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**Evaluation of Early Childhood Coaching
Implementation in Nebraska**

**Technical Report
Vol. 2:**

**Key Findings from
Participant Observational and Self-Reported Data¹**

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Introduction

The Nebraska Early Childhood Coach (ECC) training was a three-day (total: 24 hours), professional development event sponsored by the Nebraska Department of Education, Office of Child Development in 2009-2010. Sixty-five early childhood teachers and related-service providers participated for the purpose of learning the basic principles and behaviors associated with current or proposed job responsibilities as a ‘coach’ to parents, care providers, or preschool teachers. The purpose of this training was to advance/enhance the early childhood professionals’ ability to support individuals they may be coaching, mentoring, and/or supervising. The learner objectives for the training were to: (a) understand the research evidence for the practice of Early Childhood (EC) coaching, (b) understand EC coaching as an adult-learning strategy, and (c) demonstrate the use of targeted EC coaching behaviors.

Held in Omaha, Nebraska, the ECC training participants included practitioners from across the state representing both rural and urban communities. Participants represented different agencies serving young children under age 5 and their families. Coaching responsibilities focused on the needs of family members, care providers, or teachers associated with one of three primary program or project missions. These could include coaching related to:(a)children’s *Individualized Family Service Plans (IFSP)* or *Individualized Education Plans (IEP)* for children with developmental delays/disabilities,(b) the quality of classroom environments following observational assessment using with the *Classroom Assessment Scoring System (CLASS)* or *Early Childhood Environmental Ratings System (ECERS)*, and/or (c) implementation of relevant strategies to advance children’s social emotional development in follow-up to professional development sessions teachers attended on the *Pyramid Model for Supporting Social Emotional Competence in Infants and Young Children*. The ECC training sessions were delivered using both didactic lecture and small group discussion formats, and included case study problem solving opportunities. Participants were asked to outline one final component of the training consisted of a *coaching action plan* before departing the training.

An independent evaluation of the ECC training outcomes was completed and a final report addressing the major evaluation questions was submitted to Nebraska Department of Education in October 2011. The ECC training evaluation focused on the fidelity with which coached participants implemented the coaching model on which they received training, as well as coach training efforts. Furthermore, the evaluation included information on the current state of coaching in Nebraska, as described by subsets of coached participants who attended the ECC coach training.

This Technical Report provides a more detailed description of those findings and summarizes additional analyses of data collected from survey, interview, and direct observations of participants. The Technical Report is divided into two parts: Volume 1 summarizes the findings related to survey data from 35 participants and Volume 2 summarizes the data from videotaped observations of 21 coaches’ interactions with coachees on the job.

Key Findings

Coach Data: Observed and Self-Reported Behaviors

Twenty-one early childhood coaches were observed during one coaching session with a coachee (parent or teacher)

- Observed:
 - Verbal acknowledgement, non-verbal acknowledgement, closed-ended questions, and sharing of information were used more frequently than other coaching behaviors.
 - Sharing observations, feedback, and joint planning were used less frequently during the coaching sessions than other behaviors.
 - Variability was found in the use of coaching behaviors. Possible reasons for this could be: (a) individual nature of the coaching topic, (b) individual coach-coachee dyad, (c) coachee's needs and wants, and (d) coach's experience and comfort level.
- Self-reported:
 - Coaches reported having positive relationships with coachees
 - Coaching sessions enhanced relationships with coachees, improved the coachee's ability to: (a) reflect on own skills, (b) express their concerns and opinions, (c) be open to new ideas, and (d) make positive changes in their classrooms.
 - Coaches reported confusion about specific behaviors such as establishing relationships, using reflective questions, and joint planning during coaching conversations.
- Correlation analyses:
 - A positive association was found between years of experience in early care and experience and use of coaching behaviors, for *establishing relationships* and *joint planning* during coaching conversations.
- *Early Childhood Coaching Conversation* (ECCC) coding system
 - This tool, created for this study, was found to be a reliable measure ($K = .76$) that clearly described and defined a measurable set of coaching behaviors that can be used to evaluate performance with adult learners in both intervention and professional development contexts.

Coaches' Responses to Feedback

Coaches were provided feedback in the form of graphed data of their observed behaviors in coaching session, along with opportunity to discuss the data with a master coach.

- Coaches indicated that the feedback they received was very encouraging and that the process of receiving feedback was comfortable and a good use of their time.
- Coaches reported that it was very helpful going over strengths and weaknesses from video-taped coaching sessions. They particularly highlighted that it was effective to be able to see, reflect (on both verbal and non-verbal behaviors), discuss, and self-evaluate their coaching conversation behaviors. Watching the videos helped coaches

- understand their non-verbal behaviors (e.g. eye contact, use of hand movements, posture, etc.)
- Coaches indicated that the use of graphs during the feedback session was effective as it served as a “focal point” to guide discussions. The visual inspection of the graphs helped coaches to critically reflect on their coaching sessions and self-evaluate their coaching behaviors. High and low frequency of coaching behaviors on the graphs enhanced coaches’ understanding of coaching behavior definitions and possibilities for using/not using certain behaviors during coaching sessions.
 - Coaches reported that they need more feedback sessions (including graphs and videos) on a quarterly basis in order to see growth and skill development over time.
 - Coaches reported needing “refresher” training with more in-depth information and examples of coaching conversation behaviors.
 - Coaches indicated that consistent feedback from a master coach/supervisor would be helpful in guiding their coaching practices.

Coachee Data: Observed and Self-reported

Twenty-one coachees (parents or teachers) were observed during one coaching session with their early childhood coaches

- Observed:
 - Verbal acknowledgement, contributions/elaborations to coach input, and introductions new topics were used more frequently than other observed behaviors.
 - Proposing ideas, asking questions, and participating in coaching relationship were used less frequently during the coaching session than other observed behaviors.
- Self-reported:
 - Coachees reported comfortable, strong, and trusting relationships with the coaches.
 - Coachees indicated that helpful coach qualities included: (a) providing ideas for classroom and children, (b) caring about what works for the coachee, (c) understanding the coachees' fears, (d) willingness to offer help, and (e) providing relevant information and suggestions to motivate the coachees to move ahead.
 - Coachees reported that coaching sessions can be improved by incorporating more: (a) modeling, (b) ideas to facilitate practice, (c) meetings, (d) time to exchange ideas, (e) feedback on areas of improvement, and (e) reflection time on questions asked by coaches by sharing those questions with the coachees prior to the meeting time.
- Correlation analyses between observed coach and coachee behaviors:
 - Positive associations were found between coaches’ use of behaviors to establish relationships, and coachees’ subsequent participation in the coaching session as evidenced by their ability to participate in the coaching relationship with coach, propose new ideas and elaborate on the input from the coach.

- Positive associations were found between coaches' use of behaviors to promote joint plans, and coachees' subsequent participation in the coaching session as evidenced by their ability to participate in the coaching relationship with coach, and propose new ideas for changes in behavior, action, or attitude changes related to the current topic of the coaching conversation.
- Positive associations were found between the coaches' use of behaviors to verbally acknowledge feelings or behaviors of the coachee, and the coachees' subsequent participation in the coaching session as evidenced by their ability to elaborate on the input from the coach.
- Positive associations were found between the coaches' use of questions to clarify the coachees' intent or feelings, and the coachees' subsequent participation in the coaching session as evidenced by their ability to verbally acknowledge/agree to the coach's prompts and ask further questions related to the current topic of conversation.
- In contrast, negative associations were found between coaches' use of *feedback*, and coachees subsequent participation in the coaching session as evidenced by their ability to propose new ideas for changes in behavior, action, or attitude changes related to the current topic of the coaching conversation.
- Negative associations were found between specific observations (running record of descriptions) shared by coach, and coachees' subsequent participation in the coaching session as evidenced by their ability to ask further questions related to the current topic of conversation.

