AN INVESTIGATION OF KINDERGARTEN READINESS BASED ON EARLY LEARNING INVENTORY SCORES

by

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ABSTRACT

JENNIFER BAUCOM. An Investigation of Kindergarten Readiness Based on Early Learning Inventory Scores
(Under the direction of Dr, REBECCA SHORE.)

The term "kindergarten readiness" lacks a formal definition. The need for a single, widely accepted definition for this term is necessary to prepare children and their families for the start of formal education. Though federal, state, and local governments in the United States spend billions of dollars annually to prepare children for kindergarten, a uniform definition would enable educators and funding agencies to better understand how much particular programs benefit students. This study was done to understand the perceptions of preschool and kindergarten teachers concerning typically developing students on day 60 of kindergarten. Focus groups were used to determine particular skills that a kindergartener should exhibit by that point in school in order to be successful during that year. Both groups of teachers were knowledgeable about the developmental continuum kindergartners should follow in order to achieve needed skills according to the North Carolina Early Learning Inventory. A second finding was that kindergarten teachers scored students lower than preschool teachers on the anticipated ability of their students to achieve a skill. All teachers considered some skills were introduced in the inventory prematurely. Participants within this study perceived school readiness as skills that students should exhibit on day 60 of kindergarten that would allow for them to have a successful kindergarten year. Some skills that would be typical on day 60 of kindergarten are that students are: able to control their emotions and understand the emotions of others, understand how to behave in familiar environments when routines and procedures do not change, and are able to discriminate the sound that an alliteration and rhyme make but may not be able to explain the reason for the alliteration or rhyme.

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DEDICATION

I dedicate my dissertation to my mother and my children.

Mom, you have been with me through the entire process. I am blessed to have a mother who can be there no matter what. Thank you for always being there when I needed you.

I would also like to dedicate my dissertation to my two boys, Nathan and Braden. You are the reason that I get up in the morning and the reason I want to do good for myself and for you. Thank you for sometimes taking the back seat to my work and schooling. It has not always been the easiest, but we can now celebrate. You will always make me proud of your accomplishments. I cannot wait to see what the future holds for our family. I love you immensely and cannot wait to hug you after I walk the stage the day of graduation.

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CHAPTER 1: INTRODUCTION

The term 'kindergarten readiness' has eluded a formal definition since its inception. The idea of being ready for kindergarten can be misunderstood by parents, teachers, and administrators without a formal definition. The absence of such an important definition is alarming when one considers the funds allocated to prepare a child for kindergarten from federal, state, and local entities in the preschool programs throughout the United States. For example, the U. S. Department of Health and Human Services provided Head Start, a nationwide program dedicated to providing kindergarten readiness services, $10,748,095,000 in 2021 to ensure that qualifying children in poverty were ready for school (Linehan, 2021).

The State of North Carolina provided a total of $29,280,000 in the fiscal year 2019-2020 to administer the statewide North Carolina Pre-Kindergarten program (NC Pre-K) that serves four-year-old students to help them be ready to enter kindergarten the following year (Smart Start, 2020). These programs use millions of dollars designed to prepare children for their first year of school without an established definition of the term kindergarten readiness.

Background of the Problem

While traditional education spans 13 years (K-12), a preschool teacher has a small window of opportunity to work with students before formal schooling: "Identifying early school readiness characteristics is essential in preparing children physically and emotionally to meet the demands of early schooling successfully" (Miller & Kehl, 2019, p. 445). Therefore, there is a need to define those skills that will enhance learning beyond the preschool years. For this to happen, specific 'scaffolds' may be built along the way so the experiences in preschool can carry on in later years.

Preschool educators must be aware of what skills need attention when working with students before they enter kindergarten. Kindergarten teachers must also be aware of those skills. Knowing the key skills necessary for success in kindergarten would allow teachers to remediate students who are lacking in those specific skills. If skills are taught promptly, the student will have more success in kindergarten and possibly throughout their education.

The importance of funding such large amounts in preschool education is founded based on an explosion of scientific brain research, made possible by advanced technology. "Half a century of program evaluation research has demonstrated repeatedly that effective early childhood services can improve life outcomes for children facing adversity, produce important benefits for society, and generate positive returns on investments" (Center for the Developing Child, 2016, p. 4). Not only have quality early childhood services shown that positive outcomes are very beneficial, but it is also important to note that children learn rapidly during their early childhood years. Young children are able to gain knowledge and skills during this developmental period due to the tremendous plasticity of their young brains (Shore, 2015). Through years of research, it has been established that, "early childhood is a time of great promise and rapid change, when the architecture of the developing brain is most open to the influence of relationships and experiences" (Center for the Developing Child, 2016, p. 4).

Additional research studies, such as the Perry Preschool Project, have shown that high quality preschool programs can develop critical skills in children, who in turn have growth that sustains them throughout their high school years (Schweinhart, 2003). Programs such as Head Start have continued to provide high-quality services for over 50 years to increase the readiness of children (and families) rising out of poverty and becoming productive citizens of our society.

More recently, Early Head Start has seen even more substantial positive impacts on the children and families they serve.

Established research suggests that quality early childhood education has lasting benefits for children. In 2005, a policy brief created by the National Institute for Early Education Research stated that, "High-quality preschool education can support early development in ways that yield long-term social and emotional benefits" (Boyd et al., 2005, p. 1). This policy brief examined many studies that investigated early childhood program demonstration projects from the 1960's and 1970's. A few of the projects studied were the High Scope Perry Preschool Project, Syracuse University's Family Development Research Program, and the Houston Parent Child Development Center.

The policy brief also noted several programs that created positive results in the 1980's and 1990's. Among them were the Chicago Child-Parent Centers, Early Head Start, as well as an international program in Mauritius (Boyd et al., 2005). This analysis provided further evidence that early childhood education could consistently provide positive effects well into school.

Based on such studies, governmental agencies have increased their funding so that children can begin kindergarten ready to learn. Much money and effort has been invested in early childhood programs by federal and state governments without a widely accepted definition of kindergarten readiness. These funding initiatives have been provided for decades in hopes that students entering kindergarten are ready to learn on the first day of school and have the opportunities to gain skills early-on that will increase the likelihood of successful schooling and a long-lasting positive effects throughout their lives.

Statement of the Problem

With the heightened accountability of preschool programs by state and federal lawmakers, owing to the *Every Student Succeeds Act*, (2015), a formal definition of 'kindergarten readiness' is needed. This study sought to contribute to the literature concerning what it means to be 'kindergarten ready' in one state. The study interviewed experienced preschool and kindergarten teachers who work with young children each day to understand their perceptions of the term kindergarten ready, especially what a child's skills and competencies are at day 60 of kindergarten.

This study examined the perceptions of experienced kindergarten and preschool teachers in North Carolina. The study sought to determine the similarities and differences between these early educators' perceptions of a developmental continuum called the *North Carolina Early Learning Inventory* (NCELI) (NCDPIb, n. d.), which measures kindergartners' skills on day 60 of school, when the NCELI is administered. It is considered a formative assessment by the North Carolina Department of Public Instruction's (NCDPI) Office of Early Learning as a means of measuring student's developmental level in five areas of development. By investigating data gathered while administering the NCELI, it was hoped that a better understanding of teacher perceptions of typical students' performance on day 60 of kindergarten would be gained.

NCELI is used to assess students and inform instruction. The assessment has been designed to help teachers understand student weaknesses and strengths and then modify their instruction. Teachers take anecdotal notes during the first 60 days of school on each student in order to score students' achievements on the NCELI. These notes focus on milestones that the children exhibit each day. The notes also help to determine a student's progress on the assessment continuum. From the data gathered through the notes, observers can determine

whether a child has reached particular developmental milestones. The teacher then places the student on a continuum according to what they have achieved.

The early learning inventory is designed to assess five areas of development for the early childhood learner. Those are: social-emotional, math, approaches to learning, language and literacy, and physical. The continuum on which the teacher rates students has a numerical range of 1-14. These developmental levels are all adopted from *Teaching Strategies GOLD®*. *Teaching Strategies GOLD®* is used throughout North Carolina in preschool and kindergarten to gauge development.

Teaching Strategies GOLD® is also a developmental continuum that describes a typical child's major milestones from birth through third grade. The continuum contains milestones that are assigned according to students' grade or age based on continuous progressions. As with curricular content standards, teachers can examine milestones and determine if a child is keeping pace with milestones that correlate to their age or grade level.

Kindergarten teachers use observations and evidence to determine whether their students have mastered appropriate developmental skills. The difference between the NCELI and Teaching Strategies GOLD® is that the former has fewer measures than the latter. The NCELI measures only a part of a students' development, whereas Teaching Strategies GOLD® takes a more holistic approach to the child. The following table lists the five developmental domains of learning that are part of the NCELI and Teaching Strategies GOLD® in more detail (see Table 1).

Table 1

Domains and Developmental Milestones

Domain of Learning	Developmental Progress

Social-emotional	Manages feelings Responds to emotional cues Interacts with peers Solves social problems Follows limits and expectations
Math	Counts Quantifies Connects numerals and quantities
Approaches to Learning	Attends and engages
Language	Notices and discriminates rhyme Notices and discriminates alliteration Tells about another time or place Follows directions
Physical	Uses fingers and hands

Establishing a more specific definition of kindergarten readiness could benefit educators, parents, policymakers, the public, and ultimately will create a more informed early childhood workforce that more accurately uses standards exemplifying the skills and developmental stages that a kindergarten-ready child embodies. Agreement on what constitutes kindergarten readiness may alleviate many children being developmentally behind when entering kindergarten.

Purpose of the Study

Hart and Risley (1995) showed that providing an enriching, high-quality early childhood educational environment can lead to a more successful K-12 school experience for them. It is important that a child gain valuable learning and nurturing experiences within a quality preschool setting. The early childhood preschool setting is intended to ensure that preschoolers are ready for their kindergarten year. Providing this setting can be considered kindergarten readiness because "readiness is a multifaceted construction that includes social-emotional, cognitive, behavioral, and physical components" (Miller & Kehl, 2019, p. 445).

Examples of associated activities from *Teaching Strategies GOLD®* are "matching rhyming cards to pictures" and "counts 28 steps to the cafeteria" (Lambert et al., 2010). (Other desired kindergarten objectives and an example of Teaching Strategies GOLD® are given in Appendix B). This study sought a better understanding of what kindergarten readiness means according to preschool and kindergarten teachers. The aim is that this study could ultimately help students become successful in school. After data were gathered, the researcher compared responses of participants to determine their perceptions of the main skills a student needs to be successful at the beginning of their kindergarten year.

The purpose of this study was to determine the perceptions of kindergarten teachers and preschool teachers of the main skills and characteristics that preschoolers need before they begin kindergarten in order to ensure success with positive long-term educational outcomes. Kindergarten teachers' and preschool teachers' perceptions of kindergarten readiness will be compared to each other in order to determine discrepancies. There is currently no funding for an initiative in North Carolina to let kindergarten teachers determine the readiness of students before they begin. The current study provided feedback from preschool teachers that a

kindergarten teacher would not have the opportunity or time to otherwise obtain. This study let preschool and kindergarten teachers share their ideas regarding kindergarten readiness on day 60 of school. This has the potential to benefit a kindergarteners' experience within North Carolina because preschool and kindergarten teachers would understand the developmental levels of students as they transition from preschool to kindergarten.

Research Questions

The study was guided by the following research questions:

RQ1: In what ways do kindergarten teachers perceive kindergarten readiness as measured on day 60 of a student's kindergarten year?

RQ2: In what ways do preschool teachers perceive kindergarten readiness as measured on day 60 of a student's kindergarten year?

RQ3: What are the similarities and differences between kindergarten and preschool teachers' perceptions of kindergarten readiness on day 60 of a students' kindergarten year?

Kindergarten has traditionally been the time when a child's home life meets the public school arena for the first time. Parents and children are exposed to the demands and expectations of an environment that is traditionally more structured and begins to measure a child's success, failure, or acceptance in K-12 schooling. A key word in this context is expectations, which are assumed at this transition to school for many children. With them now experiencing different types of social and cultural backgrounds, sometimes the expectations of teachers and results of standardized assessments do not match.

When kindergarten teachers do not agree on expectations for pre-kindergarten skills as they relate to a standardized inventory such as the NCELI, instructional misalignment can affect future student progress. According to Hover (2014), "one third of the nation's children were

unprepared for kindergarten" (p. 57). In light of the billions of dollars spent to ensure children are ready for kindergarten, and that kindergarten and preschool teachers spend many hours preparing and presenting instructional material, why are so many children unprepared?

A formal definition of kindergarten readiness could provide the focus necessary to give structure to the efforts of educators as they prepare children to enter the kindergarten classroom. It could also assist in holding governmental agencies more accountable for their spending in the preschool arena and letting parents of future (or current) kindergarten students better prepare them for kindergarten. Determining a widely accepted definition of kindergarten readiness can better ensure that resources are best used for the goal of preparing the greatest number of students to enter kindergarten.

Research Design and Methodology

Data collected in this study is part of a larger project headed by research faculty at a large southeastern university. The larger research project includes the same research questions but adds another layer which seeks to determine scores across North Carolina for kindergarten readiness skills based on NCELI scores. This ongoing research gives a better understanding of what it means to be ready for kindergarten, particularly in North Carolina, by gathering perceptions from experienced preschool and kindergarten teachers.

This qualitative research study was also a participant-observer study because the researcher was part of the larger study, as well as the investigator for this study. A participant-observer study can be described as ethnographic:

> What makes a study ethnographic is that it not only treats a social unit of any size as a whole but that the ethnography portrays events, at least in part, from the points of view of the actors involved in the event (Erickson, 1984, p. 52).

The researcher is a Head Start director with 12 years of experience in preschool education. The point of view of the researcher is from her particular and unique experiences as a Head Start Director in the Piedmont region of North Carolina. This research permitted the researcher to gain a broader view of the perceptions of kindergarten teachers within the state and gave the researcher a wider view of what others believed was meant by kindergarten-ready. It also included the backgrounds and experiences of teachers from across the state, while considering the diversity of children served. The data was gathered using preschool teacher and kindergarten teacher focus group interviews. The interviews gathered the educators' perceptions of what kindergarten readiness signified to them. These observations were compared to the NCELI.

Assumptions

There were several assumptions made regarding this study. These are: the teachers interviewed have studied the *Standard Course of Study* for preschool and kindergarten in North Carolina before the research questions were asked. In other words, they would have already studied the topics relevant to the research questions before answering them. Secondly, it was assumed that their perceptions of kindergarten readiness would be similar and relate directly to the *Kindergarten Standard Course of Study* and the *North Carolina Foundations for Early Learning and Development*, which is a statewide developmental continuum for preschool students. Finally, it was assumed that these professionals answered the questions presented honestly, based on their educational knowledge and personal experiences.

Delimitations

This research was conducted in collaboration with a university in North Carolina. The researcher was a participant-observer in that study and used a portion of the data collected by the

university-based team. Only responses of the preschool and kindergarten teachers taken during the interview section of the larger study were used. The study took place in the spring of 2022. Preschool and kindergarten teachers across North Carolina who volunteered to participate in the study were interviewed and took part in focus groups.

Definition of Terms

A number of terms are used throughout this research study. Definitions are found below:

Foundations for Early Education: *"*A guide for infant through preschool instructional staff to use to teach from in North Carolina" (NCDPIa, 2022).

Kindergarten Readiness: Refers to the state of child competencies at the time of school entry that are important for later success (Snow, 2006).

