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Teachers' Perspectives of Implementing Language Modeling in Pre-Kindergarten Classrooms

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Walden University

College of Education

This is to certify that the doctoral study by

Gena Rae Ford Puckett

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Walden University
2023

Abstract

Teachers' Perspectives of Implementing Language Modeling in Pre-Kindergarten Classrooms

by

Gena Rae Ford Puckett

MA, Walden University, 2015

BS, Ashworth College, 2013

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

January 2023

Abstract

Teachers' language modeling skills are important for children's language development and school readiness. However, 34% of pre-kindergarten (pre-K) classrooms score in the low range on the language modeling dimension of the CLassroom Assessment Scoring System (CLASS) observation tool within the instructional support domain in a southern state. For this basic qualitative study, the purpose and research questions explored pre-K teachers' perspectives on the challenges of implementing language modeling and the type of support they need to improve language modeling skills in a southern state. The conceptual framework that guided the study was Vygotsky's sociocultural theory, specifically the concepts of the zone of proximal development and the more knowledgeable other. Thirteen pre-K teachers with at least 3 years of teaching experience and who had completed a specialized early childhood program participated in semistructured interviews. A priori, open, and axial coding were used to find common meanings and organize codes into categories and themes. The key findings related to challenges on implementing language modeling, challenges with professional development for language modeling, support needed for pre-K teachers, and language modeling activities and strategies being used in the classroom. Results have implications for positive social change by providing a deeper understanding of teachers' perspectives on the support they need to improve language modeling interactions with children that will help development of children's communication, vocabulary, and language skills. The findings are significant to administrators by showing the needs of the teachers to successfully implement language modeling.

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Dedication

This is dedicated to all who gave me support, guidance, and encouragement all the way through this journey. My husband, James, my son, James Michael, my daddy, Ray Ford, my mom, Geneva Ford, and my sister, LaShea Ford-Davis, this is dedicated to each of you and know I love you all!

Acknowledgments

First and foremost, I thank God for leading my steps through this journey and giving me the words to write. To my husband and son, your support and encouragement meant the world to me. Son, you finally can officially call me Dr. Mom. To my dad, mom, and sister, Shea, your encouraging words helped me to know I could finish this journey. To Dr. Brackin, your support, guidance, and encouragement throughout this process means so much and helped me complete this journey! To Dr. Curtis and Dr. Wells, I appreciate your feedback and support through this process. To Rita and Victoria, thank you for walking this journey with me, our "cheer" talks helped more than you know through one word, sentence, paragraph, and page at a time. To all pre-K teachers, thank you for all you do for our children! And finally, to all my co-workers who gave me support and encouragement, I thank you!

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Chapter 1: Introduction to the Study

Pre-kindergarten (pre-K) children's interactions with teachers and peers play a critical role in language development that determines school readiness and the success they have later in life (Vulchanova et al., 2017). Teachers' role is that of the more knowledgeable other (MKO) that meets children at their zone of proximal development (ZPD) when building language development through teacher-child interactions (Vygotsky, 1962, 1978). Pianta et al. (2008) defined language modeling (LM) in the Classroom Assessment Scoring System (CLASS) observation tool as how teachers facilitate and encourage the use of language with children in the pre-K classroom. LM helps build children's vocabulary, language skills, and communication skills (both receptive and expressive), needed for school readiness and success later in life (Bratsch-Hines et al., 2019; Humphry et al., 2017; Whittingham et al., 2018). Pre-K teachers face challenges in implementing LM to support children's language development in the classroom when being observed using the pre-K CLASS tool (Office of Head Start, 2020; PEER, 2019).

With this study, I sought to fill the gap in practice of LM and provide knowledge on pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve children's language development. The focus was on the challenge teachers face when implementing LM through self-talk, parallel talk, and asking open-ended questions to build children's language development. The insight on the support teachers may need to implement LM and supporting those needs could help teachers develop children's communication, vocabulary, and language skills needed to

succeed in life. This support could help close the 30-million-word gap (Golinkoff et al., 2019) by essentially filling the gap in practice on LM in pre-K classrooms.

In Chapter 1, an overview of the study is discussed. This chapter also includes a summary of background literature researched for this study. The research problem, purpose, and questions are presented. Vygotsky's (1978) sociocultural theory and components of MKO and ZPD are discussed as the conceptual framework used for this study. Assumptions, scope and delimitations, limitations, nature of the study, and definitions are reviewed. Finally, the significance of the study and the implications for potential social change in the early childhood field and pre-K classrooms will be discussed. A summary of the main points and transition to Chapter 2 end this chapter.

Background

Teacher-child interactions are critical in both the teaching and learning processes within the classroom (Omaga & Alieto, 2019). Sykes et al. (2020) found that the quality of teacher-child interactions were key contributors to the social, emotional, and academic outcomes of children in early childhood. Vygotsky (1986) said children learn best through social interactions with MKO who meet them at their ZPD. Pianta et al. (2008) developed an observation tool, CLASS, to observe the quality of teacher-child interactions that includes LM within the classroom.

The CLASS observation tool was designed to observe the quality of teacher-child interactions in the pre-K classroom (Pianta et al., 2008). A pre-K CLASS tool is comprised of three domains, emotional support, classroom organization, and instructional support (IS), that breaks down into dimensions, indicators, and behavioral markers that

are observed in the pre-K classrooms. The IS domain is broken down into three dimensions: concept development, quality of feedback, and LM. For this study, the focus was on the LM dimension under the IS domain (Pianta et al., 2008).

According to the study state's Performance Evaluation and Expenditure Review (PEER) Report #640 (2019), 34% of pre-K classrooms scored in the low range on the IS domain of the CLASS observation tool. The IS domain observes the implementation of the curriculum being used for effectively supporting cognitive and language development in the classroom through teacher-child interactions (Pianta et al., 2008). The LM dimension assesses teachers' curriculum implementation to promote language development as part of the IS domain of the CLASS tool (Pianta et al., 2008).

Children's interactions play a critical role in their receptive and expressive language development (Vulchanova et al., 2017). Lake and Evangelou (2019) discovered that many United Kingdom early childhood teachers become confused between their role as assessors who complete developmental paperwork and their role in supporting children's language development through engaging with them. There is a gap in practice in a southern state where this study was conducted, as data indicate teachers' LM skills were in the lowest range when measured by the CLASS observation tool. Language development is needed to close the 30-million-word gap by modeling language children need for reading and school success (Golinkoff et al., 2019). Hart and Risley (2003) observed children from upper-, middle-, and lower-income families and found that children from the lower socioeconomic status families heard 30 million less words compared to children from the upper socioeconomic status families. Larson et al. (2020)

also discovered that teachers in childcare settings used less language and conversations in the classroom. This represents a gap in research on the practice of LM.

This study sought to fill the gap in practice of LM and provide knowledge on pre-K teachers' perspectives on the challenges of implementing LM and the type of support pre-K teachers need to improve children's language development. Exploring teachers' perspectives could lead to a positive social change by offering insight on the support teachers may need to implement LM and supporting those needs to help teachers develop children's communication, vocabulary, and language skills needed to succeed in life. Supporting teachers' needs could help close the 30-million-word gap (Golinkoff et al., 2019) by essentially filling the gap in research on LM in pre-K classrooms.

Problem Statement

CLASS is a tool used to observe interactions in the classroom between children and teachers, assistant teachers, parents, or peers. The problem for this study was 34% of pre-K classrooms scored in the low range on the CLASS observation tool on the LM dimension in the IS domain. There is a gap in practice in a southern state as data from a Performance Evaluation and Expenditure Review (PEER) Report #640 (2019) indicated teachers' LM skills were in the lowest range when measured by the CLASS observation tool. The LM dimension assesses teachers' curriculum implementation to promote language development as part of the IS domain of the CLASS tool. The PEER report also showed 57% of classrooms in the study state were below the national median for the IS domain, and 20% scored below the 10th percentile nationally (PEER #640, 2019).

CLASS observation tool uses a 1 to 7 scoring range with 1-2 being low range, 3-5 being mid-range, and 6-7 being high range for each CLASS dimension (Pianta et al., 2008). When observing LM using the CLASS observation tool, teachers are observed on how they facilitate and encourage the use of language in the pre-K classroom (Pianta et al., 2008). According to *A National Overview of Grantee CLASS Scores in 2020* (Office of Head Start, 2020), Head Starts have a national average of 3.45 on the LM dimension of the CLASS observation tool. This average puts the national Head Start LM score at the low end of the mid-range for this dimension. The Office of Early Childhood in the study state determined the LM dimension average score for pre-K classrooms in the study state was 2.69 at the end of the 2019-2020 school year. The study state's average score for LM put the pre-K program at the upper end of the low range for this dimension. This means that the state's average of 2.69 for LM is less than the national average of 3.45 for the LM dimension on the CLASS observation tool. Research shows a gap in how teachers face a challenge when implementing LM through teacher-child interactions in the classroom.

Language development in the early years provide children with the skills needed for everyday life and cognitive development for school readiness (Larson et al., 2020). Children's language development, communication skills, complex language skills, and critical thinking skills benefit greatly through teachers' LM (Golinkoff et al., 2019; Justice et al., 2018; Pawlak, 2019). Teachers' LM through conversational interactions with children through sharing information, self- and parallel-talk, open-ended questions, and quality of feedback help develop children's overall language (Biel et al., 2020;

Duncan et al., 2020; Pianta et al., 2008). These types of experiences with LM through sociocultural interactions with MKO activates the left inferior frontal brain to connect early language exposure to verbal skills needed later in life (Romeo et al., 2018; Vygotsky, 1978). The study state has the highest level of poverty in the United States which indicates that children from the study state need more language exposure and interactions to help close the 30-million-word gap found from families of low-socioeconomic status backgrounds (Annie Casey Foundation, 2021; Biel et al., 2020; Greenwood et al., 2017; Hart & Risley, 1995, 2003). Larson et al. (2020) also found that pre-K teachers use even less language and conversational interactions with children than children had with their families. Researchers have shown that children need LM through sociocultural interactions with a MKO to build the language they will need to succeed in school and later in life (Bratsch-Hines et al., 2019; Humphry et al., 2017; Whittingham et al., 2018).

Purpose of the Study

The purpose of this basic qualitative study was to explore pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in this southern state. Lake and Evangelou (2019) and Larson et al. (2020) discovered there is a lack of language and conversational interactions used in the classrooms as teachers feel the need to complete routine paperwork like developmental assessments, lesson plans, or observation reports. Children need interactions with their MKOs through LM to build on their current language skills to succeed in life and school (Bratsch-Hines et al., 2019; Humphry et al., 2017; Whittingham et al., 2018).

A basic qualitative study is conducted to understand how people make sense of their experiences within their world (Merriam & Tisdell, 2016). Teachers' LM or conversational interactions are needed for children's early language development (Duncan et al., 2020). However, Brebner et al. (2017) discovered that many early childhood educations do not feel they have the skills or knowledge to implement language development practices like LM in the classroom. Researchers have shown that teachers become confused with their role as with either an assessor who completes paperwork on developmental progress and their role supporting language development through interactions to motivate children to use and practice language skills (Lake & Evangelou, 2019; Petscher et al., 2018). In this basic qualitative study, a semistructured interview protocol was used with current pre-K teachers with at least 3 years of experience from a southern state to explore their perspectives on the challenges of implementing LM in their classrooms and to identify what support they need to improve their LM skills.

Research Question

The following research questions guided this study:

Research Question 1 (RQ1): What are pre-K teachers' perspectives on the challenges of language modeling in the classroom in a southern state?

Research Question 2 (RQ2): What are pre-K teachers' perspectives on the type of support needed to improve their language modeling skills in their classrooms?

Conceptual Framework

The conceptual framework for this study is Vygotsky's sociocultural theory which states that children develop through the social interactions they have with others from the beginning of life (Vygotsky, 1962). Two components of the sociocultural theory that helped to guide the study are the zone of proximal development (ZPD) and more knowledgeable other (MKO). ZPD shows the process of children's current level of development to their potential developmental level when reinforced or modeled by adults or peers (Eun, 2019; Saracho, 2017). Beginning with a child's ZPD, a teacher can enhance language development through interactions, LM, conversational turn taking, and scaffolding (McLeod, 2019). The teachers' and peers' interactions become the MKO to the children they are interacting or guiding their language learning.

A logical connection between the framework presented and my study was that Vygotsky (1962) discussed that children's social interactions with more knowledgeable people, adults, and peers, support their language development. Vygotsky (1978) also discussed how the social interactions teachers have with children to support their language development provide the proximal developmental zone within the classroom. Using Vygotsky's theories allowed me to highlight teachers' LM through social interactions with children to support language development. This qualitative study explored the perspectives of pre-K teachers, using Vygotsky's theory as the conceptual lens to gain an understanding of the challenges teachers have implementing LM.

Creswell (2013) stated that a qualitative approach is based on an inductive investigation style condenses raw data to establish clear links between findings to find

individual meanings. Using Vygotsky's (1978) sociocultural theory, the perspectives of teachers' is a starting point into the challenges they have implementing LM and the support they need to better their LM skills. Using semistructured, open-ended interviews allowed teachers to discuss their own experiences when discussing the challenges of implementing LM and the support they need to better their LM skills.

Vygotsky's (1986) sociocultural theory stated that children learn best through social interactions with MKO who meet them at their ZPD to enhance language development. Pre-K teachers' perspectives on the challenges they see when using LM to interact with children and the support they feel they need to improve their LM skills were analyzed. The interview protocol was based, in part, on Vygotsky's sociocultural theory. Data analysis included deductive coding (*a priori* coding) selected from the key concepts of Vygotsky's theory. Analyzation was conducted of the interviews from the participants' responses for common terms and phrases and axial and open coding to examine and sort data into themes. This will be referenced in more detail in Chapter 2.

Nature of the Study

Merriam and Tisdell (2016) indicated that a basic qualitative study helps the researcher to understand how people make sense of their experiences within their world. The nature of this study was to explore pre-K teachers' perspectives in a southern state on the challenges of implementing LM and the type of support they need to improve LM skills. Using a qualitative approach was appropriate for this study since I explored pre-K teachers' perspectives to gain an understanding of the phenomenon (see Creswell & Poth, 2016; Merriam & Tisdell, 2016).

The research setting was in a southern state that has a high level of poverty and included pre-K teachers who completed a specialized early training program approved by the state's department of education to receive an early childhood endorsement. Purposive sampling was most appropriate for this study since the participants were able to contribute to the data by answering the research questions (see Ravitch & Carl, 2016).

Boddy (2016) suggested that a small sampling size of about 10 participants may be adequate to meet saturation when researching a homogenous population. For this study I conducted semistructured interviews with 13 current pre-K teachers who had 3 or more years in the pre-K classroom in the study state. The criteria for this study were pre-K teachers who completed an Early Childhood Training program in the study state between May 2017 and June 2021 and who had at least 3 years of experience in teaching in a pre-K classroom. Interviews were conducted through Zoom or phone and were audio recorded. Based on Saldaña (2016), open coding was used to look for repetitions, groups, and patterns in the data. Open coding was used to find repetitive words within the interviews to identify emerging themes and help to answer the research questions for this study.

Definitions

The following section provides definitions of relevant terms that apply to this study:

Classroom Assessment Scoring System (CLASS): The pre-K CLASS is an observation tool used to assess classroom quality of interactions between students and adults in the pre-K classroom (Pianta et al., 2008).

Instructional Support Domain: Pre-K CLASS domain that focuses on how the teachers implement their curriculum that supports children's cognitive and language development. IS observes three dimensions, with LM being one of those dimensions (Pianta et al., 2008).

Language Gap: Children in low-socioeconomic status experience fewer language interactions or conversational turn-taking in the home or childcare settings (Greenwood et al., 2017).

Language Development: Language development provides children with the skills needed to learn about the world around them, communicate with others, and build cognitive development for success in school and later in life (Larson et al., 2020).

Language Modeling Dimension: A pre-K CLASS dimension that observes the quality and amount of language stimulation and facilitation techniques teachers use in the pre-K classroom (Sykes et al., 2020).

More knowledgeable other (MKO): More knowledgeable other refers to the interaction between children and adults or peers that are more knowledgeable than the child to help support development (Vygotsky, 1962).

Open-ended questions (OEQ): Open-ended questions invite the child to use elaborate responses or require children to gather their thoughts to communicate a more complex answer or idea (Pianta et al., 2008). Open-ended questions allow children to apply what they have learned and expand their thinking (Strasser & Bresson, 2017).

Parallel Talk (PT): Parallel talk is when teachers give words to children's actions as they are carrying out their actions to provide words to those actions (CLASS Learning Community, n.d.).

Self-Talk (ST): Self-talk is when a teacher narrates their actions as they perform those actions that provide words to those actions (CLASS Learning Community, n.d.).