Demographics Characteristics of the Observed Coaches and Coachees

This section includes the key demographic features of the 21 coach-coachee dyads who agreed to have one coaching session videotaped. Coaches represented mental health, Head Start/Early Head Start programs, independent consultant, and public school employees who provided coaching on a variety of early childhood topics. Coachees were preschool teachers, child care providers, or family members of young children. Coaching sessions were scheduled at least 2 times/month. Average range of coaching relationships between the coach and the coachee were 3-36 months. Mean length of coaching sessions was 33 minutes (range 13–47 min.).

Table 1 summarizes demographic information for the 21 coaches. The coaches had an average of 15 years of experience in early care and education and 5 years of coaching experience.

Table 1. *Coach Characteristics*

<i>Characteristics</i>	N=21
Mean Age in Years	37 (<i>SD</i> = 9.7)
Education	
Some Training Beyond High School	5.9%
Two Year Degree	0.0%
Four Year Degree	35.3%
Some Graduate Coursework	23.5%
Graduate Degree	35.3%
Special Endorsements	47.1%
Mean experience in years	
Early Care and Education	15.18 (<i>SD</i> = 10.39)
Early Childhood Coaching	5.43 (<i>SD</i> = 5.74)

Table 2 summarizes demographic information for the 19 coachees. The coachees represented preschool teachers and child care providers and parents. There was variability in educational background and experiences for coachees, with 60% having college degrees and 20% having diplomas after high school. Work experience with young children ranged from one to thirty two years.

Table 2. *Coachee Characteristics*

Characteristics	Child care providers (n = 10)	Preschool teachers (n = 6)	Parents (n = 3)
Mean age in years	36 (SD = 10.0)	30 (SD = 5.5)	28 (SD = 4.6)
Education			
GED	10.0%		
High School Diploma	10.0%		33.3%
Some Training Beyond High School	10.0%		66.7%
One Year Vocational Training Certificate	10.0%		
Two Year Degree	40.0%		
Four Year Degree	10.0%	66.7%	
Grad Coursework	10.0%	16.7%	
Graduate Degree	--	16.7%	
Current CDA	20.0%	50.0%	N/A
Mean experience in years			
Working in early care and education	10.0 (SD = 9.4)	6.7 (SD = 2.1)	N/A
Employed in current position	4.7 (SD = 6.8)	3.1 (SD = 2.5)	N/A

Note. Twenty-one coachees participated in this study. Two demographic questionnaires were not returned.

Early Childhood Coaching Conversations Coding System

The *Early Childhood Coaching Conversation (ECCC) coding system* was developed to provide information about the behaviors exhibited by early childhood coaches and their coachees during typical coaching meetings/conversations conducted for the purpose of promoting new or enhanced skills and knowledge in the teacher/provider/parent. Specific behavioral codes were developed for this evaluation study to capture (a) *fidelity to the coaching components as defined by the ECC training*, as well as (b) *the range of behaviors evident in a coaching interaction*. The intent was to measure the level to which participants were able to implement the process of coaching as defined by the training.

While it is recognized that many factors influence the coaching process, the behavior codes chosen for the ECCC coding system were intended to represent the core components of coaching as conceptualized during the ECC training, while also capturing other relevant behaviors that might be observed that were not covered in the training. The intent was to provide a complete picture of the coaching interaction between a coach and coachee. Codes are included for both the coach behaviors and the corresponding coachee behaviors in order to represent their interrelatedness. The bulk of the codes are coach behavior codes since they were the main focus of the training. The purpose of developing codes for coachee behaviors was to provide descriptions about the possible influences of coaching behaviors on coachees' participation in the session.

The sections below describe the coach and coachee behaviors as defined in the ECCC coding system.

Coach Behaviors

1. **Establishes/re-establishes relationships:** Coach initiates or responds to meaningful interactions and conversational exchanges which convey support and care to the teacher/parent typically in the form of personal information and subjects outside of the bounds of the established topic for the coaching session.
2. **Introduces new topics:** Coach uses statements or comments which direct or initiate the conversation or topic. This information is not related to teacher/parent input or behaviors.
3. **Acknowledges and/or affirms feelings, behaviors and input:** Coach comments on, affirms and/or acknowledges teacher/parent observations, behaviors, ideas, etc. within the established topic(s). Specific behaviors may or may not be included and restating/rephrasing may be used, all for the purpose of recognizing the teacher's/parent's feelings or input.
4. **Invites input and reflection:** Coach creates opportunities, including when introducing new topics, for the teacher/parent to share perceptions, input, thoughts, etc. They are typically in the form of questions and supportive statements, generally exploratory and open-ended.
5. **Clarifies intent:** Coach uses a yes/no or other type of close-ended question to clarify intent, feelings, and/or check for understanding.

6. **Shares observations:** Coach shares observations using descriptions or documentation. These observations are clearly a result of the coach's time spent with the teacher/parent with the child/children in the home or classroom.
7. **Shares information:** Coach provides information related to a question or request which may be direct or implied on the part of the teacher/parent.
8. **Uses feedback:** Coach uses statements or comments that provide an explanation or rationale which adds new information for the teacher/parent, including the use of specific examples. These statements/comments go beyond an affirmation/observation and include specific reference to the child, teacher behavior, or particular situation.
9. **Provides suggestions:** Coach provides an explicit suggestion for something the teacher/parent could do, or something the coach could do, which is related to the current topic/conversation. The suggestion is typically in the form of a statement, but could be preceded by "I wonder what would happen if..."
10. **Encourages connection:** Coach encourages a clear connection to previous conversations by referencing a previously discussed topic, plan or action.
11. **Promotes joint planning:** Coach asks questions, clarifies points, recaps or summarizes actions or ideas which include reference to and are clearly for the purpose of planning for what will happen once the coaching conversation has ended, including: who will do what, by when, which of these things that we discussed, what are the roles, etc.

Coachee Behaviors

1. **Participates in relationship:** Coachee participates, either by initiating or responding to meaningful interactions and conversational exchanges with the coach, typically in the form of personal information and subjects outside of the bounds of the established topic for the coaching session.
2. **Brings up new topics:** Coachee brings up topics, concerns, priorities or requests, related or unrelated to, the current topic.
3. **Asks new questions/makes requests:** These behaviors can be in any form, i.e. questions, statements, or implied requests related to the current topic.
4. **Contributes to or elaborates** on the coach's input using statements or comments to add information, share opinions and/or rationale or describe current behaviors and activities.
5. **Agrees to or acknowledges** the coach's input in the form of short phrases or a few words, but does not elaborate further.
6. **Proposes ideas for changes:** As a result of the coaching conversation, coachee uses descriptions, statements or requests that clearly demonstrate a behavior, action, or attitude change as a function or result of the conversation.

Reliability

Two independent coders were trained to use the ECCC coding system, and were required to be 80% reliable across all 16 codes. In order to prepare for coding, all coders participated in multiple face-to-face training sessions and many individual feedback sessions during which the focus was: 1) learning the codes with their corresponding definitions, 2) learning how to record data, and 3) coding an entire tape from start to finish. Each coder coded two consecutive practice

tapes to reliability before moving into the actual data set. Overall, the ECCC coding system was found to be a reliable measure ($K = .76$) across coach and coachee behaviors.

Process of Coding

All of the 24 videotaped coaching sessions were viewed by a trained reliable coder. Initially, the coder viewed each videotape for 5 minutes to allow for an introduction to the context of the particular interaction between the coach and the coachee. The video was then viewed from start to finish, stopping every two minutes to code the behaviors for both coach and coachee as present/not present. By coding behaviors across discreet intervals, an aggregate of behaviors was analyzed, as well as patterns of behaviors that occurred at different intervals during the coaching session. Additionally, at the end of the first 10 minute segment, the coder indicated the perceived purpose/topic established in the coaching session. Finally, at the end of the full segment, the coder rated the level of collaboration observed between the coach and the coachee.

