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Opportunities Preschool Teachers Use to Offer High Quality Instruction: Investigating Experiences of Professional Development

Hannah Beth Mudrick

B.A. Temple University, 2007

A Thesis

Submitted in Partial Fulfillment of the

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APPROVAL PAGE

Master of Arts Thesis

Opportunities Preschool Teachers Use to Offer High Quality Instruction:

Investigating Experiences of Professional Development

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Chapter One: Introduction

The state of Connecticut continues to experience one of the largest achievement gaps between low-income and non-low-income children across the country (Connecticut Commission on Educational Achievement, 2010). Knowing that this achievement gap is often apparent as early as kindergarten entry, increased effort has been placed on closing this gap by focusing on the quality of early childhood education across the state. Based on the relationship between early high-quality instruction and children's future academic, social, and emotional success (Burchinal, Cryer, & Clifford, 2002), one of the key components of increasing quality of early childhood education in Connecticut has been to increase the quality of early childhood education teachers.

A common practice for increasing the quality of teachers has been to increase education and certification requirements (Bridges, Fuller, Huang, & Hamre, 2011). Connecticut has previously passed legislation that requires lead teachers in community-based programs that receive part of their funding the Connecticut State Department of Education to have at least 12 college credits in child development and/or a Child Development Associate (CDA; Connecticut State Department of Education, 2011). New legislation, passed in 2012, now requires that these teachers have a degree, whether it is an Associate's or a Bachelor's, as well as an Early Childhood Teacher Credential (S. 39, 2012).

By 2015, 50 percent of early childhood teachers must possess at least a Bachelor's degree in Early Childhood Education or a related field or must have teacher certification in Early Childhood Education or Special Education. The

other 50 percent of the teachers must have an Associate's degree in similar fields. Head Start teachers will be required to meet the 50/50 standard by 2013. However, all teachers must also possess the Early Childhood Teacher Credential (ECTC), a competency-based standard administered through institutions of higher education. By 2020, all early childhood educators will be required to hold a Bachelor's degree and an ECTC.

With these increased education and competency requirements, many current early childhood teachers may wonder whether they will be able to afford furthering their education. Despite knowledge of the importance of high-quality instruction for children's future success, early childhood teachers are not adequately compensated for the work they do. Early childhood educators, including certified teachers, earn significantly lower wages than those with similar qualifications in other fields, as well as elementary school teachers who work less hours and days during the year (NYC Early Childhood Professional Development Institute, 2007).

Compensation is also a concern for early childhood education programs in Connecticut, as teachers with increased qualifications earn higher salaries. This has resulted in increased debate in regard to where the balance needs to exist between teacher quality and cost-effective practices for the state. For example, Governor Dannel Malloy recently advocated for relying less often on certified teachers in preschool programs in order to cut costs (Jacovino, 2012). However, preschool and pre-kindergarten programs involve a lot of academic components best taught by highly qualified instructors. In order to promote the success of

young children, teachers need to be educated on children's development and quality teaching strategies. With these monetary concerns rampant, Connecticut needs to find ways to educate early childhood educators in both an effective and efficient manner.

One promising approach for improving the quality of early childhood education teachers is offering high quality professional development opportunities (Bridges et al., 2011; Burchinal et al., 2002). Research has shown that providing these opportunities helps improve teachers' quality of instruction (Dickinson & Caswell, 2007), which helps them prepare children for success in kindergarten (Beauchat, Blamey, & Walpole, 2009). However, professional development needs to be relevant and applicable to teachers and their classrooms (Dickinson, Darrow, & Tinubu, 2008). Therefore, it is important to involve Connecticut early childhood teachers in the development of professional development opportunities that will be of benefit to them.

The current study was an attempt to respond to the concern of how to improve the quality of instruction for young children while working within a limited budget. This is a particular concern for institutions of higher education, as they will now be required to prepare students to achieve the ECTC. By outlining the opportunities teachers want to engage in and differences in regard to teachers' personal characteristics, more specific and targeted professional development opportunities can be provided. In addition, this study aimed to determine if the opportunities teachers identify as helpful are in fact related to the quality of their teaching.

Research Questions

The current study had four aims. The first was to identify what professional development opportunities Connecticut teachers found helpful for improving their teaching and what opportunities teachers identified as being unhelpful. The second aim of the study was to determine the relationship between the professional development opportunities teachers identified as being helpful in improving their teaching and these same teachers' personal characteristics, such as age, level of education, number of years teaching, and type of child care center. The third aim of the study was to determine the relationship between teachers' personal characteristics and their quality of teaching and supports for early literacy. The fourth, and final, aim of the study was to determine what relationship existed between the professional development opportunities teachers identified as being helpful and these same teachers' level of high quality instruction and supportiveness for early literacy, as measured through classroom observations and teacher interviews.

Terminology.

Professional development opportunities were defined as the approaches and activities teachers used to acquire new knowledge or skills to improve their effectiveness in increasing student achievement. Achievement in this context is used as a broad term to describe academic skills, as well as social and emotional skills, but the focus is primarily on language and literacy skills. These opportunities can include formal professional development, such as trainings and

conferences, as well as informal professional development, such as reading a book or talking to a colleague.

Teachers were asked about professional development opportunities that they felt were helpful to improving their teaching. *Helpful* was defined as providing new ideas or practices that changed the teachers' thoughts or behaviors in regard to how they would teach. Unhelpful was defined as either not providing new ideas and strategies or providing information that did not change teachers' thoughts or behaviors. This information was gathered based on teachers' response to a prompt that asked them to identify opportunities that provided new ideas or changed their ideas.

High quality instruction was defined as the use of evidence-based instructional practices that improve students' achievement. In the current study, high quality instruction was operationalized as providing high levels of emotional support, classroom organization, instructional support, and supports for early literacy based on the Classroom Assessment Scoring System and Supports for Early Literacy instruments.

Chapter 2: Review of Related Literature

As Connecticut negotiates appropriate ways to improve the quality of instruction provided to young children through new legistlation, there is also a national emphasis on determining the most effective type, intensity, and duration of professional development opportunities for early childhood teachers (Lonigan, Farver, Phillips, & Clancy-Menchetti, 2011). Research has shown that the various opportunities teachers identify as being helpful in improving their teaching are often related to their personal characteristics. When relationships also emerge between teachers' personal characteristics and the quality of their instruction, connections can begin to be made in regard to what professional development opportunities would be advantageous to offer early childhood educators. The current study aims to determine whether data from a sample of teachers in Connecticut aligns with those collected from national samples.

Helpful Professional Development Opportunities

Research has assessed the preferences of early childhood teachers in regard to necessary and desired professional development. This research indicates that it is important to assess the perceptions of early childhood education teachers in regard to opportunities to ensure that they are both important and helpful to the teachers (Helterbran & Fennimore, 2004). Requiring teachers to engage in specific trainings does not guarantee that they will find the ideas presented useful to them and their specific circumstances. Therefore, by determining teachers' preferred professional development opportunities, it is

likely that they will be more eager to engage in activities to improve their instruction.

In one study, Mashburn, Pianta, Hamre, Downer, Barbarin, Bryant, Burchinal et al. (2008) found that teachers did not feel workshops in which they were passively listening to be enjoyable or useful to them. They felt these opportunities provided them with vague information that was not directly connected to their classrooms. They argued for professional development opportunities that were more intense and sustained, collaborative and active, focused on their classrooms, and provided them with feedback. Other research has found similar results, determining teachers want feedback on their performance in the classroom (Barton, Kinder, Casey, & Artman, 2011).

Another study asked early childhood teachers to rank professional development opportunities in regard to their usefulness (Dunst & Raab, 2010). Findings showed that often there was a relationship between perceived utility and duration. Teachers ranked conferences and workshops, which only lasted a couple of hours or one day, low. Instead, they preferred opportunities such as teaching institutes, which lasted a number of days or a week, or on-site training, which involved ongoing observation, demonstration, and feedback.

Similarly, early childhood teachers were interviewed in regard to training they received and their perceptions of how useful it was for preparing them to enter the classroom (Nicholson & Reifel, 2011). Teachers reported that they often learned effective ways to teach from their colleagues, by both observing and discussing with them. These same teachers also often identified that they

were not adequately prepared to begin teaching right away, but they were forced to learn through trial and error. In their experiences, this was helpful.

These results highlight the variation in regard to the perceived helpfulness of different professional development opportunities. However, what were not controlled for in these previous studies were the characteristics of teachers. It is important to assess whether differences in opinion about the usefulness of specific opportunities is a factor of teachers' previous experiences and personal characteristics.

Professional Development Opportunities and Personal Characteristics

Professional development opportunities are usually presented to teachers as a "one size fits all" experience; however, research shows that this may not be an appropriate or accurate procedure (Anderson & Olsen, 2006). Finding professional development opportunities that meet both the wants and needs of teachers with various backgrounds, such as education and experience levels, can be challenging (Barton et al., 2011). It is important to do so, however, because professional development is only effective when teachers are actively engaged in the material being presented (Diamond & Powell, 2011).

In a recent study, Anderson and Olsen (2006) asked teachers about their perceptions of professional development opportunities. Results showed that how they perceived opportunities was related to their school environments, education and training levels, and desire for collaboration and leadership. Teachers with less experience sought out opportunities in which they could observe others and be observed and mentored. Teachers with more instructional experience desired

opportunities for leadership and support for addressing larger issues outside of the classroom. It is important to note, however, that teachers with different levels of experience all identified experiences in which they could discuss with colleagues and teachers across school contexts as being important.

Education level has also been found to relate to the types of opportunities teachers choose to participate in. When asked about recent professional development opportunities they had had, teachers with less education mentioned preferring workshops and lectures that involved less discussion (Burchinal et al., 2002). However, teachers with more education preferred professional meetings, which were based on discussion. Knowing that it is common for teachers at the same site to have different levels of education, this result further complicates providing professional development that is both applicable and enjoyable to all teachers at the same time (Barton et al., 2011).

Based on these findings, there is a need to consider who is attending specific professional development opportunities and these teachers' backgrounds and experiences when planning activities. Teachers with different goals will prefer information being presented in different ways (Buysse & Hollingworth, 2009). Therefore, efforts need to be made to determine which programs and opportunities exclude specific groups of teachers (Bridges et al., 2011).