Zone of Proximal Development (ZPD): Zone of proximal development is taking a child from their current developmental level where they can do things on their own to the potential developmental level with the help of teachers, adults, or peers (Vygotsky, 1978).

Assumptions

Assumptions are not regulated by the research but are assumed to be true to make the data process valid (Merriam & Tisdell, 2016). There were two assumptions for this study. First, I assumed that the teachers provided truthful and accurate answers to the interview questions based on their personal experiences working with the children in a pre-K classroom. This is important so that the data received is accurate regarding pre-K teachers' perspectives on implementation of LM in a pre-K classroom. Second, I assumed that the pre-K teachers had been observed using the pre-K CLASS observation tool at least once or at best had knowledge of children's language development. Being observed using the CLASS observation tool or having a knowledge of children's language development was important since it allowed teachers to give their perspective on the support, they might need to build children's language development. These assumptions

were important to better understand teachers' perspectives of LM and the support teachers need to implement LM within the pre-K classroom.

Scope and Delimitations

The scope of this study was to explore pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills. Pre-K teachers from one southern state who had completed a specialized early childhood training program to continue teaching in a pre-K classroom within the school system or collaborative classroom were invited to participate in this study. Vygotsky's (1978) sociocultural theory, with specific attention to the components of MKO and ZPD, was used since it describes how language interactions children have with teachers as MKO support their language development from their current level to their potential level of language development. This study has the potential to fill the gap in the practice of LM and provide knowledge on pre-K teachers' perspectives on the challenges of implementing LM and the type of support pre-K teachers feel they need to improve children's language development. Providing sufficient data from this study could help decision-makers of pre-K classrooms determine the support teachers need when implementing LM and help children's overall language development (see Merriam & Tisdell, 2016).

Delimitations show how a study is narrowed by participants or location (Burkholder et al., 2020). The delimitation for this study begins with the geographic location since the study was completed in only one southern state within the United States. Based on Golinkoff et al. (2019), children in high poverty areas may have less

language than children in higher income areas that can cause a 30-million-word gap before children enter school. Results are based on pre-K teachers within this southern state and may not represent pre-K teachers' perspectives and experiences nationally. This is clearly noted in the location description so readers may determine transferability.

Many southern states have a specialized pre-K degree program, but most pre-K teachers in the study state have an elementary education (K-3 or K-5) degree. Teachers in the study state holding a teaching license from an elementary education degree (K-3 or K-5) must complete either a specialized training program approved by the state department of education, the Praxis, or 12 hours of early childhood courses to be eligible to work in the pre-K classrooms in the school system. Teachers who have completed the approved early childhood training program were invited to participate in this study. The results were based on the perspectives of 13 pre-K teachers who had previously completed the approved early childhood training program in the study state. Therefore, results might not reflect the perspectives of pre-K teachers who completed the Praxis Test or 12 hours of early childhood courses within the study state.

Transferability is established in how the findings of a study are transferred to other situations so the readers can compare to other circumstances (Merriam & Tisdell, 2016; Ravitch & Carl, 2016). Transferability is likely for this study to other pre-K teachers who implement LM in their classrooms to build on children's language development. My findings provided information on how to support LM in classrooms outside of school systems to help close the word gap that come from children not hearing enough language during these developmental years. Results from my study could also

help other adults outside of teaching that work with children on developing language skills.

Limitations

Burkholder et al. (2020) stated the point of limitations is to show that you know what weaknesses are in a study and explain how the limitations could be overcome. Green (2018) discussed the importance of explaining limitations so the reader can identify directions for future research. The minimum criteria for pre-K teachers teaching in pre-K classrooms in the United States varies widely from the requirement of a child development associate to a bachelor's degree in an early childhood related field, so the results may not represent all pre-K teachers in the United States (PreSchoolTeacher.org, 2022). The southern state where the study took place has one of the highest levels of poverty in the United States and the results may not be the equivalent to other states with other levels of poverty (see Shrider et al., 2021).

There is a chance of personal bias since I have worked with some of the pre-K teachers in the study state and have both observation and training certification in the pre-K CLASS observation tool. Additionally, since I was the only person gathering the data, analyzing the data, and interpreting the data, this could have led to biases I have which could influence the process. Biases were reduced first by choosing participants who had completed the specialized program at least 3 years prior to the study and with whom I did not coach or have a relationship. To further reduce biases, a reflective journal was kept recording my own biases on LM using the CLASS observation tool in the pre-K classroom through the study process, including the data collection and analysis. Another

step was to have early childhood experts look over the results to reduce biases. Limitations may be possible, but the findings could help provide a valuable understanding of pre-K teachers' perspectives on implementing LM in the classroom and the support needed to improve children's language development.

Significance

This study has the potential to fill a gap in practice of LM and provide knowledge on pre-K teachers' perspectives on the challenges of implementing LM and the type of supports they need to improve children's language development. LM helps build children's vocabulary, language, and communication (both receptive and expressive) skills needed for school readiness and success later in life (Bratsch-Hines et al., 2019; Humphry et al., 2017; Whittingham et al., 2018). Information from this study would ultimately help teachers determine the support they need from specific professional development, coaching, or training to implement LM in the classroom to help build children's language development. The long-term effects for society when implementing LM in pre-K classrooms are closing the 30-million-word gap children need for reading and school success (Golinkoff et al., 2019). The findings of this research could offer insight into how to improve the implementation of LM through support teachers feel they would need.

Exploring teachers' perspectives could lead to a positive social change by offering insight on the support teachers may need to implement LM and supporting those needs to help teachers develop children's vocabulary, language, and communication skills needed to succeed in life (Bratsch-Hines et al., 2019; Humphry et al., 2017; Whittingham et al.,

2018). Findings from the research could provide insight to education stakeholders on the importance of language instruction through modeling and provide a strong foundation in language development children need for vocabulary, language, and communication skills. The findings could offer insight on how to improve the implementation of LM, which could provide effective teacher-child interactions that, in turn, could lead to higher scores in the CLASS LM dimension and children overall outcomes (Pianta et al., 2008).

Summary

In this chapter, I introduced the problem and purpose for this study. I discussed the background of the study, specifically the gap in practice when looking at pre-K teachers' LM skills being in the lowest range when measured by the CLASS observation tool. I presented the research questions and the conceptual framework from Vygotsky's sociocultural theory that included the ZPD and MKO as a critical piece of children's language development. I presented the assumptions and limitations that may affect this study. I explained the possible significance my study may have to potentially fill in a gap in literature on teachers' perspective on the practice of LM and may lead to a positive social change by offering insight on the support teachers may need on LM interactions. Chapter 2 includes a review of the major concepts aligned to LM in pre-K classrooms and the CLASS observation tool as it relates to LM.

Chapter 2: Literature Review

The CLASS tool is used to observe interactions in the classroom between children and teachers, assistant teachers, parents, or peers. The problem is that 34% of pre-K classrooms score in the low range on the CLASS observation tool on the LM dimension in the IS domain. According to a state-level report, there is a gap in practice in a southern state which indicates teachers' LM skills being in the lowest range when measured by the CLASS observation tool. The purpose of this basic qualitative study is to explore pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. Teacher-child interactions play an important part in children's language development and child outcomes. Tilbe and Gai (2020) used the CLASS to observe teacher-child interactions and found that teacher-child interactions were not linked to child developmental outcomes. Sawyer et al. (2017) noted teachers' implementation of evidence-based language practices is limited in the classroom, and professional development is needed to enhance the classroom language environment. Muhonen et al. (2020) stated that educational classroom talk is beneficial for children's learning and communicative development especially in the early childhood education classrooms. However, the current literature offers no research on teachers' perspectives of implementing LM with children's first language as many current literature articles discussed LM for English language learners (ELL; Bedore et al., 2020; Markova, 2017; Neugebauer et al., 2020; Partika et al., 2021).

As noted, 34% of pre-K classrooms in the study state scored in the low range in the IS domain and 57% of the classrooms were below the national average median. The

LM dimension is found under the IS domain and observes how teachers implement the curriculum through teacher-child interactions to effectively support cognitive and language development in the classroom (Pianta et al., 2008). Scores from the CLASS observation tool indicates the average LM score as one of the lowest scores in Head Start on a national level of 3.45 out of 7 (Office of Head Start, 2020). At the study state's level, CLASS scores average 2.69 out of 7 on LM which is lower than the Head Start's national average. This study focused on the statewide group of teachers in the state where the study takes place.

Chapter 2 includes a review of the major concepts aligned to LM in pre-K classrooms. This chapter begins with the literature search strategy and exploring the sociocultural theory and two components: ZPD and a MKO. The theory and two components help explain how children acquire language socially from their culture and interactions from MKO with teachers supporting children's current level of language development and moving them to a higher level of development or ZPD. Vygotsky's (1962) sociocultural theory is the specific theory that guided this study. A review current literature relevant to this study and cover topics for the conceptual framework, CLASS, language development/acquisition, LM, and support for teachers through different types of professional development was conducted.

Literature Search Strategy

Two university libraries, Walden University and the University of Mississippi were used to search for numerous peer-reviewed journal articles to inform this research study. I used the following databases: Annie E. Casey Foundation, National Head Start

Association, Performance Evaluation and Expenditure Review (PEER) Mississippi, Education Source, ERIC, SAGE Journals, Science Direct, Taylor and Francis Online, ProQuest Central, and Google Scholar. A meeting with the Walden University librarian helped to ensure a thorough search of key terms. Key search terms used to identify articles were *language development/acquisition, Classroom Assessment Scoring System 29-30(CLASS), teacher-child language interactions, language environments, language modeling strategies, language modeling implementation, social interactions, interactions, open-ended questions, parallel talk, self-talk, repetition and expansion, language scaffolding, teacher talk, teacher-child conversation, professional development, coaching (in-person and online), training,* and *Making the Most of Classroom Interactions (MMCI).* To identify relevant, current research, I limited my search to articles published between 2017-2022. There were few current articles on teachers implementing LM for initial language development. Many studies on LM addressed dual language learners or peer interactions (Bedore et al., 2020; Gámez et al., 2019; Heller & Grøver, 2021; Partika et al., 2021;). I met with a Walden librarian to help exhaust the search as well. A few older articles and books were included because of their significance to the topic.

Conceptual Framework/Theoretical Foundation

In this study, Vygotsky's (1962) sociocultural theory was used as the conceptual framework. This theory suggests that children develop through the social interactions they have with others from the beginning of life (Vygotsky, 1962). Children's exposure to social interactions, environments, and culture, by parents and caregivers (MKOs), play a critical role in language development and ZPD and is not just based entirely on direct

teaching of language skills (Daneshfar & Moharami, 2018; Lytle & Kuhl, 2018; Wu, 2018). The interactionist approach of the sociocultural theory establishes how teachers' interactions, through LM, help advance children's communication, vocabulary and language skills needed to succeed in life from a natural approach to a higher mental process (Jaramillo, 1996). The sociocultural theory for language development suggests focusing on the process rather than the product (Daneshfar & Moharami, 2018; Yildirim, 2008.). The components of the sociocultural theory that helped guide this study are the ZPD, social interactions, and MKO. Teachers' interactions with children encompass these three components of the sociocultural theory in the level of support and instruction teachers provide through LM for children's language development.

Zone of Proximal Development

LM is dependent on teacher-child interactions to improve children's language development and increase scores on the LM dimension of the CLASS observation tool. ZPD helps teachers assess what children can learn independently and where the teacher needs to step in to take them to the next level of development by modeling or scaffolding their language (Daneshfar & Moharami, 2018). The ZPD is essential for developing language skills children need to communicate with others. Vygotsky's ZPD (1978) supports this conceptual framework in that language emerges and is dependent on the social interactions that children have with others and advances with the support of LM by the teachers.

Through social interactions with MKO, children's language development can be enhanced by meeting them at their current developmental level and engaging them in

conversations to hear more complex language and scaffolding language within their ZPD. Vygotsky's sociocultural theory contributes to verbal interactions with MKO in early childhood education as being critical in language development (Smolucha & Smolucha, 2021). Vygotsky's sociocultural theory for language development suggests focusing on the process rather than the product (Daneshfar & Moharami, 2018; Yildirim, 2008). Teachers need to be the MKO through the LM process and use the child's ZPD to provide the scaffolding needed to guide children's language development. Vygotsky's theory described language as the necessary tool to not only share meaning but how we advance developmentally from a natural approach to higher mental processes, which depends on the teachers' modeling or scaffolding language for children (Jaramillo, 1996). Looking at how teachers can support children's language development is about the social interactions children have with others, meeting the children at their current level to advance their development by being the more knowledgeable other, and implementing LM.

More Knowledgeable Other

Learning takes place in social interactions with a peer or adult that is more knowledgeable than the learner or a MKO (Vygotsky, 1978). The role of teacher-child interactions supports this early learning that teachers' knowledge is significantly tied to classroom practices and children's developmental gains (Piasta et al., 2019). Plutino (2017) discovered that children do not have to be in a classroom for learning to take place from MKO but can also happen through outside the classroom through online learning communities. Children can only learn on their own to a certain point and it is with the

help of a MKO that they can learn more and achieve developmental gains (Vygotsky, 1978). Vygotsky's describes language as the tool needed to not only share meaning but how we advance developmentally from a natural approach to higher mental processes, which take a MKO to model or scaffold language for the children (Jaramillo, 1996). Vygotsky's sociocultural theory for language development was used to connect the LM teachers use to support children's language development through interactions as the MKO (Vygotsky, 1978, 1986). Although the MKO can be an adult or older peer to the children, the interactions usually are shown by the teacher in the classroom (Ροδάνθη & Βασίλειος, 2019). Vygotsky (1978) and Mohamad Nor and Rashid (2018) contended that children's language development is critical to the social interactions with MKO. Tavassolie and Winsler (2018) viewed Vygotsky's sociocultural theory as a child's social world being guided by language interactions from MKO, and that language is used for the children to understand and experience the world around them. Teachers initiate prompts through LM that move the conversation with children forward and connect children's experiences to build on language and vocabulary development (Neugebauer et al., 2020). Through LM, these interactions with a more competent adult or peer can take a child's current level of language development to a potential higher level of development or independent level Vygotsky called ZPD (Turnbull & Justice, 2017). Children's development and learning is guided by parents, teachers, caregivers, or peers who support children's learning through the knowledge they share.

Vygotsky's sociocultural theory (1962) contributed to the conceptual framework for my study in how social interactions and guidance of others is where children's

development shows the most gains. The components of ZPD and MKO from this theory also contributed to the framework in how children's language development happens within a range of learning and is enhanced to advanced language with the help of adults or peers (Vygotsky, 1978). Vygotsky's sociocultural grounds this basic qualitative study by exploring pre-K teachers experience with LM in the classroom and their interactions with children as MKO to use the child's ZPD on their current level of language development to advance the child forward (1962, 1978). The framework using Vygotsky's theory was used to develop the RQs of exploring teachers' perspectives on LM implementation with children in the pre-K classrooms and the teachers' perspectives on the support they need to improve LM skills to enrich children's language development. Vygotsky's theory (1962, 1978) also provided a guide for the interview questions when asking the teachers' perspectives around social interactions, ZPD, and being the MKO when working with children on language development.

Previous studies have used Vygotsky's sociocultural framework when discussed children's language development and social interactions (Daneshfar & Moharami, 2018; Lytle & Kuhl, 2018; Wu, 2018). Focuses of other studies that include teacher-child interactions to help with child development were on the CLASS instrument along with research from the CLASS authors, Pianta and Hambre (Aguiar & Aguiar, 2020; Ansari & Pianta, 2018; Moen et al., 2019; Ng et al., 2021). Some other concepts of research that have been studied in this area included instructional strategies and language environment (Kirsch, 2021; Strasser et al., 2018; Tulviste & Tamm, 2021; Voltmer et al., 2021; Xi &

Lantolf, 2020). The research from these studies revealed different ways to improve children's overall langauge development through different viewpoints.

Kirsch (2021) researched four-year-olds in Luxemburg where 64% of the children did not speak Luxembourghish. The study focused on three teachers who received profesional devleopment on multilingual, strategies and practices on language support and tranlanguage. The study followed the three teachers who used several interactions and LM strategies, conversations, language and literacy activiteis, and daiy routines, in three different languages. The three langauges were the children's home lnaguage, French, and Luxemgourish and encouraged children to respond in the language of their choice. The findings with this research shows that the teachers act as the MKO when having interactions with the children. Kirsch (2021) also found that teachers scaffold the children's language learning process through scaffolding building on children's current level of language whether it was the child's home language or one of the other languages being taught.

