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Abstract

Coaching is increasingly being used as a mechanism to improve the quality of early childhood education. Yet, for coaching outside of researcher-controlled interventions, limited information details coaches' reports of their practices' professional learning needs. We addressed this gap via an exploratory study utilizing online questionnaires of 91 coaches working with educators in a Midwestern US state across 12 coaching initiatives. Most participants had less than 5 years of experience working as an early childhood coach. Almost a third coached for multiple initiatives. Coaching occurred via multiple formats and often addressed behavior management and social emotional development regardless of the coaching initiative. Coaches

identified challenges regarding scheduling and working with difficult learners and reported that peer support and being coached themselves were the most beneficial learning experiences. Findings suggest that the perspective of the coach is important in informing training and professional learning for both coaches and educators.

Keywords: coaching, professional development, early childhood education, real-world settings, mentoring

High-quality early childhood (EC) experiences are essential for supporting young children's school readiness, including their physical, cognitive and social-emotional development (McClelland and Wanless 2012). Quality EC programs promote school readiness and can reduce academic achievement gaps that are often present when children begin school (Duncan and Magnuson 2013; Melhuish et al. 2015). However, the experiences of young children who participate in EC programs are dependent upon the practices of EC educators (e.g. teachers, providers, specialists and administrators; US Department of Education [DOE]), many of whom provide less than optimal learning experiences (Markowitz, Bassok, and Hamre 2018; Phillips et al. 2017). As a result, young children's learning may be adversely impacted (Mashburn et al. 2008).

Increasingly, coaching is being used as a mechanism for improving EC educator practices (Sheridan et al. 2009, 2015; Snyder, Hemmeter, and Fox 2015) and is an integral cornerstone of EC professional learning across federal and state agencies in the US (Head Start 2019; Quality Compendium 2019). Yet, the evidence regarding the effectiveness of coaching contributing to improved outcomes for educators and children is mixed. Some have found benefits of coaching for educators' practice and child outcomes (Early et al. 2017; Fox et al. 2011; Hindman and Wasik 2012; Landry et al. 2011; Twigg et al. 2013; Weiland and Yoshikawa 2013); others have found no added benefits of coaching for practice (Piasta et al. 2017; Jackson et al. 2006; Lonigan et al. 2011) or child outcomes (Assel et al. 2007; Piasta et al. 2020; Eadie, Stark, and Niklas 2019; Ottley et al. 2018). Diminished impacts of coaching are particularly salient when coaches are not members of a research team affiliated with the project/initiative (Piasta et al. 2017, 2020; Jackson et al. 2006; Lonigan et al. 2011; Ottley et al. 2018), and there is converging evidence that coaching is less effective

when implemented at-scale in real-world settings (see Kraft, Blazar, and Hogan 2018).

Given the burgeoning use of EC coaching outside of researcher-controlled settings combined with the ambiguity around coaching effectiveness, it is imperative to understand coaching in real-world settings and the factors that might contribute to success. Thus, we sought to understand the work of EC coaches across one Midwestern US state.

EC Coaching

High-quality professional learning experiences that develop content knowledge, provide active learning opportunities, align with local and state systems/policies, are offered in sustained duration and support collective participation are essential for improving practice (Desimone and Garet 2015). In general, coaching (often conflated with consultation and mentoring in US contexts; Downer et al. 2018) has the potential to meet many of these recommendations. It is relationship based, active and individualized for specific learner needs and tends to be ongoing rather than a one-off training (Aikens and Akers 2011; Joyce and Showers 1980; Rush and Shelden 2011).

In a seminal article, Powell and Diamond (2013) identified three domains of EC coaching practices: structure, content and processes that work together to support the success of coaching. Structure refers to organization of how and how much the coach and educator engage in coaching (dosage, duration, frequency and format). Content refers to evidence-based practices targeted by coaching. Processes are actions used by coaches to support educators in implementing the content. Although much emphasis has been placed on understanding the content of coaching, less is known about the processes and structure of coaching (Sheridan et al. 2009; Diamond et al. 2013). Much of what is known about coaching processes and structures come from researcher-implemented coaching interventions rather than real-world coaching (Schachter et al. 2018). These studies indicate that coaches could engage in a variety of processes and structures (see Elek and Page 2019), but it is unclear how these are used in real-world coaching (Hamre, Partee, and Mulcahy 2017).