Quality of Instruction and Personal Characteristics

The premise behind requiring early childhood educators to pursue higher levels of education is due to associations found between education and high

quality instruction. Some research showed that although trainings and workshops can improve the quality of instruction early childhood teachers provide young children, having a Bachelor's degree seems to be more important (Burchinal et al., 2002). However, more recent evidence indicates that higher education levels may not be associated consistently with higher quality instruction (Early, Maxwell, Burchinal, Alva, Bender, Bryant et al., 2007). Specifically, Justice, Mashburn, Hamre, and Pianta (2008) found a negative relationship between education and language instructional quality. Teachers with advanced degrees who taught in state-funded pre-kindergarten programs for low-income children were rated lower in regard to language modeling than teachers with less education. These contradictory findings support a need for further research about the effect of education level on high quality instruction.

Professional Development Opportunities and High Quality Instruction

Questions have also emerged in regard to what professional development opportunities are helpful in improving teachers' quality of instruction. Dunst and Raab (2010) found that although lectures are commonly offered as professional development opportunities for early childhood educators, research shows that these are ineffective in changing teachers' practices in the classroom. Research more often supports the effectiveness of collaborative learning, where there is social interaction between teachers (Diamond & Powell, 2011; Dickinson et al., 2008). Adger & Hoyle (2004) found that teachers who took part in a language and literacy professional development course that emphasized discussion with

colleagues improved their literacy instruction when compared to teachers that engaged in a course without an emphasis on discussing course content.

One professional development opportunity that has been recently investigated is the effectiveness of mentoring and coaching opportunities. Research shows that these types of opportunities are beneficial in regard to improving teachers' quality of instruction. Teachers that had the opportunity to observe others, implement new strategies, and then receive feedback on their performance demonstrated higher quality teaching strategies (Dunst & Rabb, 2010). Dickinson et al. (2008) also found that coaching and providing teachers with feedback on their teaching were important professional development strategies. One reason why this might be the case is that coaching and mentoring opportunities provide teachers with time to reflect on the effectiveness of their current strategies with a knowledgeable coach or mentor (Domitrovich, Gest, Gill, Bierman, Welsh, & Jones, 2008).

Research has also investigated professional development's effectiveness in regard to the necessary intensity and duration of opportunities in order to increase the quality of teachers' instruction (Demma, 2010). Recent research seems to support the idea that short professional development opportunities that provide only limited information do not lead to change (Barton et al., 2011; Burchinal et al., 2002). Opportunities that are longer seem to improve teachers' quality of instruction more often (Domitrovich et al., 2008).

Hypotheses

The first aim of the study was to determine what professional development opportunities Connecticut teachers identify as being helpful and unhelpful in improving their teaching. Based on the current literature, it is hypothesized that the current sample will identify various opportunities. One reason for this is that research shows there is a relationship between teachers' level of education and experience and their preferred professional development opportunities.

Therefore, in relation to the second aim of the study, to determine what relationship exists between the opportunities teachers find helpful and personal characteristics, it is hypothesized that there will be differences based on education level and experience. More specifically, teachers with Master's degrees will identify different opportunities as being helpful when compared to teachers with Bachelor's degrees or High School diplomas. Teachers with many years of teaching experience will also identify different opportunities as being helpful when compared to teachers with fewer years of teaching experience.

In regard to the third aim of the study, determining the relationship between teachers' personal characteristics and their quality of teaching and supports for early literacy, it is hypothesized that there will not be differences based on teachers' level of education, experience, age, or center type. The conflicting results in the literature indicate that these relationships may depend on other factors, such as interactions with professional development opportunities, which will not be specifically assessed in the current study. Finally, the fourth aim of the study is to determine the relationship between opportunities teachers identify as being helpful and the quality of their teaching and supports

for early literacy. Based on research showing that collaboration and feedback are important aspects of professional development opportunities teachers find to be helpful, it is hypothesized that teachers who identify opportunities in which they engage with a coach or mentor will demonstrate higher quality instruction and show high levels of support for children's early literacy skills.

Chapter 3: Method

The current study took a mixed method approach to gather preliminary data on teachers' perceptions of professional development opportunities and the relation between teachers' ideas and their level of high quality instruction. Quantitative and qualitative data were collected from observations and interviews, respectively.

Participants

Recruitment.

Participants were drawn through a purposive sampling technique. Both lead and assistant teachers that taught children ages 3- to 5-years-old were recruited starting in January 2011 from schools participating in another research study, through recommendations from personal contacts, and starting in March 2011, from other schools that were located in the central and eastern regions of Connecticut.

There were no specific age, ethnicity, education, level of experience, or center type requirements. However, all teachers were required to speak English. Teachers were also required to receive monetary compensation for their teaching services in order to participate.

Site directors of schools were contacted via email and followed up with through phone calls. All of the site directors were told how the researcher had obtained their names (a colleague, a Google search, etc.). After securing site director permission, convenient times were set up to meet with all of the teachers at their schools. Recruitment entailed meeting with teachers individually and

providing them with information about the study following a predetermined script (Appendix A). The teachers were provided with answers to their questions, as well as the consent form to read over while deciding whether or not to participate. Teachers were told that the researcher would return in a week after meeting with them to collect any signed consent forms.

Sample.

A total of 16 female teachers from eight different centers across central and eastern Connecticut, both private (n = 11) and public (n = 5), took part in the current study (see Table 1 for participant information). All teachers taught in a classroom that served children 3 to 5 years of age at the time in which data were collected. The teachers described themselves as a lead, master, or head teacher (n = 15) or an assistant teacher (n = 1). Two teachers also described themselves as Assistant Director of their site.

The participants were 23 to 55 years old (M = 37 years old). Almost all of the participants were Caucasian (n = 15). Five of these teachers held a Master's degree in either Early Childhood Education (n = 4) or Education (n = 1). The remaining teachers had a Bachelor's degree (n = 9) or high school diploma (n = 2). Those with a Bachelor's degree majored in Early Childhood Education (n = 4), Psychology (n = 2), or Education (n = 3). Teachers' experience ranged from less than a year to more than 20 years (M = 10 years), with experience in their current position ranging from half a year to 15 years (M = 6 years).

Table 1

Participant Information

Education	Center Type	Position	Number of Participants
High School Diploma	Private	Assistant or Head Teacher	2
Bachelor's Degree	Private	Head Teacher	6
Master's Degree	Private	Head Teacher	3
Bachelor's Degree	Public	Lead Teacher	3
Master's Degree	Public	Head Teacher	2

Procedure

Data collection.

Consent procedure.

Consent was received from site directors at 13 centers to contact their teachers about participating in this study. However, the teachers at five of these sites chose not to participate. Therefore, this study is based on data from teachers at eight different sites.

All of the site directors read and signed a consent form (Appendix B). They were provided with a copy of this signed consent form that included the researcher's signature for their records, and one signed copy was retained for the researcher's records. Site directors were not directly involved in either the recruitment of teachers or in any process of the data collection. They merely allowed the researcher to come to their site to speak with their employed teachers.

All of the teachers that were interested in participating in the study also read and signed a consent form (Appendix C) agreeing to be observed while teaching and interviewed up to three times between February and July 2011. At the time of the first round of assessments, each teacher was given a copy of the

consent form with both her and the researcher's signatures. At the same time, one signed copy of the consent form was retained for the researcher's records.

At the start of each interview for all teachers, the consent form was reviewed, including what the researcher would specifically be doing, as well as what the teachers would do. They were given the opportunity to ask any questions they had about the study at that time. Teachers were specifically reminded that the interview would be audio taped. Before each observation, the researcher reviewed what she would be doing that day with the teachers and their questions were answered.

In order to maintain participants' confidentiality, each was assigned a numerical identification (ID) number. Along with their individual ID number, each center was also assigned a numerical ID number. Both of these ID numbers appeared on the observation sheets instead of names. In addition, participants were asked to state their ID number, not their name, at the beginning of each audio taped interview, along with the date and that they consented to having the interview audio taped. Recordings and transcriptions were only labeled with the ID numbers.

Interview procedure.

Arrangements were made with each teacher on the date, time, and place she would like to conduct the interview. The interviews could only occur during hours in which the teachers were not teaching, as not to take away instructional time from their students. The interviews, at teachers' convenience, took place at their schools during hours in which they were not required to be in the classroom.

The primary focus of the interview was gathering information about teachers' ideas and sources of ideas about language and literacy instruction. However, the interviews were conducted in a semi-structured fashion, so teachers were encouraged to share any relevant information, whether or not it related to the initial question or language and literacy instruction in particular. In the same fashion, follow up questions were asked for clarification and in order to gather deeper information in order to further understand teachers' thoughts and behaviors. Although some questions were asked in order to gather general information from teachers, many of the questions probed information about specific experiences teachers had had.

The end of the interview focused on the interview questions contained within the Supports for Early Literacy Assessment (SELA) for Early Childhood Programs Serving Preschool-age Children (Smith, Davidson, Weisenfeld, & Katsaros, 2001). These questions targeted teachers' current practices in regards to supporting the literacy development of children in their classrooms in seven areas (The Literate Environment, Language Development, Knowledge of Print/Book Concepts, Phonological Awareness, Letters and Words, Parent Involvement, and items for sites with bilingual or non-English speaking children).

The interviews were conducted in classrooms, offices, or conference rooms. The interview lasted between 20 and 75 minutes (M = 45 minutes). However, one interview lasted only 10 minutes due to staffing issues. All 16 participants completed the interview.

Observation procedure.

Classroom Assessment Scoring System (CLASS).

Teachers were observed from February through July 2011. Teachers were observed during normal school hours using the Pre-K version of the Classroom Assessment Scoring System (CLASS) (Pianta, La Paro, & Hamre, 2005). These observations did not require the teacher to engage with the researcher in any way and were conducted unobtrusively.

The observations lasted a minimum of 2 hours, but did not exceed 4 hours. Each classroom was observed starting at the beginning of the day for at least four 20-minute time blocks. Observations were done during both structured and unstructured portions of the day, but were avoided during outside or gross motor free play. The 20 minutes following each observation time block were used for scoring.