Coach Data

Observed Behaviors

This section includes information regarding (a) coaching session topics, (b) frequency of observed coach behaviors, and (c) level of coach-coachee collaboration.

Coaching session topics. Coaches were observed discussing a variety of topics with their coachee (teacher/parent). These broadly consisted of children's behavior management, children's communication and language development, and classroom quality and management. Specific examples of the coaching session topics identified by the coders are reported in Table 3.

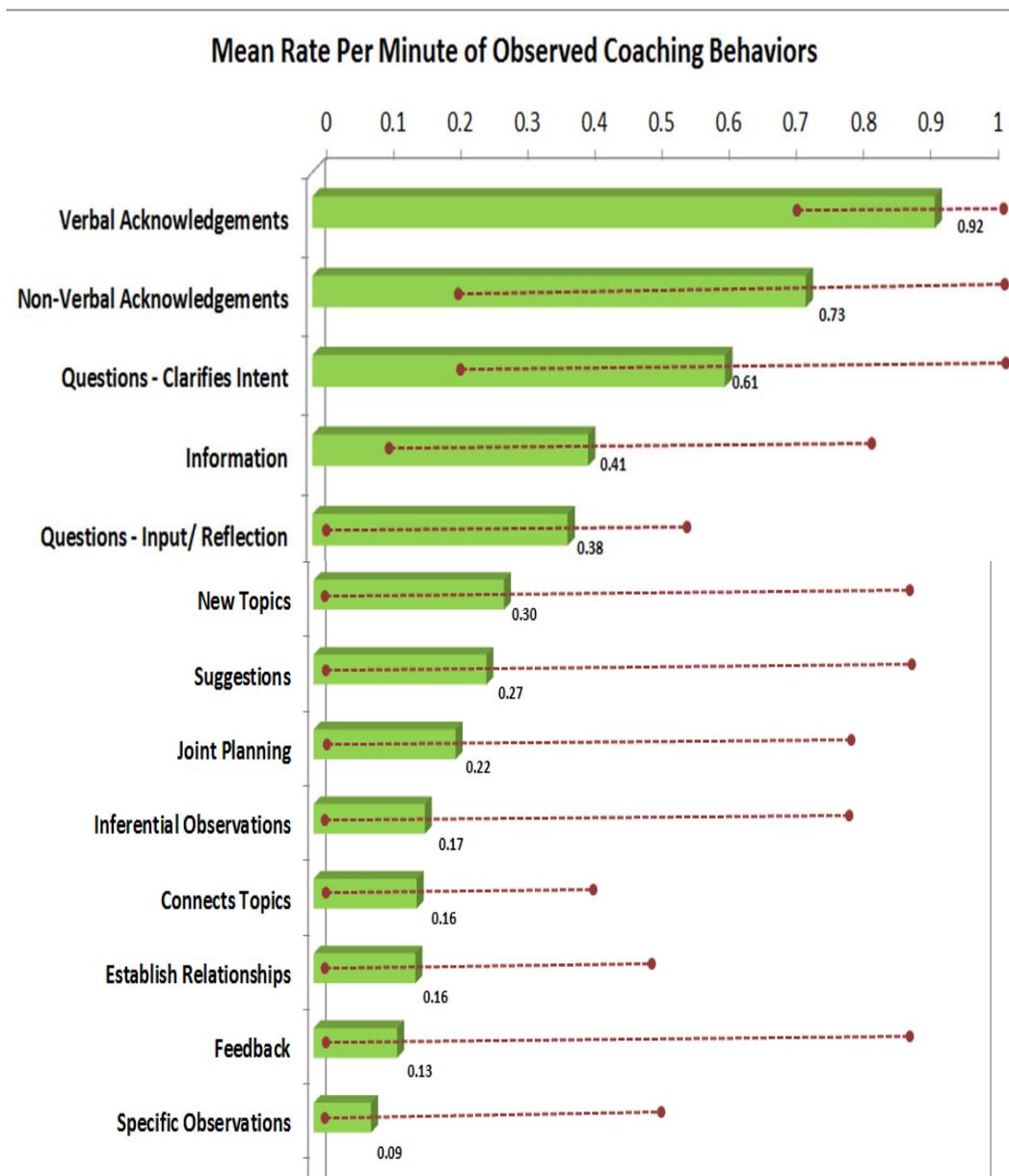
Table 3. *Coaching Session Topics*

-
- Reviewing homework
 - Pyramid strategies-relationship, accountability
 - Reviewing ECERS/classroom observation
 - Child's behavior
 - Child's language and communication
 - Evaluation/Accreditation
 - Classroom management/schedule
 - Classroom Curriculum
 - Request for information-newsletters
 - Transition to kindergarten
 - Involving mom with kid activities
 - Sharing resources about books, training, DVD, etc.
 - Center/Setting cleanliness, requirements
-

Frequency of observed coach behaviors. *Verbal acknowledgement, non-verbal acknowledgement, close-ended questions* and *sharing information* were used more frequently than other coaching behaviors. For example, coaches used verbal acknowledgment .92/ observances per minute, or across 92% of the intervals.

Sharing observations, feedback, and joint planning were used less frequently during the coaching session than other behaviors. Figure 1 provides a summary graph of frequently and infrequently observed behaviors. For example, coaches engaged in joint planning .22/ observances per minute, or 22% of the intervals.

Figure 1. *Frequency of Observed Coaching Behaviors*



Data are based on 24 coaching sessions as three coaches conducted coaching sessions with two coachees each. Solid bars in the graph indicate the coaches' mean rate per minute use of specific behaviors. Dotted lines in the graph indicate the variability in the use of behaviors. Each video-taped coaching session was coded by observing 30-60 minutes of coaching session and stopping every two minutes to code the behaviors for the coach as present/not present. The number of observed instances was then divided by total minutes of the coaching session.

Level of coach-coachee collaboration. After coding observed coach behaviors, a level of coach-coachee collaboration was established, based on coders' perceptions of balance found in the coach-coachee conversations. The following 3-point Likert scale was used:

1 = no evidence of collaboration - Teacher's/parent's only participation in the conversation is to agree or acknowledge, and using only short phrases or sentences, and/or the coach directs the majority of the conversation without giving the teacher/parent encouragement or invitation to contribute to the topic(s) .

2 = some evidence of collaboration- Teacher/parent demonstrates some instances of sharing information or asking questions during the coaching conversation, and/or the coach gives some opportunity for the teacher/parent to share or provide information but does not routinely encourage or invite these contributions.

3 = high level of collaboration- There is a clear balance between coach and coachee. Teacher/parent elaborated or added to information provided, asked questions, and made observations that contributed to a balance between coach and teacher/parent in the conversation. Coach gives teacher/parent many opportunities to contribute to the conversation and affirms/acknowledges that input.

Results. A high level of collaboration was noted for 72% (n=17) of the coaching sessions; the other 28% (n=7) showed some evidence of collaboration between the coaches and coachees.

Additional data analyses were conducted to further investigate relationships between observed coach behaviors and other associating factors (education, years of experience in early care and education, years of experience as a coach, coaches' perceptions of coaching relationship, etc.). See "Additional Data Analyses" (pg. 19) section for those results.

Self-Reflections

Coaches were asked to fill out web-based questionnaires after the video-taped coaching session to further investigate their perceptions of the coaching relationship with their coachees. Coaches also identified strengths and needs of their coachees by responding to open-ended and closed-ended questions in these questionnaires. The following section summarizes the findings of these coach self-reflections.