Moen et al. (2019) focused on the process quality as measured by CLASS to deteremine if children had gains in vocabulary, math and executive functioning skills. The researchers examined 267 children from low income who expereienced language, cognitive or social-emotional developmental concerns. The study surveyed 93 teachers during the fall and spring of the same academic school year and conducted a classroom observation during the spring of the same year. Findings from this study determined that process quality as measured by CLASS showed no strong predictors of language, math, or executvie function gains in high quality classrooms. Results from this study did

establish a need for a better measurement that captures individual children's experiences and teacher practices with the classroom. This type of measure would help to better capture the quality across the classroom since children's expereinces can vary within the same classroom.

Daneshfar and Moharami (2018) used Vygotsky's sociocultural framework with the ZPD component where they focus on the dynamic assessment (DA) for children with second language. This study discussed using DA (pre-test, mediation, and post test) evaluation that would determine the child's current level of development, having the teacher assist the child thorugh instructional task or learning experiences on specific areas the child needs help, and applying the same pre-test as a post test to complete the evaluation process. Daneshfar and Moharami (2018) discussed the different types of mediation, computers and human interactions, that could provide an opportunity for growth and development, but that language being crucial to executive functioning are not as effective without human interactions. Results from this study shows that it is the mediation or process of learning that benefits the child's development over the product from assessments.

The cited studies revealed that children's development whether it be language, cognitvie, or social/emotional, depends on the interactions from teachers, adults, or peers. The quality of the classroom may not show the developmental gains of the children (Ansari & Pianta, 2018; Moen et al., 2019) but can be found through the teacher-child interactions within the child's home or classroom (Adamson et al., 2020; Guiberson & Ferris, 2019). The study is needed to explore pre-K teachers' perspectives on

implementing LM and the type of support pre-K teachers need to improve LM skills to enrich children's language development.

Literature Review Related to Key Concepts and Variable

Children need social interactions with a MKO, who can help take them from their ZPD and promote growth in language development with guidance from adults and peers (Yildiz & Celik, 2020). Teachers' language interactions with children enhance language development and are critical in the early years to promote self-regulation skills, build confidence, and lay the foundation for reading comprehension later (Hadley et al., 2020). The CLASS tool domain, Instructional Support, includes the LM dimension that observes teachers' language interactions with children to help determine strengths and areas that need more support through professional development (Pianta et al., 2008). Below I discussed peer review research studies related to the key concepts on LM in pre-K classrooms and the support teachers can use to enhance LM skills. These studies helped to answer the RQs about the challenges teachers face when LM in the classroom and the support they need to build on children's language development.

Classroom Assessment Scoring System (CLASS)

Classroom quality began being measured through the structural or environment of the classroom from the number of specific materials are available, the health and safety procedures of the classroom, or the education level of the teachers (Pianta, 2012). Pianta began to see another vital quality aspect with the pre-K classroom, the process or the how within the classroom. The development of the CLASS observation tool is based on suggestions from research that a primary mechanism of development and learning is the

interactions between teacher and children or the interactions between teacher, child, and materials within the classroom (Pianta, 2012). CLASS is used to observe the process quality of the early childhood classrooms, focusing on the interactions children have with adults, peers, and materials (Perlman et al., 2016). Although structural quality such as teacher-child ratio, qualification of teachers, classroom environment, and materials have been linked to language development, vocabulary, and mathematical skills, the process quality of interactions with adults, peers, and materials predicts development in social, behavioral, emotional, and academic skills for school success (Hu, 2020). The CLASS instrument compliments observational tools that may focus on the structural quality by observing how teachers use the materials and environment to interact with the children (Pianta, 2012).

One domain of CLASS, the Instructional Support Domain, helps promote the higher order thinking skills and language development children need for school readiness. Within the Instructional Support Domain is the Language Modeling Dimension that observes teachers' LM skills like frequent conversations, advanced language, repetition and extension, self-talk, parallel talk, and asking open-ended questions to help develop these skills (Pianta et al., 2008). Developing these skills is contingent on teachers meeting children at their current level and scaffolding more complex skills (Pianta et al., 2008; Vygotsky, 1978). Guerrero-Rosada et al. (2021) found no evidence that any CLASS domains were linked to pre-K children's growth in vocabulary and executive function skills. Some researchers found that the children's cultural background, family dynamics, languages, or experiences within the classroom may not have "fit" with the overall

CLASS observation tool (Delaney & Krepps, 2021). Tilbe and Gai (2020) did find that high-quality teacher-child interactions promote positive child outcomes that the CLASS tool measures. Together, the researchers suggest that overall, teacher-child interactions can positively affect child outcomes and overall development (Delaney & Krepps, 2021; Tilbe & Gai, 2020).

Although the CLASS instrument observes teacher-child interactions in three domains: Emotional Support, Classroom Organization, and Instructional Support, this study focused on one specific dimension, LM. LM is part of the Instructional Support Domain and is based on children's cognitive and language development research to observe how teachers use LM to stimulate, facilitate, and encourage the use of language (Pianta et al., 2008). The CLASS uses a 7-point scoring range showing low (1,2), middle (3, 4, 5), and high (6, 7) ranges. The scores on the domain for Instructional Support have shown a consistent low range score averaging below the mid-range both nationally and in the study state (PEER #640, 2019). The study state's score on LM averaged 2.69, which is lower than the Head Start national average of 3.45 (Office of Head Start, 2020). The national and study state scores present a gap in practice when looking at teachers' LM skills being in the low range when accessed by the CLASS tool (Office of Head Start, 2020; PEER #640, 2019). Pianta (2012) discussed how teachers' instructional behaviors in the Instructional Support Domain could be improved through professional development.

The CLASS tool is used with Head Start programs nationally and in the study state to assess children's interactions with teachers, peers, and materials to determine

quality within the classroom. Pianta et al. (2008), authors of the CLASS observation tool, defined LM as how teachers facilitate language and encourage the use of language with children in the pre-K classroom. According to *A National Overview of Grantee CLASS Scores in 2020* (Office of Head Start, 2020), Head Start has a national average is in the lower end of the mid-range on the LM dimension of the CLASS observation tool. According to the Office of Early Childhood in the study state, the LM dimension average score for pre-K classrooms in the study state was 2.69 at the end of the 2019-2020 school year. This score puts the average for LM at this dimension's upper end of the low range for state pre-K programs. The average state score shows the state is below the national average on LM use and encouraging the use of language in pre-K classrooms to support children's initial language development.

Initial Language Development

Language development provides children with the skills needed to learn about the world around them, communicate with others, and build cognitive development for success in school and later in life (Larson et al., 2020). Children's interactions with MKO and their environments play a critical role in their receptive and expressive language development (Vulchanova et al., 2017). Hadley and Newman (2022) found that play activities scaffolded by adults allow for child-led play while allowing teachers to scaffold the play with learning objectives and goals through materials and guidance. Lake and Evangelou (2019) discovered that many United Kingdom early childhood teachers become confused between their role as assessors who complete developmental paperwork and their role in supporting children's language development through interaction with the

children. Pianta et al. (2020) found that children were on lower levels with task orientation, social skills, and closeness and higher with conflict when spending more time in structured academic instruction. Children need to be motivated to use and practice language skills to later process oral and written communication (Petscher et al., 2018). Providing opportunities for children's language development within the first three years are essential for building vocabulary, communication skills, school readiness, and success throughout life for all children. Helping children's language development can come from several different strategies like sharing information, modeling, and feedback (Biel et al., 2020). Based on the CLASS observation tool, teachers support children's language development through interactions by implementing LM like parallel talk, self-talk, and open-ended questions (Pianta et al., 2008). Conversational interactions between teachers and children are an effective strategy for early language development (Duncan et al., 2020). Bratsch-Hines et al. (2019) found positive gains in children's expressive language when teachers had conversation interactions in small group but little gains with large group instructions. Many early childhood educators do not feel they have the skills or knowledge to enhance children's communication development, and expressed professional development is needed to help implement language development practices (Brebner et al., 2017).

Language Environment

Researchers have shown that children's language environment can predict children's language development with children in lower socioeconomic home environments hearing less words or having back and forth conversation than children in

higher socioeconomic home environments (Golinkoff et al., 2019; Hart & Risley, 1995, 2003; Justice et al., 2018; Leung et al., 2020). Based on Justice et al. (2018) the influence of nature versus nurture can be seen in both the child's genetics (nature), as well as the child's environment (nurture). Tulviste and Tamm (2021) described language environment as how many words children hear, and conversational turns they take but not sure if one or all together are crucial for language development. Language-rich environments are supported through teachers' strategies like modeling, expansion, questions, and scaffolding in the classroom (Wallace et al., 2021). Leung et al. (2020) stated that stimulating and responsive teacher interactions through the classroom environment plays a critical role in language development. Hagen (2018) found that teachers believe that engaging in play is important to language development. Researchers have found the importance of providing a linguistically rich environment in preschool classrooms so children can hear and use language that will support their language development and possibly close the language gap (Golinkoff et al., 2019; Hart & Risley, 1995, 2003; Justice et al., 2018; Leung et al., 2020).

Language Gap

Children in specific socioeconomic backgrounds may need more language exposure from MKO (Biel et al., 2020). Hart and Risley (1995, 2003) found a 30-million-word gap by age 3 in children from low-socioeconomic status backgrounds from lack of language exposure and interactions. Experiencing more conversational turns activates the left inferior frontal brain, which explains the relationship between children's early exposure to language and verbal skills later (Romeo et al., 2018). Children in low-

socioeconomic status experience fewer language interactions or conversational turn-taking in the home and need prevention interventions to help avoid the Word Gap (Greenwood et al., 2017). In 2019, the study state had the highest percentage at 28% of families living in poverty (Annie Casey Foundation, 2021). Larson et al. (2020) discovered that teachers in other pre-K settings used less language and conversations in the classroom than other adults that children interact within their homes and communities. Teachers' LM is greatly needed to help close the 30-million-word gap and prepare children's language development for reading and school success (Golinkoff et al., 2019). As a result of teachers using less conversational language in the classroom, there is a gap in practice in a southern state as data indicates teachers' LM skills being in the lowest range when measured by the CLASS observation tool (PEER #640, 2019).

Language Modeling (LM)

LM happens when teachers model language and engage children in back-and-forth dialogue to build on their language development (Kirsch, 2021). The review of current literature for LM produced more research articles that discussed LM with English Language Learners (ELL) (Neugebauer et al., 2020; Partika et al., 2021). While other articles reviewed for LM discussed children within the autism spectrum (Milam et al., 2021). This study is reviewing LM specifically on teachers' implementation of LM with children's natural language that encouraged the use of language for overall language development and communication.

Bratsch-Hines et al. (2019), Humphry et al. (2017), and Whittingham et al. (2018) discussed the importance of teacher using LM to develop children's vocabulary,

language, and communications skills needed to succeed in life. By teachers using LM as a strategy, they guide children to use and develop more complex language and critical thinking skills (Pawlak, 2019). teachers develop children's vocabulary, language, and communication skills needed to succeed in life (Bratsch-Hines et al., 2019; Humphry et al., 2017; Whittingham et al., 2018). Golinkoff et al. (2019) and Justice et al. (2018) found that LM with children greatly benefits language development. Teachers find different ways to model language based on the interactions and development levels of the children or their ZPD. Biel et al. (2020) discovered that some LM implementations (sharing information, modeling, and feedback) were used more with children, while other implementations (prompting, guiding, and scaffolding) are used less with children in the classrooms. Some teachers use language games (creating rhymes, word switching, word creation, and hyperbolic play) to build verbal skills (Read et al., 2018). The behavior markers on the CLASS observation tool for LM observes how LM is implemented through frequent conversations, where teachers use back and forth exchanges, advanced language, where teachers use a variety of words and make connections to familiar wards or ideas, repetition, and extension, where teachers repeat and extend children responses, self-talk (ST), where teachers narrate their actions, parallel talk (PT), where teachers narrate the children's actions, and open-ended questions (OEQ) teachers use to encourage children's use of language (Pianta et al., 2008). This study focused on the LM specific behavior markers from the CLASS observation tool of ST, PT, and OEQs.

Self-Talk (ST) and Parallel Talk (PT)

CLASS Learning Community (n.d.) defined self-talk as a teacher narrating their

actions as they perform those actions. CLASS Learning Community (n.d.) also defines parallel talk as teachers giving words to children's actions as they are carrying out their actions. Engaging in self-talk and parallel talk help teachers to build a language-rich environment, enhance communication skills, and enrich vocabulary development while building positive relationships (Morrow, 2014.). Through self and parallel talk, children join in back-and-forth conversations, use more expressive and receptive vocabulary, begin to apply several communicative functions, and lengthen sentences while picking up grammar skills (Kalavaini, 2021).

Open-Ended Questions (OEQ)

Open-ended questions (OEQ) provide teachers with an effective LM strategy that helps develop children's language skills (Wasik & Hindman, 2018). OEQs provide opportunities for children to expand vocabulary, scaffold children's utterances, engage in more meaningful conversations and use more complex language structures (Scull et al., 2013). Sãre et al. (2019) found that different levels of verbal reasoning skills can be seen when children respond to interpretation, process, and yes/no questions. However, when teachers use OEQs, children begin to develop analytical and critical thinking to help analyze, interpret, and explain their information before answering (Sarwanto et al., 2021). Teachers start with the child's ZPD to determine the initial OEQ to ask and wait for the child's answer to know whether to scaffold questions upward or downward to know how to expand on the topic for children's development (Zucker et al., 2020).

Professional Development

Knowledge that pre-K teachers have on language is important since their knowledge informs how they will select activities, materials, and interact with children in the classroom (Piasta et al., 2019). Professional development (PD) is increasingly used to improve teachers' knowledge and skills, update and enhance their practices on how children learn, and implement better learning practices when interacting with children (Gómez & Ford, 2017; Kidd & Rowland, 2021; Markussen-Brown et al., 2017). Darling-Hammond et al. (2017) identified important attributes of effective PD that include content-focused topics, active learning, collaboration, models of effective practices, feedback, and reflection. Kidd and Rowland (2021) discovered the effectiveness of language-focused PD in improving children's language and communication development and helping teachers reattain, implement, and increase LM PD. PD should support teacher's intentional efforts to embed language-learning opportunities through interactions with child-led activities and strengthen their knowledge to support children's language development through scaffolding strategies and language intervention (Ottley et al., 2018; Pentimonti et al., 2017; Piasta et al., 2019). Jacoby (2019) discussed the training of assistant teachers and what they contribute to the classroom. Ascetta et al. (2019) discussed the importance of efficient and effective PD to improve child outcomes and build high-quality instructional practices. Markussen-Brown et al. (2017) found that while PD improved the language and literacy processes, it was not enough to ensure higher child outcomes. For this study, the types of PD include training, coaching, Making the Most of Classroom Interactions (MMCI), and My Teaching Partner (MTP) (Ascetta

et al., 2019; Buschmann & Sachse, 2018; Coogle et al., 2018; Ottley et al., 2018; Resa et al., 2018).

Training and Coaching

Hargreaves (2019) found that teachers working together sharing knowledge, skills, and experiences can improve student outcomes. Liu et al. (2021) discussed sharing among teachers could come from exchanging ideas and materials, discussing strategies for specific students, developing new activities and strategies. Training is a form of PD that takes specific skills, instruction, and content from a specific professional background to provide knowledge or information to impact the practice (Gómez & Ford, 2017). Most trainings are conducted with a one-size-fits-all presentation for all teachers who may learn different ways or need to train on specific skill areas (Markussen-Brown et al., 2017). To ensure trainings are successful, participants would need to be fully engaged to change the implementation of practices within the classroom from the information gained from the training (Buschmann & Sachse, 2018).

Coaching as a PD tool helps teachers experience a mentor who will individualize the ongoing and intensive PD to help teachers be more effective and reflective in their work with children (Gómez & Ford, 2017). Gardner-Neblett et al. (2020) found that participants who chose to go through personalized support within the classroom as part of their PD felt their knowledge was enhanced and were more confident in implementing the knowledge they had learned. Coaching can improve teachers' practices in the classroom when the coaches follow a standardized and structured model around the topic of training needed (Pianta & Hamre, 2020).

MMCI/MTP

One goal Pianta (2012) found when developing the pre-K CLASS observation tool was to help teachers overcome the challenges and improve the quality of interactions in the classroom. Pianta felt this could be done through a highly effective professional development system with ongoing and individualized support for teachers based on their overall observation. Two professional development programs were developed for improving quality (Early et al., 2017). Early et al. (2017) discovered that the teachers who participated in the MMCI professional development tool that used in-person training and "homework" where participants watched videos to help identify and analyze effective teacher-child interactions had greater knowledge on two CLASS domains, with one being the IS domain. However, the MTP professional development tool that provides one-to-one remote coaching where teachers video their interactions with children to send in for specific feedback felt they had a closer relationship and felt their activities were more valuable (Early et al., 2017).

In most cases, training-type PD was associated with increased process quality, while coaching was associated with both structural and process quality within the classroom (Markussen-Brown et al., 2017). Based on Markussen-Brown et al. (2017) research, the number of PD components led to greater benefits when looking at teacher outcomes more than the intensity or duration of the PD.