All 16 participants were observed at least once. Some teachers (n = 7) were observed a second time for reliability purposes. Spearman correlations were conducted testing the relationship between teachers' scores at Time 1 and Time 2. There was a statistically significant relationship between teachers Emotional Support scores at Time 1 and Time 2 (r_s = .90, p = .02) and their Classroom Organization scores at Time 1 and Time 2 (r_s = .81, p = .05). However, the relationship between teachers' Instructional Support scores at Time 1 and Time 2 was not significant (r_s = .06, p = .91).

Supports for Early Literacy Assessment (SELA).

In addition to the CLASS, teachers were also observed during the same 2- to 4-hour period using the SELA. As with the CLASS, the teachers were not

required to engage with the researcher in any way during the observation portion of this measure, and the observations were conducted unobtrusively. The observations focused on the quality of supports for young children's literacy development in center-based preschool settings. The scoring of the SELA was completed at the end of the entire observation period.

Eleven of the teachers were observed using this measure. Due to time constraints on the day of the observation, the literacy supports in five teachers' classrooms were not assessed. Attempts to schedule another observation with each of these teachers were unsuccessful. These five teachers did not differ from the others in terms of any personal characteristics or in regard to CLASS scores.

Measures

Interview guide.

The semi-structured interview used an interview guide developed for the current study (Appendix D). The interview guide included six sections: demographic information, background information (work and education), general teaching philosophy, goals, work environment, and professional development. Information was gathered about the teachers' background, their current thoughts and behaviors, and their perceptions of their experiences.

Classroom Assessment Scoring System (CLASS).

The CLASS is designed to measure classroom quality and includes emotional support, classroom organization, and instructional support. It was developed based on the National Institute of Child Health and Human Development (NICHD) Study of Early Care (NICHD Early Child Care Research

Network (ECCRN), 2002; Pianta, La Paro, Payne, Cox, & Bradley, 2002) and the National Center for Early Development and Learning (NCEDL) Multistate Pre-K Study (Bryant, Clifford, Early, Pianta, Howes, Barbarin et al., 2002). The domains were developed based on other classroom observation instruments used in early care and school, the research literature, focus groups, and piloting. The CLASS is used to describe instructional quality from preschool through the 3rd grade.

During each time block of the observation, classrooms are rated on a 7-point scale on 10 domains. A score of 1 or 2 is considered low on the domain, 3 to 5 is midrange, and 6 and 7 is high. Average scores are calculated for each domain based on the number of observation time blocks. Average Positive Climate, Negative Climate (reverse scored), Teacher Sensitivity, and Regard for Student Perspectives scores are then averaged to determine an overall Emotional Support score. Average Behavior Management, Productivity, and Instructional Learning Formats scores create the overall Classroom Organization score. Finally, an overall Instructional Support score is composed of the average Concept Development, Quality of Feedback, and Language Modeling scores.

The current researcher underwent official CLASS training and became a reliable observer. On the reliability tests, her average interrater reliability (within one point of the master coder) was 92 percent. Nationally, interrater reliability between trainees and master coders is 87 percent (Pianta et al., 2005). The CLASS has also been shown to have high face, construct, criterion, and predictive validity (Pianta et al., 2005).

Supports for Early Literacy Assessment (SELA).

The SELA is an unpublished measure that is still being revised and updated. Therefore, for this study it was used informally. The researcher did not undergo training or test for inter-rater reliability with a trained rater. It was developed for research, training, and professional development efforts to improve the quality of early childhood programs (Halle, Vick Whittaker, & Anderson, 2010). It is intended for use in center-based preschool classrooms with children 3- to 5-years-old. The full measure contains 21 rating scales that measure 8 constructs. It gathers information through classroom observations and teacher interviews.

Observations are rated on 19 of these 21 scales (excluding the two Parent Involvement scales which are assessed via interviews), and the interviews target 14 of the 21 scales. Two of the scales, specifically designed for classrooms that include bilingual and non-English speaking students, are used as applicable. The measure has been shown to be reliable (Barnett, Yarosz, Thomas, Jung, & Blanco, 2007; Lamy, Frede, Seplocha, Ferrar, Wiley, & Wolock, 2004) and valid (Lamy et al., 2004).

Each classroom is rated on a 5-point scale on each construct. A score for each item takes into account what is observed and information that is gathered through the interview portion of this measure when applicable. A score of 1 indicates an absence or very low quality of literacy support, whereas a score of 5 indicates best practice or high quality literacy support. Scores on each construct are averaged to form a Support of Early Literacy score.

Data Analysis

Transcription.

Interviews were transcribed in Microsoft Word through Digital Voice Manager software. Along with participants' original wording, laughing and large pauses were noted in the transcripts. Any identifying information, such as person or town names, were eliminated and replaced with a generic term (i.e., [director] or [town]) to maintain confidentiality.

Interview analysis.

The current study used a basic, interpretive qualitative study framework (Merriam, 2009). One of the goals of this framework is to understand the meaning participants attribute to their experiences. Therefore, for the current study, an in-depth qualitative analysis was conducted analyzing the content of the interviews for emerging themes and patterns to address the first aim of the study.

Coding was used to categorize the data gathered (Maxwell, 2005). Initial coding, such as noting similarities and differences across participants, was done while the interviews were being transcribed. A preliminary list of common themes was created based on these notations. A more in-depth qualitative analysis was conducted after all of the interviews had been transcribed. In addition to the themes initially highlighted, further themes and patterns were identified. Categories were developed, and all of the interviews were coded for four main themes, each including several subthemes. The themes that emerged were modality of opportunity (group- or individual-based), type of opportunity, selection of opportunity (self-or other-selected), and the topic of the opportunity. Each

theme and subtheme was measured by the number of times it was mentioned during the interview.

To address the second aim of the study, these themes were then looked at in terms of how they related to personal characteristics provided by teachers. Specifically, the relationship between teachers' age, education level, number of years teaching, and type of center was assessed in terms of how it related to the opportunities they mentioned. Age and the number of years teaching were continuous variables, whereas education level and center type were categorical. There were three levels of education, High School diploma, Bachelor's degree, and Master's degree. There were two levels of center type, private and public.

Based on the small sample size, nonparametric statistics were used to examine these relationships. Specifically, Spearman correlations, along with Mann-Whitney *U* tests and Kruskal-Wallis tests, were run. These analyses used the number of times each teacher mentioned one of the themes or subthemes during the interview.

Observation analysis.

For teachers that were observed more than once, their first CLASS observation scores were used to conduct analyses. Descriptive information on both CLASS and SELA scores was assessed. Spearman correlations were conducted between the CLASS domains, as well as between CLASS and SELA scores.

To address the third aim of the study, teachers' scores on the CLASS and SELA were examined to determine their relationship with teachers' personal

characteristics provided through the interviews. Through the use of nonparametric statistics, teachers' age, education level, number of years teaching, and center types were analyzed in relation to their CLASS and SELA scores. Similarities between teachers were assessed for patterns in regard to the relationship between these data.

Mixed methods analysis.

In order to address the fourth aim of the study, the relationship between the quantitative data gathered from the observations and the qualitative data from the interviews was assessed. Information that teachers shared about the helpfulness of their professional development opportunities was analyzed in regards to how it related to scores on their CLASS and SELA observations. Specifically, Spearman correlations and Mann-Whitney *U* tests were conducted. A significance level of $p = 0.1$ was used based on the small sample size in this study. The data were analyzed to determine if any patterns emerged in regard to these relationships.

Chapter 4: Results

The goals of this study were to determine what types of professional development opportunities teachers identify as being helpful for improving their teaching, the relationship between these types of opportunities and teachers' personal characteristics, between personal characteristics and teachers' level of high quality instruction and supportiveness for early literacy, and between the opportunities teachers identify and teachers' quality of instruction and support. Qualitative and quantitative data was collected from a sample of pre-kindergarten teachers through in-depth interviews and measures of classroom quality and support. Findings from each measure are presented independently, followed by comparisons among these sources information.

Helpful Professional Development Themes

To address the first aim of the study, interviews with the 16 teachers were coded for four main themes: 1) the modality of the professional development opportunities teachers found most helpful, 2) the specific types of opportunities, 3) who selected the opportunities for the teachers to participate in, and 4) the topics that teachers felt were most helpful in improving their teaching.

Modality.

Modality, the manner in which a professional development opportunity was conducted, was one of the central themes that emerged from the data. Teachers either identified professional development opportunities that were conducted as a group, including peers and professionals in related fields, or opportunities that were conducted individually by the teacher. Most often,

teachers identified that both group and individual opportunities were helpful in improving their teaching. However, four teachers only identified group-based opportunities. All 16 teachers identified at least one group-based opportunity, and 12 teachers identified at least one individual opportunity.

Types.

Within each of these modalities, teachers identified specific types of opportunities they felt were helpful for improving their teaching. Specifically, teachers mentioned four different types of group-based opportunities (Table 2). Teachers also mentioned four different types of individual-based opportunities (Table 3).

Selection.

Selection of professional development opportunities was another central theme that emerged. Teachers often felt strongly about the benefits of professional development opportunities based on who had selected them. Teachers that identified selection as central to improving their teaching were also specific in terms of why they felt this way (Table 4).

Topic.

When asked to describe their professional development opportunities and what opportunities they felt were helpful in improving their teaching, teachers also noted specific topics. Thirteen teachers mentioned at least one topical area they found helpful to learn more about to improve the quality of their instruction (Table 5). For these teachers, it was not only how opportunities were selected and information was provided but also the content of the opportunities that was identified as helpful.

