gathered participant information on the program in which they are

employed, their years of teaching, the highest education level completed, and if they work in

a building with two or more early childhood classrooms. For the remaining survey questions,

a five-point Likert agreement scale (5 = strongly agreed, and 1= strongly disagreed) was

utilized to gather participants' responses. The survey questions highlight (1) participants'

approaches used to improve their instructional practices, (2) their preferences for professional

development formats, (3) collaboration with peers as resources to alter their instructional

practices, and (4) their perceptions of early childhood programs within the organization and

(5) the impacts other program teachers can have on their instructional practices. A sample

question from the pre-survey is noted in Figure 1.

Figure 1

Sample pre-survey question

9.   I believe receiving feedback from coworkers on my instructional practices could benefit my teaching.

Multiple choice

○ Strongly agree

○ Somewhat agree

○ Neutral

○ Somewhat disagree

○ Strongly Disagree

Qualitative data was gathered through responses from six open-ended reflection

question responses (Appendix D). These questions focused on participants (1) perceptions

and feelings of interacting and providing feedback to a peer, (2) what was learned from a

peer and could be applied within their own instructional practices, (3) perception changes

about other early childhood programs within the organization.

Data Collection

Data collection for the study occurred in three phases: pre-intervention, intervention,

and post-intervention. Quantitative data was collected before the start of the intervention.

Following the initial presentation to participants, the pre-survey was administered. All

participants completed and submitted the electronic surveys before the beginning of the

intervention. Qualitative data was also obtained during the intervention phase. After each

observation was completed, the identified observer completed the open-ended response

questions utilizing the Google survey. Once all observers completed their three observations

and were observed by three observers, the post-survey was provided to each participant for completion. The post-survey included one additional question from the pre-survey, focusing on the participants' perception if they gained any instructional strategies and altered their teaching practices as a direct result of peer coaching.

Fiscal Implications of Data collection

Both quantitative and qualitative data were collected electronically, providing a cost-efficient option of allowing participants to capture their responses and submit them through Google Forms. Data collection began during the last week of January and concluded the last week of March. Based on the current instructional model resulting from the COVID-19 pandemic, a majority of the observations were scheduled to occur through virtual platforms. As the data collection period occurred during the winter months, there were six snow days. Since virtual platforms for instruction were already established, in-person classrooms transferred to virtual instruction days instead of closing programs for snow days. This shift to virtual instruction days provided additional cost-saving measures permitting the teachers to complete observations but not requiring substitute coverage.

Validity

Hendricks (2017) notes four components which can be used to increase the validity of an action research study. These components include credibility, transferability, dependability, and confirmability. Credibility is the reasonableness of the data and research findings. Transferability refers to the benefits this action research can have to others. Dependability is the ability to duplicate the study with participants that are similar to the current research. Lastly, confirmability ensures the results are a direct result of the study and not altered by the researcher's biases (Hendricks, 2017).

For the research study to be credible persistent observations occurred over the course of eight weeks. Each participant engaged in three different peer observations. To facilitate accurate data recording, participants recorded qualitative data through responses to open-ended questions. The questionnaire was completed within 48 hours of the observations. If the questionnaire was not completed within 48 hours, a reminder from the researcher was provided to the participant within a week of the observation occurring to ensure data accuracy.

A thorough description of the study design and a robust portrayal of the setting was previously articulated. Although all participants were teachers who volunteered, they are affiliated with multiple programs. There is a delineation for job responsibilities, educational levels, and pay scales within each of the three programs. The pre-and post-survey captured participant's differences through requested data noting their highest education level of completed, years of teaching experience, and program affiliations. The pre-survey contains 19 questions, and the post-survey contains 20 questions. The open-ended reflection questionnaire had a total of eight questions (Appendix D). The brevity of these data collection tools was to ensure participants' attentiveness and completion. As noted by Hendricks (2017) respondents generally will not provide in-depth replies for long surveys. These noted components contribute to the transferability of the study. An additional data source that could have been incorporated within the research study, which might be a limitation, is teachers' overall evaluation scores on their past annual evaluations.

Strategies to support the transferability of the research study were incorporated. Alignment of the survey and open-ended questions with the research questions occurred during the study's initial planning phase. Using several data sources to support findings

ensures triangulation of data. Quantitative data was captured using the pre-and post-survey

questions. Qualitative data was obtained through open-ended reflection questions to capture

the teachers' attitudes and perceptions completing the peer observation. Because the feedback

form in which the observer provided two compliments and two suggestions for improvement

was only being provided to the teacher and never reviewed by the researcher, a question in

the open-ended reflection questionnaire was added to inquire if the teacher received the form.

This ensured that the teachers were being provided this form from their observer without the

researcher ever having to review the content.

During the intervention, participants were encouraged to report honest feedback with

the rationale that results from this research study would determine future plans for

incorporating components of peer observations into staff professional development and

annual educator effectiveness evaluations. Data was collected using Google forms for

accurate data collection and time efficiency for participants. This data collection format also

allowed for data to be easily exported into spreadsheets for data analysis without any

fallacies in transposing data. Impromptu discussions with participants provided for

respondent validation. The study occurred as part of a cohort in a doctoral program with the

researcher engaging in peer debriefing with a fellow colleague. In addition, further debriefing

occurred with three colleagues who have recently engaged in research and recognized the

factors necessary for research. The cohort peer nor any of the consulted colleagues are

devoted to this study. These methods were enlisted to assure confirmability of the study.

Credibility, transferability, dependability, and confirmability are criteria to describe

the trustworthiness of the study (Hendricks, 2017). Throughout the research study, these

factors were utilized to ensure reliability and validity. Potential researcher bias is noted as the

researcher is an administrator of the early childhood programs at the BCIU. The researcher was also an employee and administrator within the Early Intervention program, specifically for eleven years prior to moving into the current Assistant Director position, which oversees all three early childhood programs at the BCIU.

Summary

The mixed method research study was designed to examine several aspects of peer coaching on early childhood programs and obtain clarification to the defined research questions.

Within the methodology chapter a further explanation has been provided on the purpose of the research and the long-term impacts that could benefit early childhood programs at the BCIU. In-depth information on the setting and participants has been outlined to provide a thorough understanding of who is involved and the dynamics of the educational organization and programs. The research plan is defined and details on the data collection are explained inclusive of fiscal implications. Lastly to ensure increased validity of the research, Hendricks (2017) four components: credibility, transferability, dependability, and confirmability were reviewed.

The following chapter will provide analysis and interpretation of the qualitative and quantitative data and subsequent results. Triangulation of data sources will also be included in the next chapter to reinforce validity.

CHAPTER IV

Data Analysis and Results

Peer coaching provides educators a hands-on opportunity to learn from a fellow teacher within their natural environment. Educators can self-identify their needed areas of growth and can learn alternate activities, strategies, and approaches to learning that can easily be implemented upon their return to the classroom. Peer coaching coupled with the learning opportunities provides educators with opportunities for interactions with other educators. Staff collaboration is essential for establishing relationships and developing partnerships among teachers (Cranston, 2009). This study reviewed perception changes educators had of peer coaching after participation in the study, their perception changes of other Early Childhood Programs with the Berks County Intermediate Unit (BCIU) organization, and modifications made to their instructional practices due to their participation in the study. This chapter reviews qualitative and quantitative data collected from fifteen voluntary participants and analyzed to answer the following three research questions:

1. In what ways does active participation in peer coaching alter an early childhood educator's perception of peer coaching?

2. In what ways does an educator's perception of other early childhood programs change through participation in a peer coaching program?

3. In what ways do early childhood educators' instructional practices change through participating in a peer coaching program?

Inquiry data was collected through pre-and post-survey questions, coupled with open-ended response questions. As previously discussed, this research occurred during the COVID-19 pandemic as well as within the winter months of January – April 2021. As a

result of the COVID-19 pandemic, classrooms had recently acquired experience in virtual

platforms. During the study, eight classrooms only provided a virtual instructional model.

For the classrooms providing in-person instructional formats, there were times when the

classroom needed to pivot to a virtual instructional format due to weather or quarantine

restrictions. Therefore, the peer coaching observations occurred among the varied

instructional models.

The three research questions will be reviewed, with the prior alignment of survey and

open-ended questions for each research question. Quantitative data was collected through

survey questions and used to answer each of the three research questions. Each survey

question utilized a Likert scale for responses, and a point value was assigned to each

response; Strongly Agree = 5, Somewhat Agree = 4, Neutral = 3, Somewhat Disagree = 2,

Strongly Disagree = 1. These point values were assigned for statistical analysis after

participants completed the survey. Due to this fact, participants were not aware of the point

value system. Comparison of pre-survey and post-survey responses were analyzed using the

mean score or averages and paired sample t-tests. Qualitative thematic data analysis was used

for the open-ended teacher responses to answer all three research questions, triangulating the

data.

Research Question 1

The first research question seeks to answer, "In what ways does active participation in

peer coaching alter an early childhood educator's perception of peer coaching?" Through

exploratory analysis of quantitative data on pre-and post-survey responses, the researcher

sought to gain an understanding of educators perceived best professional development

learning format to acquire new instructional strategies, and their comfort in seeking and

providing advice from other teachers. Data was triangulated through qualitative data gathered

from open-ended questions, obtaining responses on educators' experience in providing

feedback to a fellow teacher, how they felt about the interaction and what they learned as a

result of the peer coaching research study.

Survey Questions for All Participants

The researcher obtained feedback from participants through pre-and post-survey

responses to gain an understanding of educators' perception for their perceived most

effective format for professional development. A statistical analysis was completed focusing

on the mean or average for all 15 educators' responses comparing the following professional

development formats: large group seminars, coaching, and independent reading and research.

Survey question one (SQ1) which focused on large group seminars professional

development, yielding the following results: pre-survey (M = 3.7, SD=.59) and post-survey

(M=3.6, SD=.73) responses. A comparison in survey question two (SQ2) focusing on

observation and modeling for learning resulted in a mean 4.46 (SD=.74) and post-mean 4.8,

(SD=.35) responses. Survey question three (SQ3) outlined educators' perception of using

independent reading and research as a form of professional development for learning, which

found the pre-survey (M=3.46, SD=.99) and post-survey (M=3.3, SD=.89) responses. Survey

question one, two and three analysis did not result in statistically significant difference.

Figure 2 provides a visual comparison of learning formats.