Real-World Coaching

In the US, children 0–5 attend a multitude of EC settings including federally funded, state funded, non-profit and for-profit (paid out of pocket by families) and combinations of these (Whitebook et al. 2018). With this, there is much variability in care. As such, there are many community-level initiatives using coaching to address these disparities. In contrast to researcher-implemented interventions where coaches are under the direction and supervision of intervention developers, coaches in real-world settings often operate with more autonomy. There is emerging evidence from intervention research that real-world coaches where much coaching is happening (Walsh 2014), may use practices (i.e. content, structures and processes) not aligned with the intervention (Schachter et al. 2018; Weber-Mayrer et al. 2018). Research by McLeod, Hardy, and Grifenhagen (2019) within the context of one state's prekindergarten coaching initiative indicates that there is variability in the coaching practices even across similar contexts. An added complexity is the variety of coach backgrounds and goals across coaching initiatives. For example, some may be employees within the programs they are serving (e.g. Educare Master Teacher and Head Start Coach), whereas others could be external from various agencies (e.g. State DOEs through Quality Rating Improvement Systems [QRIS]) and work across multiple initiatives, making it difficult to understand coaching practices. The professional learning and supports offered to coaches are another factor that might contribute to ambiguity in coaching success. To be effective, coaches need training, guidance, tools and support. Yet, supports to guide real-world coaching initiatives are relatively limited. In a study of Head Start coaches, only 16% of coaches reported receiving specific support for coaching activities (Howard et al. 2013), and in a study of a QRIS (Isner et al. 2011), very few initiatives provided coaches with any materials to guide their coaching interactions. Without these supports, the work of coaching becomes inconsistent and may drift from the desired initiative focus. Thus, a better understanding of the professional learning experiences of coaches is merited.

Understanding Coaches' Perspectives

EC coaches can serve as a valuable source of information about how coaching is being implemented in real-world settings, yet the perspectives of coaches are often understudied, and the data these studies provide are generally limited. Gleaning insight from coaches may provide useful information. For example, some research has identified that coaches feel the need to move beyond the scope of a coaching initiative to support educators needs (Kissel et al. 2011; Koh and Neuman 2009). However, most information that is reported from coaches has been solicited as part of researcher-implemented coaching initiatives with a primary intent of capturing implementation fidelity (e.g. Landry et al. 2011). This does not provide detailed information from real-world coaches about their experiences and is a limitation in understanding the effectiveness of coaching. By exploring coaches' reports regarding their work and professional learning needs, we can specify how EC education initiatives can support the implementation of real-world coaching models and provide professional learning to coaches such that they can effectively support educator change.

Present Study

The purpose of this study was to describe the experiences of EC coaches in a variety of real-world coaching initiatives. We used an exploratory approach (Maxwell 2013) to describe EC coaches' reports of their work. Specifically, our research questions were as follows:

(1) What do EC coaches report as their practices (content, structures and processes) during coaching interactions?
(2) What do EC coaches report as their professional learning needs?

Data for this study were collected within one US Midwestern state where coaching is used extensively by public and private initiatives at the federal, state and local levels to support educators and improve the quality of EC and outcomes for young children (SDE 2018; ECICC 2018). This context was an optimal opportunity to sample a range of

real-world coach perspectives. Given the exploratory nature of this study (Creswell and Creswell 2018), we utilized a questionnaire that allowed us to collect quantitative and qualitative data concurrently.