Table 2

Group-Based Opportunities

Type	Number of Teachers	Quotations
Discussion with Colleagues	14	○ "We talk, and I just find those conversations either inspire me or often times we'll get ideas and you have to talk to someone else and they grow. Talking to colleagues is helpful…to get more minds." ○ "But also other teachers will share what they know, and that's one of the things I was going to say, that this is a building of collaborative learners, and that's just so wonderful to have that. So we really do learn a lot from each other. And the other thing is we might be a little stingy with our materials, like we don't want to share, but we definitely share ideas and our strategies for certain kids and certain types of kids. And so that's huge. Huge. To be able to have all those resources right at your front door." ○ "I think having conversations with colleagues, not necessarily with colleagues right here but with other professionals… Like, when I was in my masters program, those conversations we had before class or during discussions were just as valuable as anything the instructor was teaching or that I would learn in a workshop. I think that having opportunities to share with other professionals is one of the most valuable ways I learn new things."
Workshops	13	○ "So that engagement, that active learning, you learn by doing. I find that those are more effective." ○ "I think there definitely is value to structured workshops, but I think for someone in my position, more discussion-based, "Here are some ideas and let's discuss it" as opposed to sitting and having the expert tell us what we should think and do, [is important]."
Workshop Duration	5	○ "How can you learn in two hours? I just, I feel like, can you really get to the heart of something in that?" ○ "In actually producing change, yeah, and for actually learning something and actually integrating into my thinking about and planning and that sort of

		thing, definitely, yeah. The one-dayers are fun and they're great to networking and I definitely did learn some things. They're not…its not…it doesn't last, it doesn't change things for me." ○ "I think that kind of activity [summer institutes] is really, is really wonderful and it would produce change over time, especially if it was followed up with a couple of things during the school year."
Lectures	10 (Unhelpful)	○ "It's more of a conversation, not being spoken at." ○ It's important for presenters to "…get you thinking and being reflective and interacting with other people at the workshop." ○ "The ones that you just go and listen to someone talk all day…are not so helpful."
Being Observed or Coached	2	○ "It's always helpful to have someone from the outside tell you what they see happening. We get mucked down in our own ideas and our own frustrations with the kids and it's hard to see. So, that is always helpful. Is it uncomfortable? Of course, but it's helpful." ○ "So we plan one morning, she or I will do a lesson and she'll watch or I'll watch her, and then we'll reflect the next day. She's willing to come anytime. They could have given us all the PD and all the materials, but because she was here, either in my face when I was like, "Oh no!" or supporting me through something that was kind of new and uncomfortable for me or modeling for me. Yeah, I think that was the glue that kind of got it all going."

Table 3

Individual-Based Opportunities

Type	Number of Teachers	Quotations
Books, Internet, and Movies	10	○ "I usually look into books for that. It's easier for me to be able to research things rather than…because when I talk to a lot of the other people, I get their opinions, the way they like to do things. When I can do research myself, I find a way that works better for me." ○ Waiting for Superman- "I consider that probably a professional

		development media.”
Observing Others	6	○ “If I’m interested in something, I’ll research it myself.” ○ “I think just seeing how other people handle things in their classroom too [is helpful].” ○ “Seeing what you do reflected in someone that is brand new is very eye opening. Watching the college students that I train and watching how they kind of reflect back what I do or what I’m asking them to do can be very eye opening.“
Personal Reflection	5	○ “I’m also reflective, so having someone kind of put a new thought in my head for me to kind of mull over a bit is also valuable.” ○ “…the other part that is really important is the reflection of the teaching practices to see if they were effective or not.”
Practicing Strategies in the Classroom	4	○ “Having strategies or whatever presented to me and kind of like trying them out in the classroom is kind of the way I do things.”

Table 4

Selection of Opportunity

Selection	Number of Teachers	Quotations
Self-selected	10	○ “Since we’re able to choose where we go for professional development, they’ve been more positive than negative.” ○ “I might want to share that letting the teachers choose…I think if someone is telling me that I have to go somewhere, I’m less likely to be getting something out of it. Whereas, if I were to choose because this is something that I really need in my classroom right now. ‘This is a great opportunity I think, so can I go because I think it’s going to help me?’ You’re going to get more out of it, whereas, ‘Oh, you better go to that science one.’” ○ “I think that that personal choice and that personal empowerment is just good for your psyche.”
Other-selected	2	○ “I think that was really helpful to have that requirement because I probably honestly wouldn’t have done it otherwise if I hadn’t been required to.”

Table 5

Opportunity Topic

Topic	Number of Teachers	Quotations
Language and Literacy (i.e., English Language Learners; Story Telling	5	○ "Also, the training classes help because they are individualized. I've been to them on autism specifically or behavioral issues specifically. It kind of gives you a little bit more info into specific kids, which kind of helps with that."
Science (i.e., Nature)	5	
Special Learners (i.e., Children with Autism)	4	○ "In the past, probably the ones with the different techniques for the behavioral children just because, when you try something, it doesn't usually last. It's good to always have backup ideas. The ones on autism are really good too, just because it is such a broad spectrum that there is so many different things on it."
Assessment	3	
Math	3	
Nutrition and Health	2	
Behavior Problems	2	
Socio-emotional Issues	2	

Relationship Between Themes and Personal Characteristics

Modality.

To address the second aim of the study, each of the themes was analyzed in terms of how it related to teachers' personal characteristics. A Spearman correlation was run between modality, specifically the number of individual- and group-based opportunities teachers identified as helpful, and their education level. There were no statistically significant relationships between teachers' levels of education and the number of group or individual opportunities they identified.

Spearman correlations were run between the number of individual- and group-based opportunities teachers identified as helpful and the number of years they had been teaching and their age. None of these tests were statistically significant, except for the correlation between teachers' age and the number of individual-based opportunities teachers identified (r_s = -.44, p = .09). Younger teachers tended to identify more individual-based opportunities as being helpful in improving their teaching than older teachers. Finally, a Mann-Whitney U test was conducted to determine the relationship between the number of individual- and group-based opportunities teachers identified as helpful and the type of site (public or private) teachers taught at. There were no statistically significant differences between these two groups in regard to the number of group and individual opportunities mentioned.

Types.

Some significant correlations between types of professional development opportunities identified as being helpful and teachers' personal characteristics were found. There was a significant correlation between teachers' education level and identification of personal reflection being helpful (r_s = .44, p = .09). The correlation between teachers' education level and identification of lecture as being helpful was also significant (r_s = -.44, p = .09). Teachers with higher levels of education identified personal reflection, and not lecture, more often as being helpful in improving their teaching when compared to teachers with lower levels of education.

The number of years teachers had been teaching was also related to their identification of workshops as being helpful (r_s = .44, p = .09). Teachers with higher numbers of years teaching identified attending workshops more often as helpful than those with less experience. The correlations between age and identifying practicing strategies in the classroom more often as being helpful (r_s = -.49, p = .06) and observing other teachers more often as being helpful (r_s = -.42, p = .10) also reached significance. Teachers that were younger identified practicing strategies in the classroom and observing other teachers as being helpful more often.

Selection.

Spearman correlations were also run between teachers' personal characteristics and their selection choice. There were no significant relationships between either selection type being identified and any of the teachers' personal

characteristics. Teachers of different education levels, ages, experience levels, and center types both identified self-selection as helpful.

Topics.

Finally, teachers' personal characteristics were analyzed in relation to the professional development topics that they noted were helpful in improving their teaching. Spearman correlations showed that there were no statistically significant relationships between topics and teachers' age or number of years teaching. However, results showed that there was a significant correlation between level of education and identifying language and literacy topics more often as being helpful (r_s = .53, p = .04). There also were significant correlations between level of education and topics dealing with behavior issues (r_s = -.65, p = .01), children with special needs (r_s = -.57, p = .02), and social-emotional topics (r_s = .51 p = .05). Teachers with higher levels of education identified language and literacy and social-emotional topics as being helpful more often, whereas those with lower levels of education found topics dealing with children's behavior and special needs as being helpful more often.

To follow up on these findings, Kruskal-Wallis analyses were conducted to evaluate the differences among the three levels of education in regard to identification of these professional development topics. The test was significant for the topic of behavior (X^2 (2, n = 16) = 15.00, p = .00) and for the topic of special needs (X^2 (2, n = 16) = 6.20, p = .05). Follow-up tests were conducted to evaluate pairwise differences among the three groups. The results of these tests indicated a significant difference between the High School diploma group and the

Bachelor's degree group in regard to behavior topics. Teachers with a High School diploma reported learning about behavior problems more often as being helpful than teachers with Bachelor's degrees. None of the other pairwise differences were significant.

A Mann-Whitney *U* test was conducted to determine if there was a relationship between the type of center teachers taught at and their identification of helpful topics. No significant relationship was found between center type and any of the topics. Teachers that taught at a publicly funded center identified the same topics as being helpful as often as those teaching at a private center.

Observation Data

CLASS scores.

Table 6 displays the average scores for the current sample, as well as the range, for each of the 10 CLASS dimensions. On average, teachers had high scores on four of the dimensions (Positive Climate, Teacher Sensitivity, Behavior Management, and Productivity). These mean scores ranged from 6.11 to 6.45 (*SD* = .55-.89). Scores on five of the other dimensions were categorized as mid-range (Regard for Student Perspectives, Instructional Learning Formats, Concept Development, Quality of Feedback, and Language Modeling). The range of these average scores was 3.52 to 5.94 (*SD* = .79-1.10). The only dimension that had a low average score was Negativity, which in this case is considered positive (*M* = 1.13, *SD* = .20).

Table 6

***CLASS Descriptive Information* (*n* = 16)**

Dimension	Mean	Standard Deviation	Minimum	Maximum
Positive Climate	6.45	.55	5.25	7.00
Negative Climate	1.13	.20	1.00	1.50
Teacher Sensitivity	6.23	.67	5.00	7.00
Regard for Student Perspectives	5.94	1.10	3.75	7.00
Behavior Management	6.11	.89	4.50	7.00
Productivity	6.13	.88	4.25	7.00
Instructional Learning Formats	4.77	.79	3.25	6.25
Concept Development	3.52	1.03	2.00	6.00
Quality of Feedback	4.14	1.07	2.00	5.75
Language Modeling	4.41	1.04	2.75	6.25

The 10 dimensions of the CLASS are further grouped into three domains: Emotional Support, Classroom Organization, and Instructional Support. Overall, teachers scored high on the Emotional Support domain (average of Positive Climate, reverse coded Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives). The mean score for this sample was 6.37 (*SD* = .60), with a range of 5.19 to 7.00. Twenty-five percent of the teachers (*n* = 4) scored in the mid-range, with the remaining teachers scoring high. This is typically the domain that teachers score the highest in, so it is not surprising that 75 percent of the sample received high scores.

The average Classroom Organization score (Behavior Management, Productivity, and Instructional Learning Formats) was 5.67 (*SD* = .81), falling in

the mid-range of the scale. These scores ranged from 4.00 to 6.75, with 56 percent of the sample (n = 9) scoring in the mid-range, and the other 44 percent (n = 7) scoring high. Finally, the Instructional Support average score (Concept Development, Quality of Feedback, and Language Modeling) of 4.02 (SD = .98) also was in the mid-range, with a range of 2.58 to 6.00. Twenty-five percent of the sample (n = 4) scored low, 69 percent scored mid-range (n = 11), and only 6 percent (n = 1) had high scores on this domain. Nationally, scores tend to be the lowest on this domain, so this finding was also not surprising.