Figure 2

Mean Comparison of Learning Formats

Mean Comparison of Learning Formats
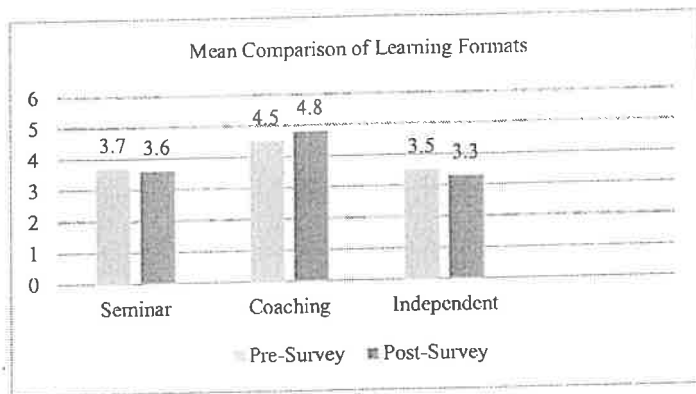
To further answer research question one, survey question eleven (SQ11) had educators' rate how comfortable they felt seeking advice from another teacher about a teaching concern. Educators captured their comfort level responses on the pre-survey (M=4.73, SD=.46) and the post-survey (M=4.86, SD=.35) response, although differences were not considered statistically significant. Survey question thirteen (SQ13) obtained data on whether educators received suggestions from a peer on how to improve their instruction with results captured as such, the pre-survey mean 4.53, (SD=.63) and post-survey mean=4.73(SD=.59). This difference is considered to be not quite statistically significant as measured by the paired-sample t-test.

Survey question twenty (SQ20) captured educators' responses indicating that 66% strongly agree, 26% somewhat agree, and 6% report being neutral for gaining additional instructional strategies and altering their teaching practices as a result of peer coaching. This survey question was only on the post-survey. Figure 3 depicts educators' agreement regarding their alteration of teaching practices.

Figure 3

Alteration of Teaching Practices

Alteration of Teaching Practices

6%

26%

66%

Strongly agree   Somewhat agree   Neutral

Open-ended Questions for All Participants

The first open-ended question gathered qualitative data asking educators to describe their experience in providing feedback to other educators. There was a total of forty-five comments, 42 positive comments, and three neutral comments. The positive comments included statements that the process was easy, and they felt they could have easily provided more than two requested compliments:

> *I felt that it was really easy filling out the feedback form to the teacher. Only having to provide two compliments and two suggestions did not take much time at all. In fact, I found myself wanting to give more than just two compliments.*

The three neutral comments from educators stated they were not able to talk to the peer they observed at the conclusion of the peer observation as a result of scheduling issues or they did not receive any feedback from the peer after emailing the observation, as they had anticipated.

The second opened-ended survey question had educators respond what they learned from observing a peer. The following five themes emerged, (1) strategies, (2) teaching styles, (3) activities (4) approaches with typical students in comparison to approaches for students with students with disabilities, and (5), curriculum comparisons. Strategies were the most

frequent, at 40%. The second highest responses were teaching styles at 31%. An example of

this response:

> It was very interesting; I really like the teacher's energy and classroom climate.

Activities learned were noted as 13% of responses. The comparison of approaches

between teaching typical students compared to teaching students with disabilities was 9%.

For example:

> I learned how to support children with special needs in my classroom from this observation.

The last theme for what was learned was a comparison of curriculums at 7%. In

addition to the thematic areas captured through the open-ended responses, educators were

able to affirm that although each educator might have different approaches, they all have the

same goal. A sample of these responses include:

> I was shocked at how different her teaching was compared to mine. I feel like virtual learning is a struggle for all of us, and we are all finding different tips and tricks to make learning fun.

> I see that we might have different styles of teaching, but our goal is exactly the same- to instill a love a learning in each child. I learned that flexibility is the key to every classroom.

Figure 4 is a visual representation for the noted data.

Figure 4

Learned from Peer Observation

Learned from Peer Observation

Strategies ▪ Activities ▪ Curriculum ▪ Teaching Styles ▪ Disabled vs Typical
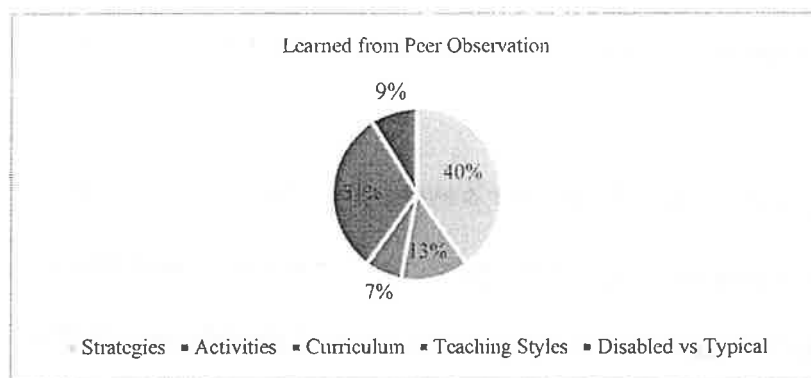
The third open-ended question requested participants to indicate how they felt about the peer observation interaction. There were 45 comments, of which 44 comments noted a positive response in how they felt about the interaction, and one comment was neutral. Of the 44 positive comments, twelve comments indicated that they felt comfortable with the interaction or they felt welcomed by the educator they were observing. A few comment examples included:

> *The interaction was rewarding and enriching. The atmosphere was warm. I didn't feel any stress from the teacher because I was observing her. At the end, we shared some teaching strategy ideas.*

> *The interaction was positive. The teacher was friendly, and it was nice to meet a fellow teacher in a different early learning program*

> *I felt really comfortable with the interaction with the teacher. I really enjoyed seeing someone else teach. I believe working with others is really important and helps others to grow.*

Program Affiliation Survey Questions

Of the 15 participants, there were five participants from each of the three early childhood programs. In addition, an exploratory analysis across programs was completed to determine if there was a more significant difference in educators' perception of peer coaching compared to other programs.

Survey question five (SQ5) focused on educators' perception for learning through large group seminars. The Head Start educators reported the large group seminars as a more

neutral response with a pre-survey mean =3.6, (SD=.54) and then a slight increase for their post-survey mean=4 (SD=0) response. Early Intervention educators' perception of large group seminars were neutral agreement with a pre-survey mean=3.6 (SD=.89) and post-survey mean=3.4 (SD=.89) response. Pre-K Counts surveys were higher for large group seminars with pre-survey mean =4 (SD=0) and lower post-survey mean=3.4 (SD=.89). Although there was not a significant statistical difference for any analyzed program affiliations.

For survey question six (SQ6) participants indicating their perception of learning new strategies through observation and modeling. Head Start educators' results indicated a somewhat agreement with pre-survey means=4.8 (SD=.44) and increased to strong agreement for post-survey mean= 5 (SD=0). Early Intervention pre-survey captured an initial agreement noted by the means=4.4 (SD=.54) with a slight increase mean =4.6 (SD=.54) for post-survey responses. Pre-K Counts perception of using observation and modeling to learn new strategies had a pre-survey means=4.2 (SD=1.09) and post-survey means=5 (SD=0). There was no significant statistical difference for any of the program affiliations.

For survey question seven (SQ7), participants noted their belief for learning new instructional strategies through independent reading and research. Head Start results for the pre-survey were more neutral with a mean= 3.8 (SD= .83) and an increase for post-survey mean=5 (SD=.54). Independent learning for Early Intervention was a lower natural agreement with a pre-survey mean=3.2 (SD=.83) and no change noted with a post-survey mean=3.2 (SD=.83). Pre-K Counts results for learning through independent reading and research results were between Head Start and Early Intervention with a pre-survey mean =3.4

(SD=1.34) and post-survey mean=3.2 (SD=1.30). There was no significant statistical difference for any of the program affiliations.

Survey question 11 (SQ11) captured participants' comfort level in seeking advice from another educator. Head Start participants pre-survey and post-survey remained consistent (M=5, SD=0). Early Intervention participants pre-survey and post-survey also remained consistent (M=4.6, SD=.54) for their comfort level. Pre-K Counts results noted their comfort level through pre-survey mean=4.6 (SD=.54) with a slight increase for the post-survey mean=5 (SD=.54). There was no significant statistical difference for any of the program affiliations. Figure 5 provides a visual representation of the data for survey question 11.

Figure 5

Program Affiliation for Educator's Comfort Level in Seeking Advice
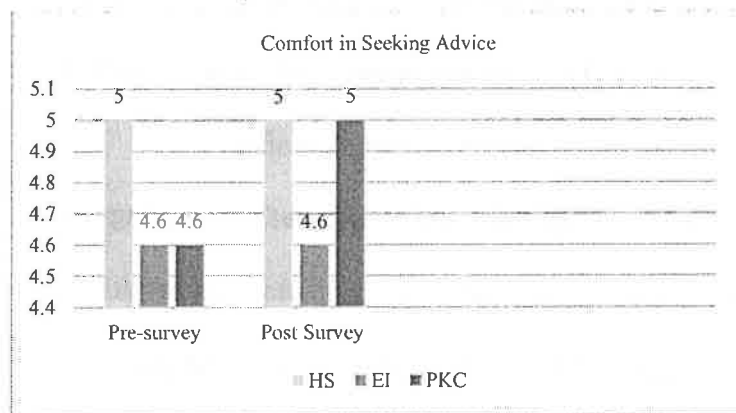
Research survey question 13 (SQ13) obtained data on whether educators received suggestions from a peer on how to improve their instruction. Head Start pre- and post-survey responses were consistently strong in agreement (M=5, SD=0) responses. Early Intervention educators' pre-survey (M=4.2, SD=.44) and post-survey (M=4.6, SD=.54) captured a slight increase for their agreement to receiving suggestions from a peer. Pre-K Counts pre-survey

(M=4.2, SD=.83) and post-survey (M=4.4, SD=.89) responses also indicated a slight increase

in their agreement. There was not a statistically significant difference for any of the programs

as measured by paired-sample t-tests.

Post-survey question 20 (SQ20) gathered participants' responses to whether they

gained additional instructional strategies and altered their teaching practices as a result of

peer coaching. The Head Start educators depicted their agreement with a mean=4.8 (SD=.44)

response. As noted by their responses Early Intervention educators agreed with a mean=4.4,

(SD=.89). Pre-K Counts educators' responses agreed through their depiction of their

mean=4.6 (SD=.54) responses.

Program Affiliation Open-Ended Questions

For open-ended question one, educators described their experience providing

feedback to the others. Each program had 15 responses; Head Start had 13 positive

responses. An example of the positive response included:

> *It was a pleasure to be able to interact and give her feedback. She is doing an amazing job especially during the pandemic in which we are living right now.*

There were two neutral Head Start responses both from the same educator stated only as
"recently completed".