Coaches' perceptions of the coaching relationships with the coachees. The following measures were used to assess coaches' perceptions of coaching relationships:

1. *My Teaching Partner Consultation Survey* (CASTL, 2005), is a 21-item survey with a 5-point Likert scale. This survey was completed by 21 coaches to measure the *relationship, responsiveness, and non-compliance* of the coachees with whom they worked.
2. *Coach-Teacher Relationship Scale* (modified, Vickers & Minke, 1995), is an 18-item, 5-point Likert scale survey that includes two subscales: *Joining* and *Communication-to-others*. *Joining* is defined as feelings of interpersonal connection between the coach and the coachee. *Communication-to-others* indicates the ability of coach and coachee to change their ways of interacting when needed. This survey was also completed by all 21 coaches.

Table 4 shows the high mean ratings reflective of the coaches' positive relationship with their coachees.

Table 4. Descriptive Statistics for 21 coaches' Perceptions of Coaching Relationships with Coachees

Coach-Teacher Relationship Scale ^a	Mean (SD)	Cronbach's Alpha
Joining	4.50 (0.43)	.82
Communication	4.51 (0.41)	.72
My Teaching Partner Consultation Survey ^b		
Relationship	4.72 (0.36)	.70
Responsiveness	4.52 (0.42)	.72
Noncompliance	1.50 (0.66)	.71

Note. ^aThe Coach-Teacher Relationship scale consists of 18 items that are answered on a 5-point Likert scale (i.e., 1 = *almost never* to 5 = *almost always*) with higher scores denoting increased quality of communication and adaptability.

^bThe My Teaching Partner Consultation Survey consists of 21 items that are answered on a 5-point Likert scale (i.e., 1 = *strongly disagree* to 5 = *almost agree*) with higher scores denoting increased relationships between coach and coachee, as well as enhanced responsiveness and high levels of noncompliance.

Coachees' strengths and needs as identified by the coaches. Coaches identified the strengths and needs of the coachees by responding to open-ended questions. The coaches reported that their coachees were open to new ideas/suggestions, showed willingness to learn and change, were passionate about their work, and had good relationships with the children and families under their care. The coaches also reported that their coachees would need more support around the following topics: (a) building relations with staff/team, (b) early childhood education and developmentally appropriate practices, and (c) classroom routines and environmental modifications.

Coaches' perceived use of coaching behaviors. In addition to the web-based surveys regarding their perceptions of their relationships with coachees, coaches were also asked to complete a paper questionnaire that consisted of open-ended and closed-ended questions about their perceived use of coaching behaviors during their coaching sessions. Overall, 100% of the coaches recalled using feedback and encouraging teachers to share, 96% recalled using reflective questions, and 82% recalled using specific behaviors to establish relationships. Fewer coaches (79%) indicated using joint planning in their coaching sessions.

In addition, coaches were asked to write about their concerns/opinions regarding their coaching conversation skills, their relationships with their coachees, and what they would do differently with their coachees during the following sessions. Their responses included:

- Confusion about the understanding of specific behaviors like *establishing relationships*, *using reflective questions*, and *joint planning* during coaching conversations.
- A desire to use more reflective questions (i.e., open-ended questions) and constructive feedback during their next coaching session.
- In addition, they reported needing more time to: talk with the coachee (teacher/parent) to address issues/challenges as they arose, follow-up on questions/comments, and permit the coachee to come up with ideas herself.
- A need to become more efficient with planning and documentation by creating a written action plan to work with their coachee.

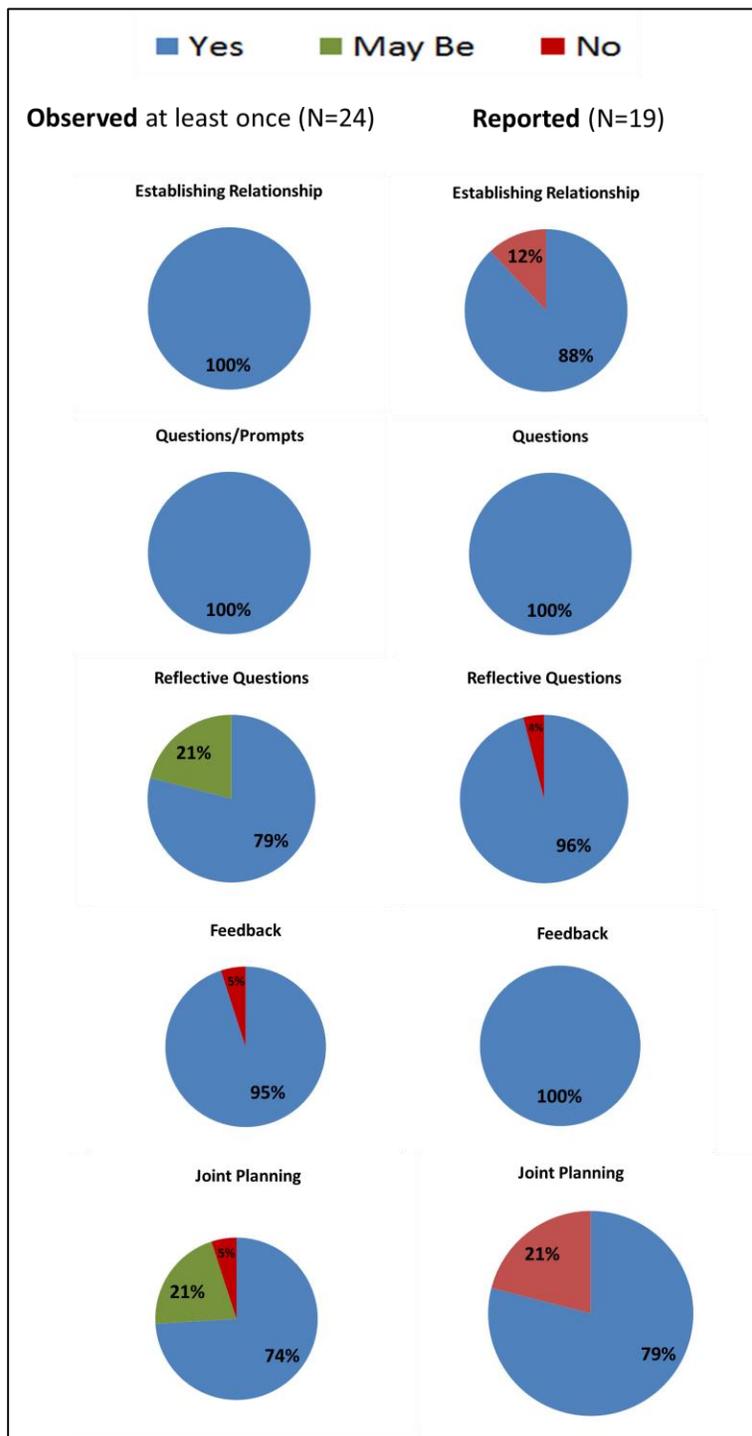
Additional Data Analysis

This section details information on the relationship of observed coach behaviors with self-reported behaviors, demographic information and coach perceptions of coaching relationships. Specifically, the following questions were addressed; results are included after each section.

1. *How do observed coach behaviors match self-reported behaviors?*

In general, the coaches' self-report of behaviors used in the coaching session matched the observed behaviors. Figure 4 shows the percent of coaches who were observed and who reported using each of the specific coaching behaviors. For example, 100% of the coaches were observed using behaviors to *establish relationship*, whereas only 88% of the coaches reported using the *establish relationship* behavior. In contrast, 96% of the coaches reported using *reflective questions*, but in contrast only 79% were observed using this coaching behavior.