Kindergarten Standard Course of Study: The *North Carolina Standard Course of Study* (NCSCOS) defines the appropriate content standards for each grade or proficiency level (i.e., K-12), to provide a uniform set of learning standards for every public school in the state. These standards define what students are expected to know and be able to do by the end of each school year or course (NCDPId, 2022).

North Carolina Early Learning Inventory (NCELI): "The NC Early Learning Inventory is an observation-based formative assessment that supports teaching and learning by helping teachers, students, and families understand the learning needs of each child as they grow and develop" (NCDPIa, n. d.).

Participant/Observer: "One that is engaged in participant observation" (Merriam-Webster, 2023).

Social and Emotional Learning: *"*Social and emotional learning (SEL) is a developmental framework, the process through which individuals develop the skills to recognize

and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships, and make responsible decisions," (Centers for Disease Control and Prevention, 2021).

Teaching Strategies GOLD®: A formative assessment used to inform instruction in early childhood education (Burts et al., 2016).

Summary

Chapter 1 explored the need for a definition of the term 'kindergarten readiness'. Topics related to the need of this definition include the relevance and importance of quality preschool education; federal funding and additional initiatives focused on preparing a child for kindergarten; and North Carolina's initiative using the NCELI to determine readiness for its kindergartners on day 60 of school. The chapter also included the statement of the problem, purpose of the study, research questions, research design and methodology, assumptions, delimitations, and a definition of terms used in the study.

Chapter 2 reviews the literature relevant to the topic of kindergarten readiness. Chapter 3 explains the methodology or research design, the role of the researcher, the setting, how the data was collected, and how the data was analyzed. Chapter 4 gives the study data and analyzes comments from the teacher-participants and focus groups. Chapter 5 is a discussion of the study, along with suggestions for early childhood educators and policymakers. Recommendations for further research are offered.

CHAPTER 2: LITERATURE REVIEW

This chapter is a review of relevant studies related to 'kindergarten readiness'. Many themes that surround the concept of kindergarten readiness will be examined (see Table 2). These themes are:

- Rationale of the need for a definition

- Current understandings of kindergarten readiness

- Role of behavioral skills

- Role of preschool in kindergarten readiness

- Kindergarten standards

- Focus on the academic arena

- Federal initiatives

- Readiness inventories

Table 2

Literature Table

The Need for a Definition of Kindergarten Readiness	Akhtar, T. & Bilal, S., 2018; Altun, D., 2018.
What does it Mean to be Ready for Kindergarten?	Altun D., 2018; Espinosa, L. et al., 1997; Heaviside, S., 1993; Miller, M. & Kehl, L., 2019.
Importance of Behavioral Skills in Determining Readiness	Hartman, S. et al., 2017.

The Role of Preschool in Kindergarten Readiness	Bingham, S., & Whitebread, D., 2012; Espinosa L. et al., 1997; Manigo, C. & Allison R., 2017; U.S. Department of Education, 2014.
Kindergarten Standards	Miller, M. & Kehl, L., 2019; North Carolina Department of Public Instruction, 2021; Welch, M. D., & White, B., 1999.
Focus on Academics	Hatcher, B. et al., 2012.
Federal Initiatives	Espinosa L. et al., 1997; U.S. Department of Health and Human Services, 2014; Vinovskis, M., 2005.
Readiness Inventories	North Carolina Department of Public Instruction. (n.d.); Saluja, G. et al. (2000).

Need for a Definition

The literature about kindergarten readiness during the past 20 years shows a recurring theme. That theme reflects the fact that there is no widely accepted definition of kindergarten readiness, although the phrase is used throughout the educational system in the United States. Educators and researchers have sought a definition in order to establish common ground and accountability for those who educate these early learners.

What does the term mean to teachers, parents, and policymakers? The problems in defining this term are the complex skills needed to succeed in kindergarten and the lack of agreement among educators and scholars on what it means to be prepared for the first year of school. Any answer to the definition of kindergarten readiness is multifaceted, and difficult to address (Akhtar & Bilal, 2018; Altun, 2018). Creating a common understanding of a definition

will help ensure that stakeholders previously noted focus on developing the skills essential for success in kindergarten.

Kindergarten readiness has come to be expected. Large amounts of federal funds support the preschool initiative. Lofty expectations for the curriculum and the impact of family engagement are evident. However, preschool teachers, kindergarten teachers, and caregivers need an agreed-upon definition of kindergarten readiness to be effective. This knowledge will, in turn, help children better be prepared for the onset of formal schooling.

Kindergarten Readiness

The term kindergarten readiness, or skills that are needed to enter kindergarten successfully, can be described in numerous ways (Altun, 2018). "School readiness is associated with children's subsequent school-based outcomes. Kindergarten readiness covers skills, behaviors, and attitudes related to whole child development" (Altun, 2018, p. 9). There are many philosophies/theories as to what is important for a preschooler to know and be able to do before they enter kindergarten.

With the perceived definition of kindergarten readiness evolving over the years, teachers have developed different mindsets. A study conducted by the National Educational Goals Panel (1993) surveyed kindergarten teachers nationally to reach a consensus for kindergarten readiness (Heaviside, 1993). The group addressed three areas: public school kindergarten teachers' judgments and beliefs about kindergarten readiness; the characteristics of the teachers' kindergarten classes and their practices in these classes; and teachers' backgrounds. Almost all teachers (96%) believed that children should be:

Physically healthy, rested and well nourished. A majority also believe that children

should be able to communicate wants, needs, and thoughts verbally and that enthusiasm

and curiosity are more important for kindergarten readiness than knowledge of the alphabet or counting ability (Heaviside, 1993, p. 1).

The study continued, "At present, there is no direct measure of kindergarten readiness, nor is there common agreement on the qualities of early learning and development that are critical for readiness or on the activities that foster readiness" (Heaviside, 1993, p. 11). A definition of kindergarten readiness eluded the panel as well.

More recently, "In the United States, the most important early kindergarten readiness qualities identified by both parents and teachers are: (1) being well rested and physically healthy, (2) effectively communicating needs, wants, and thoughts, and (3) having enthusiasm and curiosity for approaching new activities" (Miller & Kehl, 2019, p. 445). It is noteworthy that these skills were not necessarily academic ones, and all were tied to behaviors typically displayed when working with groups or individuals.

Another common qualification considered for kindergarten readiness is age. In many states, children are considered school ready by chronological age. Some researchers suggested that children can enter kindergarten with or without certain developmental skills. Through a study conducted by Lincove and Painter in 2006, it was found that, "Despite evidence that older students have an academic advantage in elementary school, our results suggest that redshirting by parent preference or school recommendation is not an effective strategy for improving high school achievement, graduation rates, or college enrollment" (Lincove & Painter, 2006, p. 173).

Parents and educators realized that every child who enters kindergarten at the age of five will not have the same skills. Children develop at different rates. The child's previous experiences and background play a large part in their readiness for school. This reality has accelerated the push for high quality preschool: "Advancement of Teaching found that more than

a third, 35% of all entering kindergarten students were judged as not ready for school" (Espinosa et al., 1997, p.120).

Educators and experts need to know how teachers characterize kindergarten readiness. These aspects include chronological age, behavioral, educational, and social characteristics. Educators need help identifying which key factors are most important in preparing a child for their kindergarten experience.

Behavior

In addition to age, behavioral skills are also essential to deciding kindergarten readiness. Parents and teachers agree that students who are able to focus on their learning without inappropriate behaviors are able to flourish within a school setting. Children who demonstrate appropriate behavioral skills are more ready for kindergarten and show more engagement in the classroom. Simply put, children who are on-task and focused on learning are more apt to be successful than those not exhibiting positive classroom behaviors. This subject is important for children in poverty who generally have high rates of behavioral challenges. Such students also tend to have lower cognitive and language skills when entering kindergarten. The research indicated that children in poverty needed more assistance reaching kindergarten readiness due to the underlying factors of their situation (Hartman et al., 2017).

Hartman et al. (2017) completed a study to investigate whether behavior skills in children at age four had an effect on their kindergarten year. In particular, the researchers wanted to investigate children who were ethnically diverse, had a low socioeconomic status, and attended school in an urban setting. The researchers wanted to know to what extent these risk factors positively or negatively affected a child's experience in kindergarten. The findings of the study determined that a child's behavior when they were four did affect their readiness for

kindergarten, as well as their success in their kindergarten year. In other words, if a child were able to control behavior in preschool, they were able to show positive rather than negative behavior in kindergarten. Negative behaviors were directly related to lower outcomes and lower cognitive and language skills in their findings. Children who had limited atypical behavior before beginning kindergarten were more prepared for it and had higher outcomes once there. It was noted that behavior skills are extremely important for kindergartners and affected teachers' grading as well.

Teachers have been shown to have a negative bias when grading students with behavioral issues. The researchers felt that "Classroom grades are more likely to be influenced by a child's interactions and behavior with the teacher during the school year than are standardized test scores" (Hartman et al., 2017, p. 266). Positive behavior in the classroom may be an important consideration concerning in classroom grading. Children who are on task and focused during instruction have more positive learning interactions with their teacher. In turn, they are able to gain more skills and learning outcomes during the school day. The study also determined a child's behavior problems had a greater impact on school performance than socioeconomic level.

Hartman et al. (2017) showed that positive behavior skills in school can have a positive impact on a child being ready to enter kindergarten regardless of their socioeconomic level. One of the final recommendations of the study suggested that by "enhancing low-income children's behavior skills, in addition to more common efforts of enhancing cognitive and language skills, prior to school entry would be a worthwhile endeavor to help increase the likelihood of low-income children having early school success" (Hartman et al., 2017, p. 270).

Preschool

According to the U. S. Department of Education (USDOE, 2014), in 2013, there were 4,112,347 four-year olds are eligible to attend publicly funded preschool programs. This eligibility is determined by income levels and location. Regardless of eligibility, only 1,649,607 four-year olds attended a publicly funded preschool program that year (USDOE, 2014, p. 3). That would mean that only 40% of children who are eligible actually attend. This would leave 60% of children who are eligible for preschool not attending. It would be beneficial for all eligible children to attend high-quality preschool services so that more kindergartners are prepared for school. However, reasons why children eligible do or do not attend preschool are multifaceted.

Manigo and Allsion (2017) conducted a study to determine parents' perceptions of preschool. In particular, they wanted to understand parents' reasons for letting (or not allowing) their child to attend a preschool program before kindergarten. They used experiences from parents in a large urban district in the southeast. They interviewed 12 parents, six of whom sent their child to preschool, and six who provided kindergarten readiness at home. The researchers wanted to understand parents' thoughts relating to the importance of attending preschool and the value of their child doing so.

A key finding of Manigo and Allison (2017) was that 10 of the 12 parents believed that preschool programs benefited a child's "academic readiness skills" (p. 21). Of those parents that did not send their child to preschool, five thought that children should attend preschool only if a family member were unable to stay home to teach readiness skills to their child. In all, nine participants said that parents felt this way. These parents, however, saw the benefit of a

preschool education. Three parents who did not send their child to a preschool changed their minds about the importance of doing so.

Another important outcome of the study was that 9 parents believed preschool helped a child "develop positive emotions about school" (Manigo & Allsion, 2017, p. 20). Parents of children who attended preschool felt their children had a positive feeling about school, and their child's communication skills and self-management of their emotions were strengthened by the preschool. The study is significant because it illustrates society's approval of preschool programs and belief in their effectiveness. Parents felt that a child should learn certain skills before they enter kindergarten. They believed that if they were unable to teach their child these skills before they entered kindergarten, their child should attend a preschool program.

Duncan and Magnuson (2013) examined the effectiveness of preschool in 2013. The team summarized expenditures in early childhood education programs and compared them to the outcomes of the children involved. They wanted to determine if the investments in particular early childhood preschool programs were cost effective. Their results showed minimal long-term benefit of some early childhood programs. They went on to determine that the beneficial effects of interventions to raise intelligence in young children faded over time (i.e., a "fadeout effect" (Cohen, 2015)). However, the positive effects of some well-known early childhood programs, when separated from the others, had "lasting positive effects on such outcomes. These outcomes were greater educational attainment, higher earnings, and lower rates of crime" (Duncan & Magnuson, 2013, p. 110).

The two most prominent programs within the study by Duncan and Magnuson (2013) were ones that had shown long-term growth among students who attended them. Students in these two programs did not have a fade out effect concerning academic attainment or success in

elementary school but had long term positive effects such as greater high school graduation rates, reduced teen pregnancy, and less criminal behavior. These outcomes were correlated to attending these two preschool programs. Overall, "theories and evidence across the social sciences argue that early childhood may be a promising period for effective educational investments, particularly for disadvantaged children" (Duncan & Magnuson, 2013, p. 127). The study determined that effective and high-quality preschool services benefit disadvantaged children, and that continued spending should be made in the early childhood education.

Kindergarten

Defining kindergarten readiness becomes more vital owing to recent changes made regarding higher academic standards for kindergarten students. Historically, kindergarten has served as a place for natural discovery. With recent increased emphasis on school performance, there has been greater importance placed on academic skills in kindergarten. If the characteristics of kindergarten are now more academic, there is greater need to prepare preschool teachers and parents on how to help future kindergarteners become school ready (Welch & White, 1999).

Kindergartners today are expected to learn and understand content that has been formerly taught in the first and second grade. Children now need to enter kindergarten equipped and able to address the demands of the classroom. They are expected to be socially, emotionally, and intellectually ready. Communication and getting along with peers has also been deemed important (Miller & Kehl, 2019).

Pianta et al. (1999) completed a study on transition practices using findings from the National Center for Early Development and Learning's (NCEDL) *Transition Practices Survey* to study practices that facilitate the transition to kindergarten. The researchers found that it was uncommon for kindergarten teachers to contact the families who had children entering

kindergarten before beginning. It was more common for teachers to do so at the beginning of the school year. Though it may be better to do so before school, funding is not generally available to do so (Pianta et al., 1999).

The North Carolina Board of Education is responsible for overseeing the *North Carolina Standard Course of Study*. They are required to provide this standard course of study to teachers. According to the *Introduction* found in the *Quick Reference Guide for the North Carolina Standard Couse of Study in Kindergarten*:

North Carolina's *Standard Course of Study* defines the appropriate content standards for each grade level and each high school course to provide a uniform set of learning standards for every public school in North Carolina. These standards define what students should know and be able to do by the end of a grade and/or course (NCDPI, 2021, p. 5.).

Kindergarten teachers in the state are required to use the *Kindergarten Standard Course of Study* to provide instruction in their classrooms. These standards are used so all kindergarten teachers will have a common instructional focus in all kindergarten classrooms statewide.

Focus on Academics

Recent changes in the type of learning accomplished in kindergarten have created new dimensions to kindergarten readiness. Though preschool education continues using play-based objectives, there are more academic objectives to be met. This is due to more academic demands for kindergartners, who are now are expected to have knowledge of sounds, concepts of print, and writing skills when entering kindergarten. Parents sometimes feel anxious when their child transitions to kindergarten because of these greater expectations in some areas and lack clarity about what is expected (Hatcher et al., 2012). Preschool teachers and kindergarten teachers could

benefit from further understanding kindergarten readiness skills to help alleviate any anxiety that may come from preparing for kindergarten.

Federal Initiatives

The importance of kindergarten readiness has been tied to federal resources that date back to the 1960's and have been used to improve the skills of children entering kindergarten. An example of this can be found with the federally-funded program, Head Start. As a part of Lyndon B. Johnson's 'War on Poverty,' Head Start was created in order to provide children in poverty an opportunity to enter kindergarten ready to learn. What began as a summer program has grown into a multi-faceted program that works with families all year (Vinovskis, 2005).