Method

Setting and Participants

Ninety-one participants self-identifying as EC coaches supporting EC educators ('any professional working in Early Learning and Development Programs', US DOE) participated in the study. They coached in 12 formal initiatives that were federally funded (e.g. Head Start), state funded (e.g. DOE), and privately funded, with some hybrid funding mechanisms (e.g. state and non-profit collaborations) – similar to the diversity of real-world coaching nationally. Many of these initiatives focused on content related to children's social-emotional development (e.g., Pyramid Model Coaching) or holistically targeted instruction (e.g. QRIS or Head Start). Most coaches (63.7%) coached for one initiative, about a quarter (27.5%) coached for two initiatives and less than 10% coached for 3 or 4 initiatives. Coaches typically held at least a Bachelor's degree (28.6%) or Master's degree (62.7%; 8.8% held an Associate's degree or less) although not always in education or related fields (29.7% unrelated; e.g. Business Administration). Coaches tended to have at least 10 years of experience working in EC settings (68.1%); 17.6% had 4–10 years of experience and 14.3% had 0–3 years of experience. In contrast, coaches had minimal coaching experience with 68.1% reporting having coached less than 5 years in the state. The rest of the coaches reported 6–10 years of experience (15.4%), 11–15 years of experience (7.7%) and more than 15 years of experience (8.8%).

Procedures

All research activities were approved by the University Institutional Review Board. Data were collected via an online questionnaire (Qualtrics 2019) in 2019. The questionnaire was co-developed with community partners representing a variety of EC initiatives interested in learning more about EC coaching within the state. The questions and

response options, available online, were approved by both the researchers and the community partners prior to dissemination; thus, we expect high face validity (Boateng et al. 2018) of the questionnaire. The questionnaire consisted of two sets of items – general questions about coaching (23 items) and questions completed based on the specific coaching initiative (16 items) (see S1 supplemental materials). A coach answered the second set of items for each initiative in which they coached. We included both fixed-choice responses (e.g. How long have you been coaching in the state?) and open-comment questions (e.g. What is your definition of coaching?). Participants were required to respond to all questions, and only questionnaire-completers were included in this study.

To reach a range of statewide coaches, we recruited participants via snowball sampling (Creswell and Creswell 2018). Community partners implementing coaching were emailed the questionnaire link and asked to forward the questionnaire to coaches employed in their initiatives and other initiatives that used coaching. Collaborators were sent email reminders to disseminate the questionnaire. All survey responses were anonymous; coaches were ensured that there were no consequences for agreeing or declining to participate. Coaches completing the questionnaire were also encouraged to forward the questionnaire on to other EC coaches. As an incentive, participants were entered into a raffle to win one of four tablet devices.

Data Analyses

Our analytic approach involved multiple steps, including quantitative and qualitative analyses. We combined coaches' responses to the initiative-specific questions including all responses from coaches coaching for multiple initiatives (n = 33) allowing for a more holistic picture of coaching across initiatives. We then examined all the fixed-choice items descriptively. For the open-comment items, we checked to ensure that all answers were relevant to our questions. Next, given our focus on coaches' perspectives, we utilized an inductive approach to identify themes within participant responses in the open-comment questions (Patton 2005). Specifically, each item was reviewed by two authors to identify emerging themes in participant reports. These themes were then confirmed, disconfirmed and elaborated within the data (Maxwell

2013). All responses were double coded with disagreements settled through discussion. Data were enumerated for ease of interpretation as is common with larger qualitative datasets (Saldaña and Omasta 2016).

Results

We present our findings based on the research questions. We integrate the data from both the fixed-choice and open-comment responses as appropriate to address our research questions regarding coaching practices and professional learning needs.

Coaching Practices

Content

Coaches addressed a variety of content in their coaching, often targeting multiple content areas, including some outside of the designated coaching initiative. **Table 1** reports targeted content and requested content. The most frequently targeted content was social-emotional development and behavior management with STEM areas and creative arts

Table 1. Coaching content (%, *n*; *N* = 91).

Content	Targeted by coaches		Requested by educators	
Social-emotional development	90.1%	82	0.0%	0
Behavior management	86.8%	79	28.6%	26
Family engagement	78.0%	71	19.8%	18
Language and literacy	69.5%	60	20.9%	19
Approaches to learning	65.9%	60	0.0%	0
Working with staff/staff relationships	64.8%	59	23.1%	21
Program quality	53.8%	49	0.0%	0
Physical development	52.7%	48	-	
Inclusive practices	48.4%	44	0.0%	0
Mathematics	35.2%	32	-	
Creative arts	33.0%	30	0.0%	0
Science	33.0%	30	0.0%	0
State Quality Rating Improvement System	28.6%	26	16.5%	15
Teacher/child interactions	-		18.7%	18
Effective communication	0.0%	0	17.6%	16

receiving the least focus. Similarly, coaches reported that educators requested support on behavior management. We observed that at least one coach per initiative responded that they were coaching on content outside the initiative focus (e.g. coaching on math in a social-emotional-focused initiative or on quality standards in a literacy initiative).