All 15 Early Intervention educators' responses were positive. Pre-K Counts had

fourteen of the 15 responses noted as positive interactions and one neutral response. A

positive example included:

> *Very nice. After sending the feedback form, she had shared some of her resources that I had commented that I loved.*

Open-ended question two answered what educators learned from observing a peer. As

stated previously, the five themes included (1) activities, (2) strategies, (3) teaching styles,

(4) curriculum comparisons (5) approaches with typical students in comparison to

approaches for students with disabilities. Head Start, educators' activities were 13%.

Strategies were identified as the most learned at 40%, teaching styles and teaching typical

students in comparison to approaches for teaching students with disabilities were both 20%.

Head Start educators did not have any responses for the curriculum comparison theme. Early

Intervention educators indicated strategies were the most learned at 40%. Activities,

curriculum comparisons, and teaching typical students in comparison to approaches for

teaching students with disabilities were all 13%. Teaching styles were 20%. Pre-K Counts

educators noted strategies as the most learned, 60%. Teaching styles were 33% and teaching

typical students in comparison to approaches for teaching students with disabilities were less

than 1%. There were no Pre-K Counts responses for activities or curriculum comparisons. A

summary of the presented information is captured in Table 2.

Table 2

Learned from a Peer by Program Affiliation

Theme	Head Start	Early Intervention	Pre-K Counts
Activity	13%	13%	0%
Strategy	40%	40%	60%
Teaching Style	20%	20%	33%
Curriculum	0%	13%	0%
Typical vs. students with a disability	20%	13%	<1%

Open-ended question three captured participants' indication of how they felt about the

peer observation interaction. All of the 15 peer observations completed by Head Start

educators were noted as positive. In addition, in five of the 15 observations, educators stated

they felt comfortable in completing the observations.

The interaction was great, I was scared at first, but I really enjoy the interactions with teachers and children.

The 15 peer observations completed by Early Intervention educators were all positive.

There were also five of the 15 observations in which educators noted they felt comfortable.

I felt very positive about the interaction. The teacher seemed welcome to my suggestions and the experience helped me feel more confident in my own abilities.

Pre-K Counts educators' observations were all positive except one observation, which

included a partial concern:

I feel like there was a lot of time and important instruction lost because the teacher was testing a student. The others were expected to sit and play with playdough while she was working with the student. Her interaction with the student she was working with was positive and she was very proud of his accomplishments.

In three of the fifteen responses educators expressed feeling comfortable in

completing the peer observation.

I feel great about the interaction. The teacher made me feel comfortable and she was very easy to talk to.

Research Question Two

The following section provides data analysis and results to answer the second

research question, "In what ways does an educator's perception of other early childhood

programs change through participation in a peer coaching program?" As stated previously,

there are three early childhood programs within the BCIU with all programs providing

services to students identified as "at-risk". Due to different government bureaus, each

program has slightly different regulations and mandates. These differences, coupled with the

minimal exposure educators have between programs, prompted the study, and informed the

data collected for this research question. Exploratory analysis of pre-and post-survey

questions was used to understand educator's perception of programs other than their own

prior to the study, and their perceptions after they participated in the study. Triangulation of data occurred through qualitative data, capturing educators' responses through an open-ended question focusing on their perception of other programs following completed peer observations.

Survey Questions for All Participants

Five pre-and post-survey questions were identified to gather data for the second research question, and the perception educators had about other early childhood programs. Survey question 15 (SQ15) sought educators' understanding of other programs' instructional expectations with responses noted for pre-survey (M=3.93, SD=.79) and post-survey (M=4.6, SD=.50), t (14) = 3.56. A paired-sample t-test was conducted and indicated the difference to be very statistically significant.

Survey question 16 (SQ16) captured educators' beliefs as to whether other programs provide a comprehensive educational program as their own. All participants agreed with this question as indicated through the pre-survey responses, noting the mean=4.66 (SD=.61) and post-survey mean=4.86 (SD=.35). However, the paired-sample t-test indicated the comparison was not statistically significant.

Survey question 17 (SQ17) gathered educators' beliefs as to whether other programs provide a quality educational program as their own. There was agreement for this belief with all participants indicating the pre-survey mean=4.66 (SD=.72) and post-survey mean=4.86 (SD=.35). Although the paired- sample t-test noted the comparison was not statistically significant.

Survey question 18 (SQ18) collected educators' beliefs if there were strategies that could be learned from other programs. A strong agreement by all participants was captured in

the pre-survey as noted by the mean=5 (SD=0) with a very slight decrease demonstrated through the post-survey mean=4.86 (SD=.35). The paired-sample t-test indicated the comparison was not statistically significant.

Lastly, survey question nineteen (SQ19) inquired if educators believed other early childhood programs from their own have an easier class to teach. There was consistent disagreement noted by all participants prior to the intervention through the pre-survey mean=2.6 (SD=.98). Only a minor increase followed the intervention, but still in disagreement, as demonstrated through the post-survey mean=2.73 (SD=1.22). The paired-sample t-test revealed the comparison was not statistically significant. Figure 6 visually depicts the results discussed.

Figure 6

Educators' Perception of other Programs
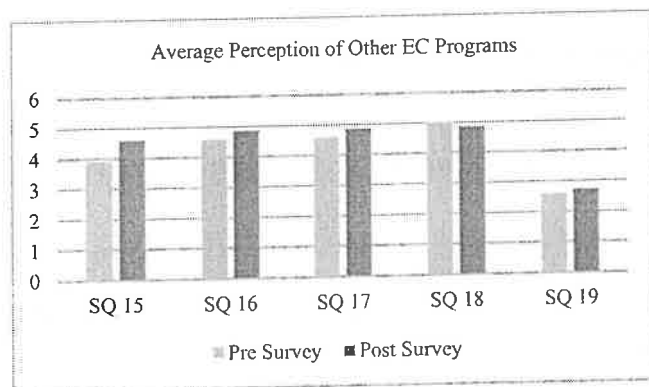
Open-Ended Questions for All Participants

Open-ended question six gathered data noting if participation in the peer coaching study changed educators' perceptions of other programs. Thirty of the 45 observations occurred in programs differing from participants' home program. There were 28 positive comments and two negative comments. Four themes emerged: (1) student focus, (2) curriculum, (3) program similarities, and (4) general positive statements. The first theme was

student focus, with 39% of the comments about student successes or student-to-teacher

ratios.

> *They work hard to ensure the students are learning the material they need to succeed.*

The second theme was on curriculum. Five of the 38 comments or 18% centered around

curriculum.

> *Her classroom is more focused on academics than my classroom/group which has a developmental focus.*

Theme three was coded as program similarities, in which educators responded that

the program they observed was similar to practices within their own program. Five of the 28

comments, or 18%, were categorized into three themes.

> *It seems that our two programs have the same expectations for our students.*

The fourth theme was general positive statements, with educators noting it was a positive

experience with no other details. For the positive theme, there were four of the 28 responses

or 14%. Participants responses for the student focus theme included:

> *It's almost the same (as my program) but there are way more children in this program then there is in my program and you try to do what you can to help each child learn or try to learn.*

> *Every program has its challenges and being this unprecedented year of teaching, all teachers continue to want their students to succeed. My perception hasn't changed after this observation- I always admired EI teachers and continue to realize their dedication and hard work.*

The two comments that were not positive for open-ended question six were:

> *When getting into the google meet there was no one there at 9:00. by 9:05 the paras were on and were trying to figure out what they were to be doing and I asked if the teacher was coming. The para called her, and she was on around 9:09. Then the students started to get on. I felt like it was very unorganized and was actually shocked with the whole experience. I do not believe this is a reflection on the program I think it's a lack of many other things.*

I was shocked that it was only an hour and the teacher tested a student the majority of the time while the others played with play dough. I just think if they only have an hour group those kids should be tested at different times, so it doesn't take away from the other student's time or have a para take over and run group. I just don't know how an hour can benefit a student once a week in a classroom like this.

Of the 15 participants, there were eight educators, 53%, who responded that their participation in the peer coaching study changed their perception of other programs. Three participants indicated their perception had changed for both of the other two programs observed. For the remaining five participants, there was only a change in perception for one of the two programs observed outside their own program.

Program Affiliation Survey Questions

Program affiliation was explored for research question two. The researcher sought to gain insight into changes in educators' perception of other programs based upon a connection to their home program.

SQ15 explored educators' understanding of instructional expectations within other programs. Head Start pre-survey responses indicated agreement with pre-survey mean=4.0 (SD=1) responses and noted increase for post-survey mean=4.4 (SD=.54) response, however no significant statistical difference. Early Intervention educators reported a more neutral pre-survey mean=3.4 (SD=.54) response with an indicated statistically significant difference compared to the post-survey mean=4.4 (SD=.54) t (4) = 3.16, when a paired-sample t-test was conducted. Pre-K Counts pre-survey mean=4.4 (SD=.54) response increased for the post-survey mean=5 (SD=0) response, although not a significant statistical difference.

SQ16 captured educators' beliefs as to whether other programs provide a comprehensive educational program. Head Start educators noted their somewhat agreement with other program's comprehensive programming through a pre-survey response (M=4.4,

SD=.54) and an increase to strongly agree for post-survey responses (M=5, SD=0). Early

Intervention educators strongly agreed for pre-survey responses (M=5, SD=0) with a

minimal decrease for post-surrey responses (M=4.8, SD=.44). Pre-K Counts pre-survey and

post-survey responses remained consistent (M=4.8, SD=.44) for their beliefs of other

programs' comprehensive programming. Paired-sample t-tests were conducted for SQ16,

although there was no statistically significant difference.

SQ17 inquired if other programs provided a quality educational program. Head Start

pre-survey mean=4.2 (SD=1.09) responses and post-survey responses (M=5, SD=0)

demonstrated an increase. Early Intervention pre-survey responses (M=5, SD=0) and post-

surrey responses (M=4.8, SD=.44) captured a slight decrease in agreement. Pre-K Counts

pre-survey and post-survey responses remained consistent (M=4.8, SD=.44). Paired-sample

t-tests were conducted for SQ17, although there was no statistically significant difference.

SQ18 captured if there are strategies that can be learned from other programs. Head

Start pre-survey and post-survey responses remained consistent (M=5, SD=0). Early

Intervention pre-survey responses (M=5, SD=0) and post-survey responses (M=4.6, SD=.54)

demonstrated a slight decrease. Pre-K Counts pre-survey and post-survey responses remained

consistent (M=5, SD=0). Paired-sample t-tests were conducted for SQ18, although there was

no statistically significant difference.