Summary and Conclusions

In summary, this chapter included a review of the literature, my literature search strategies, and the conceptual framework for this study. The literature reviewed was

related to the CLASS observation tool, LM, language development, and support teachers may need to enhance the implementation of LM. I concluded from this review that language development in early childhood is essential to the foundation for children's communication skills, reading comprehension, and positive child outcomes. Researchers have highlighted the importance of teacher-child interactions in the early childhood classroom. However, researchers have overlooked teachers' implementation of LM to help children's language development for a child's first language. In this study, I attempted to help fill the gap in practice regarding teachers' LM skills to help children's language development and the support they would need to improve on implementing LM in the classroom. This information could be extended to early childhood professionals and leaders so they could implement changes needed to improve low scores for LM by improving LM skills within the classroom.

Chapter 3 of this study explains the research design and methodology. A qualitative exploratory study was conducted to seek answers to the research questions. In Chapter 3 includes the introduction, the research design, role of the researcher, methodology, and data analysis plan for my study. I discussed issues of trustworthiness related to credibility, transferability, dependability, and confirmability, as well as the ethical procedures for the study. Chapter 3 concludes with a summary and conclusion for the chapter.

Chapter 3: Research Method

The purpose of this basic qualitative study was to explore pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. The problem was that 34% of pre-K classrooms score in the low range on the CLASS observation tool on the LM dimension in the IS domain. There is a gap in practice in a southern state as data from a Performance Evaluation and Expenditure Review (PEER) Report (2019) indicates teachers' LM skills being in the lowest range when measured by the CLASS observation tool. In this chapter, I discuss the research design, the role of the researcher, methodology, and data analysis plan. I also review trustworthiness issues in relation to credibility, transferability, dependability and confirmability, and ethical procedures related to this study.

Research Design and Rationale

The purpose of this basic qualitative study is to explore pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. In this section, I discuss the research questions, concept of study, the research tradition, and the rationale for the selected methodology. The problem, purpose, and research questions presented in this study were grounded by components of the sociocultural theory with MKO and ZPD. Two research questions that guided this study were:

RQ1: What are pre-K teachers' perspectives on the challenges of implementing language modeling in the classroom?

RQ2: What are pre-K teachers' perspectives on the type of support pre-K teachers need to improve their language modeling skills in their classrooms?

The research questions support a basic qualitative approach with open-ended questions to explore the pre-K teachers' perspectives on implementing LM and the type of support teachers need to improve children's language development. Merriam and Tisdell (2016) indicated that a basic qualitative study helps the researcher to understand how people make sense of their experiences within their world, while quantitative research design seeks to confirm or deny hypothesis using numerical data. Quantitative research design was not used since numerical data was not needed to explore the perspective of pre-K teachers on LM and needs to help children's language development and since I was not seeking to confirm or deny a hypothesis. Since quantitative did not align with the purpose of my study, I did not use a mixed-method design as well.

Case study was another research design that could have been selected. Creswell (2013) stated that a case study is best used when comparing one case to another. For this study, I was not comparing an individual or group to another in the phenomenon. Since I was looking to explore an understanding of pre-K teachers' perspectives on LM in their classrooms and the support they feel is needed to help children's language development, a basic qualitative research method was used.

Ethnography is another research design that was considered and discarded for this study. Ethnography's purpose is to identify patterns when the focus of the study is on an entire cultural group in their natural settings (Creswell, 2013). The focus of this study was not to identify patterns but to explore teachers' perspectives on LM within the

classroom and the support they feel they need to help children's language development. Furthermore, since the participants were selected based on the completion of the specialized training program between June 2017 and May 2021 timeframe and at least 3 years of teaching experience in a pre-K classroom in the study state, the participants' cultural group may not have been the same. Therefore, ethnography was not chosen for this study.

Phenomenological research design seeks to understand individuals who share a common experience (Burkholder et al., 2020). The phenomenological design was considered and rejected for this study. This study explored teachers' perspectives of LM in the pre-K classroom with different experiences depending on the district, location, and administration of the school where the classroom is located. Therefore, participants would not share a common experience, so the phenomenological design was rejected for this study.

In this study, I explored pre-K teachers' perspectives, which can be accomplished more in open-ended conversations with the teachers (see Saldaña, 2016). For this basic qualitative study, I explored teachers' perspectives on the challenges of implementing LM in the pre-K classroom through semistructured interviews with 13 current pre-K teachers who had completed the specialized training program between June 2017 and May 2021 timeframe and had at least 3 years of teaching experience in a pre-K classroom in a southern state. Interviews were conducted through Zoom or phone and audio recorded. Based on Saldaña's (2016) information, open coding was used to look for repetitions, groups, and patterns in the data. Open coding was used to find repetitive

words within the interviews to identify emerging themes and help to answer the research questions for this study. Since I sought to explore a problem and gain a better understanding of teachers' perspectives, a qualitative methodology approach was best to use for this study (see Creswell, 2013).

Role of the Researcher

In this basic qualitative study, I was the primary researcher, interviewer, transcriber, and analyzer since I conducted the interviews and analyze the data (see Merriam & Tisdell, 2016). It is important to note that I do not work with, serve in any supervisory capacity, or coach any of the participants that was used in this study. I planned the research design and method, develop the interview protocol, randomly select the participants, and conduct the interviews. As the researcher, I also developed the interview protocols with open-ended questions, consent forms, and audio record the in-depth interviews. As the analyzer, I transcribed, organized, and coded each interview to find emerging themes to help answer the research questions for this study.

As an education and training specialist (ETS) with a local university and one other ETS, our job is to coach certified teachers hired for pre-K classrooms who do not have an early childhood certification through a specialized early childhood training program. The state has specific requirements to teach in pre-K collaborative classrooms, and this specialized program allows teachers to obtain an early childhood certification/endorsement to meet the state's requirements. Each summer, a new group begins the specialized training program, and a new email listserv is developed for communication with the participants. I have no supervisor or instructor relationship with

the participants after they complete the year-long program. Each year, the email listserv is divided by ETS and saved after the participants complete the program to share other training opportunities available to the past participants. Participants were recruited using the older email listserv developed saved by the second ETS, who have completed the specialized training program between June 2017 and May 2021 timeframe and had at least three years of teaching experience in a pre-K classroom in the study state. An attempt was be made to use the email listserv of the second ETS coach of the program first to avoid using participants that I may have coached during the program. To ensure I meet the needed 12-16 participants but did not receive enough through the first method, I invited participants who completed the program between 2017 to the present including participants I coached. I have no authority over, nor do I coach or train any participant who has completed the program and did not recruit those currently enrolled in the program.

Thomas (2017) stated that a researcher should view how their position, preferences, and knowledge may influence or interpret the study. I understand that by being a member of the early childhood profession and a reliable observer and trainer of the pre-K CLASS observation tool, I can relate to the experiences of the pre-K teacher (Dwyer & Buckle, 2009). This could create biases because of my role in evaluating teachers' work related to LM in the classroom based on the CLASS observation tool. Bloomberg and Volpe (2018) stated that qualitative researchers must manage researcher bias so that the researcher's knowledge or experiences do not influence the participants' perspectives. I reduced these biases by choosing participants who have completed the

program at least 2 years prior to the study and selecting participants that I do not have a relationship. During the interview process, I used open-ended questions to look for their perspectives on implementing LM in their classrooms and the support they need to help children's language development. I used a reflective journal to record my LM biases using the CLASS observation tool in pre-K classrooms. A co-director and early childhood education program specialist, education and training specialist and assistant professor of early childhood education, who combined have over 60 years of experience in the early childhood profession, along with an advanced degree, served as my early childhood experts. The experts reviewed a summary of the completed data analysis to reduce biases.

Methodology

Bloomberg and Volpe (2018) defined methodology as the overall research design and methods the researcher used to conduct the study. In this section, I described various aspects of my methodology for this basic qualitative study. This study explored teachers' perspectives on implementing LM in the classroom and the support they feel they need to improve children's language development. I presented how participants was invited and selected to participate in the study. Information on the tools and instruments that was used for data collection and plans for data analysis was be included.

Participant Selection

The criteria for this study were pre-K teachers who completed the program and received their endorsement to continue teaching in a pre-K classroom in the study state. I have tentative verbal permission from the organization director to use the email listserv

of participants who completed the specialized early childhood training program between June 2017 – May 2021, but once I receive formal approval from IRB, a letter of cooperation from the organization director. I then used the listserv to invite pre-K teachers who completed the program coached under the second ETS and invited participants who completed the program between 2017 to the present including participants I coached if needed to meet saturation for the study. Boddy (2016) suggested a qualitative sampling size for a homogenous population of 10 may be an adequate sampling to meet saturation. In this study, data saturation was met when there are no new themes, findings, or concepts through the analysis of data (Francis et al., 2009). An invitation email and consent form to participate in this study was be sent to a homogenous population of pre-K teachers who have completed the Specialized Early Childhood Training program in the study state.

Pre-K teachers received an email with an invitation about the study and a consent form to review. Pre-K teachers who would like to participate in the study emailed me the words “I consent” and added to the list on an EXCEL spreadsheet to conduct random selection. I printed these emails and placed them in a locked file cabinet and saved the electronic copies in a password-protected file on my computer for a minimum of 5 years. Each person who consents was given an alpha-numerical code to help ensure confidentiality. I randomly selected 12 -16 participants from the list of pre-K teachers who consent to participate in the study by listing all names in an EXCEL spreadsheet and using a formula for randomly selecting names in the spreadsheet. This process ensured that the choice of pre-K teachers who was invited and selected to participate was

unbiased. Once random selections have been made, I emailed to confirm the participants meet the study's criteria and set up a time for the interview by Zoom or phone call if they meet the study's criteria of having completed the specialized training program between June 2017 and May 2021 timeframe and at least three years teaching experience in a pre-K classroom in the study state. The participants reviewed the criteria they need to meet to participate in the study and they responded by email with the statement, "I meet the criteria," and gave a date and time range for setting up an interview Zoom or phone call. I printed these emails and to keep in a locked file cabinet and electronic copies in a password-protected file on my computer.

Instrumentation

I collected data using a semistructured interview protocol as the main data collection instrument to interview each participant. Zoom program or phones was be used to interview the participants. During the interviews, audio was recorded using the Zoom program, and a phone recorder as a backup and both was saved on my password protected computer that only I have access to. Microsoft Word dictation was used to transcribe the data from the interviews. The interview protocol is explained more in-depth in the following paragraphs.

An interview protocol (Appendix A) for a data collection instrument is produced by the researcher and include in the appendix for this study. The interview protocol's questions align with my research questions and conceptual framework and help me gather pre-K teachers' perspectives on the study's phenomenon (see Yeong et al., 2018). This instrument for data collection allowed me to use a semistructured protocol which is best

when studying participants' perspectives on complex or unfamiliar concepts (see Kallio et al., 2016). Semistructured interviews helped determine the pre-K teachers' perspective on the challenges in implementing LM within the classroom and their support to improve children's language development. The interview protocol has open-ended and relevant questions and help allow participants to provide answers based on their perspective of their experiences and freely express themselves (see Creswell, 2013; King et al., 2018). To ensure the questions align with the two RQs, a peer reviewer read over the questions, and piloting a mock interview using the interview protocol instrument to ensure the questions help answer the RQs and align with the conceptual framework of the study. The interview protocol has two parts: questions about the participant's demographics and in-depth interview questions. Examples of questions to prompt more details based on teachers' responses are included in the interview protocol in Appendix A.

An interview protocol demonstrates content validity in that they are aligned with the study's framework and research questions. Interview protocol was reviewed by the researcher's chair, second chair and a peer to help ensure clarity and validity. Vygotsky's (1978) sociocultural theory guided the design of the interview questions by informing the researcher of key components of teacher-child interactions. Components of the theory that help create the interview questions are social interactions, MKO, and the ZPD. The interview questions were guided by the LM dimension of the CLASS observation tool used with the pre-K teachers to observe the teacher-child interactions within the classroom. Responses from questions 1-8 helped to answer RQ1, "What are pre-K teachers' perspectives on the challenge of implementing language modeling in the

classroom?" RQ2, "What are pre-K teachers' perspectives on the type of support needed to improve their language modeling skills in their classrooms?" was answered by the responses from questions 9-14. I shared the interview questions with 3 early childhood experts, one who holds a PhD in Human Development and Family Science, one who holds a PhD in Curriculum and Instruction, and one who holds an EdD in Early Childhood, to ensure that the interview questions are valid, aligned, and adequate to answer the research questions.

Procedures for Recruitment, Participation, and Data Collection

I serve as an education and training specialist (ETS) with a local university with one other ETS. My job is to coach certified teachers recently hired for pre-K classrooms but do not have an early childhood certification. The state has specific requirements to teach in pre-K collaboratives, and this specialized program allows teachers to obtain an early childhood certification to meet the requirements. The specialized training program begins a new group each summer, and a new email listserv is developed for each ETS's group for communication with the participants. Each year, the email listserv is saved after the participants complete the program to continue communication for other training opportunities. Participants were recruited using the email listserv developed from the specialized training program and at least three years of teaching experience in a pre-K classroom. I have no authority over any participant who has completed the program and did not include those currently enrolled in the program.

After receiving IRB approval, recruitment process began with me securing verbal permission to use the email listserv of pre-K teachers who completed the specialized

early childhood training program between June 2017 – May 2021 from the organization's director. I have already spoken with the organization director and only need to confirm IRB approval to receive the director's approval for using the listserv. Upon receiving permission, I emailed an invitation to all pre-K teachers who have completed the specialized early childhood training program prior to the study year, explain the study, and invite them to participate. I provided my contact information, so they can email, text, or call me if they have any questions. They then emailed me confirmation of willingness to participate in the study by commenting, "I consent." Once I received consent, I used alpha-numerical codes to list the participants on an EXCEL spreadsheet. A formula in EXCEL was used to random select 12-16 pre-K teachers who confirmed their consent to participate ensuring enough to meet data saturation. Participants who are randomly selected were sent an email requesting confirmation of meeting the study's criteria, a date/time for the interview, and if they would like to be interviewed by phone or Zoom. Upon receiving any emails giving consent and meeting study criteria with date/time range for interviews they were saved on my computer in a password-protected file and printed and placed in a locked file cabinet. Once participants have confirmed meeting criteria, date/time, and method of interview, I sent a confirmation email with phone number or Zoom link. Participants were informed that this is voluntary, and they can choose to end the study at any time.

Data were collected by interviewing the participants by a Zoom meeting or phone call that was at the participant's convenience and since it is by Zoom or phone can be from any location of their choosing. The interviews took place in a private area of my

home that was free from observation and interference of others. There was a one-time interview that followed an interview protocol (Appendix A) lasting approximately 45 to 60 minutes. Audio was recorded on my computer and transcribed using Microsoft Word dictation. I reviewed and verified each transcription captures what was said. Member checking was conducted by emailing a draft of the findings and confirmed I have captured authentic representation for what was being conveyed in the interview process (Lincoln & Guba, 1985). Any feedback received was asked to be returned via email. This ended the participants portion of the study. Once all feedback was collected, I printed the emails and placed then in a locked file cabinet and digital copies saved in a password-protected file on my computer.

Data Analysis Plan

Data analysis helped to organize and transform the raw data received from participants interviews into research findings for this study (Bloomberg & Volpe, 2018). There are several steps to data analysis that began by transcribing all participants interviews verbatim. The transcripts were loaded in Quirkos to help organize and code each interview. Once I have transcribed the interviews on the computer, I read each transcript and highlight words, sentences, or small phrases that appear meaningful to the research questions and framework. Several types of coding were used to support the steps in identifying common terms and phrases that helped answer the research questions and remain open to all possible directions suggested by the data (see Saldaña, 2016).

The first cycle or open coding highlighted and labeled repetitive words, patterns or phrases and give a code to each. A part of the first cycle of coding *a priori* coding was

included to take an in-depth look into Vygotsky's sociocultural theory including ZPD and MKO. A second cycle or axial coding connected the codes from opening coding into categories and subcategories. The last cycle of coding made a connection of the categories and subcategories into themes.

Themes found through the coding process were analyzed in more detail to describe how they help to answer the research questions of the study. This step is to help discover the meaning found within the data. Quotes from the data were included when necessary to support the themes and the relation to the research questions and study. The final step for data analysis was to report my interpretations of these findings (Bloomberg & Volpe, 2018).

Discrepancies are common when conducting qualitative research (Ravitch & Carl, 2016). Discrepancies are valuable and could lead to a more in-depth understanding of the phenomenon (Ravitch & Carl, 2016). I searched for any contradictions or discrepancies when conducting my review of the interviews. There were no discrepant cases found in this study. An unexpected theme was found and is discussed in the results.