Teachers' scores on each domain were correlated with one another. Teachers' Emotional Support scores were positively correlated with their Classroom Organization scores (r_s = .91, p = .00) and moderately correlated with their Instructional Support scores (r_s = .68, p = .00). Classroom Organization scores and Instructional Support scores were also moderately correlated (r_s = .69, p = .00).

SELA scores.

Scores on the 21 items of the SELA ranged from 1 to 5. Table 7 shows descriptive information about each of the eight constructs of the scale. Overall, teachers scored the highest in providing students with a developmentally appropriate environment and activities (M = 4.50, SD = .79). Teachers also used strategies that encouraged language development (M = 3.96, SD = 1.07), provided practice with letters and words (M = 3.67, SD = .88), and provided an environment that fostered literacy (M = 3.53, SD = 1.05). Average scores for Knowledge of Print/Book Concepts, Phonological Awareness, Items of Bilingual

or Non-English Speaking Children, and Parent Involvement ranged from 2.57 to 3.33. The construct with the lowest score was Parent Involvement. An overall SELA score was calculated using the average of the subscales. The average score was 3.54 (*SD* = .70), with scores ranging from 2.60 to 4.67.

Table 7

***SELA Descriptive Information* (*n* = 11)**

Construct	Mean	Standard Deviation	Minimum	Maximum
Literate Environment	3.53	1.05	1.80	5.00
Language Development	3.96	1.07	2.50	5.00
Knowledge of Print/Book Concepts	3.33	1.03	2.00	5.00
Phonological Awareness	3.00	1.58	1.00	5.00
Letters & Words	3.67	.88	2.50	5.00
Parent Involvement	2.67	1.04	1.50	3.50
Developmentally Appropriate Practice	4.50	.79	3.25	5.00
Items for sites with bilingual and non-English speaking children (n = 5)	2.75	1.66	1.00	5.00

Relationship between CLASS and SELA scores.

Spearman correlations were conducted to determine the relationship between teachers' scores on the CLASS and their scores on the SELA. Significant correlations were found between teachers' overall SELA scores and their Emotional Support CLASS scores (r_s = .98, p = .00), their Classroom Organization CLASS scores (r_s = .98, p = .00), and their Instructional Support

scores (r_s = .68, p = .02). Overall SELA scores were related to all of the domain CLASS scores. Teachers with higher scores on the SELA tended to score higher on the CLASS domains of Emotional Support, Classroom Organization, and Instructional Support.

Relationship Between CLASS and SELA Scores and Personal Characteristics

To address the third aim of this study, the relationships between CLASS and SELA scores and teachers' personal characteristics were calculated. Spearman correlations showed there were statistically significant relationships between teachers' education level and their Emotional Support (r_s = .51, p = .04), Classroom Organization (r_s = .54, p = .03), and their Instructional Support scores (r_s = .62, p = .01). Teachers with more education tended to score higher in all three CLASS domains. To follow up on these findings, Kruskal-Wallis analyses were conducted to evaluate the differences among the three levels of education in regard to each domain score. All three of these tests were significant: Emotional Support: (X^2 (2, n = 16) = 5.54, p = .06), Classroom Organization: (X^2 (2, n = 16) = 5.72, p = .06), and Instructional Support: (X^2 (2, n = 16) = 5.70, p = .06).

Follow-up Mann-Whitney U tests were conducted to evaluate pairwise differences among the three groups. The results of these tests indicated a significant difference between the High School diploma group and the Master's degree group in all three domains (Emotional Support: U = 0.00, Z = -1.95, p = .10; Classroom Organization: U = 0.00, Z = -1.97, p = .10; Instructional Support:

U = 0.00, Z = -1.97, p = .10). There also was a significant difference between the High School diploma and Bachelor's degree group on Emotional Support (U = 0.00, Z = -2.15, p = .04) and Classroom Organization (U = 0.00, Z = -2.15, p = .04). The only significant difference between teachers with Bachelor's degrees and those with Master's degrees was in Instructional Support (U = 9.00, Z = -1.83, p = .08).

The Spearman correlation between education level and the overall SELA score was also significant (r_s = .65, p = .03). Teachers that scored higher on the SELA tended to be more educated. A Kruskal-Wallis test showed that there was a significant difference between the three education levels in regard to overall SELA scores (X^2 (2, n = 16) = 5.19, p = .08). To evaluate pairwise differences among the groups, Mann-Whitney U tests were conducted. Results indicated that the only significant difference existed between the High School diploma group and the Bachelor's degree group (U = 0.00, Z = -2.06, p = .07).

There were no significant relationships between teachers' age and number of years teaching or type of school in regard to any CLASS domain scores or overall SELA scores. Teachers' CLASS and SELA scores did not vary as a function of the number of years they had been teaching or their age. In addition, teachers that taught at private and public schools had similar CLASS and SELA scores.

Relationship Between CLASS and SELA Scores and Professional Development

To address the fourth aim of the study, Spearman correlations were run looking at the relationship between themes that emerged from the teacher interviews in regard to professional development opportunities that were helpful and teachers' CLASS domain and overall SELA scores. No significant correlations emerged between modalities, the number of group- or individual-based professional development opportunities teachers mentioned, and their CLASS or SELA scores. Teachers that identified more group-based or individual-based professional development opportunities performed similarly on these measures.

When analyzing the relationship between types of professional development opportunities and CLASS and SELA scores, a significant correlation emerged between teachers' SELA scores and their identification of workshops being helpful (r_s = .63, p = .04). Teachers that scored higher on the SELA identified workshops as being helpful more often. A Mann-Whitney U test was conducted examining whether there was a difference between teachers who mentioned workshops and those that did not in regard to their SELA scores. This test was non-significant (U = 7.00, Z = -1.21, p = .33).

In addition, some teachers noted that workshops were most helpful when they were longer in duration, occurring over the course of an entire day or across a few days. Spearman correlations were run examining the relationship between how often teachers mentioned this longer duration of workshops being helpful and their CLASS and SELA scores. The relationship between duration and teachers' SELA scores reached significance (r_s = .58, p = .06). Teachers that

made note that longer workshops were important for improving their teaching showed a trend of having higher SELA scores.

Teachers' SELA scores were also related to identifying practicing strategies in the classroom as being helpful more often (r_s = -.80, p = .00). Teachers with lower SELA scores mentioned that practicing strategies in the classroom was helpful more often than teachers with higher SELA scores. A Mann-Whitney U test confirmed that there was a significant difference between teachers who mentioned practicing strategies in the classroom and those that did not in regard to their overall SELA scores (U = 6.00, Z = -2.52, p = .01).

Teachers' domain CLASS scores were also significantly correlated with some types of professional development opportunities. Spearman correlations showed that teachers' scores on Emotional Support (r_s = -.70, p = .00) and Classroom Organization (r_s = -.52, p = .04) were correlated with identification of practicing strategies in the classroom as being helpful more often. Teachers that had low levels of Emotional Support and Classroom Organization tended to report practicing strategies in the classroom as a helpful professional development strategy more often. Mann-Whitney U tests showed that there was a significant difference between those teachers that mentioned practicing strategies in the classroom as being helpful and those that did not in regard to both Emotional Support (U = 2.00, Z = -2.70, p = .00) and Classroom Organization (U = 7.50, Z = -2.02, p = .04). Teachers that mentioned practicing strategies in the classroom scored lower on Emotional Support and Classroom Organization.

Teachers who scored higher on the Instructional Support domain of the CLASS identified discussion with peers as helpful for improving their instruction more often. This relationship was significant (r_s = .47, p = .06). The other types of professional development opportunities identified as helpful were not correlated with CLASS or SELA scores.

The relationships between selection, specifically who teachers felt should select their professional development opportunities, and teachers' domain CLASS and SELA scores were also analyzed. However, Spearman correlations showed no significant relationship between selection and teachers' scores. Teachers that identified more often that self-selected professional development opportunities were helpful performed similarly to those that identified other-selected opportunities as being helpful.

Some significant relationships were found between CLASS domain and SELA scores and the topics teachers identified as being helpful for improving their teaching. Spearman correlations showed teachers' SELA scores were related to their increased identification of behavior topics as being helpful (r_s = -.69, p = .02). Teachers who scored lower on the SELA felt learning about behavior problems in young children were helpful. A Mann-Whitney U test confirmed that teachers that identified behavior topics as being helpful scored significantly lower on the SELA than those who did not identify this topic as helpful (U = .00, Z = -2.18, p = .04). There were no other significant relationships between SELA scores and topics identified as being helpful.

Spearman correlations showed that Emotional Support and Classroom Organization CLASS domain scores were correlated with identification of behavior topics being helpful (r_s = -.58, p = .02, and r_s = -.58, p = .02, respectively). Teachers who scored low on Emotional Support and Classroom Organization more often reported behavior topics as being beneficial in improving their teaching. Mann-Whitney U tests showed that there was a significant difference between teachers' that identified behavior topics as helpful and those that did not in regard to Emotional Support (U = .00, Z = -2.24, p = .02) and (U = .00, Z = -2.24, p = .02).

In addition, Spearman correlations showed teachers' Instructional Support scores were correlated with their identification of topics related to special needs (r_s = -.56, p = .03) and language topics (r_s = .59, p = .02). Those teachers that more often identified learning about children with special needs as being helpful in improving their teaching often scored low on Instructional Support. Teachers that identified language topics more often as being helpful scored higher on Instructional Support. Mann-Whitney U tests confirmed teachers that identified topics related to children with special needs scored lower on Instructional Support (U = 7.00, Z = -2.08, p = .04) and teachers who identified topics related to language topics scored higher on Instructional Support (U = 5.50, Z = -2.27, p = .02). There were no other significant correlations between CLASS domain scores and identification of certain professional development topics.

Chapter 5: Discussion

The current study took a mixed-methods approach, both interviewing and observing pre-kindergarten teachers from Connecticut. Information was gathered on the professional development opportunities these teachers identified as helpful in improving their instruction and the relationship between this information and their personal characteristics. Current data was assessed in regard to its relation to national data on teachers' perceptions of professional development opportunities. The relationships between these teachers' level of high quality instruction and supportiveness for early literacy, measured using the CLASS and SELA, respectively, was analyzed in relation to teachers' personal characteristics and the opportunities teachers identified as helpful. The practical significance of the current findings is noted in regard to policy implications for teachers, supervisors, and the general field of early childhood education in Connecticut.