SQ19 sought data as to beliefs if other programs had easier classes to teach. Head

Start pre-survey and post-survey responses remained consistent (M=3, SD=.70). Early

Intervention pre-survey (M=2.6, SD=1.14) and post-survey responses (M=2.6, SD=1.15)

remained consistently in disagreement. Pre-K Counts pre-survey (M=2.2, SD=1.09) and

post-survey responses (M=2.6, SD=1.14) stated a slight increase, although remaining in

disagreement. Paired-sample t-tests were conducted for SQ19, although there was no statistically significant difference.

Program Affiliation Open-Ended Questions

Open-ended question six gathered data noting if participation in the peer coaching study changed educators' perceptions of other programs. As previously noted, there was a total of eight educators who indicated a change; four were Head Start educators, two Early Intervention educators, and two Pre-K Counts educators. In addition, one of the educators from each of the programs had a change in perception of both programs.

Research Question Three

Research question three captures data regarding how educator's instructional practices change through participating in a peer coaching program. Quantitative data was collected through pre-and post-survey data capturing educators' perspective on (1) interest in improving their instruction, (2) benefits of receiving feedback from a coworker to assist their practices, (3) their experience in providing feedback to coworkers (4) their comfort level in seeking advice from another teacher (5) confirmed acknowledgment from an educator that a provided suggestion altered instructional practices (6) changing of instructional practices based upon an educators suggestion. Open-ended responses were used to gather qualitative data on what "take-aways" were obtained from participating in the peer coaching study, triangulating the data.

Survey Questions for All Participants

Five pre-and post-survey questions were selected to obtain data on educators' instructional practices related to peer coaching. Survey question eight (SQ8) noted whether

an educator was interested in improving their instructional practices. The pre-survey and post-survey responses were consistent (M=4.86, SD=.35), indicating no change.

Survey question nine (SQ9) captured educator's beliefs in how receiving feedback from a peer could benefit their instructional practices. Educators' agreement was concluded through pre-survey mean=4.5 (SD=.35) responses. Post survey responses indicated higher levels of agreement (M=4.93, SD=.25).

Survey question ten (SQ10) obtained educators' experience in providing suggestions to peers to support the improvement of their instructional practices. A paired-sample t-test was conducted and indicated the difference to be very statistically significant between the pre-survey responses (M=4.2, SD=.77) and post-survey (M=4.73) t (14) =3.22.

Survey question 12 (SQ12) inquired if suggestions provided to a peer were confirmed to help change the peer's instructional practices. There was a slight increase between the pre-survey responses (M=4, SD=.75) and post-survey responses (M=4.06, SD=.79). However, the paired-sample t-test was not statistically significant.

Survey question 14 (SQ14) gathered data on whether educators made changes to their instructional practices upon receiving suggestions from a peer. A paired-sample t-test was conducted and indicated the difference to be very statistically significant between the pre-survey responses (M=4, SD=.59) and post-survey responses (M=4.8, SD=.41), t (14) = 3.5. Figure 7 provides a visual depiction of the data.

Figure 7

Educator's Instructional Practices
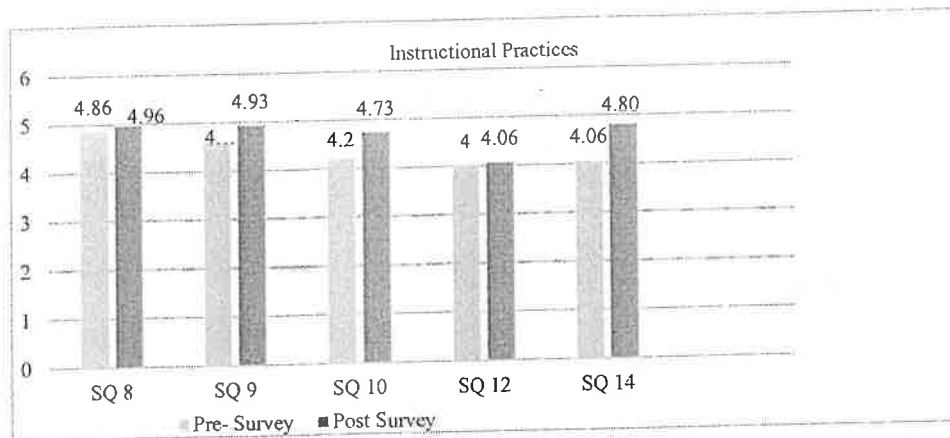
Open-Ended Questions for All Participants

Open-ended question four sought educators' responses on what "take-aways" were learned for their own practices. There were 45 responses, and 41 responses were delineated into four themes: (1) activity/strategy, (2) technology strategy, (3) parent supports, and (4) teaming. The remaining four responses were outliers. The activity/strategy consisted of 63% of the responses. Technology strategy responses were 25%. The responses for parent support responses were 5%. Lastly, teaming responses were 3%. Figure 8 provides a visual depiction of the four themes.

Figure 8

"Take-away" Theme Responses
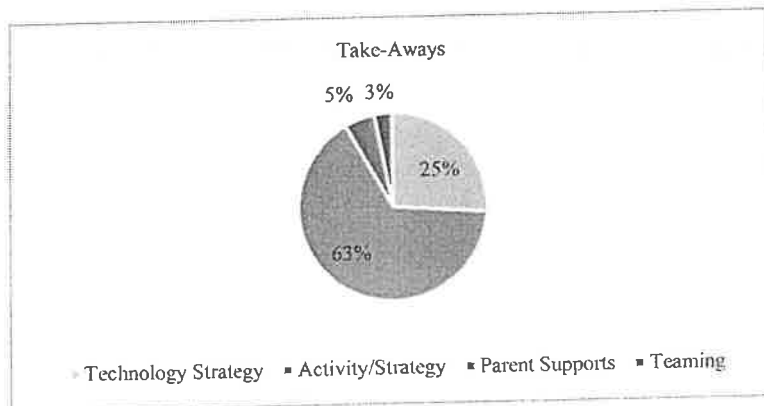
The four statements that did not align with the identified themes include:

I will learn to accept and be ok with the things that I have no control over.

I have learned that children love to have fun and do different activates even though they are home.

Patience, patience, patience. Any time is a time to learn!

There is always room for me to grow and lean from my peers.

Open-ended question five gathered qualitative data on what changes educators will make in their classrooms as a result of the peer observations. Thirty-eight of the 45 responses commented that they would make a change to their classroom. These responses were analyzed, and three themes emerged: (1) activity/strategy, (2) technology, and (3) communication/interaction. Six responses indicated they would not change their classroom, but they would add one of the three noted themes. For one response, the educator stated they would not make a change to their classroom but noted a change to the placements of visuals within the classroom they were observing. For the activity/strategy theme, 59% of the responses noted they would change or add to their classroom. The technology strategy had 23% of the educators' reporting a change or addition they would implement in their classroom. For the communication/interactions theme, 18% of the educators' noted this as changes or additions they would make to their classroom following their participation in the peer coaching study. Figure 9 provides a visual representation of the theme responses for open-ended question five.

Figure 9

Classroom Changes Themes

Changes to Classroom

18%   23%

59%

- Technology
- Activity/Strategy
- Communication/Interaction
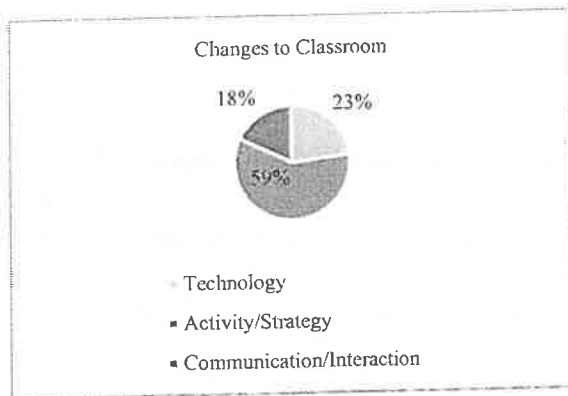
Program Affiliation Survey Questions

An analysis of educators' program affiliation was completed to understand further how instructional practices were altered upon participation in the peer coaching research study. SQ8 gathered data on improving instructional practices. Head Start educators, pre- and post-survey questions remained consistent (M= 5, SD= 0). Early Intervention educators responded with a slight decrease between the pre-survey responses (M=4.8, SD=.44), and the post-survey responses (M=4.6, SD=.54). Pre-K Counts educators demonstrated a slight increase from the pre-survey responses (M=4.8, SD=.44), and the post-survey responses (M=5, SD=0). There was no statistical difference for the three groups.

SQ9 obtained responses on educators' beliefs if receiving feedback from a coworker could benefit their instructional practices. Head Start educators, both pre- and post-survey questions (M= 5, SD= 0) were equal. Early Intervention educators, pre- and post-survey responses were equal (M=4.8, SD=.44). Pre-K Counts educators responded with a slight increase between the pre-survey responses (M=4.8, SD=.44) and the post-survey responses (M=5, SD=0). There was no statistical difference for the three groups.

SQ10 sought educators' replies if they have provided suggestions to a peer on how to improve their instructional practices. Head Start educators somewhat agreed that they provided beneficial suggestions as captured for pre-survey questions (M= 4, SD=1) with an

increase to strongly agreed for post-survey responses (M=5, SD=.89). Although there was no statistical difference. Early Intervention educators were more neutral with pre-survey responses (M=3.8, SD=.44) and then had an increase for post-survey responses (M=4.8, SD=.44) t (8) t=3.53. A paired-sample t-test was conducted and indicated the difference to be very statistically significant. The Pre-K Counts educators' pre-survey responses were higher in agreement (M=4.8, SD=.44) with an increase to strong agreement for post-survey responses (M=5.0, SD=0.0). There was not a statistical difference.

SQ12 collected responses from educators in which they noted if a suggestion provided to a peer changed the peer's instructional practice. Head Start educators pre-survey questions (M= 4, SD=.70) and post-survey questions (M=5, SD=.70) delineated an increase. Early Intervention educators' responses showed a slight decrease, pre-survey responses (M=4, SD=.70), and post-survey responses (M=3.8, SD=.83). Pre-K Counts educators' pre-survey responses (M=4, SD=1) and post-survey responses (M=4.4, SD=.89) increased. There was no statistical difference for the three groups.

SQ14 gathered responses regarding whether educators made changes to their instructional practices based upon a peer's suggestion. Head Start educators' responses increased between the pre-survey questions (M= 4, SD=1) and the post-survey questions (M=5, SD=0). Early Intervention educators' responses increased between pre-survey responses (M=4.2, SD=.44), and post-survey responses (M=4.6, SD=.54). Also, the Pre-K Counts educators' responses increased between the pre-survey responses (M=4, SD=0) and post-survey responses (M=4.8, SD=.44). There was no statistical difference for the three groups.