Structure

Coaches provided a great deal of information regarding the structure of their coaching interactions. Almost all coaches met one-on-one with their educators (94.5%, *n* = 86), with about half meeting with groups of educators from the same program/setting (48.4%, *n* = 44), and about 20% meeting with groups of educators across programs/settings (*n* = 19). For 67% of coaches (*n* = 61), the duration of coaching lasted multiple years. The remaining duration of coaching was as follows: the school year (18.7%, *n* = 17), one calendar year (7.7%, *n* = 7), and 6 months or less (4.4%, *n* = 4). Two reported that they 'did not know' the length of their coaching initiative.

Coaches engaged in these meetings via a variety of formats, often using multiple formats concurrently (**Table 2**). Although face-to-face coaching was the most common format used to meet with educators (96.7%), coaches also utilized technology interacting with educators

Table 2. Coaching structure (*N* = 91).

	Face to face (*n* = 88)	Email (*n* = 65)	Phone (*n* = 43)	Text (*n* = 43)	Virtually (*n* = 17)
Frequency of meeting					
More than once a week	0	17	2	7	0
Weekly	31	2	3	12	1
Twice a month	36	20	8	10	2
Every month	23	18	12	13	2
2–3 months	6	6	12	1	9
Every 6 months	2	2	6	0	4
Duration of meeting					
5 min	0	27	7	23	0
6–15 min	1	30	22	15	0
16–30 min	9	7	11	5	2
31–45 min	17	1	3	0	5
46–60 min	42	0	0	0	8
>60 min	28	0	0	0	2

Coaches could report using more than one meeting format.

via email, text and even virtually (although this was less common). Email and texting were generally used between twice a month and every 2–3 months taking from 0 to 15 min).

Processes

To understand EC coaches' processes, we asked coaches to provide their definition of coaching. Six main themes emerged regarding how participants defined coaching (**Table 3**) – capacity building, supportive activities, goal-oriented process, collaborative partnerships, structured process and providing guidance. More than half of participants described coaching as a mechanism for building the capacity of the educator to sustain, use or learn new practices (54.9%). One exemplar of this was a coach's description of coaching as, 'helping someone put into practice their skills and abilities, particularly new skills and ideas'. Similarly, another coach wrote, 'Coaches help develop people's skills and abilities, and in return boost their performance'. Another common

Table 3. Definitions of coaching (*N* = 91).

Theme	Explanation	Frequency (n)	Exemplar quote
Capacity building	Process for the educator to sustain, use, or learn new practices.	50	'Assisting other adults in the early childhood education field to learn new skills to improve on their experience with children'.
Supportive activities	Providing support to the educator with resources or in learning new practices.	38	'Providing resources and support to early childhood professionals to improve the quality of care given to young children'.
Goal-oriented process	Process of setting and achieving goals.	22	'I provide resources and thoughts on best practice to support in goal setting and accomplishing those goals'.
Collaborative partnerships	Coaching as a relationship, partnership or collaborative process.	18	'Developing a partnership with parents and teachers, to promote their understanding of child development and build their confidence in engaging their children'.
Structured process	Coaching as a process following a structure such as performance-based feedback, engaging in reflection, modeling and/or observation	17	'Coaching is an interactive process of observation, discussion, and reflection in which the coach promotes the other person's ability to grow toward identified goals'.
Providing guidance	Coaching as being a way to guide the educator.	15	'Guiding providers to understand and reach a level or goal that they want to achieve'.

theme was the idea of coaching to provide support to the educator (41.8%) such as, 'holding hope' and 'just being available to let them [educator] know that they are not alone'.