Figure 4. *Observed and Self-Reported Coach Behaviors*



2. *How do observed coach behaviors relate to coaches' perceptions of coach-coachee relationships and coachees' responsiveness to the coaching process?*

Pearson product-moment correlation coefficients were computed to assess the relationship between the observed coaching behaviors (including key relationship-building and coach-driven behaviors) with two self-report measures (including sub-scales of the *Coach-Teacher Relationship Scale* - Joining, Communication, and three sub-scales of the *My Teacher Partner Consultation Survey* - Relationship, Responsiveness, and Non-Compliance).

The observed coach behaviors were clustered into two categories:

Key relationship building behaviors. These behaviors were used with the intent of building a relationship with the coachee and encouraging the coachee to reflect and communicate during the coaching session (e.g., *establishing relationship, use of open-ended and closed ended questions, verbal and non-verbal acknowledgment, sharing suggestions and information, and joint planning*).

Key coach-driven behaviors. These behaviors were used with the intent of *sharing information* with the coachee and are mainly initiated by the coach (e.g., *sharing observations and feedback, introducing topics, and connecting topics*).

Results. Statistically significant positive correlations (low to moderate) were found for three of the key relationship-building observed coach behaviors and the self-report measures. Significant positive correlations were found between behaviors used for *Establishing Relationships* and reports of *Relationship* and *Responsiveness*. In addition, significant positive correlations were found between coaches' use of *verbal acknowledgement* and their feelings of interpersonal connection with their coachee (Joining); and the coaches' use of *suggestions* and perceptions of the coach to adjust communication as needed (Communication).

One statistically significant negative correlation for the coach-driven behaviors observed coach behaviors. Significant positive correlations were found between observed *suggestions* behavior and one key relationship building behavior of Communication. A moderate negative correlation was found between coaches' *feedback* behavior and the key relationship building behavior of Communication. No significant correlations were found between other observed coach behaviors and the key relationship building behaviors. See Table 5 for individual correlation statistics.

Table 5. *Correlation Between Coach's Perceptions of Coach-Coachee Relationship and Observed Coach Behaviors*

Observed coach behaviors	Joining	Communication	Relationship	Responsiveness	Non-Compliance
<i>Key-Relationship Building Behaviors</i>					
Establishing Relationship	.27	.33	.39 ⁺	.50*	.17
Verbal Acknowledgement	.38 ⁺	-.01	.11	-.06	.36
Suggestions	.34	.43 ⁺	.15	.31	.36
<i>Coach-Driven Behaviors</i>					
Feedback	-.05	-.53*	-.05	-.24	.24

Note. ⁺ $p < .10$. * $p = .05$. (Only significant differences listed; no significant relationships found between other observed coach behaviors and *coach's perceptions of coach-coachee relationships*.)

3. *How do observed coach behaviors relate to coaches' years of experience in early care and education and years of experience as a coach?*

A Pearson product-moment correlation coefficient was computed to assess the relationship between the observed coaching behaviors and the coaches' years of experience in early care and education and years of experience as a coach. (See Table 6).

Results. An increase in years of experience in early care and education appeared to relate to an increase in the coaches' use of behaviors for *establishing relationships* and *joint planning*. On the other hand, an increase in years of coaching experience appeared to relate to decrease in the coaches' use of reflective questions during the coaching session. Non-significant correlations were found between other observed coach behaviors and coaches' years of experience in early care and education and years of experience as a coach.

Table 6. *Significant Correlations Between Observed Behaviors and Coach Years of Experience in Early Care and Education and as a Coach*

Observed coach behaviors	Early Care and Education Experience (n=23)	Coaching Experience (n=23)
Establishing Relationship	0.50*	
Use of reflective questions		-0.42*
Joint Planning	0.39 ⁺	
Introduce New Topic		0.35 ⁺
Share Inferential Observations	-0.39 ⁺	

Note. ⁺ $p \leq .10$. * $p \leq .05$ (Only significant differences listed)

4. *How do observed coach behaviors differ by coaches' education levels?*

A one-way ANOVA was used to identify significant differences in coaches with varying levels of education (Bachelor's degree, some graduate coursework, and graduate degree).

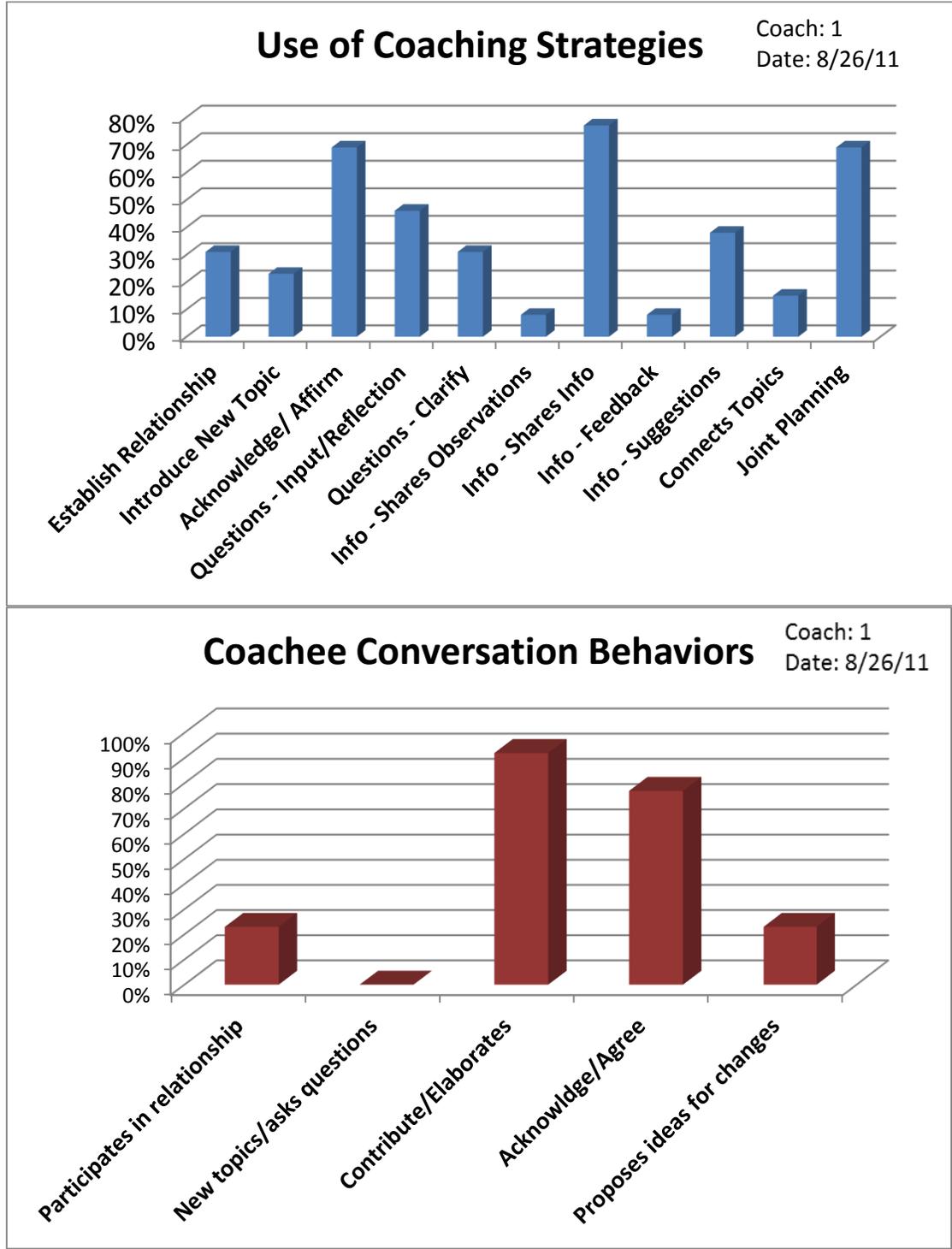
Results. There were no significant differences in observed coach behaviors by coaches' education levels.