According to the U. S. Department of Health and Human Services (USDHHS), Head Start Early Childhood Learning and Knowledge Center, Head Start served 721,512 (p. 3) families and 840,514 (p, 1) children nationwide to help them become school ready in the 2021-2022 school year. Children in Head Start can attend home or center-based programs at no cost. Head Start programs work with preschoolers and their families to encourage them to prepare their children for school and help them succeed in life. According to the Early Childhood Knowledge and Learning Center website:

> Head Start programs prepare America's most vulnerable young children to succeed in school and in life beyond school. To achieve this, Head Start programs deliver services to children and families in core areas of early learning, health, and family well-being while engaging parents as partners every step of the way (USDHHS, 2020, para.1).

Head Start focuses on the whole family in order to help children develop skills that will prepare them for kindergarten.

The Clinton administration created another federal initiative in 1994: *Goals 2000: Educate American Act*. The purpose of this legislation was to provide a way for all children to be ready to enter kindergarten ready to learn by the year 2000. The means that would help accomplish this goal by making high quality preschool programs available, have parents trained as their child's first teacher, and help create healthy lifestyles for children. As a result of this legislation, many felt the need for a "reconceptualization of 'readiness'" (Espinosa, et al., 1997, p. 119). Along with a child's readiness to enter school came the need for the school environment to be ready for children entering kindergarten. The Act sought to accomplish this as well.

Most recently, the federal government enacted the *Every Student Succeeds Act of 2015*, which also makes preschool a priority. The main objective is to improve preschool education so that children are ready to enter kindergarten. The Act emphasized developing higher academic skills in kindergarten and beyond. With this emphasis is the need to provide quality preschool experiences.

Readiness Inventories

Another theme within the literature was the need for a kindergarten readiness inventory that will measure the skills needed for kindergarten and would be given by preschool or kindergarten teachers. Saluja et al. (2000) surveyed every state to ascertain if (and how) they assessed kindergartners with readiness assessments. The study was done in hopes that teachers could be informed about curriculum needs and production, as well as maintain accountability for growth in their kindergarten classroom. The study found that age was the primary determinant of readiness for kindergarten across the United States.

Saluja et al. (2000) found that there was no formal definition of kindergarten readiness. Several states were investigating kindergarten readiness at the time of their study, and some

kindergarten readiness assessments were being created locally. The argument can be made, though, that when readiness assessments are developed locally, they are not a product of systematic research. Local guidelines and teacher opinions often prevail without using supporting research on the topic. However, "understanding the condition of children as they enter school can provide clues to help parents and teachers understand children's performance later in their school career" (Saluja et al., 2000, p. 1). The researchers indicated that there has been an increase in accountability and student performance over time. In addition, they suggested that a definition of kindergarten readiness and entry assessments can assist with this increased level of accountability and that without a proper definition; there cannot be a valid entry assessment.

As mentioned previously, North Carolina has developed a formative assessment (NCELI) to help educators understand important kindergarten readiness skills by implementing its use in all public school kindergartens. The NCELI is a beginning of kindergarten formative assessment to inform kindergarten teachers of where their children are on a developmental continuum on day 60 of school. This assists teachers in determining the strengths and weaknesses of their children towards the beginning of the school year. The assessment is not local but tied to a research-based nationwide developmental continuum, formulated through the state's Office of Early Learning and first used in the 2020-2021 school year.

Teaching Strategies GOLD® is a multifaceted form of assessment for children from birth through third grade. The Teaching Strategies GOLD® developmental assessment is used by all pre-K teachers in North Carolina to determine the skills learned in the preschool setting and help ensure children are prepared to enter kindergarten. "Taking a whole-child approach, GOLD assesses children's development and learning across four developmental domains (social-

emotional, physical, language, cognitive) and five content domains (literacy, mathematics, science and technology, social studies, and the arts)" (Lambert, 2020, p. 5). Teaching Strategies GOLD® allows teachers to assess their students throughout the school year to determine strengths and needs. This instrument is now used widely across the United States, and is used with more than 15 million children (Burts et al., 2016).

The North Carolina Early Education Task Force (2013) published *North Carolina Foundations for Early Learning and Development*. This document gave information for all early childhood caregivers across the state regarding developmental levels of children that they serve. It is intended to help the educator understand developmental guidelines and typical behaviors in order to help children prepare for kindergarten. All early childhood educators within the state are encouraged to use this continuum as a guide for teaching and learning (North Carolina Foundations for Early Learning and Development, 2013).

Conclusion

This chapter reviewed relevant literature regarding kindergarten readiness. Topics addressed throughout the chapter were: rationale of the need for a definition; current understandings of kindergarten readiness; importance of behavioral skills; role of preschool in kindergarten readiness; kindergarten standards; focus on academics; federal initiatives; and readiness inventories. The factors discussed have an impact on the subject. Chapter 3 discusses the methodology of the research, the role of the researcher within the research, how and where the research occurred, and how the data was collected and analyzed.

CHAPTER 3: METHODS

Kindergarten readiness continues to be an important issue surrounding the academic and social success of children as they begin their school experiences. Though it is a multidimensional concept, kindergarten readiness broadly means that a young child has developed the skills that will help them succeed during their first year of kindergarten (Altun, 2018). Children who exhibit this readiness typically go on to experience more academic and social achievements in school (Bingham & Whitebread, 2012). However, ambiguity continues about what it means to be ready for kindergarten, warranting further exploration of this topic (Akhter & Bilal, 2018).

The purpose of this study was to understand how preschool and kindergarten teachers understand kindergarten readiness. The researcher explored data from five focus group interviews in which preschool and kindergarten teachers discussed their experiences and perspectives about what constitutes kindergarten readiness. Findings contributed to the limited literature on this subject. More importantly, practitioners and policymakers could use the findings from this research as they seek to ensure that young children have the prerequisite skills, dispositions, and knowledge to effectively transition to kindergarten. The methodology used in this study and the focus groups are described in the sections that follow.

Research Design

This research produced a data set as part of previously conducted research. It utilized a basic, qualitative, interpretive design. Qualitative inquiry is appropriate for this study because of its broad approach to understanding social phenomena and effectiveness in exploring individuals' understandings of their experiences and how they develop these perceptions (Marshall & Rossman, 2006). Creswell (2013) wrote that qualitative methodology allowed researchers to extensively explore a concept and develop detailed understandings of complex

issues. Merriman and Tisdale (2016) added that a basic interpretive, qualitative design is effective for understanding how participants interact with the world around them and attribute meaning to their experiences. A qualitative design was selected for this study because it explored teachers' understandings of the complex and often ambiguous phenomena of kindergarten readiness.

This qualitative research utilized a focus group design. According to Krueger and Casey (2015), focus groups involve more than just getting a group of people together to talk. Rather, they are used to better understand how people feel or think about an idea or issue. This design uses a series of planned discussions led by a skilled moderator and is intended to obtain perceptions about an area of interest in a non-threatening environment. Focus groups are generally composed of seven to 10 people, although they can be conducted with as few as four and as many as 12 (Krueger & Casey, 2015).

There are advantages to using focus groups. This method assumes that an individual's perspective does not develop in a vacuum. People often build their ideas by sharing them with others (Marshall & Rossman, 2006). As described by Krueger and Casey (2015), a focus group design presents a more natural environment for participants than does an individual interview. Focus group participants influence one another as they share their thoughts through active dialogue. Unlike a one-on-one interview with a researcher, exchanges between participants in focus groups imitate the everyday, lively dialogue in which people commonly engage (Krueger & Casey, 2015). Marshall and Rossman (2006) also noted that focus groups have high face validity because the method is readily understood. They also considered that focus groups can enlarge the size of participants in qualitative research, which proved to be true of this study.

There are, however, several concerns related to using focus groups. First, Marshall and Rossman (2006) noted that power dynamics within a larger group might affect participants' responses. In the focus groups used for this study, this power dynamic was addressed by using smaller, breakout groups for the majority of the participants' conversation. Also, the researcher's coding of participants' responses was focused solely on the responses of preschool and kindergarten teachers, rather than having other participants. Second, focus groups can also be more difficult to manage as they involve more participants than a one-on-one interview. In the focus groups used for this study, that issue was also addressed by using smaller breakout sessions and semi-structured questions that directed participants back to the primary subject.

A multiple-category focus group design was used to gather data in this research. As described by Krueger and Casey (2015), this design involves multiple focus groups with more than one category of participants. Doing this allows the researcher to make comparisons from one group to another. In the current study, the researcher wanted to explore the perspectives of preschool teachers and kindergarten teachers who participated in the original study groups.

Research Questions

The following research questions were used to guide this study and the analysis of data:

RQ1: In what ways do kindergarten teachers perceive kindergarten readiness as measured on day 60 of a student's kindergarten year?

RQ2: In what ways do preschool teachers perceive kindergarten readiness as measured on day 60 of a student's kindergarten year?

RQ3: What are the similarities and differences between kindergarten and preschool teachers' perceptions of kindergarten readiness on day 60 of a students' kindergarten year?

Role of the Researcher

The focus group sessions that generated the data to be analyzed for this study consisted of two parts: a larger group session followed by smaller breakout ones. Within each of the five focus group interviews, the researcher was a participant-observer during the larger group session and a facilitator-participant in each small group breakout session.

The focus group interviews began with a large-group session that was used to inform participants about the purpose of the study and provide directions. The researcher was solely a participant-observer during the larger session and focused on listening to the information from the facilitator as well as the responses of participants. The researcher made informal field notes during that initial larger group session but did not provide comments or feedback during this initial part of each focus group.

The initial larger-group portion of each focus group was immediately followed by three small breakout sessions. Most participant interaction and commentary occurred during the three breakout sessions. The researcher served as a facilitator of one breakout session during each focus group. During the breakout session, the researcher posed questions, recorded participants' comments on a *Google Doc*, and provided prompts to enhance clarity. The researcher concentrated on having participants provide real-life examples of their perspectives based on their classrooms. Additional descriptions of each breakout session are described in the data collection section below.

Participants returned to the larger group after the breakout sessions. At this time, the researcher reported to the larger group about the conversation that was held during the breakout session. The researcher continued to take field notes as other facilitators of breakout sessions

also reported their group's conversations. The researcher also encouraged the members of each breakout session to join the larger conversation.

The researcher also participated in debriefing sessions with the research team following each focus group. These sessions were used to reflect on the main points of the focus group conversation and to refine the focus group protocol. The researcher contributed to the conversation and continued to take field notes during these debriefing sessions.

Positionality Statement

This researcher has extensive knowledge and experience that relate to this study. Most of her career has been spent working in the early childhood setting. In addition, as a parent, the researcher has personal experiences with the academic and social development of preschool and kindergarten children.

This investigator is the director of a Head Start program in North Carolina. She has worked only with low-income, Title I schools. She began as a third-grade teacher and then as a first-grade teacher. While teaching first grade, the researcher grew to love early childhood education. She especially enjoyed witnessing her students' developmental levels. Also, while still teaching first grade, the researcher was recommended to become a trainer in the North Carolina Teaching Academy on the Reading First initiative, an early childhood literacy initiative. This allowed her to have quality training on the science of reading.

The researcher then obtained a master's degree in school administration, which led to formal leadership roles. Her first leadership position allowed her to work with the K-2 curriculum in a large, low-income elementary school in North Carolina. The researcher also spent six years as an assistant principal in a low-income, Title I school that qualified as a Reading First school. For the past 12 years, the researcher has served as a Head Start director for

a school district. During her time as a Head Start Director, she has seen the need to define what is meant by being ready for kindergarten.

These professional experiences led to the researcher's interest in this subject. While working as a Head Start director and a doctoral student, she developed a professional relationship with Dr. Rich Lambert, a professor at UNC-Charlotte who does extensive work in the field of early childhood education. Dr. Lambert also serves as the Director of the Center for Educational Measurement and Evaluation at UNC-Charlotte. During her doctoral program, the researcher was asked by Dr. Lambert if she would be interested in participating in a research study on kindergarten readiness. This research project with Dr. Lambert generated the data that the researcher examined more fully.

While the researcher's experiences provide a strong background related to this study, her background could also lead to bias. To limit any bias that might arise from the researcher's extensive experience in the area of early childhood education, all facts of the study were consciously directed to the responses of the participants.

Setting

All focus groups were conducted using *Zoom* virtual meeting technology. Doing so enabled the researcher to comply with safety protocol surrounding the Covid-19 pandemic. It also enabled the researcher to involve participants from a broad geographical area. The focus group sessions were held on Mondays and Wednesdays between 2:00 pm and 5:00 pm in the spring of 2022. The study considered only kindergarten readiness in North Carolina.

Participants

According to Krueger and Casey (2015), focus groups are characterized by homogeneity. Participants are selected for them because they have characteristics in common that relate to the

topic of interest. While randomization is important in research that seeks to infer, homogeneity of participants is valued more than randomization in focus group research. This homogeneity is important because the intent of focus group research is to understand how people within the groups perceive a situation. In this study, homogeneity was achieved by having only participants from North Carolina whose work meant that they had extensive knowledge about early childhood education.

A series of five focus groups were held to gather data. Each focus group consisted of up to 10 participants. As the study was part of a larger study, participants in the focus groups included more than preschool and kindergarten teachers. Each focus group included a state regional consultant from the NCDPI's Office of Early Learning (OEL), at least one preschool teacher, at least one kindergarten teacher, a school-based administrator, and a content area expert. However, the data analysis for the study used only the responses of preschool and kindergarten teachers. Fifty-two participants were involved in the original study, with each participant receiving a $100 gift card for their participation. Of the 52 participants, seven were preschool teachers, and 12 were kindergarten teachers.

Participants were selected in two ways. First, OEL regional consultants drew upon their knowledge to nominate preschool teachers, kindergarten teachers, and school administrators that had experience with the NCELI and with Teaching Strategies GOLD® at the school level. Second, OEL regional consultants were assigned to participate in at least one focus group by their supervisors. Third, the Center for Educational Measurement and Evaluation (CEME) at the University of North Carolina-Charlotte, along with the OEL, identified content area experts for each focus group. All potential participants were contacted via email by CEME and invited to participate. Those who agreed to do so were asked to select one of the five focus groups in which

to participate. No participant was involved in more than one focus group. No restrictions were placed on years of experience or other professional or personal factors.

Instrumentation

The NCELI was essential to gather data for this study. As previously discussed, NCELI is an observation-based assessment used by classroom teachers to measure students' academic and social skills on day 60 of kindergarten. During each breakout session, participants were asked to analyze three objectives of the assessment. Specifically, participants were asked to determine a score between 1 and 14 for each objective that best represented the skills that typically-developing children would be able to demonstrate around the time the assessment is given. The NCELI scores are such that '1' is the lowest developmental rating and '14' is the highest. A rating of '1' corresponds to the age of birth to one-year old; '14' corresponds to an average student at the end of third grade. Examples of objectives that participants used for those that were meeting expectations were, "Do bear and chair rhyme?" and "When asked what comes after 16, says, '17' without beginning at one" (Lambert et al., 2010).

In addition to numerically rating each of the NCELI objectives, participants were asked to identify specific examples from their experiences that illustrate skills that typically developing children would exhibit on day 60 of kindergarten. For example, objective six on NCELI examines the ability of children to follow directions of two or more steps that relate to familiar objectives or experiences. Participants were asked to numerically rate this objective from 1 to 14. They were then asked to discuss examples of what this objective looks like in real kindergarten classrooms on the assessment day of school. Therefore, the researcher had two categories of data for analysis: the focus group ratings of each NCELI objective and the comments from focus group participants about how the objectives happen in classrooms.