The other themes encapsulated coaching processes. This included coaching as goal- oriented (24.2%), a collaborative partnership (19.8%) or providing guidance (16.5%). Additionally, some described coaching as structured with a set of processes that included several strategies (18.7%) such as is exemplified by one coach, 'An ongoing process of interaction . . . guided by a structured process of observation, reflection, feedback, and joint planning that builds from conversation to conversation'. Although this latter theme included components of other coaching processes, here participants pulled these together in their definition of coaching. Themes were not mutually exclusive across participants. For example, one participant described coaching as, 'Partnering with someone to help them identify their strengths and help them set goals to build on their skills,' incorporating the ideas of coaching as both a partnership and goal-oriented endeavor.

Data Gathering

One key coaching process is using data. Participants collected a fair amount of data regarding their coaching. These data were gathered either by themselves or by an evaluator and included coaching logs/notes (74.7%, $n = 68$), verbal reports (38.5%, $n = 35$) and measures of coaching fidelity (23.1%, $n = 21$). Data were also collected at the educator-level and included questionnaires (52.7%, $n = 48$), standardized measures of educator practices (50.5%, $n = 46$), educators' check-ins with supervisors (48.4%, $n = 44$), focus groups (20.9%, $n = 19$), fidelity of educator practices (26.4%, $n = 24$) and assessments of educators' knowledge and beliefs (17.6%, $n = 16$). Less than half of coaches used data regarding child outcomes (38.5%, $n = 35$). A few coaches reported having no data, and some reported that they did not know what data were collected by their coaching initiative(s) (4.4%, $n = 4$, and 9.9%, $n = 9$, respectively).

Few coaches connected using data as part of their coaching definition (described previously). Despite this, coaches were generally confident about the effectiveness of their coaching. Sixty-eight percent ($n = 62$) reported that their coaching worked *most* or *all of the*

time. About a quarter of coaches reported that their coaching worked *half of the time* (21.9%, *n* = 20), with fewer reporting that coaching worked *sometimes* (11.0%, *n* = 10) or they *did not know* (9.9%, *n* = 9; *n* > 91 as this includes coaches' responses across all initiatives for which they coached), providing additional insight into their views on their practice.

Importantly, regardless of the perceived effectiveness of coaching, observing the growth and changes in educators and programs (67.0%, *n* = 61) was frequently noted by coaches as the most satisfying aspect of coaching. One coach commented that they enjoy seeing teachers who were initially resistant to using best practices, 'have great success with the new skill'. Some coaches reflected that the most satisfying part of coaching was not only the larger shifts in practices but also the progress and smaller changes in educator behaviors and skills. For example, one coach wrote, 'Seeing the teachers take something and work to change even just a little bit to make their job easier or to meet the needs of the children in their room on a higher level'. Coaches also liked the positive impacts that coaching had on the children and families being served by the educators (33.0%, *n* = 30). As one coach described, ' . . . [to] see the difference that it makes for students', and another coach wrote, 'Seeing a program want to be successful and do whatever it takes to be a better place for children'.

Professional Learning Needs

To understand coaches' learning needs, we first asked them about their prior training and coaching preparation. Most coaches participated in a two-day, statewide EC-coach training offered twice a year by our community partners (80.2%, *n* = 73) followed by initiative-specific training on content (70.3%, *n* = 64) and coaching strategies (64.8%, *n* = 59), meetings (58.2%, *n* = 53), other external training (42.9%, *n* = 39) and receiving coaching themselves (28.6%, *n* = 26). Meeting with other coaches was the most common *ongoing* professional learning experience (78.0%, *n* = 71) followed by workshops/conferences (62.6%, *n* = 57), ongoing booster trainings (52.7%, *n* = 48), mentoring (51.6%, *n* = 47) and meetings with supervisors (45.1%, *n* = 41). Thirty-one percent of participants received money from their initiative for additional training (*n* = 28).

When asked directly about their training needs, almost a third of coaches expressed content area needs around behavior management (29.7%, *n* = 27), followed by working with staff/staff relationships (17.6%, *n* = 16), social emotional development (17.6%, *n* = 16), family engagement (11.0%, *n* = 10), approaches to learning (9.9%, *n* = 9), inclusive practices (8.8%, *n* = 8), overall program quality (8.8%, *n* = 8), language and literacy development (7.7%, *n* = 7), working with staff (7.7%, *n* = 7) and teacher/child interactions (7.7%, *n* = 7). Less than five coaches wanted more support with other content domains (e.g. STEM and health). There were also training needs identified by coaches that were specific to coaching strategies. More than half of coaches wanted training on coaching in difficult situations (56.0%, *n* = 51) and more than a third on evaluating the coaching process (37.4%, *n* = 34). Coaches also expressed a need for training around culturally competent coaching (34.1%, *n* = 31), the coaching process generally (23.1%, *n* = 21), coaching others on using coaching/adult learning strategies (26.4%, *n* = 24), effective communication practices (12.1%, *n* = 11) and data use (8.8%, *n* = 8).