Program Affiliation Open-Ended Questions

Open-ended question four gathered responses from educators capturing "take-aways" that were learned for their own practice. There were forty-five responses, and forty-one responses were delineated into four themes: (1) activity/strategy, (2) technology strategy, (3) teamwork, and (4) parent support. The remaining four responses were outliers. Head Start educators' responses were the following for each theme; activity/strategy - 61%, technology strategy – 30%, parent supports - 7%, and teamwork- 7%. Early Intervention educators' responses were the following for each theme; activity/strategy – 78%, parent supports – 7%, technology strategy – 7%, and teamwork – 7%. Pre-K Counts educators' responses for the four themes; activity/strategy 50%, technology strategy – 42%, teamwork – 7% and, parent supports – 0%. Table 3 provides a visual representation of the noted data.

Table 3

"Take-aways" by Program Affiliation

Themes	Head Start	Early Intervention	Pre-K Counts
Activity/Strategy	61%	78%	50%
Technology strategy	30%	7%	42%
Teamwork	7%	7%	7%
Parent supports	7%	7%	0

The outlier responses not related to the themes included two Head Start educators, with the following responses:

I will learn to [accept]and be ok with the things that I have no control over.

The take-aways that I have learned is that children love to have fun and do different activity and different movements even though they are home.

There was one Early Intervention educator outlier response:

There is always room for me to grow and learn from my peers.

One Pre-K Counts educator responded with a response not aligned with the four identified themes:

Patience, patience, patience. Any time is a time to learn.

Open-ended question five captured changes educators will make in their classroom as a result of observing others. The three themes that emerged for this open-ended question: (1) technology strategies, (2) strategy/activity, and (3) communication/interaction. Fourteen of the 15 Head Start educators' responses aligned with the three themes. The technology strategy responses were 2%. The activity/strategy responses are 71%. Responses for communication/interaction responses were <1%. Two Head Start educators noted in three responses that they would not make any changes to their classroom. However, one of the two Head Start educators indicated they would add an activity to their classroom that they learned from a peer. From another observation, the same Head Start educator indicated they would:

I would have more communication and if any of my team has an idea, I am willing to try it for the child to make a(n) easier transition.

The second Head Start educator remarked they would not make changes or additions to their classroom and believed the peer they observed should adjust the height of visuals displayed in the classroom.

Fourteen of the 15 Early Intervention educators' responses noted they would make changes to their classroom. For the technology strategy theme, 40%. The activity/strategy theme had 46%. Changes noted for the communication/interaction theme were 13%. The one Early Intervention educator who responded that they would not make changes to their classroom did indicate an addition:

I would incorporate some of the songs used for my high learners.

For the Pre-K Counts educators, there were thirteen of the fifteen responses in which participants noted they would make changes to their classroom as a result of observing others. For the technology strategy theme, <1%, reported this as a change they would implement. The activity/strategy theme had 60% of the educators' responses as changes that would be included. Communication/interactions theme had 33% of the responses. One of the two Pre-K Counts educators remarked in two separate responses that they wouldn't make changes to their classroom based on the peer observation, but they would make some additions:

> *There is nothing I would change but I do plan to add somethings I observed from the zoom lessons when I do teach virtually.*

> *I would not make any changes, but I will add some different activities to my classroom that I observed from this observation. For example, I observed the teacher make an obstacle course for the children to do from the tables to circle time. I loved this idea and would like to use it in my classroom.*

The second Pre-K Counts educator indicated for one response that they would not make changes to their classroom, but they would make an addition to their classroom:

> *I will try to include my para a little more on zoom, so they are able to interact with students as much as me.*

Summary

In summary, educators had a fairly high perception overall of peer coaching benefits prior to the intervention with slight increases following the intervention, as demonstrated across pre-and post-survey comparisons. In analysis of participant responses as a whole, there was statistical differences as measured by the paired-sample t-test for survey question fourteen, with educators making changes to their instructional practices based on suggestions from a peer. Survey question fifteen demonstrated a significant statistical difference as measured by a paired-sample t-test, capturing educators' understanding of other program's

instructional expectations. An analysis by program affiliation for survey question ten, specific to the Early Intervention group, noted a very statistical difference as measured by the paired-sample t-test. This survey question focused on educators provided suggestions to a peer on how to improve their instructional practices after the intervention. As noted within this chapter triangulation of data occurred between survey questions and educators' open-ended responses following the completed peer observations. Throughout all open-ended question responses, two consistent identified themes; strategies, and activities were acquired by participants. A majority of the educators strongly agreed that they gained instructional practices and altered their teaching practices as a result of the study. Finally, eight of the fifteen educators indicated they changed their perception of at least one of the other programs they observed outside of their home program as a result of their participation in the peer coaching study. Further interpretations will be explored in Chapter V.

CHAPTER V

Conclusions and Recommendations

Peer coaching is a professional learning opportunity, allowing educators to focus on effective instruction, use an aligned language of practice, and develop a path to build proficiency in identified areas while establishing improvement within a culture for learning (Robbins, 2015). Interest in an alternative, engaging professional development option for a diverse group of educators with known experience and knowledge, but often unshared, was the motivation for the study. As noted by Pollara (2012), educational entities need to establish processes allowing teachers to engage in conversations about instruction and learning. This action research study sought to gain an understanding of beneficial elements peer coaching could provide to educators through this professional development approach, to afford change or additions to their instructional practices, while also providing educators a brief immersion into other early childhood program's classrooms, broadening their understanding and establishing peer relationships. Within this chapter, conclusions will be outlined for each research question with limitations laced to the results and fiscal implications. A section on overall limitations and impacts that affected the study will follow. Finally, future research recommendations will be presented for areas of peer coaching for other educational agencies as well as suggestions for next steps within the Berks County Intermediate Unit Early Childhood (BCIU) programs.

Conclusions

Throughout this chapter each of the three research questions will be reviewed to identify participants' responses and findings of the study. Conclusions regarding the research study's effectiveness will be defined for each research question noting the supporting results.

Suggestions for improvements to the programs based upon the study will be identified and interspersed in this section. Lastly, after each research question has been reviewed, fiscal implications will be addressed.

Research Question One

Question one explores how active participation in peer coaching can alter an educator's perception of peer coaching. This question was developed to understand if participants felt peer coaching could be a beneficial professional development option that provided hands-on learning opportunities. Additional interest in this question was to gain educators' perceived experience and comfort level in providing and receiving feedback from a peer. Three of the six survey questions obtained quantitative data on the professional development approaches through which educators felt they learned best before and after their participation in the peer coaching study. Participants distinguished that they learned through workshops or seminars and independent reading and research. However, their best identified format for learning new instructional strategies was observation and modeling. These results align with Merriam (2008), noting the benefit of adult learning within context. The context referring to an adult learner's workplace or, for educators, the classroom. A connection to the participants' context, supports an increased thoroughness of learning (Merriam, 2008).

Professional Development Options

In comparison across early childhood programs, participants indicated an increase in their perception of the effectiveness of peer coaching following the intervention, signifying their best learning occurred through observation and modeling. After the intervention, there was a slight decrease in Pre-K Counts and Early Intervention educators' perception of learning from workshops or seminars. Head Start educators affirmed a slight increase for

workshops or seminars. Following the intervention, Head Start had a slight rise in their agreement with independent reading and research as a beneficial format of professional development. Early Intervention participants' perceptions remained the same, and Pre-K Counts educators demonstrated a slight decrease for independent reading and research as a beneficial model. Based on these results, peer coaching should be considered as a viable professional development option for the BCIU Early Childhood programs.

Quantitative data was gathered on whether educators had been provided suggestions from a peer on how to improve their instruction before and after the intervention. There was a slight increase in agreement from the participants as a group following the intervention. However, most participants had already experienced feedback from a peer before they participated in the research study. All Head Start educators strongly agreed that they had received feedback prior and following the intervention. There was an increase in their agreement following the intervention for both the Early Intervention and Pre-K Counts participants. By design, peer coaching involves providing feedback to a peer and therefore the results of increased agreement following a peer observation would be appropriate. Re-alignment of this survey question might be necessary for any future research.

Perceptions of Peer Coaching

Both quantitative and qualitative data were obtained to perceive educators' experience and comfort level in providing and receiving peer feedback. Before the intervention, participants noted their agreement to feeling comfortable in seeking advice from another peer, although there was a slight increase in their agreement following the intervention. The majority of all participants' responses, 95%, recorded the interactions as positive for both providing and receiving feedback; 27% of the responses included the educator felt

comfortable or had a great interaction. The following educator's response from the open-

ended questions captures the participant's comfort level:

> *I felt really comfortable with the interaction with the teacher. I really enjoyed seeing*
> *someone else teach. I believe working with others is really important and helps others*
> *to grow.*

The Head Start and Early Intervention educators were consistent in their agreement

before and after the intervention regarding their experience and comfort level in providing

and receiving peer feedback. Pre-K Counts educators noted a slight increase in their

agreement following the intervention. An Early Intervention educator's response solidifies

the overall experience in providing feedback to a peer:

> *It was nice to observe another program. Giving feedback made me really think about*
> *what was going on in the session and think about the wonderful things they were*
> *working on. I was also able to consider what I might do in that situation and provide*
> *feedback that is both positive and hopefully beneficial to the teacher as well as gain*
> *ideas to add to my own teaching.*

Further exemplifying this noted experience within research, Slater and Simmons (2001)

perceive peer coaching as an opportunity for collaborative learning between coworkers,

exploring new ideas, reflecting on current practices, and solving problems within their

environments. These results indicate peer coaching is a valuable experience, although as

noted previously increased collaboration and flexibility to facilitate trusting relationships

among peers could increase participants comfort level.