Trustworthiness

Trustworthiness is needed to assure credibility in qualitative research and given careful attention during every aspect of the study (Merriam & Tisdell, 2016; Ravitch & Carl, 2016). I began with the credibility of the interviewees that were randomly selected for the study. The participants were pre-K teachers who have completed the specialized early childhood training program between June 2017 – May 2021 to receive their early childhood endorsement that I did not coach through the program. This helped confirm the

study's confirmability by ensuring that the findings reflect the participants' opinions and experiences without adding my biases. Knowing that I have biases, having worked with pre-K teachers throughout the study state, I identified and kept a reflective journal through the study process, including the data collection and analysis. Member checking and early childhood experts review was used to help build the authenticity of the study from the participants. The study shows trustworthiness using key components like credibility, transferability, dependability, and confirmability. These key components are discussed in the following sections (see Merriam & Tisdell, 2016; Ravitch & Carl, 2016).

Credibility

Merriam and Tisdell (2016) described credibility as how the research findings align with the real world. I established credibility by implementing member checking to affirm authenticity and use an early childhood expert to check the findings for biases. Member checking was used by having each participant review a draft of the findings to help ensure the authenticity or my interpretation of what they were trying to convey. The participants were sent a copy of the analyzed data and asked to check authentic representation of what they were trying to convey during the interview process (Burkholder et al., 2020; Lincoln & Guba, 1985). Participants had a chance to also provide feedback on the findings and send them back to be reviewed (Creswell, 2009). A reflective journal was kept recording my own biases throughout the study. Early childhood experts who have over 60 years of combined experience in the early childhood profession and holds an advanced degree reviewed the findings to help ensure no biases

as well (see Burkholder et al., 2020; Creswell, 2009; Lincoln & Guba, 1985; Merriam & Tisdell, 2016).

Transferability

Transferability is established in how the findings of a study are transferred to other situations and includes in-depth descriptions of findings so the readers can compare to other circumstances (Merriam & Tisdell, 2016; Ravitch & Carl, 2016). Transferability in my study was strengthened by providing precise and in-depth descriptions of the population, sample, and methods used for the study. I provided direct quotes and coding examples I found in the data to help the reader determine transferability. Ravitch and Carl (2016) stated that qualitative research should develop descriptive conclusions relevant to the context of the study. I presented clear and in-depth information from the study that supports transferability that can be used in other contexts (see Merriam & Tisdell, 2016; Ravitch & Carl, 2016).

Dependability

Ravitch and Carl (2016) described dependability as the consistency of the methods and procedures used in a research study. These methods and procedures could include managing research biases, the research instruments for collection data, and the alignment of the study. Keeping a reflective journal and ensuring that interview questions are uniform and consistent for each participant helped to manage my biases. I strengthen dependability by aligning the problem, purpose, framework, and research questions with the interview questions I asked the participants (see Ravitch & Carl, 2016).

Confirmability

Confirmability refers to the objective view of the researcher and whether the study is based on the procedure of data collection or influenced by the researcher's own biases or knowledge (Ravitch & Carl, 2016). Detail notes of my reflections and assumptions of the study were kept in a reflective journal. Member checking was conducted by emailing a summary of the findings to confirm I have captured what they were trying to convey. Early childhood experts with a combined of over 60 years of experience in the early childhood profession and advanced degrees reviewed a summary of findings for biases. These processes helped develop the trustworthiness of my study by establishing credibility, transferability, dependability, and confirmability (see Ravitch & Carl, 2016).

Ethical Procedures

Ethical procedures were be followed based on Walden's protocols and include obtaining approval from Walden's Institutional Review Board (IRB) prior to any work beginning on my research. After I secured Walden's IRB approval number 07-14-22-0461924 for this study, I obtained verbal permission from the organization that has the listserv of pre-K teachers before emailing the pre-K teachers an invitation to join the study. An email invitation and consent form were sent to the 13 pre-K teachers who meet the criteria before setting up an interview time. Invitations were sent to pre-K teachers who were coached by a different coach and not coached by me. Participants were asked to email back the words "I consent" if they choose to participate. An alpha-numerical coding was used to keep participants identity confidential. Interviews were audio-

recorded, transcribed, and a summary of the findings sent to each participant to approve the information they provided was conveyed. The participants were informed that if they wish to exit the study at any time, the interview was stop, and participants were thanked for their time.

The data is kept confidential with only my dissertation committee and I having access to the raw data relevant to my study. To ensure confidentiality, an alpha-numerical code was given to each participant. All printed files are kept in a locked file cabinet, and all digital files are kept on a password-protected file on my laptop. Based on the requirements, I will keep all data for five years following the completion of my dissertation. After that time, I will shred any printed materials and erase all digital files from my laptop.

Summary

In this chapter, I presented the study's methodology by including the research design and rationale I have planned for my study. The role of the researcher for the study, my current professional role, professional and personal biases, and how to reduce biases was discussed. Instrumentation for recruiting, selecting, and participating in the study was described. Details were provided on the data analysis plan, ensuring trustworthiness, and ethical procedures. The results of this study are discussed in Chapter 4.

Chapter 4: Results

The purpose of this basic qualitative study was to explore pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. It is crucial to understand pre-K teachers' perspectives on the challenges they face when implementing LM in the classroom to ensure children have a strong foundation in language development. Understanding pre-K teachers' perspectives on the support they need to improve their own LM skills could help close the 30-million-word gap some children face in their development of language (Golinkoff et al., 2019). The following research questions guided the study:

RQ1: What are pre-K teachers' perspectives on the challenges of language modeling in the classroom in a southern state?

RQ2: What are pre-K teachers' perspectives on the type of support needed to improve their language modeling skills in their classrooms?

To address the research questions for this qualitative study, I collected data by conducting semistructured, open-ended question interviews with 13 pre-K teachers. In previous chapters of this study, I discussed the problem, purpose, conceptual framework, and research questions that guided this study. I also presented literature on the importance of teacher-child interactions and LM within the classroom to lay a strong foundation for children's language development for school readiness and success later in life.

In Chapter 4, I review the setting of the study by presenting the participants' demographics that were relevant to the study. I discuss the data collection methods, data analysis process, the results, and an unexpected theme for this study. There were no

discrepant cases found in this study. The evidence of trustworthiness including credibility, transferability, dependability, and confirmability is described. In conclusion, Chapter 4 summarizes the answers to the research questions for this study.

Setting

The semistructured interviews for this study were through Zoom or by phone. Participants for this study were pre-K teachers who completed a specialized early childhood training program in a southern state and received their 122 pre-K Endorsement after completing the program. All participants had at least 3 years of experience teaching in a pre-K classroom. A total of 13 participants were interviewed regarding their perspective on the challenge of LM in their pre-K classroom and the support they feel they need to implement LM.

This study was conducted in one southern state of the United States. The southern state where the study was conducted is one of the highest poverty areas in the United States (Annie Casey Foundation, 2021). Participants were from a mixture of low to mid socioeconomic areas in the state. A total of 13 participants contributed to my study. Seven were pre-K teachers, of which two were community-based, one worked in a special needs (SPED) classroom, one taught pre-K science, technology, engineering, and mathematics (STEM) lab, and three were in regular pre-K classrooms. There was also one director, one kindergarten teacher, one third grade English Language Arts (ELA) teacher, one emotional, behavioral/autism teacher, and two early childhood early childhood coaches. All participants were female, held a bachelor's degree, four held a master's degree, and two held a specialist degree. The participants' teaching experience

in a pre-K classroom ranged from 3 to 26 years. Demographic information of each participant is listed in Table 2. No personal or organizational connections influenced the participants' perspectives or responses at the time of this study.

Table 1

Participants' Demographic Information

Current Position	Years of Experience in pre-K Classroom	Level of Education
EC Coach	3	Bachelors
Community-Based pre-K Teacher	3	Specialist
pre-K STEM Lab Teacher	4	Bachelors
pre-K Teacher	5	Bachelors
3rd Grade ELA Teacher	5.5	Bachelors
pre-K Teacher/SPED	8	Bachelors
EC Coach	9	Masters
pre-K Teacher	10	Masters
Emotional Behavior/Autism Teacher	15	Bachelors
Kindergarten Teacher	17	Masters
Director	20	Bachelors
pre-K Teacher	26	Masters

Note. Each participant had at least 3 years teaching experience in a pre-K program and the minimum of a bachelor's degree.

Data Collection

After receiving approval from Walden University's IRB (#07-14-22-0461924), I began data collection by sending out 49 email invitations to pre-K teachers who had completed the specialized early childhood training program between June 2017 – June 2022 under another coach for the program other than myself. I introduced myself, the purpose of the study, and asked for informed consent to participate in the study by responding to the email invitation with the words, "I consent." The first 2 weeks, I sent out invitations to participants who completed the program under the second coach. I

received only six responses indicating they consented to participate in the study and nine of the emails were non-working emails in the first week. After receiving six responses, I sent out email invitations to 71 pre-K teachers, 34 sent out to the original group from the first 2 weeks, and 37 to pre-K teachers I previously coached through the specialized early childhood training program between June 2017 – June 2022. I continued sending out invitations for a total of 5 weeks and received a total of 17 responses indicating consent to participate in the study. One person did not have 3 years of experience teaching in the pre-K classroom and was not included in the study, so that left 16. As I received their responses to consent to the study, I assigned an alpha-numeric code to each participant (A-1, A-2, A-3, and so forth) to provide confidentiality. I then sent the 16 participants an email with a doodle poll link and asked that each person choose a date and time that was best for them to be interviewed.

Through the Doodle poll, 15 participants chose an interview date and time, and one did not respond to three attempts made by email to select a date and time. Once I received the participants' chosen date, and time, I sent each participant an email with a Zoom invite where they could join by computer or phone. The interviews took place in a private area of my home that was free from observation and interference of others. A total of 13 participants kept their scheduled interviews and participated in the study, while two rescheduled three different times and were not able to participant in the interview. From the 13 who completed the interview process, eight were participants under another coach in the specialized early childhood training program, and I instructed five of the participants in previous years of the same program. Although I worked with five of the

participants in this study, coaching was not in a supervisory role but was more of a support and guidance for specific area of learning in classroom. These five participants completed the program prior to 2021 and therefore I was not providing any type of support to them at the time of this study.

The interviewing of participants took three weeks to complete; August 3, 2022 – August 25, 2022. Each interview was recorded using the Zoom program and saved on my computer that is password protected. At the beginning of each interview, I expressed my gratitude for their participation, reviewed the study's purpose, the voluntary status of their participation, and research questions. Each participant was asked questions based on the research questions (see Appendix A). During and after each interview, I kept a reflective journal to record my thoughts and details for reflexivity. Before the interview ended, I thanked the participants for their contributions to my study and informed them they would receive a summary of the study's findings to review.

After I completed each interview, the interviews were then transcribed from the recordings. During the recording of the interview, Word dictation was used at the same time to help in transcription of each interview. To transcribe, first I listened to the recording, and read the Word dictation for accuracy. Secondly, while listening to the recordings, I read through the Word dictation and made corrections in Word based on what was heard from the recording. Using Word dictation made it easier to capture everything that was said verbatim. I underestimated the length of time that it would take to transcribe the data. The transcriptions of all 13 interviews took 2 weeks to transcribe and review to ensure that that the transcriptions were word for word what was said in

each interview. The audio recordings were saved in a password protected file on my computer and all printed and written documents were stored in a secure locked filing cabinet. There was only one variation from the data collection methods described in Chapter 3. When emailing the 16 participants for a date and time, I used a doodle poll to have each participant to pick the best date and time for their interview. The doodle poll was an added piece to the data collection for an easier way for participants to schedule or reschedule an interview.

Data Analysis

In this basic qualitative study using semistructured interviews, I explored teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. Each participant was asked the same open-ended questions in the same order in the interview process. The audio-recorded interviews from all 13 participants were transcribed using Microsoft Word dictation. To begin the data analysis process, I printed each interview transcription to review by reading and rereading line by line. This helped me to familiarize myself with the data. Transcripts were reviewed in the order of the alpha-numeric codes beginning with A-1 and continuing through A-16.

A Priori Codes

I started with a priori coding by highlighting phrases and words related to the study's framework from Vygotsky's (1978); sociocultural theory, ZPD, and MKOs (Burkholder et al., 2020). The codes were then grouped into categories where I

discovered four categories that included: language acquisition, low socioeconomic status, children's language developmental level, and language knowledge (see Appendix B).

Generating Initial Codes

After completing the A priori coding and familiarizing myself with the data, I coded the data in two cycles: (a) open coding, and (b) axial coding. Saldaña (2016) stated that open coding is used to look for repetitions, groups, and patterns in the data. In the first cycle of open coding, I reread through the transcripts and pull-out repetitive words, common terms, phrases, and concepts related to the conceptual framework and research questions in Quirkos to highlight and gather codes in one place. Some of the same codes emerged in both A priori and open coding. A sampling of codes that were discovered were: *encounters, self- and parallel talk, discussions, experience, language needs, language exchanges, lack of: language, interactions, exposure, experience/knowledge/instruction, boot camp, CLASS training, assistant, teachers, training/coaching, collaboration, conversation, vocabulary, self-talk, parallel talk, open-ended questions, repetition,* and *extension.* Once I completed the first cycle of open coding, I then began a second cycle of axial coding to connect the codes found combining the codes into categories (see Appendix C). Four themes emerged from the categories that were found when combining the open and axial coding.

After I reviewed the transcripts using open coding, I reviewed the codes for axial coding to group codes into categories. I discovered nine categories from A priori and open coding that included: *language acquisition, low socioeconomic status, challenges with language modeling, lack of focus on language, teachers' knowledge, professional*

development, support, language modeling activities, and language modeling strategies. Categories from the A priori coding and open coding were then combined to create 4 themes that include: *challenges on implementing language modeling, challenges with professional development for language modeling, support needed for pre-K teachers, language modeling activities and strategies being used in the classroom.* Table 2 includes the connections between the categories and themes.

Table 2

Categories and Themes

Categories	Themes
Language Acquisition	Challenges on Implementing Language Modeling
Low Socioeconomic Status	
Challenges with Language Modeling	
Lack of Focus on Language	
Knowledge	Challenges with Professional Development for Language Modeling
Professional Development	
Assistant Teachers	Support Needed for pre-K Teachers
Training/Coaching	
Collaboration	
Language Modeling Activities	Language Modeling Activities and Strategies Being Used in the Classroom
Language Modeling Strategies	

Note. Categories and themes that emerged from data analysis.

Ravitch and Carl (2016) stated that discrepant cases are common in qualitative research. I checked for contradictions and discrepancies in the data collected from the semistructured interviews. Each participant gave their perspective on the challenges of implementing LM and the type of support they need to improve LM skills in the

classroom. I found no discrepancies in the data. Although discrepant cases were not found in the data collected, an unexpected theme emerged and is included in the results.

Results

In this study, I explored pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. I used 14 open-ended interview questions to collection data during the semistructured interviews (see Appendix A). In this section, I discuss the results of the study by presenting the themes that emerged from the data and include descriptions and quotes that support each theme; *Challenges on Implementing Language Modeling, Challenges with Professional Development for Language Modeling, Support Needed for pre-K Teachers, and Language Modeling Activities and Strategies Being Used in the Classroom*. There were no discrepant cases found in the study. The themes that emerged supports the study focus and research questions RQ1: What are pre-K teachers' perspectives on the challenges of language modeling in the classroom in a southern state? and RQ2: What are pre-K teachers' perspectives on the type of support needed to improve their language modeling skills in their classrooms? with one unexpected theme emerging; *Language Modeling Activities and Strategies Being Used in the Classroom*. The categories and themes that emerged (see Table 5): *Challenges on Implementing Language Modeling, Challenges with Professional Development for Language Modeling, Support Needed for pre-K Teachers, and Language Modeling Activities and Strategies Being Used in the Classroom*.

To answer the first research question that addresses teachers' perspectives on the challenges of implementing LM, it is important to note the teachers' perspectives of what influences children's language development and what enhancing or challenges language development. Two themes emerged that answered RQ1: Theme 1: Challenges on Implementing Language Modeling and Theme 2: Challenges with Professional Development for Language Modeling. RQ2 had two themes emerge from the data: Theme 3: Support Needed for pre-K Teachers and Theme 4: Language Modeling Activities and Strategies Being Used in the Classroom. Theme 4 was an unexpected theme that emerged from the data analysis.

Theme 1: Challenges on Implementing Language Modeling

Teachers answered interview questions dealing with the challenges of implementing LM in the pre-K classroom. A prominent theme that emerged from the data analysis was the different challenges on implementing LM to influences children's language development. Challenges included knowledge of teachers and peers, low socioeconomic status of the children's family, and the developmental level the children have when entering in the pre-K classrooms. Most of the participants expressed these challenges becoming even more of a challenge when implementing LM in the pre-K classroom since you need figure out where the children are developmentally before you can gain the knowledge to help individual children no matter their socioeconomic background. The following paragraphs shows the different challenges that teachers discussed.