Data Collection

Data for this study were collected through a series of five focus groups during the spring of 2022, each of which was audio recorded. The research team assigned participants into focus groups such that each of the five groups had almost identical numbers of participants. A pilot study was used to enhance focus group protocol. While the original design did not include a pilot study, the research team decided during the debriefing session that followed the first focus group that revisions needed to be made. The intention of the broader research that the research took part in as a participant observer was to gain perceptions of kindergarten and preschool teachers in the state of North Carolina as they pertained to the NCELI to determine kindergarten readiness. The study also investigated teachers' perception of the NCELI along with their understanding of formative assessment, and benefits and hindrances as they pertained to the NCELI. Specifically, the initial focus group struggled to reach a consensus about several of the NCELI ratings.

Therefore, the first focus group session was treated as a type of pilot study. That group was asked to participate in a follow-up focus group session in which the revised and clearer protocol was utilized. The larger group session was used to inform participants about the purpose of the study and provide directions about their participation in it. This portion of the focus group interview was used for role clarification and to answer any questions participants might have. At this point, no interview questions were asked of participants. The initial large-group portion of each focus group was immediately followed by three breakout sessions. Each breakout session had its own facilitator. Most participants' interaction and comment took place during the breakout sessions.

All participants returned to the larger group following the conclusion of the breakout sessions. Each facilitator then reported to the larger group about the conversation from each breakout session. Specifically, each breakout group reported their perception of kindergarten readiness as measured on day 60 of a student's kindergarten year. The focus group moderator used the final larger-group meeting to develop consensus among participants about the ratings they provided during the breakout sessions.

Data Analysis

Krueger and Casey (2015) wrote that the purpose of data analysis in focus group research is to bring meaning to responses. This search for meaning in the data is driven by the purpose of the study and given by the research questions. Most importantly, this process must be systematic, verifiable, sequential, and consequential. Therefore, the analysis must be deliberate and planned. This analysis was more complicated with focus groups because the conversations being analyzed included spontaneous comments, repetition, and ambiguity.

The data analysis for this proposed study aligned with the guidelines established by Krueger and Casey (2015) for focus group research. First, as part of the original data gathering, a 15- to 30-minute debriefing session was held with the research team following each focus group. The team shared notes and highlights from the focus group. To ensure mutual understanding, the team also compared what everyone on the team observed or heard. The researcher for this study participated in these debriefing sessions and took extensive field notes. In addition, to ensure the accuracy of data analysis, an audio recording of each focus group was made using *Zoom*. A transcript of each focus group was also developed using the platform.

Following IRB approval, the researcher began analyzing the data by reading field notes that were taken during each focus group. After reading all notes, they were more closely

analyzed. More thorough descriptive notes and codes were given to them in order to highlight the main ideas that arose during each focus group.

After reviewing the field notes, the researcher began coding the transcripts from each focus group. The researcher conducted a reading of each transcript. No coding took place until the initial reading was concluded. Then, using manual coding, the researcher began using a combination of descriptive and NVIVO codes to capture each group's response to the first prompt (i.e., the first objective of the NCELI). Especially noteworthy quotations from participants were underscored and highlighted for potential use in illustrating categories and themes that emerged.

The researcher recorded each group's rating of the first objective on the NCELI and then coded participants' descriptions of their classroom experiences that relate to that objective. As the focus of this inquiry is solely on preschool and kindergarten teachers, only their descriptions of classroom experiences were coded. After coding each groups' responses to the first objective on the NCELI, the researcher examined and coded preschool and kindergarten teachers' responses from each group for the second objective. This process was repeated until all preschool and kindergarten teachers' responses to each prompt were completed. Using the constant comparative method, each interpretation was compared with previous codes.

Following this initial round of coding, the researcher began analyzing the descriptive and NVIVO codes that arose. An Excel database was used during this process. The researcher reviewed the codes and quotations that were noted from the first prompt (the first objective of the NCELI). Similar codes and quotations were grouped together, forming categories and subcategories. A brief, descriptive summary was then written about what each group said in response to the prompt. This process was repeated for each prompt, or objective on the NCELI.

After writing a brief, descriptive summary for each prompt based on a review of codes and considering the factors listed above, the researcher looked at the prompts to see what themes cut across NCELI objectives. These themes were the basis of interpretations and recommendations.

Trustworthiness

Lincoln and Guba's (1985) definition of trustworthiness in qualitative research was used in this study to ensure the trustworthiness of all aspects of the study. Specifically, Lincoln and Guba suggested that trustworthy research is credible in its findings. They also noted that trustworthiness involved the dependability and consistency of findings, meaning that the research could be replicated. Finally, they maintained that trustworthiness is established through neutrality. That is, the participants and not the researcher's biases shape the findings.

Several strategies from Lincoln and Guba (1985) were utilized to maintain the trustworthiness of this study. First, the researcher used peer debriefing, a process in which she frequently met with her dissertation advisor and research methodologist to refine all aspects of the study. Second, the same series of semi-structured research questions were used during each of the focus group interviews, thereby promoting consistency of data gathering. Third, each of the focus group interviews were recorded, thereby ensuring the accuracy of transcriptions used for data analysis.

These recordings also afforded the researcher the opportunity to listen to participants' responses multiple times, again aiding in the accuracy of the analysis. Fourth, a form of member checking occurred at the end of each focus group as participants were provided with a verbal and visual summary of the group's discussion and offered an opportunity to provide clarification or

additional insights. Fifth, peer debriefing was also utilized immediately following each focus group interview.

The research team met to review field notes, discuss initial perceptions, identify major points from each group, highlight any extraordinary comments, and determine if modifications to procedures were needed before the next group. Finally, robust descriptions of the methodology were provided in this chapter, and rich descriptions of the participants' perceptions were included in Chapter 4 to support major assertions.

Ethical Considerations

Actions were taken to ensure that all aspects of this study were conducted professionally and ethically. First, IRB approval was obtained before conducting the original focus groups, and a second approval was sought before data analysis. The voluntary nature of participation was explained to all participants before beginning the focus groups. Participants were also reminded at the time of the focus group interviews that their responses were being recorded. They were also told they could withdraw from participation at any time.

Next, the questions of the study did not address personal or sensitive topics. Rather, they focused on broad academic issues and participants' professional experiences. Additionally, only the research team had access to the data collected, all of which were stored on password-protected devices.

Conclusion

This chapter discussed the research methodology was used to obtain data, along with a description of how data analysis was done. The researcher gave a description of the study as well as the procedures used with the focus groups. Strategies used to minimize risks to participants were provided along with an explanation of how the trustworthiness of the proposed study was

enhanced. Chapter 4 discusses the study's findings. Demographics of participants are given and responses to each interview question are described and analyses is provided to answer the studies research questions.

CHAPTER 4: RESULTS AND DISCUSSION

The purpose of this study was to investigate and determine kindergarten and preschool teachers' perceptions regarding key skills and characteristics that students need to acquire by day 60 of kindergarten in order to experience positive long-term educational outcomes. The study illuminates key skills that need to be intentionally taught in an early childhood setting so that students show growth in kindergarten and throughout their education. Overall, it was an attempt to define "kindergarten readiness", a description of the specific procedures used in the study and includes themes and key findings related to the research questions. A summary of the findings is included as well.

Participant Summary

The participants in the study were kindergarten and preschool teachers from across North Carolina. Recruitment emails were sent to possible participants recruiting their services. Participants were purposefully chosen because of their knowledge of the NCELI and their professional experiences working in the field of early childhood education. Table 2 lists the gender, ethnicity, years of experience in early childhood education, and total years in education for the participants in each panel. Pseudonyms are used for privacy.

Panel 1

Panel 1 consisted of one kindergarten teacher and three preschool teachers. The kindergarten teacher was Susie. Susie was a White woman with five years' experience teaching in early childhood. The preschool teachers were Pam, Mia, and Bailey. Pam was a White woman with 16 years of teaching early childhood. Mia was a White woman with 10-years as an early childhood teacher. Bailey was a White woman with seven years' experience teaching early childhood.

Panel 2

Panel 2 consisted of three kindergarten teachers and one preschool teacher. The kindergarten teachers were Sam, Mila, and Gabriel. Sam was a White woman with six years of experience. Mila was a White woman with 10 years of experience teaching early childhood. Gabriel was a White woman with six years of experience. The preschool teacher was Jude, a White woman with seven years of experience teaching early childhood.

Panel 3

Panel 3 had two kindergarten teachers and two preschool teachers. The kindergarten teachers were Jamie and Grace. Jamie was a White woman with seven years of teaching in early childhood. Grace was an African American woman with 26 years of teaching in early childhood. The preschool teachers were Sophia and Madison. Sophia was a White woman with four years of experience teaching early childhood. Madison was a White woman with six years of experience teaching early childhood.

Panel 4

Panel 4 consisted of one kindergarten teacher and one preschool teacher. The kindergarten teacher was Brianna, a White woman with 19 years of experience teaching in early childhood. The preschool teacher was Stella, a White woman with 25 years of experience teaching early childhood.

Panel 5

Panel 5 consisted of two kindergarten teachers, Ruby and Jessie. Ruby was a White woman with 24 years of experience teaching in early childhood. Jessie was a White woman with four years of experience teaching early childhood. There were no preschool teachers in Panel 5.

Table 3

Participant Summary

Assignment	Panel	Gender	Ethnicity	Years in Early Childhood	Years of Experience
Kindergarten Teacher/ Susie	1	F	White	5	9
Preschool Teacher/ Pam	1	F	White	16	24
Preschool Teacher/ Mia	1	F	White	10	25
Preschool Teacher/ Bailey	1	F	White	7	12
Kindergarten Teacher/ Sam	2	F	White	6	11
Kindergarten Teacher/ Mila	2	F	White	10	17
Kindergarten Teacher/ Gabriel	2	F	White	6	8
Preschool Teacher/ Jude	2	F	White	7	25
Kindergarten Teacher/ Jamie	3	F	White	2	17
Kindergarten Teacher/ Grace	3	F	African American	26	30
Preschool Teacher/Sophia	3	F	White	4	5
Preschool Teacher/Madison	3	F	White	6	13
Kindergarten Teacher/Brianna	4	F	White	19	25
Preschool Teacher/ Stella	4	F	White	25	25
Kindergarten Teacher/ Ruby	5	F	White	24	24
Kindergarten Teacher/ Jessie	5	F	White	4	15

Findings by NCELI Objective

The answers to these findings led to themes, which answered the research questions, offered at the conclusion of Chapter 4. Participants expressed very similar ideas during the study with little disagreement over their perceptions of kindergarten readiness on day 60 of

kindergarten. Specific findings were given by each panel that pertained to the objectives. Those findings are below.

Objective 1

Typical kindergarten students on day 60 of kindergarten do not have full control of their emotions and are inconsistent when handling their own behaviors when emotions are involved.

Objective 2

Typical kindergarten students on day 60 understand that others have feelings that are similar to their own feelings. These students also understand the causes of others' feelings, and show concern for others.

Objective 3

Typical kindergarten students on day 60 have some difficulty emerging into groups of play, but are able to "Initiate, Join in, Sustain Positive Interactions with a Small Group of Two to Three Children" (Burts et al., 2016). A kindergarten teacher perceived that students could interact with a group of two to three children. The preschool teachers suggested that students should be able to "Interact Cooperatively in a Group of Four to Five People" (Burts et al., 2016).

Objective 4

Typical kindergarten students on day 60 understand that there are certain rules for behavior in the school environment. Students are able to follow those rules consistently; however, they have difficulty understanding rules of an environment that is new to them. Students who experienced a preschool program before kindergarten would have more advanced skills in this objective.

Objective 5

Typical kindergarten students on day 60 are able to "Manage Classroom Rules, Routines, and Transitions with Occasional Reminders" (Burts et al., 2016). Typical kindergarten students by that day should be able to solve problems but have difficulty negotiating or compromising when problem solving was presented. As a result, they need assistance from an adult to solve the problems appropriately, especially when there are new or unfamiliar situations. Kindergarten teachers perceived that students had more developed skills in this objective versus the preschool teachers. Both kindergarten and preschool teachers perceived that students are able to "Suggest Solutions to Social Problems" (Burts et al., 2016).

Objective 6

Typical kindergarten students on day 60 have difficulty mastering the objective, "Attends and Engages" (Burts et al., 2016). Kindergarten teachers believed that students at this level could not be consistent in this objective, and the preschool teacher perceived that students would have to exhibit a high level of executive functioning to be successful with this objective at this point in the school year. The preschool teacher also said there would need to be a high level of interest in the instruction for students to be successful at this level. Teachers agreed that students should be at the level of "Sustains Work on Age-Appropriate, Interesting Tasks; Can Ignore Most Distractions and Interruptions" (Burts et al., 2016).

Objective 7

Typical kindergarten students on day 60 are able to follow directions with gentle reminders. Preschool teachers said that students would have difficulty following directions when routines or procedures changed because they thrive on routine. Kindergarten and preschool teachers differed in their opinion of what constitutes typical development for this objective.

Kindergarten teachers expressed that students should fall on the lower end of the continuum with, "Follows Directions of Two or More Steps that Relate to Familiar Objects and Experiences" (Burts et al., 2016). Preschool teachers perceived that students should, "Follow Detailed, Instructional, and Multistep Directions" (Burts et al., 2016).

Objective 8

Typical kindergarten students on day 60 were not always able to tell a story in logical sequence. Both kindergarten and preschool teachers saw this as a difficult task. They agreed that average kindergartners should achieve the objective, "Tells Stories About other Times and Places that have a Logical Order and that Include Major Details" (Burts et al., 2016).

Objective 9

Typical kindergarten students on day 60 should be able to use fingers and hands properly when using scissors. Preschool teachers agreed that typical students could achieve the higher level of "Uses Small, Precise Finger and Hand Movements," and kindergarten teachers agreed that their typical students could achieve a lower objective of "Uses Refined Wrist and Finger Movement" (Burts et al., 2016).

Objective 10

Typical kindergarten students on day 60 can "Notice and Discriminate Rhyme" (Burts et al., 2016) with pictures. Students were able to hear rhyming words when presented. The kindergarten teacher said that a typical student by that time could "Decide Whether Two Words Rhyme" (Burts et al., 2016).

Objective 11

Typical kindergarteners on day 60 can notice alliteration but may not be able to name the letter is involved. The kindergarten teacher thought that a typical kindergarten student could "Match Beginning Sounds of Some Words" (Burts et al., 2016).

Objective 12

Typical kindergarten students on day 60 should be able to count to 10. The teachers added that this is typically rote counting. They also agreed that typical kindergartners can "Verbally Count to 20; counts 10-20 Objects Accurately; Know the Last Number; State How Many in All; Tell what Number (1-10) comes Next in Order by Counting" (Burts et al., 2016).

Objective 13

Typical kindergarten students on day 60 would have difficulty with the objective "Quantifies" (Burts et al., 2016) because it is not typically taught before then. This skill is one that is taught all year so students can "increase their accuracy." Teachers expressed that students should be accomplished at the skill "Makes sets of 6-10 Objects and then Describes the Parts; Identifies which Part has More, Less, or the Same (Equal); Counts All or Counts on to Find Out How Many" (Burts et al., 2016).

Objective 14

Typical kindergarten students on the day 60 should be able to accomplish the skills of "Identifies Numerals to 10 by Name and Connects Each to Counted Objects" and "Identifies Numerals to 20 by Name and Connects each to Counted Objects; Represents how many by Writing One-Digit Numerals and some Two-Digit Numerals" (Burts et al., 2016).