Learned through Peer Coaching

Quantitative and qualitative data were obtained to answer what was learned from a

peer and their agreement to gaining additional strategies and altering their teaching practices

as a result of participation in the peer coaching study. An overwhelming majority, 92%, of

the educators stated they somewhat or strongly agreed with gaining additional strategies and

altering their teaching practices. Educators acknowledged what they learned from participation in the study. Strategies were one of the five themes identified. This theme was identified by slightly less than half of the participants for the Head Start and Early Intervention educators, 40%, and more than half of the Pre-K Counts educators, 60%. Teachers can implement a new method or strategy with success when they are ready to make a change (Schindler & Fedor, 2010). The following statement outlining an educator's perception on strategies, affirmed the researcher's initial perception of what educators could obtain through participation in the study:

> *I was observing her room layout and class schedule and seeing how it compared to [mine]and what changes I could make.*

The second most recognized theme was teaching styles. Since there was a combination of virtual and in-person platforms coinciding within and across early childhood programs, teaching styles are considered a viable outcome from the study. Utilizing the 2+2 observation form, educators understood the intent of the observation. They learned there are many approaches for both virtual and in-person formats to engage students and facilitate learning. Boyce and Clutterbuck (2011) stated with developed plans and proficiently using devices for a session, virtual coaching can be valuable for all involved participants. An observation from a Pre-K Count educator highlights an obtained perspective regarding teaching styles:

> *I see that we might have different styles of teaching, but our goal is exactly the same-to instill a love of learning in each child. I also took down some notes that I could use for my virtual day as I'm in the classroom in-person and our virtual day look different.*

A minor identified theme was, typical vs. peers with disabilities, which is considered a beneficial attainment for early childhood programs. There are two early childhood programs,

Head Start and Pre-K Counts, supporting mainly typically developing students, and the Early

Intervention program supporting students with disabilities. However, there are frequently

students with disabilities included in both Head Start and Pre-K Counts classrooms. Two

comments captured from a special education teacher and a regular education teacher address

the value peer coaching has provided from both aspects:

> *I learned how to support children with special needs in my classroom from this observation. I learned how to add different songs and movements to my own classroom to keep my children more engaged. - Pre-K Counts teacher*

> *Observing in a typical pre-k classroom is always a nice reminder of what children this age are capable of doing. I learned a new way to present a task that I will be able to adapt for the level of my students. - Early Intervention teacher*

Research Question One Summary

An exploratory analysis of the data indicates that educators' perceptions were altered

after participation in the peer coaching study. Initial perceptions of peer coaching were

highly valued above other professional development approaches, although there was a further

agreement increase following the intervention. A comfort level was expressed by some when

feedback was received from peers on an educator's instructional practices. In order to bolster

the comfort level within the BCIU Early Childhood programs, alternate trust building

activities should be incorporated among peers with an increase in time allotment to facilitate

building relationships. There was also a positive response when providing feedback to a peer,

indicating the benefits in peer coaching. Overall, there were minor changes in educators'

perception after participating in peer coaching, due to the fact that the voluntary participants

had a high regard for peer coaching from the onset. The reflective statements from both the

special education teacher and regular education teacher relate to the focus of the next

research question.

Research Question Two

The second research question explored, "What ways does an educator's perception of other early childhood programs change through participation in a peer coaching program?" All three early childhood programs have classrooms located throughout Berks County, with varied combinations of classrooms from one or more of each program in a building. Within shared facilities, educators have been observed to stay within their program instead of interacting with other programs and establishing a cohesive environment. As part of this research question, the researcher sought to understand the current school climate within shared buildings in attempts to make future adaptations for positive school culture. Improving a school culture occurs through a re-culturing lens, which includes establishing more inclusive experiences to encourage educator's dialogue in questioning their ideas about teaching and learning as well as facilitating a collaborative change process to shift beliefs and values (Fullan, 2007).

Instructional Knowledge of Other Programs

Quantitative data was obtained from educators to determine their prior knowledge about instructional expectations of other programs and if changes occurred following the intervention. Prior to the intervention responses indicated there was not a notable understanding of other program's instructional expectations by educators. Following peer observations, educator's knowledge of instructional practices for other programs had a statistically significant increase as measured by the paired-sample t-test. The pre-intervention responses were anticipated based upon the increase following the intervention. Therefore, peer coaching is a valuable option model providing opportunities for educators to collaborate. Although programs operate under different government bureaus with various

regulations, there are consistencies across programs such as shared curriculums and program alignment to state established learning standards. Robbins (2015) notes that academic achievement can be four times higher when teachers work in collaboration, than within schools in which teachers work in seclusion.

Head Start educators had a slight increase in their responses regarding their understanding of other program's instructional expectations, and Pre-K Counts had an even slighter incremental increase. The Early Intervention educators had a statistically significant increase following the intervention as indicated by the paired-sample t-test. It is important to establish with educators that each program implements the curriculums with some adaptations to support student learning and provide a quality program. Once this understanding is established within the programs, educators could continue in the future to work collaboratively across programs, sharing strategies and ideas, thus contributing to increased positive school culture. In order to embed this perception among all early childhood educators, administration will need to allocate time for peer observations to be completed across programs and articulate the value in gaining an understanding of other programs.

Quality of Other Programs

Four survey questions captured educators' perceptions of other programs. Quantitative data was analyzed to understand educator's beliefs in the comprehensiveness and quality of other programs in comparison to their own program. Educators' perceptions were gathered regarding their beliefs if other programs had an easier class to teach. Lastly, an understanding was sought from educators if they felt other programs offered strategies they could learn.

Although programs follow different mandates and regulations, all three programs support "at-risk" preschoolers and offer a comprehensive and quality program in which educators from other programs could learn new ideas or practices. All participants indicated a higher level of agreement for perceptions of other program's comprehensiveness and quality before the intervention, with a consistently slight increase following the intervention. The Head Start educators indicated agreement both for other programs comprehensiveness and quality prior to the intervention and a strong agreement following the intervention. Pre-K Counts educators maintained consistently higher levels of agreement before and after the intervention. Early Intervention educators strongly agreed that other programs provided comprehensive and quality programs prior to the intervention but indicated a slight decrease following participation in the peer coaching study. A slight decrease in the Early Intervention educators' perception might have been further explored through individual interviews. Although individual interviews were not a design element of this study, and could be considered a limitation, this additional element might be included in future research.

To further understand educators' perception of other program's quality, quantitative data was analyzed to determine if educators believed they could learn strategies from other programs and their agreement if other programs had an easier class to teach. There was a strong agreement from all participants prior to peer observations that other programs had a quality program and disagreement that other programs had an easier class to teach. Following the peer observations, a slight decrease was captured regarding educators' perception of other program's quality, although there was consistent disagreement that other programs had an easier class to teach. Both Head Start and Pre-K Counts educators maintained their strong agreement before and after the peer observations. The Early Intervention group responded

with a decrease following the peer observation. As noted above, future research might encompass individual interviews to gain a more in depth understanding of the Early Intervention groups decrease in agreement.

As previously outlined, due to the COVID-19 pandemic occurring during this study, there were various classrooms that provided virtual only instruction or classrooms that needed to pivot from in-person to virtual instruction due to quarantine restrictions or impacting weather factors. As a result, educators were learning and simultaneously implementing new virtual platforms and tools, which could have contributed to educator's perceptions regarding the comprehensiveness and quality of the program. In addition, families had multiple demands of their attention during the pandemic such as working and supporting other children within the home. Some were school-age children also participating in school, virtually. As a result, preschool student's attendance was sporadic. This is another factor that could have impacted educators' perception of other program's comprehensiveness and quality.

Educators' Altered Perceptions

Qualitative data explored how educators' perceptions of other programs were altered after completing a peer observation. Eight participants noted their perceptions of other programs had changed following the peer observations. Seven educators or 46% of the fifteen participants, indicated a positive perception of other observed programs. Four of the five Head Start educators noted a positive perception change. One of the four Head Start educators indicated a change after observing both the Early Intervention program and Pre-K Counts. Of the remaining three Head Start educators, two had a positive perception change following the Early Intervention program, and one had a perception change of the Pre-K

Counts program. For Early Intervention participants, one educator had a positive perception change of the other two programs. A second Early Intervention educator had a change in their perception after a peer observation in Pre-K Counts. One Pre-K Counts educator had a positive perception change following the observation of Early Intervention. A second Pre-K Counts educator noted concerning changes in their perception of both the Early Intervention and Head Start programs.

> *I was shocked that it was only an hour and the teacher tested a student the majority of the time while the others played with play dough. I just think if they only have an hour group those kids should be tested at different times, so it doesn't take away from the other student's time or have a para take over and run group. I just don't know how an hour can benefit a student once a week in a classroom like this. - Following an Early Intervention observation*

The Pre-K Counts educator's perception of the Early Intervention program is a concern, although there was a valid explanation of why an assessment needed to occur during the observed group. The second concerning perception from the same Pre-K Counts educator was following the observation of the Head Start program:

> *When getting into the google meet, there was no one there at 9:00. By 9:05, the paras were on and were trying to figure out what they were to be doing. I asked if the teacher was coming on, so the para called the teacher, and she was on around 9:09. Then the students started to get on; I felt like it was very unorganized and was actually shocked with the whole experience. I do not believe this is a reflection on the program, I think it's a lack of many other things.*

As explained above, educators continued to learn virtual platforms concurrently while teaching, which could be attributed to the "many other things" as noted by the Pre-K Counts educator.

Qualitative data indicated Head Start educators had the most changes to their perceptions of other programs, and participants altered their perceptions mostly about the Early Intervention program. A contributing factor could be that three of the five Pre-K

Counts participants had previously been Head Start teachers. Therefore, they already understood the Head Start program as they had taught in adherence with the regulations and mandates. As previously stated, although all three programs provide services for "at risk" students, Head Start and Pre-K Counts both supports mainly typically developing students with some inclusion of students with disabilities. Therefore, a specialized classroom consisting of all students with a disability is structured and managed differently, which may have attributed to the outcome that participants altered their perceptions mostly of the Early Intervention program.

Of the positive comments, 93% of educators' comments were positive with perceptions of other programs defined into four themes: student focus, curriculum, program similarities, and general positive statements, which emerged from the responses as to how perceptions were changed. A specific comment about the Early Intervention program and the student focus theme include:

> *I admired the time vested in one on one with the students and the accommodations to each student. - From a Head Start educator*

The following captures a statement regarding the curriculum theme:

> *I observed PreK counts, and I noticed the difference in what our focus is. Their activities were more subject focused, and my program is focusing more on developmental aspects. - From an Early Intervention educator*

These comments provide a general understanding of the educators' positive perception of other programs and alignment to the determined themes.

Research Question Two Summary

Through analysis of the collected data and supported by the above outlined results, educators did alter their perceptions of other programs by 46% as reported by participants. These changes to perceptions included educators gaining a strong understanding of other

program's instructional expectations. A large portion of the participants valued the comprehensiveness and quality of programing that is being provided. An analysis of participants' comments showed that 93% expressed changes to their perceptions of other programs aligned into four themes: student focus, curriculum, program similarities, and general positive statements. The program affiliation with the largest number of educators who changed their perceptions was Head Start. Although educators mostly altered their perceptions about the Early Intervention program. In the future, the BCIU Early Childhood programs should allocate time for peer observations to occur across programs allowing for educators to gain a perception of other programs and opportunities to work collaboratively sharing strategies and ideas.