Interview Data

Data gathered from interviews showed that modality of presentation, group or individual, was an important characteristic in regard to the benefits of professional development opportunities. Four teachers made mention of only group-based opportunities when asked what was helpful for improving their teaching. They specifically only spoke about the benefits they received through being able to process, discuss, and collaborate with others. Seven additional teachers, although mentioning both group- and individual-based opportunities, mentioned a higher proportion of group opportunities as being helpful. Based on recent Connecticut legislation, there is a push to increase the level of

competency teachers possess in regard to early childhood education. Given that teachers identified group-based opportunities as helpful, it will be important for these teachers to have the chance to process new information about child development and effective teaching strategies together through their courses and fieldwork.

Only two teachers made note of a higher number of helpful professional development opportunities that were individual-based. Further analyses showed that these two teachers were younger than the others. Because younger teachers often have less teaching experience, this finding may relate to individual-based opportunities being identified as helpful early in teachers' careers. As teachers gain more experience, group-based opportunities may become more helpful. However, this was merely a correlation, so all directional or causal interpretations are speculative. Therefore, future research should evaluate this idea further and determine the effectiveness of models of professional development for different populations of early childhood education teachers.

Discussion was overwhelmingly identified as the most helpful group-based type of professional development opportunity, aligning with research indicating its importance for early childhood teachers (Nicholson & Reifel, 2011). Having the opportunity to discuss new ideas, strategies, and concerns with colleagues was mentioned by almost all of the teachers as being important for improving their teaching. Although many of the teachers mentioned discussion in regard to informal conversations, discussing ideas with others was also reported as important when attending more formal workshops with experts, the second most

helpful opportunity mentioned. These teachers felt strongly that it was more important to learn with others through discussion than it was to learn from someone speaking to them. In conjunction with this idea, teachers identified lectures as the least helpful professional development opportunity.

This information is particularly useful to consider in relation to how information is provided to teachers in Connecticut. Professional development opportunities aim to increase teachers' knowledge, skills, and improve their overall instruction. With such a large portion of the sample identifying discussion as being instrumental, local professional development opportunities should reflect this. Teachers perceive conversing with one another and facilitators as being helpful, a point that should not be overlooked. This strategy is easily implemented in specific sites by giving teachers opportunities to discuss their questions and concerns with one another. However, this is also easily scaled-up to the program level or even the regional and state level, through professional meetings and conferences. It will also be important for teachers to have discussion opportunities in their education courses. This will ensure they are both useful to teachers personally, as well as being beneficial in increasing the education and competency levels of early childhood teachers across the state.

It is also important to note that discussion with colleagues was mentioned by teachers of all levels of education, age, experience, and type of site. Universally, teachers felt that this opportunity was beneficial to them. Considering the difficulty noted in the literature in regard to finding opportunities that are both useful and enjoyable for teachers of differing personal characteristics (Barton et

al, 2011; Buysee & Hollingsworth, 2009), this is a promising finding for Connecticut. Providing all teachers with these opportunities is a cost-effective and valuable, according to the current sample of teachers, professional development opportunity.

All of the individual activities, including reading books, searching the Internet, watching movies, observing other teachers, personal reflection, and practicing in the classroom, were noted to be helpful experiences. The allure of these activities was that they could be done when the teacher desired or felt it was necessary and that they were specific to teachers' questions. This may be an effective way to gradually introduce additional professional development opportunities and increased education and competency standards to local teachers.

One specific finding in relation to individual-based opportunities was in regard to practicing strategies in the classroom. Teachers that identified practicing teaching strategies in the classroom as being helpful for them tended to be younger. Taken together with the finding that less experienced teachers preferred informal discussions more often, new teachers seem to find opportunities that are less structured and less formal to be beneficial. In Connecticut, it will be important to further consider whether there are different needs for teachers in regard to professional development based on their experience and age. Perhaps teachers with less experience feel more comfortable in less demanding professional development opportunities. Whereas the current findings support the benefit of discussion for all teachers, informal

and individual professional development opportunities may not be applicable to all teachers.

Based on the literature stating the benefit of being observed and coached in regard to improving teachers' instructional skills (Neuman & Cunningham, 2009; Rudd, Lambert, Satterwhite, & Smith, 2009; Stanulis & Floden, 2009), it is important to note that only a few teachers mentioned this as being a helpful professional development strategy. It will be important to find out why this was so infrequently mentioned. From the current data, it can not be determined whether teachers did not have this sort of opportunity, and therefore would not have mentioned it as being helpful, or whether this type of experience was not helpful to them. *Training Wheels*, an initiative offered through the Connecticut Department of Education, provides early childhood teachers with intensive professional development that involves coaching. However, not all teachers have access to this opportunity. Further investigation in regard to teachers' access to opportunities similar to *Training Wheels* will aid in making conclusions about the availability and helpfulness, as perceived by teachers in Connecticut, of coaching and being observed.

In addition to specific opportunities, teachers also mentioned it was important to consider who chose the professional development opportunity. Teachers noted that being able to self-select professional development opportunities was important to them. They could choose modalities, types, and topics that fit their needs and interests. There were no significant differences in regard to which teachers identified self-selection as important. This mentality

held true for teachers of different ages, experience and education levels, and those at different types of centers. Based on this, it is critical to consider the benefit of self-selection in encouraging teachers to improve their teaching skills. As Connecticut teachers move forward in gaining competency in early childhood education under the new legislation, it will be even more important to allow them to have the autonomy to make choices about what opportunities they take advantage of.

This idea is additionally relevant to the new legislation because the topics that teachers mentioned as being helpful did vary based on teachers' personal characteristics in some cases. Teachers' level of education was significantly related to which topics they identified as being helpful. Teachers with higher levels of education preferred professional development in regard to language and literacy, as well as socio-emotional development. Less educated teachers mentioned learning about behavior problems and special learning needs of children as being helpful. Specifically, teachers with High School diplomas identified learning about behavior problems more often than those with Bachelor's degrees. It may be that behavioral issues are often covered in formal education programs and less often available to teachers without college experience. Teachers with higher education levels may have learned effective classroom management skills that those with less education, allowing them the opportunity to focus on more instructional quality. It will therefore be important to consider this when planning for opportunities teachers can access in order to gain competency in early education. Again, however, it is important to

acknowledge that this interpretation is merely a speculation due to inability to determine causation for the current findings. There were no other significant relationships between teachers' personal characteristics and the topics they found helpful in improving their teaching.

Observation Data

CLASS observations indicated that this sample of teachers was overall performing fairly well on Emotional Support and Classroom Organization. The majority of teachers scored in the high range on Emotional Support and in the mid-range on Classroom Organization, indicating that the classroom environment was positive, teachers were sensitive to children's needs and regarded their perspectives highly, children's behavior was managed appropriately, the classroom functioned productively, and teachers supported children's learning. These domain scores were also consistent for teachers that were observed more than once. Teachers' education level was associated with higher Emotional Support and Classroom Organization scores, with teachers that had either Bachelor's or Master's degrees performing better than those with High School diplomas.

In regard to teachers' quality of Instructional Support, there was variability in their scores. Twenty-five percent of the sample (n = 4) scored low on this domain. In addition, 31 percent of the sample (n = 5) scored low in at least one of the dimensions of Instructional Support: Concept Development, Quality of Feedback, or Language Modeling. Teachers' Instructional Support scores were not consistent across observations, however. Whereas gaining the skills for

being emotionally supportive and offering an organized classroom to children may be less challenging for teachers, providing consistent instructional support for children's learning seems to be harder. These findings point to the need to support teachers who performed particularly low in this area by addressing their preferred professional development.

Further analyses showed that differences in regard to Instructional Support were related to teachers' education levels. Teachers with higher education levels scored better, indicating these teachers more often encouraged children to use higher-order thinking skills, provided high quality feedback to ensure their learning, and modeled more complex language skills. Teachers that held Master's degrees performed better than either those with Bachelor's degrees or High School diplomas. No other significant relationships emerged between CLASS scores and teachers' personal characteristics. These findings indicate that it may be possible to increase teachers' instructional quality through increased opportunities to engage with early childhood education topics. This is promising, again, given recent legislation requiring teachers to achieve an ECTC, which demonstrates they increased their competencies in regard to early childhood education, demonstrated through course grades, demonstration of skills, and recommendations from education faculty.

Along with differences in instructional quality, classrooms also differed in the level of support they provided for children's emerging literacy skills. Some teachers facilitated an environment that was literacy rich, both scaffolding children's emerging skills and providing supports for children as necessary.

However, some classrooms evidenced low levels of support. Teachers' SELA scores were significantly correlated with all three of the domain scores of the CLASS. Teachers that provided a positive classroom environment, one that was managed appropriately to meet the needs of children, and offered high quality instructional support tended to also evidence strategies that supported children's emerging literacy skills. This result may point toward supporting children's early literacy skills being just as much a function of providing an adequate environment and opportunities, as it is about encouraging specific instructional support strategies. However, this conclusion cannot be made based on the current analyses. Similar to instructional quality as assessed by the CLASS, teachers' SELA scores were related to their education level, with teachers having higher levels of education performing better on the SELA. Therefore, providing teachers with more opportunities to demonstrate their instructional skills may increase their support for children's literacy development.

Mixed-Method Analyses

The relationships between themes that emerged from the teacher interviews and teachers' CLASS and SELA scores were variable. Although no significant relationships were found between modality and teachers' scores, some relationships were found between teachers' CLASS scores and the types of professional development opportunities they found helpful. Specifically, teachers with lower scores on Emotional Support and Classroom Organization identified practicing strategies in the classroom as being helpful. In addition, teachers with higher Instructional Support scores to identified discussion with

peers as important. There were no significant relationships between teachers' CLASS and SELA scores and selection of professional development, but teachers with low Emotional Support and Classroom Organization scores often mentioned it was helpful to learn about the topic of behavior problems. Teachers with low Instructional Support scores mentioned learning about children with special learning needs was helpful, whereas teachers with high Instructional Support scores mentioned learning about language and literacy topics was helpful.