Further descriptions of each theme are included in the following section. The results of the research will be organized by NCELI objectives. Each panel had a particular skill or

objective that teachers rated as they pertained to kindergarten readiness skills. The results will be displayed in tables that include thoughts from preschool and kindergarten teachers. Results will then be summarized by comparing the perceptions of kindergarten versus preschool teachers. The similarities or differences between kindergarten and preschool teachers are summarized.

Table 3 lists each panel (focus group), the domains they addressed, and the related objectives for these domains.

Table 4

Panels, Domains, and Objectives

Panel	Domain	Objectives
1	Social and Emotional	1.Manages Feelings
		2. Responds to Emotional Cues
		3. Interacts with Peers
2	Social and Emotional	4. Follows Limits and Expectations
		5. Solves Social Problems
	Cognitive	6. Attends and Engages
3	Language	7. Follows Directions
		8. Tells About Another Place and Time
	Physical	9. Uses Fingers and Hands
4	Literacy	10. Notices and Discriminates Rhyme
		11. Notices and Discriminates Alliteration
5	Math	12. Counts
		13. Quantifies
		14. Connects Numerals and Quantities

Data gathered from each panel allowed the researcher to address each research question. In the narrative that follows, the researcher presents findings from each panel as they discussed the objectives of each domain.

Panel 1: Objectives in the Social and Emotional Domain

In the first panel, the researcher wanted to determine kindergarten and preschool teachers' perceptions of three objectives under the domain of social and emotional learning. The three objectives of the domain were: manages feelings; responds to emotional cues, and interacts with peers. The findings from teachers' perceptions about these objectives are described in sections that follow. Panel 1 included one kindergarten teacher and three preschool teachers.

"Manages Feelings"

The objective, "Manages Feelings" (Objective 1), relates to the ability of kindergartners to regulate their own emotions. It directly addresses the abilities that students have in order to calm themselves and control their emotions and behaviors. The NCELI scoring ranges for the objective span from the skills "Using Adult Support to Calm Self" (Level 1) to "Demonstrates Patience with Personal Limitations; Controls Feelings Based on How they will Affect Others" (Level 13) (Burts et al., 2016). The objective spans from a child learning to use support from an adult to manage their feelings during early stages and progress to a child being able to manage feelings on their own in later stages. The objective is for the child to learn how to manage feelings on their own.

Table 4 compares the expectations of the kindergarten teacher with that of the preschool teacher concerning students managing their emotions at day 60 of kindergarten needed an adult to facilitate the management of their feelings. The kindergarten teacher thought that students at the target day should be able to calm themselves consistently and can have conversations about their feelings. She also believed that students at this stage are unable to understand delayed gratification, have difficulty vocalizing feelings, and are not able to control emotions. She

commented that there have been more expectations placed on kindergarteners recently than in previous years.

This teacher considered that students at this age should score between Levels 4-6, and the majority of students should score between Levels 5-6 range on the NCELI. In order to master these levels, a student would have to master Level 4 on the NCELI, which is, "Comforts Self by Seeking out Special Object or Person." They would also have to master Level 6 on the continuum. Level 6 is "Is Able to look at a Situation Differently or Delay Gratification."

Preschool teachers on Panel 1 said that students at day 60 of kindergarten are able to identify emotions within literature. Preschool teachers perceived that students at this level should score between Levels 5-6 on the NCELI. In order to be at that level, a student would have to master Level 6 on the continuum, which is, "Is Able to Look at a Situation Differently or Delay Gratification" (Burts et al., 2016).

The kindergarten teacher added more on "Manages Feelings", the teachers mentioned that students should be able to name and clarify what feelings are, whether from literature or within themselves. They both perceived there was not a deep understanding of, or ability to master, the concept of "Manages Feelings." They also differed in the ranges of typically developing students on day 60. The kindergarten teacher gave a range of 4-6 on the NCELI continuum, while preschool teachers suggested a range between 5-6.

Table 5

Panel 1: Social and Emotional Domain; Manages Feelings

1 Kindergarten Teacher	3 Preschool Teachers
In what ways do kindergarten teachers perceive kindergarten readiness as measured on day 60 of a student's kindergarten year?	In what ways do preschool teachers perceive kindergarten readiness as measured on day 60of a student's kindergarten year?

Students:

Need an adult to facilitate
Can consistently use strategies to calm
themselves
Can have conversations about their feelings
Are unable to understand delayed gratification
Have difficulty verbalizing feelings
Are not able to control emotions; have more
expectations than in previous years of
kindergarten
Should score between Levels 4-6, and the
majority of students should score between
Levels 5-6 range on the NCELI

Students:

Are able to identify feelings through the use
of literature
Should score between Levels 5-6 on the
NCELI

"Responds to Emotional Cues"

The objective "Responds to Emotional Cues" (Objective 2) refers to the ability of a child to "Establish and Sustain Positive Relationships." Educators can rate a child's understanding of their feelings of others and their ability to react appropriately to those emotional cues using this continuum. The objectives on the continuum for the preschooler range from "Reacts to Others' Emotional Expressions" to "Uses Situational Context and Past Experiences when Interpreting Another's Feelings: Gauges Reactions of Others to Determine Response" (Burts et al., 2016). The scoring range is 1-14.

The kindergarten teacher from Panel 1 had much to say regarding this objective. She expressed that students are able to understand that others may have different feelings from them. She went on to say that students on day 60 do not recognize the emotions within a piece of literature as being the same as their own, even though they are able to identify those emotions within the literature. The kindergarten teacher believed that students at this level of development should score between Levels 4-7 on the NCELI, with the majority of them scoring between Levels 5-6. In order to score at that level, students have to exhibit the following skills:

"Demonstrates Concerns about the Feelings of Others" and "Identifies Basic Emotional Reactions of Others and Their Causes Accurately" (Burts et al., 2016).

The preschool teachers on the panel perceived that students at this developmental level are unable to understand that others may have different feelings than them, but cannot understand or even verbalize the feelings of others. They perceived that students on day 60 should score between Levels 6-7 on the NCELI. Students would have to master the skill of "Identifies Basic Emotional Reactions of Others and Their Causes Accurately" (Burts et al., 2016).

It was evident from the panel discussion that kindergarten and preschool teachers perceived that students at day 60 would not always be able to fully understand the concept of understanding feelings. They concurred that students at this stage do not understand that others may have different feelings than them. The two groups also agreed that students are not able to compare emotions found in literature to their own feelings, though they can name those feelings. The kindergarten teacher agreed to a range of 5-6 on the continuum.

In order to score at that level, a student would have to master a Level 6 on the continuum, which is stated as "Identifies Basic Emotional Reactions of Others and Their Causes Accurately" (Burts et al., 2016). Preschool teachers ranked this level of development to be between Levels 6-7. In order to be at that level, a student would also have to master a Level 6 on the continuum, which is "Identifies Basic Emotional Reactions of Others and Their Causes Accurately" (Burts et al., 2016).

Table 6

Panel 1: Social and Emotional Domain; Responds to Emotional Cues

1 Kindergarten Teacher	3 Preschool Teachers
Students:	Students:

Are unable to understand others may have different feelings than them	Are unable to understand others may have different feelings than them
Do not see emotions in literature the same as their emotions	Are unable to understand others' feelings
Are able to identify basic emotions within literature	Are unable to vocalize the feelings of others
Should score between the Levels 4-7, with the majority of students scoring between Levels 5-6 on the NCELI	Should score between Levels 6-7 on the NCELI

"Interacts with Peers"

The objective "Interacts with Peers" (Objective 3) refers to the Social and Emotional domain within "Establishes and Sustains Positive Relationships" (Burts et al., 2016). The objectives on this continuum range from 1-14. The first objective on the continuum is "Plays Near Other Children; Uses Similar Materials or Actions," and ends with the objective "Fluidly Alternates Between the Roles of Leader and Follower in Order to Sustain Play" (Burts et al., 2016). This objective measures whether a child is able to interact with their peers in a positive way during the school day in different settings.

Within the area of "Interacts with Peers," the kindergarten teacher felt that her students have some difficulty interacting or having basic exchanges with their peers. Students on day 60 of kindergarten are likely to have difficulty forming groups of play or leading play within a group, according to the kindergarten teacher. The teacher did feel that students could walk into the center and play, not necessarily with others, but with themselves. The kindergarten teacher added that students at this stage of development should be able to know their friends' names and even their friends' likes and dislikes. Overall, she perceived that students should score a Level 6 within the continuum, which would be, "Initiates, and Joins in, Sustains Positive Interactions with a Small Group of Two to Three Children" (Burts et al., 2016).

Preschool teachers shared that students at this stage should be able to engage in reciprocal play, follow rules and routines independently, and understand that there are similarities and differences between them and their peers. Preschool teachers perceived that students at this age should score at a Level 8 in this objective, "Interacts Cooperatively in a Group of Four or Five People" (Burts et al., 2016).

The kindergarten teacher commented that joining in play is not necessarily natural at this point in development for the typical student, and may be one of the hardest objectives to master during the kindergarten year. Kindergarten and preschool teachers generally agreed that if students understand the likes and dislikes of their peers, they should be able to play with them, and able to follow simple routines and procedures. They disagreed about the level of progression on the NCELI. The kindergarten teacher perceived that students should be at a Level 6, "Initiates, Joins in, Sustains Positive Interactions with a Small Group of Two to Three Children", whereas preschool teachers believed students should score at a Level 8, "Interacts Cooperatively in a Group of Four or Five People" (Burts et al., 2016). In other words, preschool teachers thought that kindergartners should be farther along in this continuum on day 60 than did the kindergarten teacher.

Table 7

Panel 1: Social and Emotional Domain; Interacts with Peers

1 Kindergarten Teacher	3 Preschool Teachers
Students:	Students:
Have difficulty with exchange between peers have difficulty forming groups of peers Are unable to lead play Are able to walk in a center and play Are able to complete routine tasks with ease Have difficulty with different types of tasks Know classmates' names Understand classmates likes and dislikes	Are able to engage in simple games that require reciprocal play Are able follow rules and routines independently Are able to understand that there are differences and similarities between them and their friends

Actively joining into play is not natural at this point Should score at a Levels 4-6; majority of the students should be at Level 6 on the NCELI	Should score at Levels 6-8 with the majority of typical students at Level 8 on the NCELI

Panel 2: Objectives in Social/Emotional and Cognitive Domains

The researcher wanted to determine kindergarten and preschool teachers' views towards three objectives during the second panel. Two were in the domain of social and emotional learning and one was under the cognitive domain. The three objectives were: Follows Limits and Expectations, Solves Social Problems, and Attends and Engages. Findings are described in sections that follow. Panel 2 had three kindergarten teachers and one preschool teacher.

"Follows Limits and Expectations"

The objective "Follows Limits and Expectations" (Objective 4) is under the category of "Regulates own Emotions and Behavior." The goal of this objective is to have children regulate their own behavior. The range of scores for this objective is from 1-14. The specific skill "Responds to Changes in an Adult's Tone of Voice and Expression," is the lowest level on the continuum. The skill "Demonstrates an Understanding of the 'Big Rule' Concepts of Safety, Kindness, Respect, and Care for the Objects and Materials in the Environment" is the highest. (Burts et al., 2016). The purpose of this objective is to help the learner understand social limits, especially in the area of safety and care and concern for others.

Kindergarten teachers considered that typical students at day 60 of kindergarten could state behavioral expectations. For example, students understand that they should be quiet while they are in the library or halls but may be loud during recess. A kindergarten teacher stated that students are "egocentric" at this stage, meaning that they have difficulty thinking outside of themselves. As a result, it is hard for them to be different in new situations. That is, when given a

new environment they have not experienced, it may be difficult for them to understand the limits and expectations. Kindergarten students may not have a full understanding of how their actions within the new environment affect others.

The preschool teacher commented that students' performance on this objective could vary widely due the types of experiences a child had before kindergarten. For example, the preschool teacher said that a child who has had preschool experience would be more successful in this area.

Both types of teachers felt that typical students should score at a Level 6 on the NCELI on day 60 of school. Level 6 on the continuum states that students are able to "Manage Classroom Rules, Routines, and Transitions with Occasional Reminders" (Burts et al., 2016). They agreed that in familiar environments, such as their classrooms and school, typical students could follow behavioral limits and expectations. The teachers agreed that students may or may not need reminders when a new situation arose or when exposed to a new environment. Table 6 lists themes that emerged from Panel 2 for the objective "Follows Limits and Expectations."

Table 8

Panel 2: Social and Emotional Domain; Follows Limits and Expectations

3 Kindergarten Teachers	1 Preschool Teacher
Students:	Students:
Are able to state role in school setting Understand that loud voices are for outside and quiet voices are inside Should score a Level 6 on the NCELI	Should score a Level 6 on the NCELI

"Solves Social Problems"

The objective "Solves Social Problems" (Objective 5) falls under the social and emotional domain of the NCELI. The objective is part of the main category, "Participates

Cooperatively and Constructively in Group Situations" (Burts et al., 2016). The continuum ranges from Levels 1-14 "Expresses Feelings during a Conflict" is at its start and "Considers Multiple Viewpoints when Solving Conflicts" (Burts et al., 2016). The goal of this objective is to ensure that students can participate cooperatively within a group setting.

Kindergarten teachers agreed that students on day 60 of kindergarten should be able to accept redirection and follow rules and expectations in a different setting. They also agreed that students should be able to solve another's social problem while having an outside perspective of it. Students may also relate new learning to their own personal experiences. Teachers supposed students should be able to solve problems by that time but may have difficulty negotiating or compromising when those instances happened. Kindergarten teachers perceived that their typical students on day 60 would be on the lower end of this continuum.

The preschool teacher that participated in the second panel suggested that students needed many reminders at the time of evaluation to be successful with this objective. The preschool teacher believed students would be experiencing new situations and would have difficulty carrying over learned skills such as "Solving Social Problems" from previous years. She suggested that students at this stage would attempt to solve problems, but do not always successfully apply what they have learned. She also felt that students should score Levels 5-6 in the area of solving social problems. The goal for the 5-6 range within this objective is "Suggests Solutions to Social Problems" (Burts et al., 2016).

Kindergarten and preschool teachers had different opinions about this objective. Kindergarten teachers perceived that students could solve social problems, but the preschool teacher said students might not always apply their abilities to solve social problems. Kindergarten teachers also thought that their students could think of an "outside" perspective,

which is a more advanced skill than what the preschool teacher suggested students on day 60 could do. Kindergarten teachers said the students could exhibit these advanced skills by the evaluation date, but the preschool teacher did not agree. However, all teachers agreed that students should score a Level of 5-6 in kindergarten. Levels 5-6 on the NCELI is stated as, "Suggests Solutions to Social Problems" (Burts et al., 2016).

Table 9

Panel 2: Social and Emotional Domain; Solves Social Problems

3 Kindergarten Teachers	**1 Preschool Teacher**
Students:	Students:
Are able to accept redirection Are able to follow rules and expectations in a different setting Are able to solve someone else's social problem Are able to have an "outside" perspective Are able to take turns during talk Are able to relate new learning to their own experiences Are able to supply an alternative solution to a problem Are not able to negotiate or compromise Should fall in the lower end of this objective Should score between Levels 5-6 on the NCELI	Need multiple reminders Are experiencing social problems they have experienced before May attempt, but do not always apply Should score between Levels 5-6 on the NCELI

"Attends and Engages"

"Attends and Engages" (Objective 6) is part of the cognitive domain of the NCELI. The objective is found under the main category of "Demonstrates Positive Approaches to Learning" (Burts et al., 2016). The continuum ranges from Levels 1-14. "Pays Attention to Sights and Sounds" begins it "Directs Attention Based on Previous Performance and Concentrates on Activities that Require Additional Study" (Burts et al., 2016) ends the range. The goal of this

objective is to ensure that students are motivated to learn and remain positive about their learning experience.