Coaching Challenges

Coaches' responses across several questions provided critical insight into potential areas for supporting coaching and professional learning. When asked to share which aspects of coaching were difficult, several difficulties emerged (**Table 4**).

Many coaches (45%) reflected that educator resistance to changing ideas and practices was the most difficult part of coaching. For example, a coach wrote, 'The most difficult aspect of coaching is trying to coach someone who does not want to make change. They continuously bring up the same issues but do not follow through on their action plans'. Additionally, there were challenges with scheduling and time constraints (13.2%) that prevented coaches from engaging in the ideal coaching process. As reflected by one coach, 'EC educators do not have enough time during the day to plan or reflect. They are busy the moment the children enter the classroom . . .'. Furthermore, lack of leadership or program support for the educator to make positive changes (7.7%) was mentioned as a challenge along with the coach themselves needing more support and training (13.2%).

Table 4. Perceived coaching difficulties (*N* = 91).

Theme	Explanation	Frequency (n)	Exemplar quote
Resistance to change	Educator described as being resistant to change (ideas and practices) or to participating in coaching.	41	'When teachers do not buy into what we are there to support them in or do not have a good relationship with the coach, often they are not willing to accept coaching. When that happens, little progress is made and that can be very frustrating'.
Coaching process	Indicates difficulty with aspects of the coaching process itself such as wanting to tell the educator what to do, giving feedback and ending the coaching relationship.	14	'The difficult part is telling the providers, in a kind and constructive way, the things that they need to improve or change for the benefit of the children in their care'.
Scheduling/time constraints	Difficult to schedule coaching sessions and having the time to engage in the coaching process (e.g., reflection).	12	'Scheduling coaching while they are busy doing their job, getting their supervisor to free up their time so I can meet to coach them'.
Coach in need of training and support	Refers to wanting more training because the coaching initiative training was not sufficient or wanting more resources and supports	12	'Lack of training. We are learning as we are going. You have to search out information on your own frequently'.
Lack of leadership or program support for the educator	Refers to challenges of the program or leadership within the program not providing supports and resources for the educator to be successful	7	'It has been difficult to see teachers grasping concepts and wanting to move forward with things only to have strict parameters placed on them by directors or with very little support from directors'.
High turnover	Refers to challenges of having to start over with new educators because of high teacher turnover.	6	'Teacher come and go which makes it difficult to complete the action step plan goals and having to start over with a new teacher not know if they will stay'.

Another coach shared, 'this is my first year and [I] attended coaches' training but need more assistance and guidance myself!' Likewise, a coach commented, 'I don't always feel adequately supported. I have a lot of experience but having a network of like-minded people who have the same struggles and the same work would be amazing'. Although less frequently mentioned, high turnover (6.6%) was noted as another difficulty to building relationships with educators that leads to a, '. . . two step forward, one step back type of situation' and when a '. . . teacher comes and goes' it can '. . . make it difficult to complete the action step plan goals and having to start over with a new

teacher not know[ing] if they will stay'. Finally, coaches reported difficulties with the coaching process (15.4%), such as wanting to tell the educator what to do, being patient with the process of change, giving feedback and ending the coaching relationship.

Discussion

This study fills a critical gap in understanding the practices of EC coaches in real-world settings from their perspectives. There is scant knowledge about these professionals, which is problematic in understanding the impacts of their practices and areas for supporting their growth. Importantly, our participants coached EC educators in at least 12 different coaching initiatives across multiple funding mechanisms. Thus, this work provides important information across a range of coaches and their experiences. This research offers a better understanding of the current state of coaching in EC, including the ambivalent benefits of coaching.