Language Acquisition

Many participants stated how children learn language is influenced by the people around them and is a challenge to differentiate LM for each child. A-1 stated, “they had never, very few of them had ever had a conversation with somebody other than their parents, or a family member” because “children…not have ever been in a daycare setting.” A-2 felt if “… they sat at home with a grandmother or great grandmother. They may have lower vocabulary than those of their peers that had been into like a daycare type programs, or child find, or something like that, or a Head Start program.” A-4 expressed, “they’re not necessarily low learners, they’re just not exposed to language enough in the classroom or at home.” A-9 agreed “also, sometimes it’s a language that, you know, they’ve learned in their home or their family.” A-11 said, “barriers for those that are verbal, it’s just being able to transfer that information to the students so they can understand it on their level.” A-11 also felt “that dialect of the parents” influenced the language development while A-13 voiced that “the last probably five or six years, we are seeing an increase in some of our students coming in that are pretty much nonverbal.” Participants indicated that this was challenging to begin LM until they determined children’s language developmental level.

Low Socioeconomic Status

Several participants found that it was the socioeconomic status of the families and children that influenced children’s language development and communication skills. A-1 disclosed that “we have a low socioeconomic status we’re in, you know, a low-income area below 50%. They don’t come to me with those conversational skills.” A-2 conveyed

"more urban settings, they came from home generally had, you know, I would say at least 1000 to 2000 words less vocabulary than those that had been in the school type setting." A-9 explained that some "problems with children that haven't been to grocery stores, haven't been over to Wal-Mart, and a lot of times socioeconomic situations don't allow the children to have that opportunity." This goes along with Hart and Risley's (1995, 2003) study about how children from low socioeconomic have a 30-million-word gap compared to those of their peers.

Challenges with Language Modeling

Three participants discussed challenges of using various strategies of LM in the classroom. A-2 disclosed "the hardest, and I have no idea why, it was parallel talk." A-4 stated, "a lot of our problem is we don't really dwell on the discussion part of it." A-5 expressed "I did have the knowledge needed but I didn't have the experiences needed." Other teachers indicated that other challenges were more about the needs of the children and not strategies.

Five of the 13 teachers experienced how some language needs of the children are very different making LM challenging. A-7 shared "especially depending on the mix of your group, you may have some volatile children, special needs, different things like that." A-9 stated, "they might have, you know, we find children that are on spectrums, and they don't want to say things." A-11 expressed "a lot of the barriers that I have seen over the course of my educational endeavor, it has been home based and with special ed students, those that are nonverbal, dealing with all the domains of preschool. It has been a challenge when you don't have the experience teachers that are ready for those kids that

are nonverbal." A-13 said, "in the last probably five or six years, we are seeing an increase in some of our students coming in that are pretty much nonverbal." One of the teachers connected language needs with dual language learners. A-10 revealed "a lot of dual language learners and that has been a challenge that has ever growing over the last couple of years. They don't' speak the language they're getting very frustrated so we have done something to help with that but that is a big challenge."

Some participants expressed the challenge of having conversations with the children. A-1 felt "they (children) didn't come to me with those conversational skills" so "we as adults, we guided, you know, their conversations" because "especially in the age of technology, they don't have to have a conversation anymore." A-4 said, "A lot of our children had trouble with conversating with other children, conversating with adults." A-2 stated, "I'd teach them, you know, how you introduce yourself, how you interact with another, how you respect their boundaries, but also, you know, you don't just grunt at people." A-5 discussed children using "nonverbal cues like the pointing and looking and the gestures and used that as an exchange in conversation." A-4 reported "I would just dig and dig and dig until they would talk more." Several teachers discussed using different activities to meet the conversational challenge and help children's communication skills. Teachers shared different issues within the classroom that determined the challenges of LM. There were some discussion how other challenges viewed a lack of focus on language that caused challenges.

Lack of Focus

Teachers addressed the lack of focus on language in the pre-K classroom as another challenge. A-4 said, “I tell you that language is not really looked at that in that age, it’s really not. Everybody has gone to these test scores, and they don’t focus on the language as much and how the kids talk, and it shows when they get in the older grades.” A-4 “They wanted us to basically skills, skills, skills, and drill. Not a lot of talking. Not a lot of doing the fun, I can them fun centers.” A-6 expressed “we had a principal that didn’t want talking in the cafeteria and so that hindered us when we were, you know, supposed to be pushing in language and allowing the kids to talk as much as possible while they were eating. So that was kind of a hindrance.” A-11 stated, “right now, it’s so many programs and protocols and everything that we have to use, I just want to be able to teacher, you know, and not try to incorporate all the thousands of programs that districts are buying.” One teacher saw technology as a challenge with children’s language development. A-4 also stated, “phones, iPads, games are awful. The kids are being put in front of something to babysit them while mom and dad take care of what they need to take care of. It’s more in that technology and more into that stage where they’re not having to communicate with anybody, they’re just looking at a screen.”

A few teachers shared their thoughts on the lack of language interactions children have affects their language development. The lack of language interactions comes from short amount of time with parents, peers, and attending pre-K classroom. A-2 expressed “a lot of times kids had, you know, parents that worked several jobs to do what they had to do to take care of their kids so there may not have been a lot of interactions when mom

and dad got home at night." A-5 revealed some "challenges that you just see all the time in the classroom is that children who are still reluctant to speak. It's like pulling teeth to get them to respond. They were still just really nonresponsive." A-9 expressed "children need to be exposed as much as possible to language. Children that don't always have a good language ability to speak to you. Children that haven't been exposed to different ways to speak and to use language. They've, you know, been at home currently with COVID." The lack of interactions makes it challenging to implement LM through conversations with children.

Many teachers talked about how children's lack of exposure to language can bring challenges. A-1 described "it was very hard for me to have open communication with my children, my students. They had never, very few of them, had never had a conversation with somebody other than their parents or a family member. Children who may not have ever been in a daycare setting." A-4 explained "they're (children) not necessarily low learners, they're just not exposed to language enough int the classroom or at home. It was like they couldn't understand how to answer a question without just one word." A-9 stated "also, sometimes it's a language that, you know, they've learned in their home or their family. I mean I have one now that when she needs to use the restroom, it's an ooey." A-11 said, "when it comes to language and the barriers for those that are verbal, it's just being able to transfer that information to the students so they can understand it at their level." A-12 expressed "they're not taught how to communicate." Teachers find different ways to model language based on the interactions and development levels of the children or their ZPD they enter their classroom. Golinkoff et al. (2019) and Justice et al.

(2018) found that LM with children greatly benefits language development. Teachers revealed that they could use more professional development on LM with the children in the classroom.

Theme 2: Challenges with Professional Development for Language Modeling

Several teachers reported that part of the challenges of LM is just the experience, knowledge, or training on language or LM. A-5 said, "I did have the knowledge needed but I didn't have the experience needed." A-6 communicated "I need to be knowledgeable on how to make, you know, that domain in that tool, you know, higher to be more effective as, you know, a teacher and one who should be modeling language all day long." A-10 revealed "from an observer respective some of the language that is used, it's not necessarily grammatical, grammatically correct and so children are learning it incorrect." A-13 stated "challenge of finding good training for them, as well as teachers, to kind of make sure we understand what it is we need to be. Making sure our teachers have the training they needed to continue to work with those children to increase their language skills." A-16 voiced "training, I guess. Just knowing how to enrich language in the preschool." Different types of professional development can help teachers to gain the knowledge and experiences they may need.

Professional Development

Teachers offered their perspective on the challenges of receiving a one size fits all type of professional development to cover LM through the boot camp process. Most teachers expressed that attending boot camp and going through Cox Campus (an extension of boot camp) was where they received most of the professional development

on LM and either don't remember all of the training or it had been a long time since the training. A-1 expressed "I never went to any professional development outside of the boot camp" but "when it came time to get back in my classroom, I'd already honestly forgotten a lot of information that we were given because it, you know, I guess that just happens if you don't use it right then." A-6 conveyed "boot camp, it's been probably three years for me now." A-12 also disclosed "the boot camp was six years ago." A-7 revealed there was not a lot of LM training "other than what all was included in boot camp and the Cox Campus courses."

The CLASS observation tool is used in pre-K classrooms, but teachers challenge is not having in-depth training on the tool especially on the LM indicator. A-2 voiced "I remember doing CLASS trainings… I can't really remember like the specifics toward the LM (indicator)." A-13 said, "we briefly talked about CLASS seven or eight years ago, never really did a whole lot of training with that (CLASS)." A-6 stated, "but nothing really formal on, you know, LM. I think the trainings that I've had has been on CLASS as a whole." A-9 echoed saying "a workshop showing us what CLASS should look like…but I don't know that I've ever personally had that specifically taught."A-10 explained "I don't remember what all CLASS has in there as far as LM." Teachers indicated a challenge when discusses professional development around LM. They discussed other support they need to implement LM in the classroom.

Theme 3: Support Needed for pre-K Teachers

To answer the second research question that addresses pre-K teachers perspectives on the type of support need to improve their LM skills in their classrooms, it

is important to note the teachers' perspectives on the support they feel they need through assistant teachers, training, coaching, or collaboration. There was one theme that emerged to answered RQ2: Theme 3: Support Needed for pre-K Teachers and the unexpected theme, Theme 4: Language Modeling Activities and Strategies Being Used in the Classroom, emerged in connections with how participants used the support they previously received.

A prominent theme that emerged from the data was teachers' perspective of the support they needed on LM and children's language development. All 13 teachers felt they could use more support when it came to LM and the training needed to improve LM in the classroom. While a few teachers felt the support could come in form of assistant teachers and materials, many of the teachers felt they needed more training on implementing LM. Some said that coaching within their classrooms would also be helpful to see LM being used in a real pre-K setting. Most of the teachers stated they received professional development on the CLASS instrument as a whole, but the professional development was not specific to LM.

Assistant Teachers

All 13 teachers expressed the type of support they need to implement LM within their classroom for children's overall language development. A few teachers discussed how support was needed in the classroom with assistant teachers to allow time for teachers to talk with more intentional purposes with children. A-7 revealed "a challenge is the lack of support staff in the classroom." Stating "as far as literal support, is having staff in your classroom. It's more not of giving the teachers support but of staff the room"

because “sometimes assistance kind of tend to be abused or overused and they might get pulled from your classroom to do something else so that leaves you at a deficit.” A-4 shared “I had an assistant, but she wasn’t always there, she was pulled for other things.” A-13 advised “make sure assistants are just as strong in their language as the teachers are.” This in-room support of assistant teachers would help give teachers time for LM with the children. However, another suggestion teachers had was training or coaching specifically on LM.

Training/Coaching

Many of the teachers felt that what they needed more of was professional developing through training or coaching with other pre-K teachers or professionals. A-2 stated, “support of course comes from like very thorough training. Support from your district that somebody is going to go out there and find what’s the best for your pre-K program.” A-4 said, “and more training. It would have helped if I’d had more training with how to help children develop their language. They give us ideas for all the other kinds of training, but language is not one that they really focus on.” While training would be helpful some other teachers felt they would benefit more on coaching or modeling being within their classroom. A-5 explained “I think the biggest support would be modeling. Watching someone else use LM techniques.” A-6 agreed “Coaches that come in and you know, tell us the things we’re supposed to be doing. They give us resources that we can sue in the classroom to help us out to keep that language going, you know, in the classroom.” A-13 expressed “but I think every teacher needs, they need those trainings.” A-16 voiced “more hand-on, I guess, involvement from the training, like

actually seeing someone extra do these strategies in the classroom with the students after we have gone through the training or read all the materials. Then you would, I guess, have observations to see whether or not you are actually using it in the right way, get feedback from someone who's more knowledgeable and let you know your pros and cons." Teachers implied that having others come in with more knowledge and experience to share on LM in the classroom would be helpful in supporting enhancing their LM implementation. Other suggestions from teachers were being able to collaborate with others from the same area and age group to support one another during professional learning communities (PLC).

Collaboration

Some other teachers felt that collaboration with other teachers in their same area of pre-K is needed. A-7 proposed "we have extra staff come in just for nap time so after the teachers have their lunch break, all of the three-year old teachers could go have a planning meeting and have one of them serve as a lead teacher to preside." A-10 identified PLCs "where the teachers come out in pre-K all come together and the teachers and directors, and we talk about some of the things we're seeing, some of the things that we need help with, some of the lessons that we're doing that went really well in our classroom." A-12 said, "a lot of, a lot of collaboration, you know, we kind of, it's not necessarily the director that hands that down, but like the teachers share their materials, if that makes sense, with each other." A-2 stated, "collaboration with people that teach the same grade are important. All the pre-K teachers just the pre-K teachers with, you know, our pre-K director and we would have like a two-hour meeting." Teachers indicated that

during these collaborations is where they could share different activities and strategies each other successfully implement in the classroom.

Theme 4: Language Modeling Activities and Strategies Being Used in the Classroom

During the data analysis, an unexpected theme emerged on activities and LM strategies participants used to help with the challenges of LM in the classroom. Although the participants feel they need more training, they discussed activities and strategies they practice based on trainings they have had. The activities and strategies were used to help enhance children's overall language development and build children's conversational skills. Some of the strategies that participants used were linked to the LM indicator as part of the CLASS observation tool. These activities and strategies are LM approaches that include conversational skills, vocabulary, self- and parallel talk, open-ended questions, and repetition and extension. The activities teachers are currently using in the classroom help encourage children to use language and communication skills.

Language Modeling Activities

Several teachers discussed using different LM activities to meet the conversational challenge and help children's communication skills. A-1 said, "I was trying to encourage them to build their conversation skills and how to answer a question verbally." A-9 voiced "I have two old phones, the kind that used to hang on your wall, a rotary. And so, they enjoyed the process of just talking to each other and play like that." A-12 stated, "I do sign language, and I pair that with, you know, like, are you hungry? Do you want to each, or do you need to go potty? And so, I'm pairing the sign language with the words to go with it."

Other participants viewed building vocabulary as a strategy when increasing children's language development. A-11 expressed "when it comes to language and increasing that vocabulary usage, they have to be able to use it across the board." A-2 stated, "model just when you talk to them, more vocabulary words, making sure that you tried to use those richer vocabulary words when you talk." A-5 said "I would pick me out five of those words that you know really wanted to zone in on, and I would paste them around the room with the word and I would put a picture beside it so that I could draw my attention to it. But it was a reminder to use those words all throughout the day and not just at whole group. So, when we started doing that more, we noticed children started using the words more." A-13 said, "a lot of words, like a word wall, focus wall where we go over words, we try to use those words on a daily basis." Different activities help teachers meet the needs of all children in their classroom. Teachers also indicated different strategies they currently use to encourage children's language use.

Language Modeling Strategies

Several participants shared strategies for LM that is observed by the CLASS observation tool like self- and parallel talk, open-ended questions, repetition, and extension. Two strategies that six of the 13 participants shared using in the classroom were self-talk and parallel talk. A-5 stated that the teachers would "say what the child was doing, they were using parallel talk on that child." A-1 conveyed how "(I) pretend to think out loud" and the children "have their thoughts out loud." A-5 revealed that "nonverbal students, I really think that, you know, the self-talk was huge for them" and

how “they (children) were using self-talk too because they would hear us do it, you know, how they liked to mock the teacher.”

Other participants discussed how open-ended questions were a strategy they used in the classroom to help children use their language more. A-1 talked about how using open-ended questions to “get their ideas, you know, and make them talk by providing open-ended prompts” since “when I would interact with them, would always be open-ended questions and very rarely yes or no questions.” A-4 stated that “when I would ask them questions during story time, I would say, ‘Why do you think that happened? What do you think is gonna happen? Why do you feel that way?’ and they loved answering those kinds of questions cause they weren’t wrong answers.” A-6 described open-ended questions as “higher order thinking questions, you know, just being able to ask those questions and pull information from pre-K children” by “asking as many open-ended questions as I can.” A-16 voiced that “we post open-ended questions in every center” so “if we need them to push that conversation, they have a list of open-ended questions that are specific to that center.”

A few participants said they also used repetition and extension as a strategy. A-5 talked about “model language, like a more sophisticated language that we wanted them to use. So, repetition and extension is a great use of that.” A-7 stated, “it’s kind of like I hear you saying, so you’re restating what they’re saying, so they can hear what they’ve said that no I really meant this.” A-2 discussed that “I know expansion you would add onto the vocabulary.” Teachers proposed these strategies to show how they implement LM in their classrooms to help all children enhance their language development in fun ways.