Research Question Three

The focus of the third research question was on instructional practices, "In what ways do early childhood educator's instructional practices change through participating in a peer coaching program?" This question was developed to seek an understanding of what knowledge and skills educators could gain from one another to further their practices and determine if peer coaching is a valuable model for continuation beyond the research study. Offering a framework for active learning, peer coaching provides teachers with the opportunity to observe others, remain within their classroom and acquire feedback on their approaches a framework to repeatedly engage teachers in reviewing their teaching practices (Showers & Joyce, 1996).

Quantitative data was analyzed to understand educators commitment to improving their instructional practices, their beliefs if feedback from a peer could benefit their teaching, if they had experience providing suggestions to a peer and the peers perceived value of the

suggestion, and if they had made changes to their practices as a result of a peer's suggestions.

Qualitative data further explored research question three through emergent themes for what

educators learned and if they had or anticipated making changes to their classrooms after

completing peer observations.

Educators' Practices

Quantitative data was analyzed to confirm educators' commitment to improving their

instructional practices and if getting feedback from a peer could benefit their teaching. As

anticipated, there was a significant agreement from educators wanting to improve their

practices before and after the intervention. Across all programs, the high level of agreement

to improving instruction was consistent with only a slight decrease within the Early

Intervention program. Additional insight into the educator's reasoning for the slight decrease

could have been further explored if individual educator interviews would have occurred, a

limitation of this study. Participants from all three early childhood programs highly agreed

that receiving peer feedback could benefit their teaching practices before and after the

intervention. The educators that volunteered to participate in the research study might have a

preconceived notion regarding peer coaching, which could have been confirmed through

individual interviews if the researcher had included that form of qualitative data analysis.

Therefore, educators might have volunteered because of their perceptions.

Supporting Peer Practices

An analysis of quantitative data provided the researcher with information about

educators' experiences in providing suggestions to peers to help improve their instructional

practices. There was agreement from participants that they had provided suggestions before

the intervention and a very statistically significant increase as indicated by the paired-sample

t-test following the intervention. The Head Start and Pre-K Counts educators both noted higher levels of agreement before the intervention with increases following the intervention. Early Intervention educators indicated a very statistically significant increase following the intervention. The premise of peer coaching is that two colleagues work in collaboration to review and examine their instructional practices to further improve and advance their skills through a non-evaluative and confidential process (Robbins, 2015). The educators who volunteered for the research study could have already recognized the value that peer coaching could offer. Therefore, the level of agreement from the educators may have been a direct correlation to the bases of peer coaching and anticipated by the researcher.

Further exploration of supporting peer's practices included an analysis of educators' responses whether a provided suggestion was reported to have changed the peer's instructional practices. Although there was not a high agreement before the intervention, there was a slight increase in the Head Start and Pre-K Counts program affiliated groups. However, within the Early Intervention group, there was a slight decrease in agreement following the intervention. The decrease might have been attributed to specialized nature of Early Intervention educators instructional focus or the need to continually address individual student programs.

Instructional Changes

Quantitative and qualitative data captured if and what changes educators had made to their instructional practices based on peer suggestions. All participants responded that they agreed to have made changes to their practices before the intervention, and following the intervention, there was an increase to strongly agreed. Two strands of qualitative data explored themes for what educators could learn for their practices and changes to their

classrooms following peer observations. There were two consistent themes across both strands: activities/strategies and technology strategies. More than half of the educators indicated activities/strategies for both open-ended questions. Some examples of activities/strategies included new songs, transition activities, letter identification games, and a type of show and tell activity, etc. The researcher anticipated activities/strategies would be a common theme as the peer observations were approximately 30-60 minutes in length. Many educators had only met through this research study. Therefore, a trusting relationship between the individuals was underdeveloped. To sustain a successful peer coaching model, professional colleagues need to establish trusting relationships (Robbins, 2015). As noted above, the length of time for the peer observations and an established trusting relationship among peers were limitations of the study. Although there were differences noted with only three observations completed, more time with one educator or one program may yield different results. Overall limitations will be further discussed later in this chapter. For peer coaching to be continued within the BCIU early childhood programs, additional time among peers will need to be established to facilitate collaboration and to develop trusting relationships. These components could also be further explored through future research studies.

Approximately one-quarter of educators cited technology strategies as being acquired and anticipated making changes to their current platforms. The following educator response captures the overall essence of the replies:

> *I got some new resources to use during my live meets that I received during my observation. In all of my observations, I was able to take back resources to use for virtual learning.*

As previously stated, virtual instruction was a new concept for all educators because of the COVID-19 pandemic. Due to this fact educators were highly motivated to improve their skills and this outcome was anticipated by the researcher.

Parent supports and teaming were minor themes from the qualitative data collected through the open-ended question seeking what educators acquired from peer observations. These themes were similar to the third minor emergent theme, communication/interactions, for the second open-ended question for research question three, capturing changes educators would make to their classrooms.

Research Question Three Summary

Educators' instructional practices were noted to have changed as a result of their participation in the peer coaching research study. Data results were outlined above supporting this outcome. The researcher did predict that educators wanted to improve their practices and believed participation in the research study could be a benefit from the onset, hence their agreement to participate in the study. As previously stated, the participants that volunteered could be identified as a limitation of the study. As a result of their participation in the study educators now have experience providing and receiving suggestions, which were noted as being beneficial. The most common instructional practice changes were identified. For peer coaching to be more impactful within the BCIU Early Childhood programs commitment to allocating time for trusting relationships to be established will need to occur. Future research should also occur to develop an understanding of what level of trust and length of observation time is needed between peers, allowing for a more committed relationship to change instructional practices beyond basic level changes, such as an activity or strategy.

Fiscal Implications

Peer coaching provides an opportunity for educators to learn from each other, leveraging internal expertise. Introduced as a key component of effective professional learning, coaching affords educators the opportunity to implement recently learned strategies and skills (Joyce & Showers, 1980). Peer coaching is a cost-effective professional development option compared to a one-time, large group workshop presented by an outside expert who offers strategies that often do not transfer into practice or are not successfully maintained. The analysis of the data results throughout this section captures the benefits peer coaching has provided, allowing educators to learn from each other.

The peer coaching research study was a low-cost model from the onset, although due to the COVID-19 pandemic, there was a further reduction in expenditures. The intervention training occurred virtually and was outside student instructional time, although still occurring within educators' workday hours. Due to the pandemic, eight educators provided virtual-only classrooms, and five educators provided a combination of in-person and virtual classrooms due to quarantine restrictions or weather-related impacts. As a result of the reduced in-person instructional models, educators could complete the peer observations around their daily synchronous instruction times, therefore, reducing the need for substitute coverages. For the in-person classrooms, the program supervisor or the researcher provided the substitute coverage. In addition to the reduced substitute needs, the virtual classroom reduced travel time and the cost that would have occurred for travel reimbursement.

There were indirect costs associated with the peer coaching study. These included the time educators spent attending the intervention training and completing the peer observations. Completing these items related to the study reduced the time that could have

been allocated to completing lesson planning or other educator responsibilities such as data analysis or paperwork completion. In addition, the time program supervisors and the researcher spent providing substitute coverage did detract from their supervision responsibilities.

For peer coaching to occur in the future for all educators within the BCIU Early Childhood programs, consideration for providing substitute coverage while educators participate in observations will need to be determined. This will be essential since there currently is a substitute shortage. An option to be considered is the use of live streaming cameras. This would allow educators to complete an observation, remaining at their location with minimal time away from their classroom. However, substitute coverage would still be necessary for the actual observation time. To continue to train and retain quality educators, creative, fiscally responsible professional options need to be incorporated into programs, and peer coaching is one of those options.

Limitations

As captured throughout the conclusion section within each research question, there are several limitations identified for this research study which would be considerations for the finding interpretations and generalization of the study for future research. The limitations include a focus on participants, the established research design, and the observation structure.

All educators in the researcher study were volunteer participants. A majority of the participants indicated a favorable perception of peer coaching from the onset. Based on the data analysis, a limitation may be that participants had a preconceived notion about peer coaching, which is why they volunteered to participate. A second participant limitation is that three of the Pre-K Counts educators had previously been Head Start educators. Therefore,

they already had an understanding and experience of Head Start expectations. An additional perceived limitation is that participants' names were used as a convenience factor instead of ensuring anonymity, possibly impacting participants' privacy and honest responses. The researcher oversees all three of the early childhood programs, although the researcher does not directly supervise the participants. This relationship could have been a reason as to why the participants agreed to volunteer and further impacted their responses. The final participant limitation focus is the small sample size of the study. Of the 86 possible participants across the three early childhood programs, there were only 15 participants: five from each program.

As a mixed method research design, this research study included quantitative data collected through a pre-and post-survey and qualitative data gathered through electronic open-ended reflection questions following each completed observation. Quantitative data obtained through survey question thirteen (SQ13) asked if educators received suggestions from a co-worker on how to improve instruction. Peer coaching entails receiving feedback from a peer on an educator's instruction. Within this research study, the 2+2 observation feedback form was used, in which observers provided two positive comments and two suggested areas for instructional improvement. Based on these two components, SQ13 would inevitably have a high agreement score and is considered unnecessary. Open-ended questions four and five were similar in the qualitative data acquired, one gathering "take-aways" and one gathering change educators planned to make to their classrooms, following peer observations. These two open-ended questions could have been better aligned, such as, asking what changes educators implemented in their classrooms as a result of the peer observation. In addition to the qualitative data collected through open-ended questions,

another data point might have been acquired through individual participant interviews. These interviews could have provided the researcher with a better understanding of participants' responses and provided a more in-depth perception of peer coaching.

The observation structure included three 30-60-minute observations. As defined by Robbins (2015) established trusting relationships are necessary to maintain a peer coaching model. Although the initial intervention training provided a brief ice breaker, this was the first time many participants had met. Therefore, there was minimal if any established trusting relationship between the peer observers. The limited relationship could have restricted the interactions and inhibited the feedback. The minimal length and number of the observations could also have been considered a limitation as longer, or multiple observations between dyad or triad groupings could have enhanced the value of the peer observation and provided a more in-depth understanding of the different programs. As previously outlined, many educators were restricted to using virtual learning platforms for the first time in their teaching experiences due to the COVID-19 pandemic. As a result, a majority of the educators were simultaneously learning the virtual platforms while teaching. This concurrent occurrence might be viewed as an inhibitor to the quality instruction that was provided in previous years. Since the COVID-19 pandemic continues through the end of this research study, the final impacts remain unknown.

Recommendations for Research and Practice

Future Research

There were several recommendations for future research considerations noted throughout the conclusion section. These recommendations include determining if establishing trusting relationships between peers before the observation impacts acquired

learning outcomes and if additional observation opportunities and length of the observation impact gained knowledge.