Better Understanding of Coaching in Real-World Settings

Our findings highlight the range of practices and complexity of coaching in EC settings. We observed that coaches were able to use a variety of formats/structures to support educators. However, there seemed to be a gap in broader, systemic structures necessary for success. Specifically, coaches cited that they needed more administrative support for themselves and for educators to effectively implement coaching including the provision of time and space within EC educators' schedules. This is critical when thinking about coaching in real-world settings which may not have the same support structures as well-funded researcher-implemented interventions as mirrored in emerging research (McLeod, Hardy, and Grifenhagen 2019). As policies and initiatives are created to implement EC coaching, more attention may be needed to how broader, programmatic supports for coaching are integrated into existing systems (Desimone and Garet 2015).

The content that seemed to be most "frequently targeted in coaching" regardless of initiative was behavior management and social-emotional development, paralleling with our finding that coaches

received the most requests for support on these topics from educators. This finding is mirrored in other studies of real-world coaching (Schachter et al. 2018) and is important for the field to consider when understanding the efficacy of coaching. Sometimes, this content was beyond the scope of their coaching initiative. Although this could be benefiting educators' practice in general, it is unclear how adding new content impacts the specific aims of the coaching initiative. Notably, we found that almost a third of coaches were coaching for at least two different coaching initiatives. Whereas this has important implications for thinking about EC coaching as a full-time profession, it could have also been contributing to the coverage of non-initiative specific content. Furthermore, less is known about how this shapes coaches' practices generally, and more research is needed to understand how this informs real-world coaching.

Enhanced Training for EC Coaches

Coaches' reports directly and indirectly indicate vital information regarding the training needs of EC coaches. First, it is important to note that although coaches had extensive experience working in EC settings, most coaches had less than 5 years of experience working as a coach. This finding supports emerging research indicating that many coaches are relatively new and inexperienced (Hamre, Partee, and Mulcahy 2017; Howard et al. 2013) and has important implications in understanding the effectiveness of their work. Although there is limited research investigating associations between coaches' years of experience and their practice, the teaching literature suggests 5 years of experience as a key threshold for success (Palmer et al. 2005; Rivkin, Hanushek, and Kain 2005); thus, early-career coaches may not have reached their optimal performance. Given the variability in the field, both in terms of funding, new initiatives and continual efforts to reach scale, it seems reasonable to think the field contains many novice coaches who may not have yet reached their optimal level of coaching effectiveness. This may be contributing to why real-world coaching does not achieve large effects. More research is needed to understand the implications of coaches' years of experience for their coaching.

Although coaches did report receiving initial training when starting with their initiative, most of these were one-off and specific to their initiative content. Indeed, coaches received a fair amount of content-focused training. Yet, they requested more training on behavior management, further underscoring behavior management as a well-known challenge in EC both within our data and generally. This needs to be attended to at all levels when targeting quality improvement.

Additionally, coaches need specific training on coaching processes. Few coaches articulated individual coaching processes often considered important for coaching (Elek and Page 2019), as part of their definition of coaching. We found converging evidence supporting the need for more coach training on the process of using data specifically. Although coaching initiatives were gathering data regarding coaching, it was not clear how those data were being used to support the coaching process itself. Using data to support coaching is a key process for improving outcomes (Snyder, Hemmeter, and Fox 2015; Weiland and Yoshikawa 2013), yet coaches may not be doing this. Over a third of coaches responded that they would like more training on evaluating their coaching, suggesting that they are not necessarily connecting data to their coaching.

Perhaps most importantly, coaches may need more support in working with adult learners. Although many had experience in EC, knowledge for working with young children may not readily translate into knowledge for working with adults. Adults have different learning needs than children (Desimone and Garet 2015; Knowles 1970), and this can impact their learning and uptake of new ideas. Importantly, this was reported as both a training need and something coaches liked least about their profession. This is perhaps most salient in coaches' requests for more training on working with difficult/reluctant learners who are resistant to adopting new practices and is critical for continued support and retention of coaches.