Feedback to Coaches

This section highlights the process used to provide coaches with feedback based on observed use of coaching conversation behaviors. In addition, focus groups and individualized interviews were conducted to understand coaches' perceptions/reflections about the feedback process.

Feedback Process. The feedback process was intended to provide coaches an opportunity to reflect on their coaching behaviors within the context of one coaching session. This was done through a visual description of coaching conversation behaviors used by the coach and the coachee during a coaching session. Individual coach and coachee behaviors were plotted in bar graph format using percentage of (two minute) intervals per coaching behavior. Both coach and master coach watched the video-taped coaching session prior to their individual feedback meeting. The master coach met individually with 11 coaches and provided feedback using a graph a graph along with a short video clip that highlighted their use of coaching conversation behaviors during their coaching session with their coachee. The goal of the coaching feedback session was to: (a) establish or re-establish coaching purpose, topic and context – who and what, (b) explore the coaches' intent (e.g., “tell me what you intended to have happen....”), (c) compare/contrast with what *did* happen, (d) show clips of coaching behaviors and the *ECCC* profile to promote reflection, and (e) encourage and facilitate a plan for next steps in their professional development. See Figure 3 for examples of individual coach feedback graphs.

Figure 3. Example of Coach's and Coachee's Use of Coaching Conversation Behaviors



Individual profiles demonstrate the unique constellation for an individual coach and when compared, similarities and differences among coaches and their use of coaching behaviors. These profiles were particularly useful for stimulating discussions with coaches. Once coaches were oriented to the coaching behavior definitions and prompted to reflect on their use of behaviors during these individual sessions with coachees, the coaches then made plans for how they would proceed with their coaching.

The profiles of coaching behaviors should be considered “context specific”, that is, . a one-shot representation of behavior and an opportunity for coaches to reflect on behaviors in terms of what they wanted to have happen and whether or not it resulted in the desired outcome.

Responses to feedback. Eleven coaches subsequently participated in a focus group and one-on-one interview sessions. The purpose of these sessions was to understand the coaches’ perceptions related to the coaching feedback process. Preliminary anecdotal information, following the use of the coach profiles during individual feedback sessions, indicates a positive response from all coaches. The following questions were asked during each interview:

- *What was helpful from the coaching feedback session?*
- *What did you learn from the coaching feedback session about your coaching behaviors that you did not know?*
- *How well did the graph represent how you feel you used the coaching behaviors as they were described?*
- *How could the graph information be shared more effectively for future coaches?*
- *How might the feedback be used to you in an ongoing way- the graph or the video?*
- *What other types of feedback would be helpful to support you in your coaching role?*

The one-on-one interviews lasted 30-45 minutes each and the focus groups lasted for 90 minutes. The one-on-one interviews and focus groups were conducted by a graduate student on the research team who was experienced in conducting interviews and moderating focus group sessions. All the sessions were audio-taped using an unobtrusive digital recorder. All recorded contributions were transcribed word-for-word from the audio tape recording.

The following sections briefly summarize the findings and highlight significant statements made by the coaches.

Feelings during the coaching feedback session. Overall, the participants stated they were very comfortable and described the session as being very encouraging and a good use of their time. The participants felt that the master coach who provided them with feedback was very respectful and willing to listen. In addition, participants highlighted that the master coach’s background in Early Childhood and experiences with coaching allowed for helpful and constructive feedback.

Reflections of the coaching feedback session. The participants reported that the feedback session was very helpful as they were able to go over their strengths and weaknesses of their video-taped coaching session. They found it particularly effective to see, reflect (both verbal and non-verbal behaviors), discuss (with master coach), and self-evaluate the coaching conversation behaviors. They also reported an understanding of the dynamic nature of coaching sessions that may be different with each coachee (teacher/parent) and different during every coaching session.

Relationships with the coachee and coaching session topics may drive the use of coaching conversation behaviors. A few significant statements are highlighted below:

- *“Nice to see concrete definitions or specific areas in which I could have a better understanding of evaluating myself.”*
- *“Helped me understand the coaching strategies little more clearly; where in the coaching process I am using more of the strategies, or less of them.”*
- *“I had more strengths than I thought.....”*
- *“Sometimes I was thinking ahead instead of listening to what the teacher said....”*
- *“WOW!...that was a great moment I missed there.”*
- *“No right way of how we balance information” ... “coaching strategies used with every teacher is different...relationship with every teacher is different...coaching topics are different...distractions during the coaching session...agenda of the teacher is different”*

Use of graphs to represent coaching behavior strengths. Overall, the participants reported that the use of graphs during the feedback session was effective as it served as a “focal point” for both the master coach and the coach to share, reflect, and discuss the strengths and needs of the coaching session. Coaches reported that their coaching conversation behaviors displayed in the graphs were accurate. The visual inspection of the graphs helped them to critically reflect further about their coaching session. The discussions with the master coach about the high and low areas in the graphs further enhanced their understanding of the coaching behavior definitions and also explored possibilities for using/not using certain behaviors during the coaching conversation. The significant statements are highlighted below:

- *“Easy, nice and brief handouts”*
- *“My graph showed pretty much what my coaching conversation was...”*
- *“If somebody looked at this and said, ‘this is how many times you did that,’ ...I thought that was enriching.”*
- *“Nice to see concrete definitions or specific areas in which I could have a better understanding of evaluating myself.”*
- *Helped me become familiar with the process itself because conceptualizing it and getting my brain into the right group of coaching according the [ECC] workshops is still a challenge for me in terms of feeling comfortable with it.”*
- *“Helped me understand the coaching strategies a little more clearly, where in the coaching process I am using more of the strategies, or less of them.”*
- *“Just my experience and my perception of tracking data and tracking evaluation of a person or group or program, you’re really able to see what did I initially gather from the first training or from the first workshop or series—and then show—if it would be able to show, basically, where I’m growing or adjusting or adapting my skills in order to meet the needs of each coachee. So I think in the long run that’s definitely going to help me able to continue to be more self-reflective and to grow and improve as a more efficient coach.”*

Use of graphs to represent needs. Overall, the coaches reported that since the graphs were a snapshot of their one-time coaching session with their coachee (teacher/parent), they may not be fully reflective of the use and understanding of coaching conversation behaviors. They highlighted using certain behaviors (e.g., establishing relationship) more frequently during the beginning of the coaching session versus towards the end. They also reported that depending on their agenda for the coaching session, their use of certain coaching conversation may be more frequent than the others (e.g. sharing information more than asking reflective questions). In addition, the coaches reported that they may have used different conversation behaviors with different coachees, and so it would be helpful to have graphs that display their coaching conversation behaviors with different coachees over time. The significant statements are highlighted below:

- *“Graph didn’t map out my entire time, or my entire relationship in that coaching process from the very beginning.”*
- *“Hard to tell over time if it is an accurate reflection of my coaching style, or if that was just one little point of time when I used those things.”*
- *“Graphs are going to change based on the person, and on the topic, on the week that was given, that’s definitely going to change.”*
- *“Sharing graphing information periodically over time from the beginning to the end of our work with the coachee, so that it is more reflective if the entire process and entire time spent together.”*

Use of videos to review coaching behaviors. The coaches reported that watching the video helped them understand their non-verbal behaviors (e.g. eye contact, use of hand movements, posture, etc.) and helped them clearly reflect on how they did things during the coaching session. The videos also helped them gain better understanding of the coachee’s (teacher/parents) feelings and engagement during the coaching process. The use of videos also helped them reflect on their own perceptions of the coaching relationship with the coachee. The significant statements are highlighted below:

- *“I use as many gestures when I speak.”*
- *“Watching the video....gave me a really good, clear depiction of how I’m doing.”*
- *I think it helps you to self-reflect...about you, your body language, or really if you have a relationship with that teacher.”*
- *“You get to see the relationship, you get to see if you are doing your work well. Are you genuinely invested in the teacher you work with?”*

Reflections and future training needs. The coaches highlighted that it would be helpful to receive feedback at least four times per year in order to see their growth and skill development over time, and also to see how their relationship with their coachee evolved over time. Coaches highlighted a need for a refresher training that would further elaborate information about certain coaching conversation behaviors (e.g., types of reflective questions, feedback, joint planning, etc.). In addition, coaches highlighted the need for using more case scenarios for problem-solving during the training to help them better understand where and when to use the relevant strategies (e.g., balancing the use of open and closed-ended questions during the coaching session).