Evidence of Trustworthiness

Trustworthiness is needed to assure credibility in qualitative research and given careful attention during every aspect of the study (Merriam & Tisdell, 2016; Ravitch & Carl, 2016). As part of the research process, the study shows steps in protecting trustworthiness using key components of creditability, transferability, dependability, and confirmability. These key components help to ensure that the findings reflect participants' opinions and experiences without adding my biases. Although I coached five of the participants in this study in prior years, coaching was not in a supervisory role but more of a support and guidance for specific area of learning in classroom. While trustworthiness cannot be fully guaranteed, the steps in protecting these key components are discussed below (see Creswell, 2009).

Credibility

Credibility was first established through one-on-one interviews. Interview questions asked for teachers' perspectives and follow-up questions to ensure the topic was thoroughly discussed. Merriam and Tisdell (2016) described credibility as how the research findings align with the real world. I gave a thick rich description of the demographics and the socioeconomic areas of the participants. I used member checking to affirm authenticity of the findings by emailing each of the participants a draft of the findings for review and help limit biases. Findings were reviewed to ensure my interpretation was what they were trying to convey during the interview process and each participant responded with feedback if any were needed (Burkholder et al., 2020; Creswell, 2009; Lincoln & Guba, 1985). I had early childhood experts review the

findings for biases (Burkholder et al., 2020; Creswell, 2009; Lincoln & Guba, 1985; Merriam & Tisdell, 2016). I also kept a reflective journal recording my own biases throughout the interview and data analysis process.

Transferability

Transferability is established in how the findings of a study are transferred to other situations and includes in-depth descriptions of findings so the readers can compare to other circumstances (Merriam & Tisdell, 2016; Ravitch & Carl, 2016). Transferability is addressed by providing precise and in-depth descriptions of the population, sample, and methods for this study. I provided direct quotes and coding examples of the data analysis. Merriam and Tisdell (2016) stated that transferability is achieved when the reader, not involved in the research, can identify, and see what is being read. Transferability is determined by the reader rather than the researcher. I had early childhood experts to review the thematic data for bias and help establish credibility and trustworthiness in the data analysis process.

Dependability

Dependability is the consistency of the research methods and data collection used in a research study and stands the test of time (Ravitch & Carl, 2016). I kept a reflective journal to help manage my biases and to ensure that the interview questions are uniformed and consistent for each participant. I ensured that the interview questions were reliable and aligned with the research questions. As the researcher, I was open through the data collection and analysis which provided the connection between the study focus and research questions. To increase dependability, I transcribed the interviews for

analysis using Word dictation program. Direct quotes from participants were used to ensure what was being said by the participants were conveyed in the analysis. Member checking was used to ensure accuracy of the findings based on participants interviews. Early childhood experts reviewed and examined the findings to help establish research bias.

Confirmability

Confirmability refers to the objective view of the researcher and whether the study is based on the procedure of data collection or influence by the research's own biases or knowledge (Ravitch & Carl, 2016). I established confirmability in this study by detailing the research process and recording the interviews. I interpreted the results from the responses of the participants and gained an understanding of how the participants responses aligned with the research question. Detail notes of my reflections and assumptions were kept in a reflective journal, a summary of findings was sent to confirm what participants were trying to convey, and early childhood experts reviewed a summary of the findings for biases. Ravitch and Carl (2016) stated that establishing credibility, transferability, dependability, and confirmability helps support trustworthiness of this study.

Summary

In Chapter 4, I discussed the setting, data collection, and methods for data analysis. Also, discussed are the results of the study and evidence of trustworthiness. This qualitative study addressed an existing gap in the practice of LM and provide knowledge on pre-K teachers' perspectives on the challenges of implementing LM and the type of

support pre-K teachers need to improve children's language development. The research setting included 13 pre-K teachers who completed an early childhood specialized training program and were in a southern state. Interviews were conducted with all 13 participants with an average of 10.46 years of experience teaching in a pre-K program (see Table 1). This chapter presented findings from the interviews and presented four themes that emerged from the data analysis and supports the study focus and answered the research questions for this study. Two themes: challenges on implementing LM and challenges with professional development for LM emerged to answer RQ1: What are pre-K teachers' perspectives on the challenges of language modeling in the classroom in a southern state? Two themes: support needed for pre-K teachers and implementation of activities and LM activities and strategies being used in the classroom to answer RQ2: What are pre-K teachers' perspectives on the type of support needed to improve their language modeling skills in their classrooms? Results of this study showed that pre-K teachers feel there are influences on children's language development that affect how they implement LM and that more support is needed in the classroom in form of staff, training, and coaching. In Chapter 5, I will discuss an explanation of the findings, limitations of the study, recommendations for further research, and the potential of social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this basic qualitative study was to explore pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. Knowledge gained through the study could lead to a positive social change by offering insight on the support teachers may need to implement LM and supporting those needs to help teachers develop children's communication, vocabulary, and language skills needed to succeed in life. Supporting teachers' needs could help close the 30-million-word gap (Golinkoff et al., 2019) by essentially filling the gap in research on LM in pre-K classrooms. This chapter presents a discussion of the findings, limitations to the study, recommendations for future research, implications of the findings, and a conclusion.

Interpretation of the Findings

Larson et al. (2020) found language development provides children with the skills needed to learn about the work around them, communicate with others, and build cognitive development for success in school and later in life. The research interviews offered insight into the perspectives of pre-K teachers concerning the challenges of implementing LM and the type of support they need to improve LM skills in a southern state. The semistructured interview responses were transcribed and analyzed. Four themes emerged from the data analysis: (a) challenges on implementing LM, (b) challenges with professional development for LM, (c) support needed for pre-K teachers, and (d) LM activities and strategies being used in the classroom. A summary and interpretation of the findings are presented below.

The conceptual framework, Vygotsky's sociocultural theory (1962) can be noted here supporting how children develop through social interactions they have with others from beginning of life. These findings also resonate the conceptual framework's MKO and ZPD in that teachers' challenge is to discover the language developmental level children are on before they can implement LM based on children's individual needs and that could be established from the child's socioeconomic environment. Daneshfar and Moharami (2018), Lytle and Kuhl (2018), and Wu (2018) found children's exposure to social interactions, environments, and culture, by parents and caregivers (MKO), play a critical role in language development and ZPD is not just based entirely on direct teaching of language skills. In the current study, participants findings reflected the challenges of the influences of language development when implementing LM which include children's family, socioeconomic status, strategies of LM, different language needs of children, conversational skills, and the lack of focus on language, interactions, and exposure at home and in the classroom.

Theme 1: Challenges on Implementing Language Modeling

Challenges on implementing LM emerged as a theme and was supported by the findings from the interviews to help answer RQ1. Children's interactions with MKO and their environments play a critical role in their receptive and expressive language development (Vulchanova et al., 2017). While Tulviste and Tamm (2021) described language environment as how many words children hear, and conversational turns they take but not sure if one or all together are crucial for language development. The primary

responses from the participants delt with language acquisition, low socioeconomic status, challenges with LM, and lack of focus.

Previous research state children's language acquisition/development within the first 3 years are essential for building vocabulary, communication skills, school readiness, and success throughout life for all children. Helping children's language development can come from several different strategies like sharing information, modeling, and feedback (Biel et al., 2020). Findings show participants have a challenge with children's language acquisition is based on their environment before coming into the classroom. The participants discussed how the different language development level children presented were a challenge to implement LM. These findings align with research by Justice et al. (2018) which stated that the influence of nature versus nurture can be seen in both the child's genetics (nature), as well as the child's environment (nurture). Results also associate with Tulviste and Tamm (2021) when they described language environment as how many words children hear and conversational turn taking children take but did not show if it was both, words and conversational turn taking, together that are crucial for language development.

Outcomes show that participants see the low socioeconomic status have children coming into the classroom needing more help with building conversational skills and vocabulary. Children entering classrooms from low socioeconomic backgrounds have lower vocabulary than their peers which is indicated in past research where Biel et al. (2020) stated children in specific socioeconomic backgrounds may need more language exposure from MKO. In 2019, the study state had the highest percentage at 28% of

families living in poverty (Annie Casey Foundation, 2021). Hart and Risley (1995, 2003) found a 30-million-word gap by age 3 in children from low-socioeconomic status backgrounds from lack of language exposure and interactions. Teachers' LM is greatly needed to help close the 30-million-word gap and prepare children's language development for reading and school success (Golinkoff et al., 2019).

Results of this study showed different language needs of the children and conversational skills of the children made it challenging for teachers when implementing LM. Teachers see children coming into the classroom on different developmental level which supports past research that discussed English Language Learners and children on the autism spectrum (Milam et al., 2021; Neugebauer et al., 2020; Partika et al., 2021). Outcomes also show teachers have challenges with strategies of LM as discussed by Biel et al. (2020) who discovered that some LM implementations (sharing information, modeling, and feedback) were used more with children, while other implementations (prompting, guiding, and scaffolding) are used less with children in the classroom.

Some findings showed teachers are faced with challenges when there was a lack of focus on language and more focus on academics with less talking among or with children. Pianta et al. (2020) found that children were on lower levels with task orientation, social skills, and closeness and higher with conflict when spending more time in structured academic instruction. The focus on academics also indicates what Lake and Evangelou (2019) discovered in the United Kingdom where many early childhood teachers become confused between their role as assessors who complete developmental paperwork and their role in supporting children's language development through

interactions with children. It is through motivation to use language and the opportunities for children to practice language skills to ensure they process oral and written communication skills later (Petscher et al., 2018). Children need language skills to be successful in school and later in life. Teachers need to have more professional development on LM to help children with language skills.

Theme 2: Challenges with Professional Development for Language Modeling

The second theme that emerged for this study was challenges with professional development for LM. Past research stated that knowledge that pre-K teachers have on language is important since their knowledge informs how they will select activities, materials, and interact with children in the classroom (Piasta et al., 2019). PD is increasingly used to improve teachers' knowledge and skills, update and enhance their practices on how children learn, and implement better learning practices when interaction with children (Gómez & Ford, 2017; Kidd & Rowland, 2021; Markussen-Brown et al., 2017). Based on this study's findings, participants reported that a part of the challenge of LM is the experience, knowledge, and trainings they receive. The PD come in a one size fits all when pre-K teachers are put into trainings with teachers in other age group. When discussing PD specifically for LM participants stated the PD was from one PD program or participants either completed the training several years prior to the study or do not remember other trainings that focused exclusively on LM. The challenges of PD findings associate with the conceptual framework of MKO in how teachers learn from their peers through PD. Many early childhood educators do not feel they have the skills or knowledge to enhance children's communication development, and expressed

professional development is needed to help implement language development practices (Brebner et al., 2017). PD is a way for teachers to gain the knowledge needed to enhance children's language skills. Teachers conveyed other support that is needed within the classroom to enrich the knowledge and skills needed in the classroom.

Theme 3: Support Needed for pre-K Teachers

Another theme that emerged to help answer RQ2 is support needed for pre-K teachers. Although many teachers felt they had some knowledge on helping children's language development with LM, they considered that more support was needed to implement LM better within the classroom. Darling-Hammond et al. (2017) identified important attributes of effective PD that include content focused topics, active learning, collaboration, models of effective practices, feedback, and reflection. Primary responses with this theme delt with support from assistant teachers, training/coaching, and collaboration with other pre-K teachers.

Results of this study show that teachers thought more support with assistant teachers being in the classroom would provide them time to implement LM more with the children. Prior studies have discussed what assistant teachers contribute to the classrooms or the training and development of assistant teachers (Jacoby, 2021). The participants of this study discussed that assistant teachers do need more training in LM but what was needed most was their presence in the classroom since they felt teachers were used for other duties sometimes outside of the classroom. There is a gap in literature when discussing how much time assistant teachers contribute to actual classroom activities. Jacoby (2021) discussed a larger study that will research the way assistants and lead

teachers spend their time during a school day more deeply hoping to discover how much time is engaged in instruction.

Participants felt more support from training specifically on LM or language development would be essential in gaining more knowledge on implementing LM in the classroom to build children's language development. Earlier research discovered the effectiveness of language-focused PD in improving children's language and communication development and helping teachers reattain, implement, and increase LM PD (Kidd & Rowland, 2021). PD should support teacher's intentional efforts to embed language-learning opportunities through interactions with child-led activities and strengthen their knowledge to support children's language development through scaffolding strategies and language intervention (Ottley et al., 2018; Pentimonti et al., 2017; Piasta et al., 2019). Ascetta et al. (2019) discussed the importance of efficient and effective PD to improve child outcomes and build high-quality instructional practices.

To ensure trainings are successful, participants would need to be fully engaged to change the implementation of practices within the classroom from the information gained from the training (Buschmann & Sachse, 2018). The results of this study show participants felt training would be helpful but having a coach come in to demonstrate LM in a normal classroom setting would be one of the best supports for implementing LM. In previous research, Gardner-Neblett et al. (2020) found that participants who chose to go through personalized support within the classroom as part of their PD felt their knowledge was enhanced and were more confident in implementing the knowledge they had learned. Coaching can improve teachers' practices in the classroom when the coaches

follow a standardized and structured model around the topic of training needed (Pianta & Hamre, 2020).

Collaboration in education is teachers working together sharing knowledge, skills, and experiences to improve student outcomes (Hargreaves, 2019). This study found that pre-K teachers collaborating with other pre-K teachers would be beneficial to support the implementation of LM in the classroom. In other research, teacher collaboration included practices such as exchanging ideas and materials, discussing strategies for specific students, developing new activities and strategies (Liu et al., 2021). Hargreaves (2019) also discussed how collaboration builds openness, trust, and support among teachers.

Theme 4: Language Modeling Activities and Strategies Being Used in the Classroom

LM happens when teachers model language and engage children in back-and-forth dialogue to build on their language development (Kirsch, 2021). An unexpected theme that emerged from the data was LM activities and strategies teachers already implement in their classrooms from prior PD they have attended. The primary responses from this study delt with LM activities and LM strategies.

Researchers discussed how language games have been used as activities to build language, vocabulary, and communications skills in the classroom (Read et al., 2018). LM activities discussed in this study helped provide children opportunities for building on their vocabulary or conversational skills. Prior research stated that teachers believe that engaging in play is important to language development (Hagen, 2018). Hadley and Newman (2022) found that play activities scaffold by adults allow for child-led play

while allowing teachers to scaffold the play with learning objectives and goals through materials and guidance.

Teachers use LM as a strategy to help foster language development, language and communication skills and guide children to use and develop more complex language and critical thinking skills (Pawlak, 2019). Results of this study found LM strategies included self-talk, parallel talk, open-ended questions, and repetition and extension to help build children's language development. CLASS observation tools views LM implementation through frequent conversations, where teachers use back and forth exchanges, advanced language, where teachers use a variety of words and make connections to familiar wards or ideas, repetition, and extension, where teachers repeat and extend children responses, self-talk (ST), where teachers narrate their actions, parallel talk (PT), where teachers narrate the children's actions, and open-ended questions (OEQ) teachers use to encourage children's use of language (Pianta et al., 2008). In prior research, Biel et al. (2020) discovered that some LM implementations (sharing information, modeling, and feedback) were used more with children, while other implementations (prompting, guiding, and scaffolding) are used less with children in the classrooms. Golinkoff et al. (2019) and Justice et al. (2018) found that LM with children greatly benefits language development. This supports the conceptual framework, Vygotsky's (1978) sociocultural theory through active engagement children learn the process of language and develop for school readiness and success later in life. Previous studies on LM strategies produced more research on modeling language for ELL children or children on the autism spectrum showing a gap in literature on initial LM strategies (Milam et al., 2021; Neugebauer et

al., 2020; Partika et al., 2021). LM activities and strategies are needed for all children to enrich their language development for school readiness and success later in life.

Limitations

Limitations are often beyond the researcher's control but is important to discuss so the reader can identify directions of possible future research (Creswell & Poth, 2016; Green, 2018). Limitations that emerged from this qualitative research study were pre-K teachers qualifications and socioeconomic status of the location. The minimum criteria for pre-K teachers teaching in pre-K classrooms in the United States varies widely from the requirement of a child development associate to a bachelor's degree in an early childhood related field, so the results may not represent all pre-K teachers in the United States (PreSchoolTeacher.org, 2022). The southern state where the study took place has one of the highest levels of poverty in the United States and the results may not be the equivalent to other states with other levels of poverty (see Shrider et al., 2021).

The use of the qualitative approach for this study and the researcher as the only one responsible for collecting data and analysis can lead to researcher bias. Thomas (2017) stated that a researcher should view how their biases may influence or interpret the study. To reduce bias, I kept a reflective journal of my reflections and assumptions, a summary of findings was sent to confirm what participants were trying to convey, and early childhood experts reviewed a summary of the findings for biases.