Kindergarten teachers regarded typically developing students at this age could not consistently sustain their work for extended times during the school day because of not yet having a lengthier attention span. Kindergarten teachers commented that it was difficult for their typically developing students to master this skill and was a harder objective for a kindergarten student on day 60 of school.

The preschool teacher who participated in this panel commented that a student that was successful at this skill on the day of evaluation would have to show high levels of executive functioning. The teacher also commented that kindergarten instruction currently seems to be more teacher-driven than student-driven. This was a concern for her because teacher-driven instruction does not always place the interests of students first. She perceived that students who have a strong interest in their learning are more "attending and engaged," as the objective states. As a result, this may be a hard skill to develop and assess because students may not be receiving relevant or high-interest instruction.

Kindergarten and preschool teachers both said that the typical student at the evaluation day in kindergarten should score a Level 6 on the NCELI. This level is entitled, "Sustains Work on Age-Appropriate, Interesting Tasks; Can Ignore Most Distractions and Interruptions" (Burts et al., 2016).

Table 10

Panel 2: Social and Emotional Domain; Attends and Engages

3 Kindergarten Teachers	1 Preschool Teacher
Students:	Students:

Are not always able to sustain work and pay attention
Should score a Level 6 on the NCELI

May not show interest in learning due to teacher led instruction
Should score a Level 6 on the NCELI

Panel 3: Language and Physical Domain

In the third panel, researchers wanted to determine kindergarten and preschool teachers' perceptions of three objectives under the "Language and Physical Domain." They were: "Follows Directions," "Tells About Another Place and Time," and "Uses Fingers and Hands." Teachers' perceptions about these objectives are describe in sections that follow. Panel 3 had two kindergarten teachers and two preschool teachers.

"Follows Directions"

The objective "Follows Directions" (Objective 7) is under the language domain of the NCELI. The objective is found under the main category of "Listens and Understands Increasingly Complex Language" (Burts et al., 2016). The scoring continuum is Levels 1-14, beginning with "Responds to Simple Verbal Requests Accompanied by Gestures or Tone of Voice," and ending with "Asks for Clarification in Order to Understand Complex Directions; Carries out Directions with Five to Six Steps" (Burts et al., 2016). The goal of this objective is to ensure that students can follow increasingly complex directions and to clarify and ask questions if they are unsure about a task.

The kindergarten teachers who participated on this panel thought that students should be able to follow directions within the average range described by the continuum. However, they did feel that typically developing students would need some reminders to follow those instructions. The teachers agreed that students would need assistance from an adult when following routines. They estimated that the typically developing student should score between Levels 6 and 7 on the NCELI continuum. Level 6 could be accomplished, but Level 8 would be

too high. Level 6 reads that students should, "Follow Directions of Two or More Steps that Relate to Familiar Objects and Experiences," and Level 8 states that students should, "Follow Detailed, Instructional, and Multistep Directions" (Burts et al., 2016). This would correspond with teacher comments that students would need to ask directions or clarification from an adult when an activity has more detailed or new routines.

The preschool teachers observed that during typical classroom routines, students successfully followed directions. They said that students are able to keep to a schedule, write their name at the top of their paper, use technology with ease, sort and clean up, and follow three-step directions without difficulty. Teachers also thought that students get confused when a routine is changed but follow it with proper cueing from an adult. For example, when students were asked to add a new task to their morning routine, they may need some reminders or cueing to finish it. Students would also give a proper answer if teachers explained the directions for them. These teachers agreed that students thrive on routine. They emphasized that students are able to follow through with tasks if the routine is familiar to them.

Teachers rated typically developing students on this scale as needing to score Levels 6-8 on the NCELI. Level 6 says that students, "Follow Directions of Two or More Steps that Relate to Familiar Objects and Experiences," and Level 8 is, "Follow Detailed, Instructional, Multistep Directions" (Burts et al., 2016). One preschool teacher perceived that a typical student would be between these objectives and be successful on day 60 of kindergarten. The teacher stated, "Maybe students would be more successful in kindergarten if routines were more consistent and teachers were able to give feedback and cues more to students who seem confused in following certain directions."

All teachers agreed that students are able to follow directions, but felt that students still needed assistance for success with this objective. The preschool teachers elaborated that teacher guidance and having consistent routines were helpful to students in mastering this objective. The teachers differed in their opinions of the levels they thought a typical student should score on the day. The kindergarten teachers showed preference to the lower end of the spectrum in the 6-7 range. By contrast, the preschool teacher chose the higher end of the spectrum with ranges of 7-8. Levels 6-7 range is "Follows Directions of Two or More Steps that Relate to Familiar Objects and Experiences" (Burts et al., 2016). Level 7-8 is "Follows Detailed, Instructional, Multistep Directions" (Burts et al., 2016).

Table 11

Panel 3: Language Domain; Follows Directions

2 Kindergarten Teachers	2 Preschool Teachers
Students:	Students:
Need reminders to complete this task	Are able to follow a schedule
Should score at Levels 6-7 on the NCELI	Can recognize nametags on tables, cubbies
	Are able to write their name at top of paper
	Are able to use technology easily
	Can sort and clean up when given directions
	Are able to follow three step directions
	Are able to follow routine
	Are confused when a routine is changed
	Can eventually follow a routine with proper cueing from an adult
	Thrive from having routines
	Would know the answer to a question about routine when asked a clarifying question
	Should scores at Levels 6-8 on the NCELI

"Tells About Another Place and Time"

"Tells about another Place and Time" (Objective 8) falls under the Language Domain of the NCELI. The objective is part of the larger objective of "Uses Language to Express Thoughts

and Needs" (Burts et al., 2016). The continuum ranges from Levels 1-14. "Makes Simple Statements about Recent Events and Familiar People and Objects that are not Present" is at the beginning of the continuum and "Accurately and Thoroughly Retells Previously Heard Stories or Information" (Burts et al., 2016) at the end. The goal of this objective is to ensure that students use learned vocabulary when expressing thoughts and needs. Within the objective, "Tells about Another Time or Place," kindergarten teachers suggested that students at day 60 of kindergarten typically do not talk about their experiences in a logical sequence. In the teachers' experience, this is a difficult task for the students.

Preschool teachers elaborated on this objective and stated that children will often not include a beginning, or middle, or end of a story. They will tell only their favorite parts, and do not follow a logical sequence. The teachers suggested that pronouns should be used correctly at this stage, and sometimes students who are introverted may not do well with this objective. One preschool teacher said this goal was achieved if students could describe the important details, but not all of the details, and if students were able to tell the story in sequence.

Both kindergarten and preschool teachers agreed this was a challenging objective for a kindergartener to achieve by day 60. All teachers perceived it was difficult for a kindergartner to tell stories logically. Kindergarten teachers perceived that students should score at Levels 6-7, whereas the preschool teacher suggested that students should score at a Level 6 on the NCELI. Levels 6-7 would suggest that a student mastered the skill "Tells Stories About other Times and Places that have a Logical Order and that Include Major Details" (Burts et al., 2016).

Table 12

Panel 3: Language; Tells About Another Place and Time

2 Kindergarten Teachers	2 Preschool Teachers
Students:	Students:

Have difficulty talking about experiences in a logical sequence Should score at a Level 6-7 on the NCELI	Do not always include the beginning, middle, and end of the experience or story Like to tell just their favorite parts Cannot always describe events in order Can tell the main idea May need prompting to tell something in order Who are introverted do not share stories as often Use pronouns correctly Should score at a Level 6 on the NCELI

"Uses Fingers and Hands"

The "Uses Fingers and Hands" (Objective 9) is part of the Physical Domain of the NCELI. The objective within the main objective of "Demonstrates Fine-Motor Strength and Coordination" (Burts et al., 2016). The continuum ranges from Levels 1-14. "Reaches For, Touches, and Holds Objects Purposefully" starts this objective and "Manipulates Grade-Appropriate Tools and Intricate Materials with Control and Precision" (Burts et al., 2016) finishes the range. The goal of this objective is to ensure that students develop fine-motor and coordination skills.

During this panel, the kindergarten teachers said that students on day 60 needed one reminder to correct their grip on pencils and scissors. She perceived that typically developing students should be at a Level 7 on the NCELI by that time. Level 7 on the NCELI states "Uses Refined Wrist and Finger Movements" (Burts et al., 2016).

The preschool teachers commented that their students usually score higher on this objective if they have had previous school experience and have used tools in that school setting. The preschool teachers also perceived that students should be able to grip scissors and to use

scissors. They perceived the typical student should score Level 6-8 on the NCELI which ranges from "Uses Refined Wrist and Finger Movement" to "Uses Small, Precise Finger and Hand Movements" (Burts et al., 2016).

Teachers generally agreed that students at this stage of development should be able to hold, use, and grip scissors. They varied in their opinion of typical development using NCELI levels. Kindergarten teachers thought a score of Level 7, "Uses Refined Wrist and Finger Movement," would be appropriate; preschool teachers perceived that students should score between Levels 6-8, which is "Uses Refined Wrist and Finger Movement" to "Uses Small, Precise Finger and Hand Movements" (Burts et al., 2016).

Table 13

Panel 3: Physical Domain; Uses Fingers and Hands

2 Kindergarten Teachers	2 Preschool Teachers
Students:	Students:
Need one reminder to correct their grip on pencils and scissors Should score a Level 7 on the NCELI	Score higher on this objective if they have used these tools in a school setting Should be able to grip and use scissors Should score Levels 6-8 on the NCELI

Panel 4: Literacy Domain

"Notices and Discriminates Rhyme"

The fourth panel was used to determine kindergarten and preschool teachers' perceptions of two objectives under the Literacy Domain. The two objectives were: "Notices and Discriminates Rhyme" and "Notices and Discriminates Alliteration." Some data is missing from this panel. The researchers had technical difficulties with the recording of two focus groups on

this panel. These findings are the result of only one panel that had a kindergarten teacher. Panel 4 had one kindergarten and one preschool teacher.

The objective "Notices and Discriminates Rhyme" (Objective 10) is part of the Literacy Domain of the NCELI is also under the category of "Demonstrates Phonological Awareness, Phonics Skills, and Word Recognition" (Burts et al., 2016). The continuum ranges from Levels 1-14. "Joins in Rhyming Songs and Games" at the beginning and "Generates Rhyming Words Without a Prompt Word; Identifies Rhyming Words in Written Text; Uses Rhyme to Decode Text" (Burts et al., 2016) at the end. The goal of this objective is to ensure that students develop their phonological awareness, phonics skills, and word recognition.

The kindergarten teacher that participated in this focus group thought that typically developing students could demonstrate the objective by using a picture as an aid. Specifically, students would be able to play a game (such as a cut-and-paste game) in which they matched pictures. She considered it difficult for students at this stage to match a given word with another word that rhymes with it. She added that typically developing students could hear rhyming words, though. If a teacher speaks two words, the typical student on day 60 could tell the teacher whether they rhymed. The kindergarten teacher suggested that a typically developing student on the evaluation day should score at a Level 6, which states, "Decides Whether Two Words Rhyme" (Burts et al., 2016).

Table 14

Panel 4: Literacy Domain; Notices and Discriminates Rhyme

1 Kindergarten Teacher	1 Preschool Teacher
Students:	Students:
Can often do this with a picture Can match rhyming pictures with a cut-and-paste activity Cannot generate other rhyming words	No data available

| Are able to not only match, but also hear the sound |
| Should be on a Level 6 on the NCELI |

"Notices and Discriminates Alliteration"

The objective "Notices and Discriminates Alliteration" (Objective 11) is part of the Literacy Domain of the NCELI. The objective is also under the category of "Demonstrates Phonological Awareness, Phonics Skills, and Word Recognition" (Burts et al., 2016). The scoring continuum ranges from Levels 1-14. "Sings Songs and Recites Rhymes and Refrains with Repeating Initial Sounds" is at the beginning and "Isolates and Identifies the Beginning Sound of a Word" (Burts et al., 2016) at the end. The goal of this objective is to ensure that students develop phonological awareness, phonics skills, and word recognition with an emphasis on beginning sounds.

The kindergarten teacher said that typically developing students on day 60 are able to identify a beginning sound that is spoken when a teacher gives an example of alliteration. She went on to say that even though they can hear and express that they have heard alliteration, students are unable to identify the letter that went along with the sound to cause the alliteration. The kindergarten teacher perceived that typical students would fall in the range of 5-6 on the NCELI. In order to be in that range, a student would have to master the objective "Matches Beginning Sounds of Some Words" (Burts et al., 2016).

Table 15

Panel 4: Literacy Domain; Notices and Discriminates Alliteration

1 Kindergarten Teacher	1 Preschool Teacher
Students:	Students:
Can identify a beginning sound, but not be able to identify a letter	No data available

Should be at a range of 5-6 on the
NCELI

Panel 5: Math Domain

The fifth panel was used to determine kindergarten and preschool teachers' perceptions of three objectives under the Math Domain of the NCELI. The three objectives were: "Counts," "Quantifies," and "Connects Numerals with Quantities." Findings from the teachers are described in the sections that follow. Panel 5 had two kindergarten teachers and zero preschool teachers.

"Counts"

The objective "Counts" (Objective 12) is part of the Math Domain of the NCELI. The objective falls under the main category of "Uses Number Concepts and Operations" (Burts et al., 2016). The continuum has Levels 1-14. "Verbally Counts (not always in the correct order)" begins the continuum and "Counts to More Than 1,000 Using Number Word Patterns (e.g., tens, teens) and Skip Counting; Uses Skip Counting by 2s, 4s, 5s, 6s, 10s, and 100s" (Burts et al., 2016) ends the continuum. The goal of this objective is to ensure that students develop their counting skills along the continuum.

During discussions, kindergarten teachers said that on day 60 a typical kindergartner should be able to count to 10, and by December they should be able to count to 20. They also added that this is a difficult concept for kindergartners at this stage, noting that their typical students may be able to count to 50, but they are unable to count out 20 bears and put them in their teacher's hand. The teachers also expressed that they would like to observe students completing this task independently in a center-like activity. They suggested that a kindergartner

on the day 60 is typically rote counting. To master Level 6 of the NCELI, they would have to master all three tasks of the Level 6 objective.

Kindergarten teachers said that their typically developing students should be at Level 6 on the NCELI on when evaluated on day 60 kindergarten. Level 6 on the NCELI is "Verbally Counts to 20; counts 10-20 Objects Accurately; Knows the Last Number States How Many in All; Tells what Number (1-10) comes Next in Order by Counting" (Burts et al., 2016). No preschool teachers participated in Panel 5.

Table 16

Panel 5: Math Domain; Counts

2 Kindergarten Teachers	0 Preschool Teacher
Students:	Students:
Can count the materials in the center Can usually count to 10; some will count to 20 Must be observed in centers, groups, or independent play to show mastery. Should be able to count to 20 by December May be able to count to 50, but are unable to count 20 bears and put them in teacher's hand Have difficulty with this concept Count by rote Count often in kindergarten Must exhibit all three examples from the objective to be at Level 6 on the NCELI Should score a Level 6 on the NCELI	No data

"Quantifies"

The objective "Quantifies" (Objective 13) is within the Math Domain of the NCELI. The objective is part of "Uses Number Concepts and Operations" (Burts et al., 2016). The continuum ranges from Levels 1-14. "Demonstrates Understanding of the Concepts of One, Two, and More" is at the beginning and "Compares Fractions and Explains them Using Physical Models,

Pictorial Representations, and Number Lines" (Burts et al., 2016) is at the end. The goal of this objective is to ensure that students develop their ability to quantify.