The coaches reported that the process of receiving feedback from someone (e.g., master coach) who is knowledgeable with coaching practices will greatly support their professional development. In addition, the coaches also reported that meeting regularly with other coaches in the field to share specific problems, concerns, and questions either face-face or through video-conferencing or phone calls, will be very helpful to support their coaching role.

Significant statements made by coaches are highlighted below:

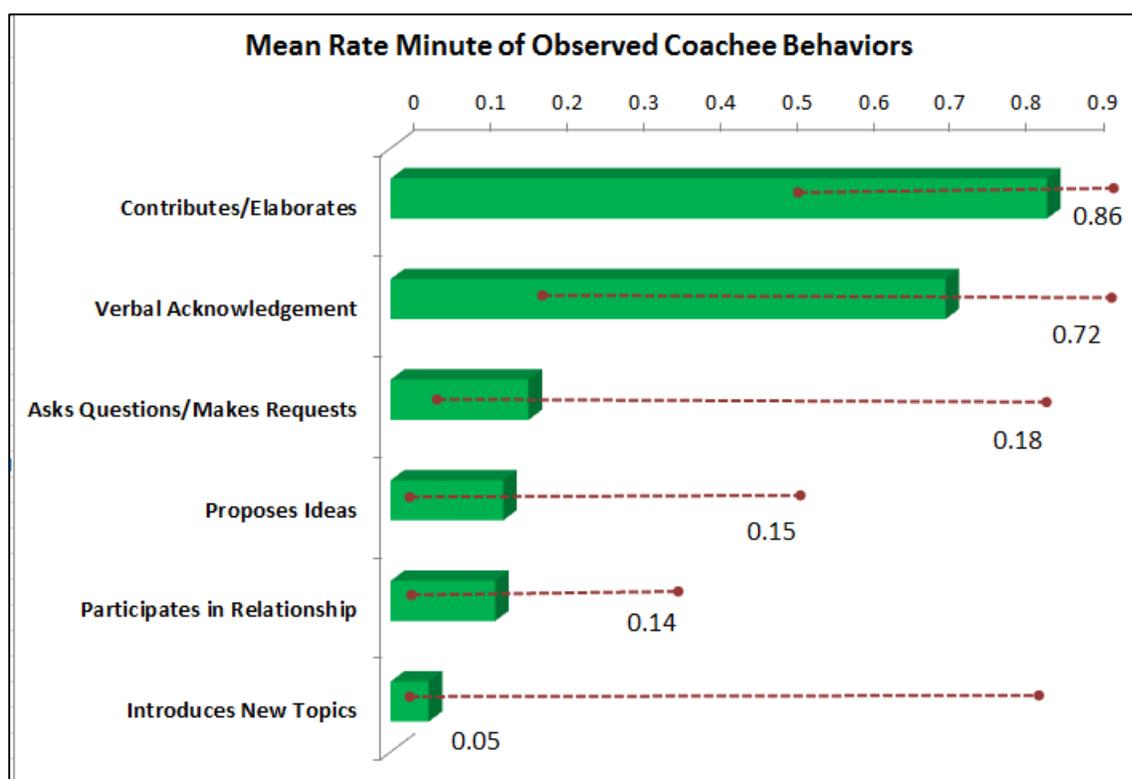
- *“Would like to see performance over time (spanning a couple of ...in a pre-post graph)” ... “Show growth and skill development over time” ... “Its more reflective of the entire process and entire time spent together.”*
- *“Need to develop a stronger training...define the coaching strategies explain “where to use when.”*
- *“It would have been really helpful...to spend time talking about what are these different types of questions, what situations you could utilize those questions in.”*
- *“...examples of good leading and not leading- coaching questions...”*
- *“The teacher says...I’ve tried everything. I’m tired of trying everything else. What are some of the different questions that you can pull out to tap into those scenarios?”*
- *Including a “Qualitative piece-- having master coach reflect on her experience, and based on what she’s seeing...”*
- *“Helpful for coaches to come together...via video-conferencing, going to meeting, phone-calls”*

Coachee Data

Observed Behaviors

- The three observed coachee behaviors used most frequently were *contributed /elaborated to coach input*, used *verbal acknowledgement*, and *introduced new topics*. For example, coachees introduced topics .88/ per minute, or 88% of the intervals.
- The three observed coachee behaviors used least frequently were *proposing ideas*, *asking questions*, and *participating in coaching relationship*. For example, coachees proposed ideas during coaching session .55/per minute, or 15% of the intervals.

Figure 5. Mean Rate/Minute of Observed Coachee Behaviors



Data are based on 24 coaching sessions as three coaches conducted coaching sessions with two coachees each. Solid bars in the graph indicate the coaches' mean rate per minute use of specific behaviors. Dotted lines in the graph indicate the variability in the use of behaviors. Each video-taped coaching session was coded by observing 30-60 minutes of coaching session and stopping every two minutes to code the behaviors for the coachee as present/not present. The number of observed instances was then divided by total minutes of the coaching session.

Additional data analyses were conducted to further investigate relationships between observed coachee behaviors and other associating factors (i.e., education, years of experiences in early care and education, work environment satisfaction, coachees' perceptions of coaching relationship, etc.). See "Additional Data Analyses" (pg. 39) section for those results.

Self-Reflections

Coachees were asked to fill out web-based questionnaires after the video-taped coaching session to further investigate their perceptions of coaching relationships with their coaches. Coachees were also asked to respond to open-ended questions to describe their coaching relationships, identify what qualities of the coach were most helpful, and provide suggestions for improving coaching sessions. The following section summarizes the findings of coachees' self-reflections.

Coachees' perceptions of the coaching relationship with the coaches. The following measures were used to assess coachees' perceptions:

1. *The Consultant Evaluation Form* (CEF; Erchul, 1987) is a 16-item, 7-point Likert scale comprised of a single scale intended to measure the coachees' perceptions of the coaches' effectiveness. This scale was completed by all 21 coachees.
2. *Coachee-Teacher Relationship Scale* (modified, Vickers & Minke, 1995) is an 18-item, 5-point Likert scale survey that includes two subscales: *Joining* and *Communication-to-others*. *Joining* is defined as feelings of interpersonal connection between the coach and the coachee. *Communication-to-others* indicates the ability of coach and coachee to change their ways of interacting when needed. This survey was also completed by all 21 coachees.

Table 7 shows the high mean ratings reflective of the coachees' positive relationship with their coaches.

Table 7. *Descriptive Statistics for Coachees' Perceptions of Coaching Relationships with Coaches*

Scale	Mean (SD)	Cronbach's Alpha
Coach-Teacher Relationship Scale ^a		
Joining	4.66 (0.40)	.85
Communication	4.73 (0.53)	.88
Consultant Evaluation Form (CEF) ^b	6.30 (0.72)	.91

Note. ^aThe Coachee-Teacher Relationship scale consists of 18 items that are answered on a 5-point Likert scale (i.e., 1 = *almost never* to 5 = *almost always*) with higher scores denoting increased quality of communication and adaptability.