As noted in the research, trusting relationships between educators increase the success of peer coaching. However, research should be further explored to determine if providing educators time to collaborate and develop a trusting relationship before completing any observations provides a richer experience. For example, do educators acquired knowledge, and changes to instructional practices extend beyond simply obtaining a new activity or strategy. In addition to trusting relationships, further research is recommended regarding an educator increasing the duration of the observation beyond 30-60 minutes to determine if this supports educators acquiring greater knowledge and skills. A similar strand of research is whether an increase in the number of observations completed of the same peer could provide additional skill attainment.

Practice Recommendations

A few suggestions were included in previous sections for consideration to incorporate the peer coaching model into practices across all Early Childhood programs at the BCIU. The most significant recommendation will be establishing time for educators to begin developing relationships and then to complete peer observations. Trust building activities should be incorporated to assist in building relationships across programs. It will also be imperative for educators to understand that modifications and adaptations of the curriculums might be necessary to support specific student learning. As envisioned, peer coaching could be an internal option for professional development and therefore, a framework for educators to capture what they have learned through this process will need to be established as part of the yearly evaluations. Although it will be essential to maintain the fundamental component of

peer coaching and ensure the framework remains a non-evaluative format of the observations that occur.

Summary

The peer coaching action research study successfully answered the three established research questions through the quantitative and qualitative data results. After participation in the study, educators' perception of peer coaching was altered, their perceptions of other early childhood programs outside of their home program were transformed, and instructional practices were changed due to their participation.

Peer coaching is a cost-effective professional development opportunity, empowering educators to explore alternate instructional practices, classroom management, and routines compared to their established practices. Darling-Hammond et al. (2009) indicate teachers desire to learn from experiences that are determined by their own need for knowledge relative to their specific content areas and inclusive of classroom management strategies.

Several limitations were identified within this research study and outlined in the noted section. These limitations include a focus on participants, the established research design, and the observation structure. In addition, as a result of the limitations some suggestions for future research were defined. Lastly, recommendations for practice within the Berks County Intermediate Unit Early Childhood programs were outlined to ensure a successful continuation of peer coaching can occur.

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Appendix A

IRB Approval Letter

**Institutional Review Board
California University of Pennsylvania
Morgan Hall, 310
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.**

Dear Christi,
Please consider this email as official notification that your proposal titled "The Impacts of Peer Coaching on Early Childhood Programs" (Proposal #19-092) has been approved by the California University of Pennsylvania Institutional Review Board as submitted.

The effective date of approval is 10/02/20 and the expiration date is 10/01/21. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

(1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)

(2) Any events that affect the safety or well-being of subjects

(3) Any modifications of your study or other responses that are necessitated by any events reported in (2).

(4) To continue your research beyond the approval expiration date of 10/01/21 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

**Regards,
Melissa Sovak, PhD.
Chair, Institutional Review Board**

Appendix B

Consent Form

Early Childhood Educators,

As an Early Childhood educator at the Berks County Intermediate Unit, your participation is being requested to participate in an action research pilot project; peer mentoring program. Although participation in this study is voluntary, if you chose to participate you will assist the researcher in gaining a perception to the benefits of a peer mentoring pilot to encourage staff collaboration across early childhood program. Participation will also serve as an opportunity for individual professional development and increased exposure to establishing relationships within early childhood programs. Participants in the action research study will complete observations and be observed by other study participants. Specific to this study, no staff outside of the voluntary participants will complete observations. This project is approved by the California University of Pennsylvania Institutional Review Board. Thank you for consideration to be a participant in the research project.

What will I be asked to do if I take part in this study?

Upon your agreement to participate in the study, you will be asked to:
- Complete electronic pre- and post-implementation survey questionnaires. The survey questionnaire will include questions about your years of teaching, educational level, best format for your professional development, perceptions about your instructional practices and other BCIU Early Childhood programs.
- Participation in a training session on the peer coaching model.
- During the 15 weeks of the study, January 11- April 23, 2021, a minimum of 3 to a maximum of 5 different classroom observations will occur based upon the total number of participants.
- Complete 3-5, one hour maximum per observation of another participant's classroom, both within your same program and within other early childhood programs (Head Start, Early Intervention, Pre-K Counts). Release time and substitute coverage will be provided. Complete and provide classroom observation forms to each of the 3-5 observed educators at the completion of each observation. It is anticipated the classroom observation forms will be

completed during each of the 60 minute observation. (Feedback forms will only be viewed by the observer and observed. Feedback forms will not be collected. No data from this form will be used as part of the research project.)

- Complete 6 open-ended reflection questions through an electronic format following each observation. It is anticipated that completion of the open-ended reflection questions will require a maximum of 15 minutes.

Where will this study take place?

The survey and open ended reflection questions will be available via an online survey tool through a secure website. The observations will occur within Head Start, Early Intervention and Pre-K Counts classrooms within Berks County.

How long will the study last?

The study is projected to last approximately 15 weeks, Jan 11, 2021-April 23, 2021. Total participation time will vary.
- The training on implementing peer coaching will be approximately a one hour training, occurring at the beginning of the study.
- It is anticipated that completion of the pre-and post-surveys will be approximately 15 minutes.
- It is anticipated that each of the 3-5 observations will take a maximum of 60 minutes   including completion of the classroom observation form which will be provided to the observed educator at the end of each observation.
- Completion of the 6 open-ended reflection questions electronically, following each observation, will require a maximum of 15 minutes.

What happens if I don't want to participate?

Participation is voluntary. There will be no penalty if you choose not to participate.

Can I quit the study before it ends?

You can withdraw from the study at any time, by notifying the researcher. There is no penalty if you choose to withdraw and no reason will be required. If you choose to leave the study any collected data will be discarded at that time.

What are the risks?

There are minimal risks to the educators participating in the study but could include increased anxiety related to being observed. There is a potential for

unforeseeable risks. If participants experience increased anxiety or other risks including emotional or psychological harm, resources and supports are available through Quest, the Employee Assistance Program, available to all BCIU staff. If the participant encounters any unforeseeable physical harm, workman's compensation is available through St. Joseph's Medical Center for all BCIU staff.

How will I benefit from participating?

Participation in the project will provide opportunities for the participants to:

- Gain new instructional strategies and improve upon current instructional practices
- Learn variations for establishing classroom routines
- Learn and observe new classroom management techniques
- Gain an understanding of other early childhood programs
- Establish collaborative relationships with early childhood educators outside of own program

Will my responses be kept confidential and private?

Survey data and open-ended response questions will be kept confidential, on the researcher's password protected computer. No names will be reported in the report of the findings. Feedback forms will only be provided to the observed educator for their personal review and will not be collected by the researcher.

Who do I contact if I have questions about this study?

For questions please, contact:

- Christi Weitzel, Doctoral Candidate Researcher, at wei5503@calu.edu, or 610-763-1529
- Dr. Todd Keruskin, California University of Pennsylvania faculty advisor, at keruskin@calu.edu.

I have read this form in its entirety and have received answers to all of my questions.

I agree to take part in this voluntary study, understanding I am under no requirement to do so.

At any point during the study, I can stop participating for any reason and with no inquiry for

my exit from the study. By signing below, I agree to participate in this study, indicating that

I have read this form and my questions have been answered. I also agree to complete

observations and be observed by other educators participating in this study as noted. I

understand that it is my choice to participate and I can stop at any time.

Signature: _____

Date: _____

Approved by the California University of Pennsylvania Institutional Review Board.

This approval is effective 10/1/2020 and expires 10/2/2021.

Appendix C

Teacher Observation Form

Observers will use this form to record feedback gathered during the observation, inclusive of two compliments and two suggestions for areas that could be improved upon. This form is to be provided to the classroom educator, by the observer, at the conclusion of each observation. This form is confidential between the observer and the classroom educator. This form will not be collected or used by the researcher as a source of data.

Date: _____

Classroom Educator's Name: _____

Name of Program: _____

Observer's Name: _____

Observer's Contact number and/or email: _____
(For any clarification or follow-up)

Compliments:

1.

2.

Suggestions:

1.

2.

Appendix D

Open-Ended Reflection Questionnaire

Indicate the program name where observation was completed:

1. Please describe your experience with providing feedback to the teacher.

2. What did you learn from observing a peer?

3. How did you feel about the interaction?

4. What if any "take aways" did you learn for your own practice as a teacher?

5. What changes will you make in your classroom as a result of observing others?

Indicate if the completed observation was a different program then home program.

6. If observed a different program what was your perception of the program after completing the observation?

   a. Was this a change in your perception?

7. I have received a 2+2 observation form. yes or no

Appendix E

Pre- and Post-Survey

Please indicate your answer:

1. Indicate your home program in which you are employed: Head Start, Pre-K Counts, Early Intervention
   a. Head Start
   b. Pre-K Counts
   c. Early Intervention

2. Indicate your highest level of education completed:
   a. 5 or less college courses
   b. Associates degree,
   c. Bachelor's degree
   d. Master's Degree
   e. Master's Degree Plus

3. Indicate the number of years working in early childhood programs _____

4. My classroom is located in a building with 2 or more early childhood classrooms.
   a. Yes
   b. No

   Please indicate the level to which you agree with each of the below statements. Using the following scale:

   Strongly agree (5)
   Somewhat agree (4)
   Neutral (3)
   Somewhat disagree (2)
   Strongly Disagree (1)

5. I find participation in large group workshops/seminar are my best format for learning new instructional strategies.

6. I find observation and modeling to be my best format for learning new instructional strategies.

7. I find independent reading and research to be the best format for learning new instructional strategies.

8. I want to improve my instructional practices.

9. I believe receiving feedback from coworkers on my instructional practices could benefit my teaching.

10. I have provided suggestions to a coworker on how to improve their instructional practices.

11. I feel comfortable seeking advice from another teacher about a teaching concern.

12. Coworkers have indicated that my suggestion changed their instructional practice.

13. I have received suggestions from a co-worker on how to improve my instruction.

14. I have made changes to my instructional practices based on suggestions from a coworker.

15. I understand the instructional expectations of other BCIU, EC programs besides my own.

16. I believe other early childhood programs at the BCIU provide a comprehensive educational program as my own.

17. I believe other early childhood program at the BCI provide a quality educational program as my own.

18. I believe there are strategies I can learn from other BCIU, EC programs.

19. I believe other early childhood programs (from my own program) have an easier class to teach than my own program.

**20. I have gained additional instructional strategies and altered my teaching practices as a result of peer coaching.

**Question 20 will be included as part of the post survey.