The kindergarten teachers in this panel had much to share regarding this objective. There was a concern from them that this objective is not typically taught before day 60 of school. For example, the NCELI may measure the concept of quantifying on day 60, but the pacing guides used by kindergarten teachers may not provide instruction on that objective until after the evaluation day. They shared that their typical students are not always able to perform this objective in its true form. They may not be able to tell how many more or how many less, and have difficulty with hierarchical inclusion. They also shared that their students are able to recognize names and numbers of items in a small set and believed that students could work on this objective all year and be consistently "increasing their accuracy."

They also estimated that the developmental level should be Level 4 to begin, but decided Level 5-6 on the NCELI would be appropriate. Level 5-6 on the NCELI is stated as, "Makes sets of 6-10 Objects and then Describes the Parts; Identifies which Part has More, Less, or the Same (Equal); Counts All or Counts on to Find Out How Many" (Burts et al., 2016). No preschool teachers were part of Panel 5.

Table 17

Panel 5: Math Domain; Quantifies

2 Kindergarten Teachers	0 Preschool Teacher
Students:	Students:
Are not at 100% at this level, they are "increasing their accuracy";	
May not be able to tell how many more or how many less;	No data
May not have been exposed to this concept in pacing by day 60;	
Have difficulty with hierarchical inclusion	

Are able to recognize name and numbers of items in a small set
Not exposed to math curriculum that paces for this on the 60th day
Able to solve simple equal sharing problems
Not able to perform this function
Should score a Level 4 or a Level of 5-6 on the NCELI

"Connects Numerals with Quantities"

The objective "Connects Numerals with Quantities (Objective 14) is within the Math Domain of the NCELI. The objective is part of the main category of "Uses Number Concepts and Operations" (Burts et al., 2016). The continuum ranges from Levels 1-14. "Recognizes and Names a Few Numerals" is at the beginning and "represents fractional quantities as parts of a whole (a/2, a/3, a/4, a/6, a/8); uses relation symbols (>, <, =) to show fractional comparisons" (Burts et al., 2016) ends the continuum. The goal of this objective is to ensure that students recognize numbers and eventually represent fractional quantities.

During the panel discussion, the kindergarten teachers perceived that students should be able to count to 10. They perceived that students on day 60 of kindergarten have difficulty with the more, less, and even skill at this stage. They perceived the students should score a Level 5-6 on the NCELI by this time of school year. By the end of the school year, their typical students should score Level 8 on the NCELI. Level 5-6 is described as, "Identifies Numerals to 10 by Name and Connects Each to Counted Objects" (Burts et al., 2016). Level 8 on the NCELI is stated as, "Identifies Numerals to 20 by Name and Connects each to Counted Objects; Represents *how many* by Writing One-Digit Numerals and some Two-Digit Numerals" (Burts et al., 2016). No preschool teachers were part of Panel 5.

Table 18

Panel 5: Math Domain; Connects Numerals With Quantities

2 Kindergarten Teachers	0 Preschool Teacher
Students:	Students:
Should count to 10	
Should be at a Level 8 by the end of kindergarten	No data
Have difficulty with the more, less, and even skill at this stage of development	
Should score a Level 5-6 on the NCELI	

Themes From Panel Findings

Each panel generated findings about students' expected performance on specific objectives of the NCELI on day 60 of kindergarten. Data analysis of the findings from each panel generated five themes:

- Kindergarten and preschool teachers exhibited strong agreement about students' developmental continuum.

- Preschool teachers rated students slightly higher than kindergarten teachers

- A Misalignment Between Developmentally Appropriate Instruction and Assessment

- The Importance of Consistent Procedures

- The Importance of Preschool Education

  These themes are described below.

Theme 1: Strong Agreement About Students' Developmental Continuum

The quality of experience and knowledge of the participants was evident within each focus group meeting. A significant theme was that kindergarten and preschool teachers consistently exhibited strong agreement about the developmental continuum that their students should follow to be successful during preschool and kindergarten. In all panels, both groups of teachers understood each other's suggestions and comments.

For example, kindergarten and preschool participants in Panel 1 noted that students should be able to express and distinguish personal feelings from those feelings expressed in literature. Susie, a kindergarten teacher said, "They are able to identify basic emotions in literature, and they can look at a picture and know someone is sad." Mia, A preschool teacher agreed, noting, "They can identify the emotions of someone in a story." In addition, in Panel 2, all participants agreed that students should be able to follow behavioral limits and expectations. In Panel 3, all participants agreed that the objective requiring students to follow a logical sequence was demanding and that many students would not be fully proficient in this area.

Discussing students' performance related to following logical sequence, Grace (kindergarten teacher) said, "Logical sequence is very hard for students. They have a lot of difficulty talking about experiences in a logical sequence." Madison (preschool teacher) responded, "They don't always get beginning, middle, and end. They like to tell their favorite parts. If I ask questions, I can get beginning, middle, and end." This level of agreement among participants was seen in all panels. The researcher noted that kindergarten and preschool teachers exhibited similar levels of knowledge, experience, and perceptions about students' developmental levels.

Theme 2: Preschool Teachers Rated Students Higher Than Kindergarten Teachers

Another key theme was that preschool teachers scored a typical student higher than did kindergarten teachers. Of nine objectives from the NCELI that were rated by preschool and kindergarten teachers, five were higher for preschool teachers. Examples are:

- Objective 1: "Manages Feelings." Preschool teachers rated students at Levels 5-6; kindergarten teachers rated them at Levels 4-6.

- Objective 2: "Responds to Emotional Cues." Preschool teachers rated students at Levels 6-7, but kindergarten teachers scored students at 5-6.

- Objective 3: "Interacts with Peers." Preschool teachers scored students at 6-8 while kindergarten teachers scored students at Levels 4-6.

- Objective 7: "Follows Directions." Preschool teachers scored students at Levels 6-8; kindergarten teachers scored students at Levels 6-7.

- Objective 9: "Uses Fingers and Hands to Count." Preschool teachers scored students at Levels 6-8 and kindergarten teachers scored students at Level 7.

Preschool and kindergarten teachers scored students the same on the following objectives: "Follows Limits and Expectations," "Solves Social Problems," and "Attends and Engages." The only objective for which kindergarten teachers rated students higher than preschool teachers was "Tells About Another Place and Time." On that objective, kindergarten teachers scored students at Levels 6-7 while the preschool teacher scored students at Level 6.

Theme 3: Misalignment Between Appropriate Instruction and Assessment

Kindergarten and preschool teachers agreed that some objectives were developmentally inappropriate for their students on day 60 of kindergarten. Both groups of teachers suggested that these objectives were too advanced for the instruction that students would typically receive by that time. Therefore, students would need additional support and time to perform adequately on these objectives as compared to others. The objectives that participants referenced as being excessively difficult for students were "Manages Feelings," "Responds to Emotional Cues," "Attends and Engages," "Tells About Another Place and Time," and "Quantifies."

Commenting on how students continue to develop the skill of quantification throughout the year, Ruby (a kindergarten teacher) said, "Students are not at 100% (with this objective) on

the 60th day. They are increasing their accuracy. Throughout the year that's what they're doing."

Another kindergarten teacher, Jessie, noted, "Hierarchical inclusion is very difficult on the 60th day of kindergarten. We start that concept in February." When discussing the difficulties that students experience with the objective "Attends and Engaging" on the 60th day of school, Jude, a preschool teacher said, "I feel like there is a lot of executive functioning work going on. That's a hard skill." Describing the objective "Solves Social Problems," Jude also noted, "Students are being introduced into a new environment of kindergarten. A Level 7 (on the NCELI) might be too high. They are experiencing problems they have never experienced before in a kindergarten setting."

Theme 4: Importance of Consistent Procedures

Throughout the study, kindergarten and preschool teachers described the importance of teachers using consistent classroom procedures. They noted that kindergarten children perform more effectively when consistent classroom routines are in place. Sophia, a preschool teacher said, "They thrive off of routine, but they can follow unrelated directions. When their routines are off, they can still follow directions with a clarifying question." For example, Sophia, a preschool teacher added:

> Yesterday we had a three-hour delay. They did not have breakfast. Instead of going to the desks to eat breakfast, I needed them to come to the carpet to start class. Students were off their routine and got confused. They got a funny face. I cued them and they followed directions.

Theme 5: Importance of Preschool Education

Throughout the study, kindergarten and preschool teachers noted the positive impact of preschool education. Specifically, they noted that children with preschool experiences would

score higher on many of the objectives of the NCELI. While participants were asked to consider the ratings of kindergarten students regardless of whether they had preschool experiences, teachers still commented that preschool would improve students' performance. For example, a preschool teacher commented, "Levels of typical ranges may change because of experiences that children may have. For example, PreK versus non-PreK." Another preschool teacher added, "This skill would depend on whether the child had preschool." When scoring the objective "Follows Directions," Grace, a kindergarten teacher said, "I'm leaning toward a '7,' especially for kids with no preschool experience."

Summary

This chapter detailed how participants responded to the research questions. The questions focused on kindergarten and preschool teachers' perceptions of skills that a typical kindergartener would exhibit on the 60th day of school. The teachers involved within the focus groups gave their perceptions regarding certain objectives on the NCELI. The purpose of the questions was to examine the skills a typical kindergartener would need on the 60th day in order to progress and be successful by the end of their kindergarten year.

The researcher analyzed the results in order to determine particular themes throughout the research. The themes were described in order to provide a clearer picture of the skills a typical kindergartner should exhibit on the 60th day of kindergarten. The next chapter will include findings and implications for further research.

CHAPTER 5: DISCUSSION

The need to establish an agreed-upon definition for the term "Kindergarten Readiness" is an ongoing need in the educational system. A formal definition could provide a more concrete focus for early childhood educators and allow better preparation of students for optimal opportunities through which to grow and succeed in school.

The purpose of this study was to determine kindergarten and preschool readiness perceptions based on the perceptions of kindergarten and preschool teachers. Participants identified specific skills of kindergarteners in North Carolina identifiable on day 60 of kindergarten. The participants used objectives on the North Carolina Early Learning Inventory (NCELI) combined with their expertise and knowledge to determine particular characteristics or skills needed by children by their 60th day in order to be successful for the remainder of their kindergarten year. They ranked these characteristics and skills and they discussed them in small group and large group settings.

This chapter considers the study within the context of early childhood education practice. Data has been compared and analyzed from the participants in ways that the findings can be put into practice. The researcher will also present suggestions for further research. The results of this qualitative research study are divided into 14 findings. These findings were the result of the data collections process and are the key points related to each objective using the research questions:

Research Questions

RQ1: In what ways do kindergarten teachers perceive kindergarten readiness as measured on day 60 of a student's kindergarten year?

RQ2: In what ways do preschool teachers perceive kindergarten readiness as measured on day 60 of a student's kindergarten year?

RQ3: What are the similarities and differences between kindergarten and preschool teachers' perceptions of kindergarten readiness on day 60 of a students' kindergarten year?

Discussion of Findings

As described in Chapter 4, five panels of participants, having a total of 16 teachers, discussed the NCELI objectives. Nine of the participants taught kindergarten and seven were preschool teachers. Each panel met once and was then divided into three focus groups. The researcher was a participant- observer within the study and facilitated focus groups for all five panels.

Panel 1

The first panel considered the Social and Emotional Domain of the NCELI. Participants were identifying behaviors within the areas of "Manages Feelings," "Responds to Emotional Cues," and "Interacts with Peers." These characteristics and skills fall under objectives 1 and 2 of the NCELI. One finding of this study was that the kindergarten and preschool teachers perceived kindergarten students do not have full control of their emotions and cannot control them appropriately by day 60 of kindergarten.

Participants also believed that kindergarten students understand that others have feelings but are unable to fully understand why their peers have particular emotions, as well as what causes them. They did feel that students at this point are typically able to show concern for each other. The panel also believed that kindergartners sometimes have difficulty forming groups of play, but typical students should be able to join groups of play. Kindergarten teachers agreed that the children should be able to join into groups of play of two or three, but preschool teachers considered that they should be able to join in groups of play of four or five.

Panel 2

Panel 2 also discussed several topics from the Social and Emotional Domain, and one from the Cognitive Domain. The two objectives of the Social and Emotional Domain were "Follows Limits and Expectations" and "Solves Social Problems." The one in the Cognitive Domain was "Attends and Engages" (Burts et al., 2016). All teachers said that students on the 60th day of school were able to understand that certain rules applied to the students' school environment. For example, they all perceived that students knew that they needed to walk down the hallway quietly, and that this behavior was different from that of recess. Teachers also remarked that students had difficulty following social rules and following directions that were new.

Teachers perceived that students need assistance and support when experiencing new settings at school. One teacher commented that those who have had attended preschool before kindergarten had more advanced skills in this area. All teachers agreed that kindergarten students on day 60 should be able to meet the objective, "Manage Classroom Rules, Routines, and Transitions with Occasional Reminders" (Burts et al., 2016).

Another topic discussed in the second panel was "Solves Social Problems." All teachers agreed that students are able to negotiate and solve problems socially but at times need assistance from their teacher. As stated in the objective "Manages Feelings," teachers said that students often needed assistance. In this area, the kindergarten teachers differed from preschool teachers. Kindergarten teachers thought that students on day 60 are more advanced in these skills than did preschool teachers. Both kindergarten and preschool teachers perceived that students are able to "Suggest Solutions to Social Problems" (Burts et al., 2016).

The last topic discussed in Panel 2 was part of the Cognitive Domain. The objective under this particular domain was "Attends and Engages" (Burts et al., 2016). Both kindergarten and preschool teachers perceived this was a difficult task for kindergartners on the 60th day. They agreed that kindergartners would need more assistance with this in order to be successful. The preschool teacher in Panel 2 had concerns that unless the instruction was relevant to the students, they would not be able to meet this objective. Teachers in this panel agreed that students should be at a level of "Sustains Work on Age-Appropriate, Interesting Tasks; Can Ignore Most Distractions and Interruptions" (Burts et al., 2016).

Panel 3

Panel 3 examined three objectives. Two were in the Language Domain, and one was in the Physical Domain. The objectives "Follows Directions" and "Tells About Another Place and Time" were in the Language Domain. The objective "Uses Fingers and Hands" was under the Physical Domain (Burts et al., 2016).

The first topic discussed by Panel 3 was "Follows Directions." Teachers noted that kindergarteners could follow directions throughout the school day with gentle reminders. Preschool teachers made the comment that students had difficulty at this developmental stage and had difficulty following directions when routines or procedures changed. They said that students could be successful if routines and procedures stayed the same. The two groups of teachers disagreed on the continuum levels; kindergarten teachers scored the typical student lower on the continuum. Kindergarten teachers perceived that students could "Follow Directions of Two or More Steps that Relate to Familiar Objects and Experiences." Preschool teachers perceived that students should "Follow Detailed, Instructional, and Multistep Directions."

Kindergarten teachers marked typically developing students lower on the continuum, but the preschool teachers scored the typical student higher (Burts et al., 2016).

The second topic under the Language Domain for Panel 3 was, "Tells About Another Place and Time." Teachers in the panel decided this was a difficult task for a student on day 60. The teachers agreed it was difficult for students to tell a story in logical sequence. They often remember just the highlights. All teachers agreed that kindergarten students on the 60th day should master the objective, "Tells Stories About other Times and Places that have a Logical Order and that Include Major Details." Even though they perceived this objective should be mastered by then, they felt this was a very difficult objective to master at this developmental stage.