Recommendations

After conducting this study, I have two recommendations for future researchers. First, future researchers could identify teaching strategies for language, communication,

and vocabulary implemented in the early childhood education classroom. Muhonen et al. (2020) stated that educational classroom talk is beneficial for children's learning and communicative development especially in the early childhood education classrooms. Teachers at times are deficient in dialogue-supporting strategies like asking open-ended questions, using feedback loops, and encouraging students to share their thinking (Muhonen et al., 2020). Using this background, future research studies could examine strategies implemented in the early childhood education setting to enhance children's language development and communication skills.

Another recommendation for future research is examining the support pre-K teachers need to meet the challenges of implementing indicators from the CLASS observation tool. Specifically, future studies could identify how the scores from CLASS observations are shared with the pre-K teachers and professional development provided based on those scores give support to implementing CLASS indicators more proficiently in the classroom. Pianta (2012) discussed that one goal of the CLASS tool was to help teachers overcome challenges and improve quality of interactions in the classroom. Pianta and Hamre (2020) stated that when coaches follow a standardized and structured model around the topic of training needs, teachers can improve on their practices. Following this idea, future researchers could identify all types of professional developmental strategies used to improve scores on the CLASS tool in different public pre-k programs, private child care centers, or Head Start centers. Future researchers could conduct a study comparing support used in other states to help meet the support needs of the pre-K teachers when using the CLASS tool.

The current study and data analysis offers original contributions to the field of early childhood education and existing literature by adding perspectives of pre-K teachers on the topic of LM. The results provide information relevant to pre-K teachers on implementing LM and the support needed to implementing LM in the classroom. Broadening the population to include assistant teachers would provide additional perspectives that would be different than teachers in the study. This study offers a basis for future research recommendations considering data, research design, and population.

Implications

Results from this study indicated that challenges some pre-K teachers face when implementing LM which include children's family, socioeconomic status, strategies of LM, different language needs of children, conversational skills, and the lack of focus on language, interactions, and exposure at home and in the classroom which align with Vygotsky's (1978) sociocultural theory especially the components of ZPD and MKO. Bratsch-Hines et al. (2019), Humphry et al. (2017), and Whittingham et al. (2018) discovered that LM helps build children's vocabulary, language, and communication skills needed for school readiness and success later in life. This study may promote positive social change by offering insight on the support teachers may need to implement LM and supporting those needs to help teachers develop children's vocabulary, language, and communication skills. Which may provide awareness to education stakeholders on the importance of language instruction through modeling which provide a strong foundation in language development children need. This study may also lead to improving the implementation of LM in the pre-K classroom, which could provide

effective teacher-child interactions that would lead to higher scores on the CLASS observation tool.

Language development provides children with the skills needed to learn about the world around them communicate with others, and build cognitive development (Larson et al., 2020). Language is crucial to executive functioning and is not as effective without human interactions (Daneshfar & Moharami, 2018). Teachers' language interactions with children enhance language development and are critical in the early years to promote self-regulations skills, build confidence, and lay the foundation for reading comprehension (Hadley et al., 2020). The effectiveness of language exposure and interactions is closing the "30-million-word gap" found in children form low-socioeconomic status backgrounds (Hart & Risley, 1995, 2003). Teachers using less conversational language in the classroom presents a gap in practice in a southern state as data indicates teachers' LM skills being in the lowest range when measured by the CLASS observation tool (PEER #640, 2019). Utilizing this research could ultimately result in children entering the early childhood education classroom with stronger language and communication skills and develop more complex language and critical thinking skills needed for reading and school success and closing the gap in practice for this southern state (Golinkoff et al., 2019; Pawlak, 2019). Enriching a child's language foundation might promote positive social change by supporting a deeper understanding of teachers' perspectives on the support they need to improve LM interactions with children that will help development of children's communication, vocabulary, and language skills.

Conclusion

In this basic qualitative study, I explored pre-k teachers' perspectives on the challenges of implementing LM and the support they need to improve their LM skills in the pre-K classroom. Thirteen pre-K teachers were interviewed who completed a specialized early childhood training program in a southern state. Pre-K teachers face challenges in implementing LM to support children's language development in the classroom when being observed using the Pre-K CLASS tool (Office of Head Start, 2020; PEER #640, 2019). This study sought to fill the gap in practice of LM and provide knowledge on pre-K teachers' perspectives on the challenges of implementing LM and the type of support they need to improve their LM skills and children's language development.

The findings of the study revealed that pre-K teachers are faced with many challenges when implementing LM in the classroom and the support needed to improve LM skills. Challenges include implementing LM, professional development for LM, support needed for pre-K teachers, and implementation of activities and LM strategies. These challenges affect the quality of teacher-child interactions which build children's overall language development. To effectively implement LM, pre-K teachers need support in terms of assistant teachers, training/coaching, and collaboration with other pre-K teachers. The findings from this study may inform education stakeholders on the challenges pre-K teachers face implementing LM and the ways they can support pre-K teachers to improve their LM skills in the classroom. This study could also lead to policy changes on how teachers and administrators can use the CLASS instrument to determine

the training and resources needed. In conclusion, if LM is implemented more effectively, indications for positive social change can lead to better child outcomes overall.

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Appendix A: Interview Protocol

Part 1: Participant Demographics

1. Name
2. What degree and/or endorsement do you hold?
3. What is your current position?
    a. If not in pre-K, how long did you teach in a pre-K classroom?
4. How long have you been in your current position?
5. Please describe a brief description of your teaching experience.

Part 2: Interview Questions

First, I would like to express my gratitude to you for participating in this study. I also want to let you know if you get tired or need a break, please just let me know and we can stop until you are ready to continue. The purpose of the questions that I am going to ask is to explore your perspective on the challenges of implementing language modeling in your classroom and the support you feel is needed to improve on language modeling skills to enrich children's language development in a southern state. The information collected from this study will be confidential and solely used for research purposes. However, with the subject of this study I do not feel that will be an issue. You can drop out of the study at any time. This interview is being recorded and transcribed. A summary of the findings will be emailed to you once the study is completed.

Possible prompts I will keep visible during each interview:

- What did you mean by….
- Tell me more about….
- You mentioned….Tell me more…
- Please give me an example when that….. worked/didn't work.

RQ1: What are pre-K teachers' perspectives on the challenge of implementing language modeling in the classroom?

1. Tell me about your perspectives on the challenges of implementing language modeling to enrich children's language development.
2. How would you describe language modeling being used in pre-K classrooms?
3. Tell me about any experience being coached with Language Modeling based on the CLASS observation tool?
    a. You mentioned…Tell me more…
    b. Please give me an example of when that….worked/didn't work.
4. Tell me about the specific strategies you use for language modeling in your classroom.
    a. What did you mean by….
5. How do you integrate social interactions when it comes to language modeling?
6. Tell me your definition of the Zone of Proximal Development (ZPD) by Vygotsky.
7. Why is the ZPD important when using language modeling?
8. How would you describe being a more knowledgeable other (MKO) in your classroom?
    a. Tell me how being MKO help with language modeling?

RQ2: What are pre-K teachers' perspectives on the type of support needed to improve their language modeling skills in their classrooms?

9. What is your perspective on the support you specifically need to successfully implement language modeling to enrich children's overall language development in your classroom?
10. Discuss professional development you have received about teacher-child interactions.
    a. Discuss types of professional development that you have about children's language development.
    b. Discuss professional development you have received regarding language modeling.
11. When did the professional development happen on language modeling?
    a. When did the professional development happen on children's language development?
    b. When did the professional development happen on teacher-child interactions?
12. When, where, and how were you trained in language modeling based on the CLASS observation tool?
13. Tell me about any support resources the school provides you on implementing language modeling and improving scores for language modeling on the CLASS observation tool.
    a. How could you utilize language modeling or CLASS better?

b. Tell me what you feel you need to make these improvements.

c. How does the school decide on the type of support you need?

14. Is there anything that you would like to add regarding the use of language modeling or support needed to improve language modeling in enriching children's language development that was not covered in this interview or anything else you would like to tell me?

Thank you for your time and participating in this study.

Appendix B: Sample of A Priori Coding

A priori Code	Categories	Participants' Identifier	Excerpts
Sociocultural Theory	Language Acquisition	A-2	"Maybe they sat at home with a grandmother or great-grandmother. Lower vocabulary than those of their peers that had been into like daycare type programs, or child find, or something like that, or a Head Start program."
		A-4	"They're not necessarily low learners; they're just not exposed to language enough in the classroom or at home."
		A-9	"Children that haven't been exposed to different ways to speak and to use language." "Also, sometimes it's a language that, you know, they've learned in their home or their family."
		A-11	"Maybe that dialect of the parents, as well as, you know, making sure that our babies or the preschool students are really trying to use those vocabulary, age-appropriate vocabulary, and speaking in complete sentences."
	Low Socioeconomic Status	A-1	"We have a low socioeconomic status where in, you, know, a low-income area, below 50%. They don't come to me with those conversational skills."
		A-2	"More urban settings, they came from home generally had, you know, I would say at least 1000 to 2000 words less vocabulary than those that had been in the school type setting."

A priori Code	Categories	Participants' Identifier	Excerpts
Zone of Proximal Development	Children's Language Developmental Level	A-2	"Important to find out what they could already do unsupported because you're wasting a lot of time if you're already reaching them with language that they already know."
		A-5	"Level where the children are ready to learn."
		A-9	"I think the zone of proximal development is one that is different for every child. Every child doesn't learn the same, every child doesn't grow the same, every child doesn't speak the same and so that zone is one that at the beginning of the year you have to take and have to utilize it for each child in a different way."
		A-11	"Zone where they're ready to learn and that's where you are going to work with the children is right there on their zone of proximal development."
More Knowledgeable Other	Language Knowledge	A-6	"Just being well-rounded in my education. Just having, going to trainings, and reading up on current research about what I'm doing and how I'm implementing different strategies in the classroom." "If I am more knowledgeable about the strategies that I use, you know, it would help me to implement them more in the classroom."
		A-9	"By being that knowledgeable other, it allows growth." "A lot of times that other could be, I think a child and learning

A priori Code	Categories	Participants' Identifier	Excerpts
			from each other, where this particular little guy may not have done that using that other is quite a good tool, I think."
		A-13	"Impart my knowledge to them in a way that is teaching them."
			"Allowing them to impart their knowledge to me as well, because I know even though I've been teaching 26 years, I still don't know everything."
		A-16	"I guess by the workshops and training and watching others, observing others who's been in the field longer and just picking up strategies from them. I think that it's helpful for the children and I want to increase their vocabulary and their literacy skills."
			"The more you know, the more you can help the kids."

Note. A priori coding was combined with open and axial coding to form four categories from data analysis with participants' quotes from the interviews. Language acquisition was a category found in both the A priori coding and open coding.

Appendix C: Sample of Open Coding

Open Codes	Categories	Participants' Identifier	Excerpts
Experiences	Language Acquisition	A-1	"Children who may not have ever been in a daycare setting." "It was very hard for me to have open communication with my children, my students. They had never, very few of them, had ever had a conversation with somebody other than their parents or a family member."
		A-4	"They're not necessarily low learners they're just not exposed to language enough in the classroom or at home."
		A-9	"Also, sometimes it's a language that, you know, they've learned in their home or their family that they're currently, I mean, I have one now that when needs to use the restroom, she "ooey", it's an ooey."
		A-11	"When it comes to language and the barriers for those that are verbal, it's just being able to transfer that information to the students so they can understand it at their level." "Maybe the dialect of the parents as well as, you know, making sure that our babies or the preschool students are

Open Codes	Categories	Participants' Identifier	Excerpts
			really trying to use those vocabulary, age-appropriate vocabulary, and speaking in complete sentences."
Parallel Talk	Challenges with Language Modeling	A-2	"The hardest, and I have no idea why, it was parallel talk."
Discussion		A-4	"A lot of our problem is we don't really dwell on the discussion part of it."
Experience		A-5	"I did have the knowledge needed but I didn't have the experience needed."
Language Needs		A-7	"Especially depending on the mix of your group, you may have some volatile children, specials needs, different things like that."
		A-10	"A lot of dual language learners ad that has been a challenge that has ever growing over the last couple of years. They don't speak the language, they're getting very frustrated so we have done something to help with that but that is a big challenge."
		A-13	"In the last probably five or six years, we are seeing an increase in some of our students coming in that are pretty much nonverbal."

Open Codes	Categories	Participants' Identifier	Excerpts
Language Exchanges		A-1	"They didn't come to me with those conversational skills" "Be able to have a conversation with their next teacher or their grandparents or whoever,"
		A-4	"A lot of our children had trouble with conversating with other children, conversating with adults."
		A-5	"Nonverbal cues like the pointing and looking and the gestures and use that as an exchange in conversation"
Language	Lack of Focus on Language	A-4	"They wanted us to basically skills, skills, skills, and drill. Not a lot of talking. Not a lot of doing the fun, I can them fun centers."
		A-6	"We had a principal that didn't want talking in the cafeteria and so that hindered us when we were, you know, supposed to be pushing in language and allowing the kids to talk as much as possible while they were eating. So that was kind of a hindrance."
		A-11	"Right now, it's so many programs and protocols and everything that we have to use"

Open Codes	Categories	Participants' Identifier	Excerpts
Interactions		A-2	"And a lot of times kids had, you know, parents that worked several jobs to do what they had to do to take care of their kids so there may not have been a lot of interaction when mom and dad got home at night."
		A-9	"Children that haven't been exposed to different ways to speak and to use language."
Exposure		A-12	"They're not taught how to communicate."
Experience/Knowledge/ Instruction	Teacher's Language Knowledge	A-5	"I did have the knowledge needed but I didn't have the experience needed."
		A-10	"From an observer respective some of the language that is used, it's not necessarily grammatical, grammatically correct and so children are learning it incorrect."
		A-13	"Challenge of finding good training for them, as well as teachers, to kind of make sure we understand what it is we need to be."
		A-16	"Training, I guess. Just knowing how to enrich language in the preschool."
Boot Camp	Professional Development	A-6	"Boot camp, it's been probably three years for me now."

Open Codes	Categories	Participants' Identifier	Excerpts
		A-7	"Other than what all was included in boot camp and the Cox Campus courses."
		A-12	"The boot camp was six years ago."
CLASS Training		A-2	"I remember doing CLASS trainings… I can't really remember like the specifics toward the language modeling (indicator)."
		A-10	"I don't remember what all CLASS has in there as far as language modeling."
		A-13	"We briefly talked about CLASS seven or eight years ago, never really did a whole lot of training with that (CLASS)."
Assistant Teacher	Support	A-7	"A challenge is the lack of support staff in the classroom."
		A-13	"Make sure assistants are just as strong in their language as the teachers area."
Training/Coaching		A-4	"And more training. It would have helped if I'd had more training with how to help children develop their language."
		A-5	"I think the biggest support would be modeling. Watching someone else use language modeling techniques."

Open Codes	Categories	Participants' Identifier	Excerpts
		A-6	"Coaches that come in and you know, tell us the things we're supposed to be doing."
		A-13	"But I think every teacher needs, they need those trainings"
		A-16	"Like actually seeing someone, actually seeing someone extra do these strategies in the classroom with the students after we have gone through the training or read all the materials."
Collaboration		A-2	"Collaboration with people that teach the same grade are important."
		A-7	"We have extra staff come in just for nap time so after the teachers have their lunch break, all of the three-year old teachers could go have a planning meeting and have one of them serve as a lead teacher to preside."
		A-12	"A lot of, a lot of collaboration, you know, we kind of, it's not necessarily the director that hands that down, but like the teachers hare their materials, if that makes sense, with each other."

Open Codes	Categories	Participants' Identifier	Excerpts
Conversations	Language Modeling Activities	A-1	"I was trying to encourage them to build their conversation skills and how to answer a question verbally."
		A-9	"I have two old phones, the kind that used to hang on your wall, a rotary."
Vocabulary		A-2	"Model just when you talk to them, more vocabulary words, making sure that you tried to use those richer vocabulary words when you talk."
		A-5	"I would pick me out five of those words that you know really wanted to zone in on, and I would paste them around the room with the word and I would put a picture beside it so that I could draw my attention to it."
Self-Talk	Language Modeling Strategies	A-1	"(I) pretend to think out loud" and the children "have their thoughts out loud."
		A-5	"Nonverbal students, I really think that, you know, the self-talk was huge for them"
Parallel Talk		A-5	"Say what the child was doing, they were using parallel talk on that child."
Open-Ended Questions		A-4	"When I would ask them questions during story time, I would say,

Open Codes	Categories	Participants' Identifier	Excerpts
			'Why do you think that happened? What do you think is gonna happen? Why do you feel that way?' and they loved answering those kinds of questions cause they weren't wrong answers."
		A-16	"We post open-ended questions in every center"
Repetition and Extension		A-2	"I know expansion you would add onto the vocabulary."
		A-7	"It's kind of like I hear you saying, so you're restating what they're saying, so they can hear what they've said that no I really meant this."