Notably, coaches' perspectives provide valuable information regarding professional learning supports. Although many of the coaches participated in traditional workshops or one-time training formats that have been found to be less efficacious for supporting educators (Desimone and Garet 2015) as initial training, many experienced other types of training. Coaches reported their conversations with other

coaches as well as being coached as the most beneficial learning support. Thus, unsurprisingly, coaches sought for themselves the same types of experiences deemed to be important for supporting EC educators. This suggests that real-world coaches may need opportunities to receive coaching and engage in learning with their peers, such as participating in communities of practice. These formal and informal professional support opportunities could further develop coaches' skills and abilities through reflection, feedback and sharing of knowledge (Keegan 2020).

Limitations and Future Directions

There are some limitations to the study. Given that this was an exploratory design, our sample was limited to coaches working in EC settings from one Midwestern state. The findings may not generalize to coaches working in other states or countries. However, our sample does account for coaches working across multiple initiatives and coaching with a variety of educators (teachers and directors). Additionally, data were collected via a self-report questionnaire. Findings may have been affected by social desirability bias (Spector 2004), and because the questionnaire was voluntary, not all coaches working in EC settings completed the questionnaire, which may limit some of our conclusions. However, extensive efforts were taken to recruit coaches from across the state, with coaches from each of the 12 different coaching initiatives participating. Thus, although we expect our findings to be applicable to EC coaching, more research is needed to describe the population of coaches nationally and internationally. Additionally, this is only one way of investigating coaching and learning needs; future research should also consider the perceptions of educators receiving real-world coaching.

Conclusion

This study provides critical insights into coaches' perspectives and contributes to our limited knowledge regarding what promotes or creates challenges in real-world EC coaching. Overwhelmingly, coaches

enjoyed contributing to educators' growth and adoption of practices that resulted in positive benefits for families and children. However, many challenges were also noted which suggest the need for more training around social-emotional development/behavior management, using data and working with difficult learners, as well as the need to create better supportive structures within EC to accommodate coaching. Greater attention is needed in understanding how to bring effective coaching to scale such that the intended impacts of coaching can be realized with continued research to illuminate the ways we can facilitate coaches' capacity building and effectiveness. Our findings can support the generation of new research and professional learning opportunities within EC settings to reach the full potential of coaching for improving outcomes for young children.

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S1: Survey Questions

**Fixed Response
or Open Comment**

General Coaching Questions

How long have you been a coach in State? . . . . Fixed response

What is your definition of coaching? . . . . Open comment

What is the most satisfying for you about the early childhood
    coaching you are doing? . . . . Open comment

What is the most difficult for you about the early childhood coaching
    you are doing? . . . . Open comment

What other areas do you get requests about from coachees for
    support that are not part of your coaching program(s)? . . . . Fixed response

What is the primary area you would like more information about
    to be more successful as an early childhood coach? . . . . Fixed response

Do you provide coaching on those multiple programs within a
    single coaching session? . . . . Fixed response

For you, what was the most useful part of your coach preparation
    and why? . . . . Open comment

In what settings do you have experience? . . . . Fixed response

Is there anything else you want to add about coaching? . . . . Open comment

How many years of experience working in early childhood
    (birth through grade 3) do you have? . . . . Fixed response

What is your highest education level? . . . . Fixed response

What is your degree in? . . . . Open comment

Initiative Specific Questions

Who do you provide coaching to? . . . . Fixed response

What content do you address during your coaching? . . . . Fixed response

What is the age range of the children targeted directly or indirectly
    by your coaching? . . . . Fixed response

How were you prepared to do the work of coaching? . . . . Fixed response

How are you supported to continue to develop as a coach? . . . . Fixed response

How long have you been coaching for this initiative? . . . . Fixed response

Is your coaching based on a specific coaching model? . . . . Fixed response

Is your coaching based on or developed around an assessment? . . . . . . Fixed response

When coaching I meet: one on one with the coachee, with a group
   of coachees from the same setting, with a group from mixed settings,
   I do not know . . . . Fixed response

What is the overall length of time that a typical coachee participates
   in coaching with you? . . . . Fixed response

How do you meet with your coachees? . . . . Fixed response

How frequently do you meet in each way? . . . . Fixed response

Is your coaching successful? . . . . Fixed response

How do you know? . . . . Open comment

What data are collected regarding the results of your coaching? . . . . Fixed response