^bThe CEF consists of 16 items that are answered on a 7-point Likert scale (i.e., 1 = *strongly disagree* to 7 = *strongly agree*) with higher scores denoting increased satisfaction over the coaching relationships.

Coachees also responded to the following open-questions to further reflect on their relationships with their coaches.

1. *How would you describe your relationships with this coach?*

Overall, coachees indicated that they had comfortable, strong, and trusting relationships with their respective coaches. They also indicated having common interests with their coaches regarding children's growth and development and shared mutual respect and excitement related to their respective jobs.

2. *What is the most helpful about this coach?*

Coachees indicated that the following qualities of the coach were most helpful: (a) providing ideas for classrooms and children, (b) caring about what works for the coachee, (c) understanding the coachees' fears, (d) being willing to offer help, and (e) providing relevant information and suggestions to motivate the coachee to move ahead.

3. *What would you like this coach to do differently?*

Overall, the coachees indicated that they didn't want their coaches to do anything differently during their next coaching session.

4. *How can coaching session be improved to meet your individual needs?*

Overall, the coachees indicated the coaching sessions can improve their individual needs by incorporating more: (a) modeling, (b) ideas to facilitate practice, (c) meetings, (d) time to exchange ideas, (e) feedback on areas of improvement, and (e) reflection time on questions asked by coaches by sharing those questions with the coachees prior to the meeting time.

For more information on the coachee perspectives of coaching relationships, please review the following article :

Knoche, L. L., Kuhn, M., & Eum, J. (2013). "More time. More showing. More helping. That's how it sticks": The perspectives of early childhood coachees. *Infants and Young Children*, 26 (4), 345-365.

Coachees' perceived use of coaching behaviors. Coachees were also asked to complete a paper questionnaire with open-ended and closed-ended questions about their perceived use of coaching behaviors during their coaching session. Overall, 100% of the coachees recalled establishing relationships and sharing ideas and observations with coaches; 95% recalled contributing to the agenda of the coaching conversation and proposing new ideas in the coaching session; 90% recalled that their coaches helped them with new ideas during their coaching session.

Coachees' work environment satisfaction. The following measure was used to assess the coachees' satisfaction with their current work environment (child care or preschool):

Early Childhood Work Environment Survey (Bloom, 1996) is a 20-item 6-point Likert scale (1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Regularly; 5 = Frequently; 6=Always) survey designed to measure staff perceptions about 10 different dimensions of organizational climate: co-worker relations, opportunities for professional growth, supervisor support, clarity, rewards system, decision-making structure, goal consensus, task orientation, physical environment, and innovativeness. A Cronbach's alpha reliability of this 20-item measure of work environment satisfaction was 0.95.

Results. A mean rating of 3.53 ($SD = .85$) on the 6-point scale indicated that the coachees were somewhat or regularly getting supports from their work environment.

In addition, the coachees were asked two close-ended questions:

1. *How do you view your work in childcare/preschool?*

Most of the coachees (69%) indicated that they viewed their work in child care/preschool as their chosen occupation. The remaining 31% indicated that they viewed their work in child care as a stepping stone to work in another field related to children.

2. *Do you plan to work in child care indefinitely?*

Most of the coachees (69%) indicated that they plan to work in child care indefinitely, while 31% were unsure.

Additional Data Analysis

This section details result of Pearson product-moment correlations calculated to assess the relationship of observed coachee behaviors with demographic information, work environment satisfaction, coachee perceptions of coaching relationships, and observed coach behaviors. Specifically, the following questions were addressed; results are included after each section

1. *How do observed coachee behaviors relate to their reported work environment satisfaction?*

No statistically significant relationships were found between observed coachee behaviors and their reported work environment satisfaction.

2. *How do observed coachee behaviors relate to their years of experience in early care and education?*

Significant positive relationships were found between years of experience in early care and education and coachees' use of specific behaviors such as, *participates in coaching relationships* ($r(13) = .50, p < .05$) and *introduces new topics* ($r(13) = .54, p < .05$). In addition, high significant negative relationships were found between years of experience in early care and education and coachees' *use of verbal acknowledgement* ($r(13) = -.70, p < .01$) during coaching conversations.

3. *How do observed coachee behaviors relate to coachees' perceptions of coach-coachee relationships?*

No statistically significant relationships were found between observed coachee behaviors and their reported perceptions of coach-coachee relationships.

4. *How do coachees' perceptions of coach-coachee relationships relate to their reported work environment satisfaction?*

No statistically significant relationships were found between coachees' perceptions of coach-coachee relationships and their reported work satisfaction.

5. *How do observed coachee behaviors relate to observed coach behaviors?*

Significant correlations were found between the following observed coach and coachee behaviors:

- Positive associations were found between coaches' use of behaviors to establish relationships, and coachees' subsequent participation in the coaching session as evidenced by their ability to participate in the coaching relationship with coach, propose new ideas and elaborate on the input from the coach.
- Positive associations were found between coaches' use of behaviors to promote joint plans, and coachees' subsequent participation in the coaching session as evidenced by their ability to participate in the coaching relationship with coach, and propose new

- ideas for changes in behavior, action, or attitude changes related to the current topic of the coaching conversation.
- Positive associations were found between the coaches' use of behaviors to verbally acknowledge feelings or behaviors of the coachee, and the coachees' subsequent participation in the coaching session as evidenced by their ability to elaborate on the input from the coach.
 - Positive associations were found between the coaches' use of questions to clarify the coachees' intent or feelings, and the coachees' subsequent participation in the coaching session as evidenced by their ability to verbally acknowledge/agree to the coach's prompts and ask further questions related to the current topic of conversation.
 - In contrast, negative associations were found between coaches' use of *feedback*, and coachees subsequent participation in the coaching session as evidenced by their ability to propose new ideas for changes in behavior, action, or attitude changes related to the current topic of the coaching conversation.
 - Negative associations were found between specific observations (running record of descriptions) shared by coach, and coachees subsequent participation in the coaching session as evidenced by their ability to ask further questions related to the current topic of conversation.

Table 8 summarizes the significant correlations between observed behaviors of 24 coaches with their coachees.

In addition, a one-way ANOVA was used to calculate significant differences between the observed coachee behaviors and the coachee level of education (high school diploma/GED, bachelor's degree/ some graduate coursework and graduate degree); and differences between coachees' education and work environment satisfaction. There were no significant differences in observed coachee behaviors by their education levels. There were no significant differences in coachees' work satisfaction by their education levels.

Table 8. Significant Correlations Between Observed Behaviors of 24 Coaches with their Coachees

Observed Coach Behaviors	Observed Coachee Behaviors					
	Participates in Relationship	Introduces New Topics	Contributes/ Elaborates	Verbal acknowledgement	Asks Questions/ Makes Requests	Proposes New Ideas
Establishes Relationship	.88***		.42*			.59**
Joint Planning	.50*					.46*
Introduces New Topics		-.48*				
Verbal Acknowledgement			.47*			
Questions- Clarify				.39*	.41*	
Suggestions				.41*	.41*	
Feedback						-.42*
Shares specific observations					-.35 ⁺	

Note. ⁺ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ (Only significant differences listed).

References

- Center for the Advanced Study of Teaching and Learning (CASTL). (2005). *My Teaching Partner Consultancy Relationship Scale*.
- Erchul, W. (1987). A relational communication analysis of control in school consultation. *Professional School Psychology, 2*(2), 113-124.
- Jorde-Bloom, P. (2005). *Blue Print for Action (2nd ed)*. New Horizons Books for Early Childhood.
- Vickers, H. S. & Minke, K. M. (1995). Exploring parent teacher relationships: Joining and communication to others. *School Psychology Quarterly, 10*(2), 133-150. (*modified*)