Significant relationships were also found between helpful professional development types and topics and teachers' SELA scores. In particular, teachers with higher SELA scores identified workshops as being helpful more often. Teachers with lower SELA scores identified practicing strategies in the classroom and learning about dealing with children with behavior problems as helpful. This may be an indication that teachers with lower skill levels do recognize that they need to improve their instructional strategies. This may be an important sign that teachers are ready to engage in professional development.

Taken together, these results indicate that teachers did mention multiple different professional development opportunities as hypothesized. Although there were some differences in regard to opportunities teachers felt were helpful for improving their teaching based on personal characteristics as hypothesized, there was a lot of similarity. These results highlight, however, that there may be specific modalities, types, selection options, and topics that teachers want to learn through and about. This may be particularly important for teachers that

performed low on measures of classroom quality and support for children's early literacy. It will be important for institutions of higher education that credential students under the new legislation to consider this as they plan for how to prepare early childhood educators.

This study did highlight specific opportunities teachers found helpful, whether they were performing at high or low levels in terms of quality of instruction. Providing opportunities to low-performing teachers will be important for improving their quality of instruction. By taking into account the opportunities these teachers identified as being helpful, more targeted professional development that teachers are interested in engaging in can be provided. These opportunities can specifically be taken into account during the planning of how new early childhood teachers will be prepared for gaining the ECTC, raising the qualifications and competencies of teachers across the state.

Overall, it is important to consider the differences and similarities teachers identified in terms of perceptions of helpfulness based on their personal characteristics. Considering being both effective and efficient are important factors in planning the professional development opportunities Connecticut early childhood teachers have access to, these results indicate some important themes. Specifically, all teachers found discussion with colleagues and experts to be beneficial. However, teachers with less experience and education found it beneficial to learn in less formal and structured and more individual-based situations.

Limitations

Validity and reliability.

A common concern in qualitative research is biases in data collection (Johnson, 1997). One potential bias in data collection is that the interviews were conducted at each teacher's place of work. This may have led teachers to hold back on things they feel would have jeopardized their relationships with colleagues, as well as their current teaching positions. To limit this bias, teachers were reminded that all of the information they provided was confidential, their names would not be connected to the information, and that all data would be aggregated in the research report. In addition, teachers had the opportunity to request that the interview take place in locations other than their schools.

Validity is another major concern when gathering qualitative data (Maxwell, 2005). By conducting in-depth interviews with pre-kindergarten teachers about their professional development experiences, valid information that involved limited interpretation on the part of the researcher was gathered. The credibility of the qualitative data gathered was additionally supported through the use of peer examination and review (Merriam, 2009). Through debriefing with peers, the researcher was able to further evaluate the process, findings, and interpretations of study. This method helped insure the reliability and validity of the data analysis.

Other limitations.

Teachers from 13 sites were contacted and asked to participate in the current study. However, only teachers from eight of these sites agreed to participate. Therefore, a limitation of the current study is the possibility of there

being a selection effect. Information about teachers that chose not to participate was not collected; therefore, it is not possible to determine whether they differed from the teachers that did consent. This limitation must be acknowledged when interpreting the results.

Another limitation of this study is that it only included 16 teachers, which prevented more in-depth and advanced quantitative analyses from being conducted. The aim was not generalizability, however, but rather to explore teachers' perceptions of professional development and possible relationships with personal characteristics and quality of teaching information. Although the sample size was small, these 16 teachers did have many overlapping ideas in regard to the helpfulness of different professional development opportunities. This supports trends in the literature that indicate the importance of engaging teachers during professional development and offering opportunities for them to be active (Diamond & Powell, 2011). However, there were some differences in what teachers mentioned as being helpful. Acknowledging there is support that teachers with varying levels of experience prefer different professional development opportunities (Anderson & Olsen, 2006), future research should address whether this is a factor of comfort or specific needs.

Another potential limitation of the study was that SELA data was unavailable for five teachers. In addition, although teachers' Emotional Support and Classroom Organization scores tended to be correlated across time, there were differences in Instructional Support scores between observations.

Therefore, CLASS scores of teachers that were only observed once may inaccurately portray the quality of these teachers' instruction.

Another limitation of the study is the lack of variability in some of the personal characteristics of teachers. Only one teacher did not identify as Caucasian, and only one teacher labeled herself as an assistant teacher. Gathering a more diverse sample of teachers may have allowed for more comparisons to be made. The consensus in regard to helpful professional development opportunities that occurred across more variable personal characteristics (age, years experience, education level), may indicate these specific characteristics need to be further analyzed.

A final limitation of the current study is the inability to draw any conclusions in regard to the relationship between teachers' perceptions of helpful professional development opportunities, their personal characteristics, and the quality of their instruction and supports for early literacy. This was an exploratory study that relied on the use of primarily correlational analyses, which limited the conclusiveness of any significant relationships found. The relationships that did emerge between data are important though for highlighting where more research is necessary.

Future Directions

This study is a preliminary step in determining how a sample of Connecticut early childhood education teachers perceive professional development opportunities, whether this is a result of their personal characteristics, and the effect their personal characteristics and these

opportunities have on teachers' quality of instruction and support for early literacy. To strengthen this study, data should be gathered using a larger sample size so that more in-depth and advanced data analyses can be conducted. It would be beneficial for interviews to focus primarily on experiences teachers have had recently and what their perceptions of each of these was and why. There are multiple professional development initiatives currently being offered throughout the state of Connecticut for early childhood educators, such as *Training Wheels*, *Project Stars*, incentives to complete additional education, and requirements to obtain an ECTC. Given this, it will be beneficial for future research to focus more specifically on teachers' perceptions of these particular opportunities. By taking a more focused and structured approach to teacher interviews, more comparing and contrasting of teachers' experiences and perceptions would be possible. This would allow for more specific feedback to policy makers on teachers' ideas of helpfulness, as well as empirical evidence to determine what initiatives show promise for increasing the instructional quality of teachers.

Future work should also go a step farther and determine the effect of different professional development opportunities on children's skill levels. By assessing teachers' perceptions of experiences, the quality of their teaching, and the skill levels of their students, a more complete picture can be presented in regard to the effect of the different professional development opportunities currently being suggested and offered in Connecticut. By determining how these opportunities contribute to how teachers feel, how they act, and how their

children perform, more conclusive evidence can be found that supports certain approaches more than others. With increased attention on improving the quality of early childhood education by increasing the educational standards of teachers, there is an incentive to determine whether this strategy is effective for both teachers and their students.

Conclusion

Providing young children with high quality instruction and opportunities to gain the skills necessary in order to learn and succeed in school is important. Therefore, professional development opportunities for pre-kindergarten teachers need to provide them with the knowledge and skills in order to support children's learning. This study gathered preliminary data in regard to what opportunities teachers found helpful for improving their teaching.

One of the most important findings was the commonality in regard to professional development opportunities teachers of all ages, education backgrounds, and experience levels felt were the most helpful to them. Being able to have discussions with colleagues was an important experience for almost all of the teachers interviewed. They specifically mentioned that being able to process new ideas and strategies with other teachers both were helpful for determining ways to implement them into their individual classrooms. Many teachers also mentioned the benefits they received from attending workshops, where they were still able to discuss with colleagues but also had the opportunity to do the same with a more knowledgeable, expert in the field. Although these group-based opportunities were the most commonly identified helpful

professional development opportunities, many teachers also felt that being able to individually gather information through books, the Internet, and movies, on their own, was also helpful.

Taken together, these results point to the strength these strategies have in gaining teacher engagement in professional development. Offering opportunities that teachers find helpful is the first step toward improving their teaching skills. It was also important to most teachers for them to be able to choose the professional development opportunities in which they would participate. By allowing teachers to have the autonomy to select opportunities that are both enjoyable and beneficial to them, teachers will more often think of professional development as useful to them. This may increase teachers' willingness to achieve new education and competency requirements outlined by the state.

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Appendix A: Participant Recruitment Script

Recruitment Script

Thank you again for taking time out of your busy schedule to meet with me to learn more about this study.

The goal of this study is to learn about the opportunities pre-kindergarten teachers have that contribute to their high quality instruction. The study focuses primarily on professional development opportunities that relate to language and literacy instruction and how they promote high quality instruction.

The study will involve classroom observations and interviews. Up to four times during the semester I will observe you teaching during normal school hours at a time that is convenient for you. These observations will last between 2-4 hours each. They will focus on the classroom climate, your interactions with children, and your instruction. You will not be required to engage with me at any time during my observations, and I will not disrupt your teaching in any way.

What are your questions about the observation portion of this study?

The other part of the study involves interviewing you three times during the semester. These interviews will focus on what insight you have in regards to inspiration for your language and literacy instruction. The interviews will last 30-90 minutes each and will be audio taped so that I can transcribe what you say. They will take place during a time that is convenient for you, when you're not teaching, and in your school.

What are your questions about the interview portion of this study?

Participating in this research study will allow me to further the research literature on opportunities that improve teachers' high quality instruction. This can benefit you by introducing you to new opportunities to improve your teaching.

The only thing you will be required to do outside of your normal teaching duties in order to participate in this study is to reserve 30-90 minutes to complete each interview.

All of the information you provide me will be kept confidential in a locked, safe location. This information will not be shared with anyone without your permission. You will be assigned a code of numbers, which will be used to label the results of your observations and interviews, rather than your name. After I transcribe your interviews, the audiotapes will be destroyed. All other information will be stored on password-protected computers. In the event that my results are published, you will not be identified individually.

You do not have to participate in this study if you do not want to. If you decide to participate and then change your mind, you may withdraw from the study at any time without penalty.

What questions do you have about what I've said so far?

Please take a week to decide whether you are interested in participating in this study. I am giving you two copies of the consent form to participate. If you are interested in participating, please sign one of these copies for me. The other copy is for you to keep for your records. I will return next week to collect any signed consent forms.

Thank you again for letting me speak with you about this project. If you have any further questions, please do not hesitate to contact me. My contact information is at the bottom of the consent for.

Appendix B: Site Director Consent Form

March 2011

Dear Program Director,

We are pleased to announce that the University of Connecticut's Department of Human Development and Family Studies will be conducting a research study in preschools this academic year. A graduate student researcher proposes to study the experiences of pre-kindergarten teachers in order to examine the opportunities they take part in that contribute to their high quality instruction. This study involves observing pre-kindergarten teachers during normal school hours, focusing on classroom climate, teacher-child interactions, and teachers' instruction. Interviews with each of the teachers will also occur to gain insight into how they perceive their experiences throughout the academic year and how these relate to their thoughts and behaviors in regards to teaching and learning. Results of this study will contribute to the literature on professional development opportunities that promote high quality instruction.

A graduate student from the University of Connecticut will conduct the research. Up to four times during the academic year, (January through July), she will complete observations of the pre-kindergarten teachers. These observations will not require the teacher to engage with the observer in any way and will be conducted unobtrusively. Observations will last a minimum of 2 hours during the regular school day, but will not exceed 4 hours. Interviews with these teachers will occur 3 times during the academic year, from January through July 2011, and will occur during hours the teacher is not teaching.

This research study will occur with your permission and the permission of the participating teachers. Once your permission is obtained, the teachers will be provided with a consent form that will need to be completed in order for them to participate. These consent forms will be returned to the graduate student researcher, Hannah Mudrick.

If you have any questions, please contact Hannah Mudrick at 717-979-7691.

By signing this letter, you are agreeing to participate in this study by allowing a UConn graduate student to observe pre-kindergarten teachers in schools for the 2010-2011 school year.

_____ _____

Signature Date

_____

Print Name and Name of Participating Center/Program

UCONN IRB
Approved On 2/2/11
Approved Until 1/20/12
Approved By [illegible]

Appendix C: Participant Consent Form

Consent Form for Participation in a Research Study

University of Connecticut

Principal Investigator: JoAnn Robinson, Ph.D.
Student Researcher: Hannah Mudrick, BA
Study Title: Opportunities Teachers Use to Offer High Quality Instruction

Introduction

You are invited to participate in a research study that will look at the opportunities pre-kindergarten teachers have that contribute to their high quality instruction. The study will include looking at how language and literacy experiences for children are included into teachers' classroom plans and interactions with children. This study will involve classroom observations and interviews.

Why is this study being done?

The goal of this study is to examine the opportunities teachers experience and how they relate to their thoughts and behaviors in regards to teaching and learning, focusing on language and literacy instruction. Results of this study will contribute to the literature on professional development opportunities that promote high quality instruction.

What are the study procedures? What will I be asked to do?

This study involves observing you teach up to four times this academic year (from January to July 2011) during normal school hours at a time and date that is convenient for you. These observations will focus on the classroom climate, interactions with children, and classroom instruction. You will not be required to engage with the observer in any way, as these observations will be conducted unobtrusively. Observations will last a minimum of 2 hours during the regular school day, but will not exceed 4 hours. You will also be invited to participate in three interviews during the year (from January to July 2011) that will allow us to gain insight into whether you've gained any new inspiration for your language and literacy instruction during the school year. These interviews will last approximately 30-90 minutes each and will be audio taped. The interviews will take place at your school during a time when you are not teaching.

What are the risks or inconveniences of the study?

There are no risks to participating in this study. Inconveniences you may experience are mild discomfort in being observed and making time outside of your usual workday to talk with the student researcher.

What are the benefits of the study?

You may not benefit individually at first, but the results of this study will further the research literature on opportunities to improve teachers' high quality instruction. Therefore, you may benefit from participating in similar opportunities in the future to improve your teaching.

Will I receive payment for participation? Are there costs to participate?

There are no costs to you for participating in this study, and you will not be paid to be in this study.

UCONN IRB
Approved On 3/2/11
Approved Until 1/20/12
Approved By DAMIASS

How will my personal information be protected?

We will keep your personal information confidential, which means I will not put your name on the forms or audiotapes. Audiotapes of interviews will be destroyed after the interviews are transcribed. I will keep all study information locked in a safe place, using a code of numbers instead of your name. A list that links the names and numbers will be kept in a different safe place. I will destroy the list of names and numbers after 3 years. I will use computers to keep track of the observations and interviews in data files; they will be kept safe by using a password to protect them. Any computer that has the data files on it will have a password to prevent anybody not part of the research team from using it. Only the research team will have the passwords. I will not share your individual data with others. At the end of this study, I may publish my findings, but no one will be able to identify you individually in any publications or presentations.

You should also know that the UConn Institutional Review Board (IRB) and the Office of Research Compliance may inspect study records as part of its auditing program, but these reviews will only focus on the researchers and not on your responses or involvement. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

Can I stop being in the study and what are my rights?

You do not have to be in this study if you do not want to. If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind if you decide that you do not want to participate.

Whom do I contact if I have questions about the study?

Take as long as you like before you make a decision. I will be happy to answer any question you have about this study. If you have further questions about this project or if you have a research-related problem, you may contact the principal investigator, JoAnn Robinson at 860-486-8781 or the student researcher Hannah Mudrick at 717-979-7691. If you have any questions concerning your rights as a research subject, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

Documentation of Consent:

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible hazards and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this consent form.

Participant Signature:	Print Name:	Date:
Signature of Person Obtaining Consent	Print Name:	Date:

UCONN IRB
Approved On 3/8/11
Approved Until 1/20/12
Approved By [illegible]

Appendix D: Interview Guide

Interview Protocol

Part 1. Introduction and Demographic Information

Thank you for taking time out of your busy schedule to participate in this study and these interviews. I did receive your signed consent form, but wondered whether you had any questions about this study. What questions do you have?

(Review the procedures and requirements of the study including: purpose, classroom observations, interviews, data collection and security, and contacting me at any time).

Our interview will last between 30 and 90 minutes today. I am going ask you some questions about your ideas in regards to teaching and learning. Our interview will be tape-recorded as mentioned in the consent form so that I can review my questions and your answers later and write all the information down.

I will keep all of your responses confidential. You will be assigned an identification number so that only I will know your name. All of your answers will be combined with those from the other people I interview so that I can get an idea of the range of thoughts and behaviors in regards to teaching and learning.

If you are uncomfortable at any time during the interview, please feel free to let me know. I can stop the tape recorder or the interview at any time if you would like. There are no explanations required to do so.

What are your questions up to this point? (Pause for questions. Clarify as needed.)

Are you ready to begin?

"Now that the tape-recorder is on, state your identification number, the date, and that you consent to have your response tape-recorded."

Part 2: Background Information.

2.1 To start, please tell me about your current and prior work experience? (Query for the number of years as a preschool teacher or other teacher, how many teaching positions she has held, any other positions experienced)

_____

_____

2.2 Next, please tell me about your education and training. (High school, CDA, AA, BA, MA; workshops, trainings, etc.)

_____

_____

2.3 How familiar are you with the Jumpstart? (Have you heard about Jumpstart? Do you know what it is intended to do? Have you participated in a Jumpstart session at anytime in your teaching career?)

_____

_____

2.4 How would you describe your level of involvement with Jumpstart this academic year? (Active participant, observer, not involved in sessions, not at my school)

_____

_____

Part 3: Ideas That Guide Teaching (General)

3.1 When you think about your past experiences, what people or events shaped your ideas about teaching language and literacy skills? (professors, mentors, schooling, work experiences)

_____

_____

3.2 What do you consider the key characteristics of effective language and literacy teaching to be? (Query for ideas about both the content and processes of teaching).

_____

_____

_____

3.3 What do you think children need in order to learn language and literacy skills best? (Query for ideas about developmentally appropriate practice, curriculum, standards & interests, family involvement, assessment, etc.)

_____

_____

_____

3.4 Have you ever felt yourself changing your thinking about teaching or learning in regards to language and literacy? When did this occur and how did you feel

your thinking was changing? (Query for specific events, professional development experiences, life experiences, and others (coach/supervisor/colleague))

_____

_____

_____

3.5 How do your teaching behaviors relate to your ideas about language and literacy teaching and learning? (Query for examples of what behaviors go with which beliefs).

_____

_____

_____

3.6 Are there any obstacles that prevent you from teaching the way you believe you should?

_____

_____

_____

3.7 I want you to think about an activity or part of the classroom that you enjoy sharing with your children. Tell me what you are thinking about, in the moment, when you are in that area or activity. Specifically focus on language and literacy if possible. (Query for intentionality, conversation with children, thoughts on goals and assessment).

_____

_____

_____

3.8 Please complete these sentences:

Teaching is like…_____

Learning looks like…_____

When I teach I think about…_____

When I teach it looks like….._____

When I teach it feels like…_____

Part 4: Goal Setting and Monitoring

4.1 What are your goals this year in regards to your teaching? How will you know when you have accomplished them? How do you monitor your progress?

_____

_____

_____

4.2 Think about a goal you already accomplished. Did achieving that goal have an impact on your teaching or your thoughts about teaching? What changed and how? How did you monitor your progress? Did anyone else assist you in accomplishing the goal?

_____

_____

_____

4.3 Please describe any goals you have planned for the future or use a goal you set in the past.

What is/was the goal:

_____

Why do/did you feel you need/ed to set this goal:

_____

What will/were be your steps to monitor progress:_____

_____

Please comment on how you will reflect - or have reflected on - while working toward your goal.

_____

_____

_____

4.4 How do you stay focused on your goal(s)?

_____

_____

_____

Part 5: Work Environment/Jumpstart

5.1 How important is your work environment in helping you to improve your teaching? What do you find to be supportive and what do you find to be barriers?

_____

5.2 You currently teach at a school served by Jumpstart. Has Jumpstart been helpful to you in any way? (if at a school served by Jumpstart)

5.3 Does having Jumpstart at your school make you think differently about your ideas in regards to teaching language and literacy or change your behavior? If so, how does it do so? Do you find Jumpstart to be a support or a challenge? Does it provide you with any resources for your teaching? (if at a school served by Jumpstart)

5.4 Please describe what you think the role of Jumpstart should be.

Part 6: Professional Development

6.1 How would you describe the professional development opportunities you receive in your current position? (Query about modality, perceptions of usefulness, challenges)

6.2.What professional development opportunities do you find to be the most helpful to you? What are the least helpful? (Query about modality, presentation form, and specific topics)

6.3 Please list any professional development topics you've had this academic year.

_____

_____

_____

What else would you like to share about your work setting, Jumpstart, or any other part of this interview?

I want to remind you that this interview is confidential. If you have any worries about your interview during the next day or so, please give me a call.

Thank you again for your time. Your responses have been very helpful.