The third topic within Panel 3 fell was in the Physical Domain. The objective was "Uses Fingers and Hands." Both sets of teachers agreed that students on the 60th day should be able to use their fingers and hands appropriately with scissors. They concluded that more practice in this area would improve students' skill for this objective. In this panel, kindergarten teachers again scored students lower than did preschool teachers who participated. Preschool teachers perceived that typical students could achieve the higher level on "Uses Small, Precise Finger and Hand Movements." Kindergarten teachers decided that their typical students would achieve a lower on this objective (Burts et al., 2016).

Panel 4

The Panel 4 participant (a kindergarten teacher) discussed two objectives from the Literacy Domain. These objectives were "Notices and Discriminates Rhyme" and "Notices and Discriminates Alliteration." The teacher thought that students are able to discriminate rhyme

with pictures and through sound. She scored a typically developing student on the evaluation day as a student who could "Decide Whether Two Words Rhyme" (Burts et al., 2016).

The second objective for Panel 4 was "Notices and Discriminates Alliteration." The teacher suggested that students can hear alliteration but not always know the letter that produced the alliteration. She perceived that a typical student would meet the objective, "Match Beginning Sounds of Some Words" (Burts et al., 2016).

Panel 5

Panel 5 examined three goals in the Math Domain. Those objectives were "Counts," "Quantifies," and "Connects Numerals and Quantities" (Burts et al., 2016). The group of teachers perceived that typical students by the evaluation day should be able to count to 10. They added that this is usually rote counting. They felt that students could master, "Verbally Count to 20; counts 10-20 Objects Accurately; Know the Last Number; State How Many in All; Tell what Number (1-10) comes Next in Order by Counting" (Burts et al., 2016).

The second objective for Panel 5 was "Quantifies." There was much discussion that this objective was difficult for students to master by day 60 of kindergarten because it is usually not taught by then. Teachers recalled that it was not usually until later in the school year, but might be taught throughout the year. Teachers said students should accomplish the skill "Makes sets of 6-10 Objects and then Describes the Parts; Identifies which Part has More, Less, or the Same (Equal); Counts All or Counts on to Find Out How Many" (Burts et al., 2016). It was interesting to know that the teachers were required to asses this objective often before students may not be able yet to understand the concept.

The third objective was "Connects Numerals and Quantities." Teachers in this panel expressed that typical students on day 60 of school should achieve two objectives: "Identifies

Numerals to 10 by Name and Connects Each to Counted Objects" and "Identifies Numerals to 20 by Name and Connects each to Counted Objects; Represents how many by Writing One-Digit Numerals and some Two-Digit Numerals." Kindergarten and preschool teachers agreed on students having these abilities within the Math Domain.

Summary of Findings

These findings are significant in the effort to define kindergarten readiness. This study was a portion of a larger study conducted by the North Carolina Office of Early Learning. Its purpose was to obtain information from many professionals (e.g., content area experts, regional directors, school-based administrators, kindergarten teachers, and preschool teachers) and obtain a broader range of scores for the NCELI objectives. The present study focused on the perceptions of kindergarten and preschool teachers as they pertained to kindergarten readiness on day 60 of school. The researcher desired authentic discussions with teachers who worked with students to prepare them for kindergarten or help those who may be struggling with the objectives delineated in the NCELI. The researcher also hoped to determine if there may be a gap in thinking between kindergarten and preschool teachers, as well as their understanding of what constituted mastery of various objectives.

The first finding was that, in general, kindergarten and preschool teachers were very knowledgeable about their students and the developmental continuum that their students should follow to be successful through preschool and kindergarten. Both groups understood the other's suggestions and comments. Preschool teachers appeared to have a greater knowledge about what is expected in kindergarten and they had a strong purpose in helping a child become ready for kindergarten. The quality of their knowledge may be due to the teachers who were willing to participate (i.e., more motivated and astute teachers self-selected to be part of this study) and

their years of experience in early childhood education. The quality of experience and knowledge of the participants were evident within each focus group meeting.

A second important finding was that there were several objectives in which the kindergarten teachers scored a typical student lower than did a preschool teacher. There may be several reasons for this: there is a possibility that both sets of teachers need more training in interrater reliability for scoring the instrument and another possibility could be the 'summer slide' which can contribute to a loss of learning from preschool to kindergarten. A major contributor to this difference could be that preschool students typically are more successful with objectives because they have been exposed to a school environment before entering kindergarten. Across the focus groups, teachers asked "are we talking about a child who has experienced a preschool experience, or a typical child?"

The panels allowed teachers to rethink their ideas and opinions about what is meant by a typically developing child versus one who had previous experience in school. In this scenario, preschool teachers would have higher expectations than kindergarten teachers would because preschool teachers are introducing students to the specific objectives and their students are mastering them. The objectives on which preschool teachers scored higher than kindergarten teachers are "Following Directions", "Manages Feelings", and "Responds to emotional cues." Kindergarten teachers, on the other hand, receive many children that have not had preschool experience and not yet mastered the objectives found in the Gold Standards for four-year olds.

Third, kindergarten and preschool teachers agreed that some objectives were inappropriate from a developmental view for their students. They suggested they were too difficult for kindergarteners. Students seemed to need support in these objectives compared to others. The objectives with which they perceived that kindergarteners on day 60 seemed to have

more difficulty were: "Manages Feelings," "Responds to Emotional Cues," "Attends and Engages," "Tells About Another Place and Time," and "Quantifies" (Burts et al., 2016). Both sets of teachers thought students might need more assistance and time with these in order to be successful on the 60th day. It would be interesting to know at what point in the school year kindergarten teachers perceived students could master these objectives.

Recommendations for Further Research

Based on results from this study, it is recommended that more research be conducted in the area of interrater reliability. Differences of opinions between preschool teachers and kindergarten teachers need to be examined more closely. It is also recommended that continued research be done on developmentally appropriate instruction and pacing during the first year of kindergarten. The importance of instructional delivery and proper pacing can help students and teachers be more successful. If inappropriate timing and introducing instruction that is not developmentally appropriate occurs, learning can be hindered, and expectations can be too high.

Implications for Practice and Policymaking

Policymakers and professionals within the field of education should note the implications for practice from the findings. It is important to note that preschool teachers and kindergarten teachers varied on their opinions of where students should score as typical within the continuum that they examined. Throughout the panel discussions, preschool teachers scored students on a more favorable trajectory of kindergarten readiness than their counterparts in five out of the nine objectives. In other words, they had higher expectations for their students. The preschool teachers felt that typical students were more capable of achieving higher outcomes and kindergarten teachers continuously affirmed that their students who experienced preschool could achieve higher outcomes. Within the panels, kindergarten teachers commonly expressed that

children who attended a preschool program would always score higher than those who did not on the majority of the objectives presented in each panel. The implication that a child would score higher than others on measured and observable objectives is a strong reason why more children should attend a high-quality preschool program such as Head Start and the North Carolina Preschool Program (NCPREK). If students are truly scoring higher, then state policymakers should consider funding more preschool slots for the children of North Carolina. If children are scoring higher on measurable objectives in kindergarten and teachers noted that it was a result of them attending a preschool program our state would benefit from providing more opportunities for children to attend high-quality preschool programs.

Another question policymakers should ask is what practices preschool teachers have in place in order to assure that students are following along a continuum to be successful in the school environment. Both kindergarten and preschool teachers educate early childhood learners. Kindergarten and preschool teachers alike should be using the same trajectory to help their students follow basic human development that involves all domains. One phenomenon that is occurring in the Head Start and NCPREK centers throughout the state is that preschool programs are required from the Office of Head Start and the Office of Early Learning to use a curriculum guide called *North Carolina Foundations for Early Learning and Development* or *Foundations*. This document provides the preschool teachers with a specific guide to help nurture and grow the early childhood learner.

Head Start and NCPREK classrooms also are mandated to use a research-based curriculum. Head Start classrooms across the United States use an *Early Learning Outcomes Framework* that spans across the five central domains of learning as *Creative Curriculum for the Preschool* does. NCPREK classrooms across the state and the majority of Head Start preschool

programs use *The Creative Curriculum for Preschool* as their curriculum guide. Programs that use *Creative Curriculum for Preschool* also use the accompanying assessment piece of *Teaching Strategies GOLD®.* The NCELI uses *Teaching Strategies GOLD®* to assess students' development with benchmarks set to be measured at three times each a year. In addition, every preschool teacher in the state of North Carolina that uses *Teaching Strategies GOLD®* must pass an interrater reliability. This ensures that preschool teachers are scoring children's' development accurately.

If preschool teachers have been certified in this interrater reliability measurement process, then one might wonder why have our kindergarten teachers not been trained? Both the *North Carolina Foundations for Early Learning and Development*, and *Teaching Strategies GOLD®* link directly to what is taught in kindergarten. Both kindergarten and preschool teachers teach to the early childhood learner. Policies should be made so that kindergarten teachers also receive interrater reliability and use the *North Carolina Foundations for Early Learning and Development*. This may explain why preschool teachers rated students more highly on five out of the nine objectives. Transitions from grade school to graduation are important for children and for the teachers that instruct them. Kindergarten teachers should use all available resources provided to them from the State of North Carolina to ensure they know their students as they transition from preschool to kindergarten.

Most importantly, if these kindergarten teachers perceive that typical students are performing lower than preschool students are, it would be best for them to use a continuum approach and closely examine what children need to learn from the beginning of preschool to the end of their kindergarten year just as North Carolina preschool teachers are. This will help guide their instruction to meet their students where they are. It will also encourage higher standards in

kindergarten. By encouraging higher standards in kindergarten, we are ensuring a greater likelihood for success for our students throughout their educational careers.

Lastly, the issue of funding preschool throughout the state needs to be a priority. The federal government provided over $10,000,000 in 2021 for Head Start services in the country. There are other funding opportunities provided from the federal government that provide preschool services. Some of these include *Title I*, the *Every Student Succeeds Act*, and even subsidies for childcare services. The state already provides funding for NCPREK and even Smart Start Services for early childcare. The data provided by the kindergarten teachers repeatedly throughout this study shows that most preschool students perform higher than their typical classmates in kindergarten do because they have attended a preschool program. This finding is important in that the majority of these preschool children who are performing better than their classmates perform higher despite the fact that they come from poverty, foster homes, homelessness, etc.

Head Start and NCPREK children qualify for services specifically because they come from less fortunate circumstances. Providing preschool services for more children in the State of North Carolina can increase the potential of our students for lifelong success. It would also benefit the efforts of elementary, middle, and high school educators if students start kindergarten with skills that ensure their success in their educational career. We simply are not doing everything we can to ensure that the students in the state are provided with opportunities that will ensure that they are successful in school and eventually in life. A seamless connection from preschool to kindergarten combined with more communication and collaboration between preschool teachers and kindergarten teachers may assist as well.

Conclusions

The need for a widely accepted definition for "kindergarten readiness" has been noted for many years. The transition into public education for young students can create a foundation that will help them become successful during their schooling and throughout their lives. A clear definition of kindergarten readiness should be one that is both deep and broad, and considers the fits and starts of child development on a continuum. The key elements involved in a student's transition to the kindergarten classroom are numerous and complex. The educational organizations involved in the transition process can surely work to refine the process of a student's transition to public education whether it be from home or from preschool. This can be done only by working together as a community to thoughtfully determine what makes a child more successful in the kindergarten year. As evident within this study, there are behavioral and academic skills that are distinct on day 60 of kindergarten that can determine a child's success within the kindergarten school year. Both kindergarten and preschool teachers came together to form a consensus on those skills. It would be important for educators to pay attention to these specific skills that were noted and focus on those skills in preschool and especially during the first 60 days of kindergarten so students are able to progress successfully. In doing this, we help ensure success of a child's educational career not only in kindergarten, but likely later in life. This is the importance of defining kindergarten readiness.

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APPENDIX A

NCELI Objectives Scored at Day 60

Panel 1: Social-Emotional Domain

    1a. Manages feelings

    2b. Responds to emotional cues

    2c. Interacts with peers

Panel 2: Social-Emotional Domain and Cognitive Domain

    1b. Follows limits and expectations

    3b. Solves social problems

    11a. Attends and engages (cognitive domain)

Panel 3: Language Domain + Physical Domain

    8b. Follows directions

    9d. Tells about another place and time

    7a. Uses fingers and hands

Panel 4: Literacy

    15a. Notices rhyme and discriminates

    15b. Notices and discriminated alliteration

Panel 5: Math

    20a. Counts

    20b. Quantifies

    20c. Connects numerals with quantities

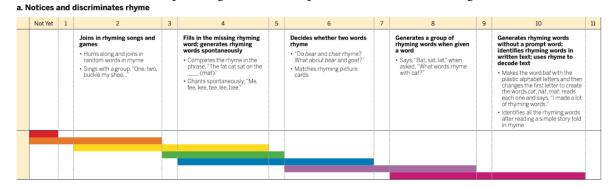Panel 6: Modified Angoff Method to identify cut score for 14 progressions.

APPENDIX B

Teaching Strategies for Gold Continuum

Example of Objectives from: Literacy Domain 15a: Notices and Discriminates Rhyme

(Preschool objectives are signified by the blue shading. Kindergarten objectives are signified by the purple shading)

Objective 15 Demonstrates phonological awareness, phonics skills, and word recognition

a. Notices and discriminates rhyme

Not Yet	1	2	3	4	5	6	7	8	9	10	11
		Joins in rhyming songs and games • Hums along and joins in random words in rhyme • Sings with a group, "One, two, buckle my shoe..."		**Fills in the missing rhyming word; generates rhyming words spontaneously** • Completes the rhyme in the phrase, "The fat cat sat on the ____ (mat)." • Chants spontaneously, "Me, fee, kee, tee, lee, bee."		**Decides whether two words rhyme** • "Do *bear* and *chair* rhyme? What about *bear* and *goat*?" • Matches rhyming picture cards		**Generates a group of rhyming words when given a word** • Says, "Bat, sat, lat," when asked, "What words rhyme with *cat*?"		**Generates rhyming words without a prompt word; identifies rhyming words in written text; uses rhyme to decode text** • Makes the word *bat* with the plastic alphabet letters and then changes the first letter to create the words *cat, hat, mat*; reads each one and says, "I made a lot of rhyming words." • Identifies all the rhyming words after reading a simple story told in rhyme	

Example of Objectives from: Math Domain 20a: Counts

Objective 20 Uses number concepts and operations

a. Counts

Not Yet	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Verbally counts (not always in the correct order) • Says, "One, two, ten," as she pretends to count		**Verbally counts to 10; counts up to five objects accurately, using one number name for each object** • Counts to 10 when playing "Hide and Seek" • Counts out four scissors and puts them at the table		**Verbally counts to 20; counts 10–20 objects accurately; knows the last number states how many in all; tells what number (1–10) comes next in order by counting** • Counts to 20 while walking across room • Counts 10 plastic worms and says, "I have 10 worms." • When asked, "What comes after six?" says, "One, two, three, four, five, six, seven...seven."		**Uses number names while counting to 100 by 1s and 10s; counts 30 objects accurately; tells what number comes before and after a specified number up to 20** • Counts 28 steps to the cafeteria • When asked what comes after 15, says, "Sixteen. That's one larger, and 17 is one larger than 16." • When asked what comes after 16, says, "Seventeen" without beginning at one		**Counts to 120 to determine how many; uses skip counting by 2s, 5s, and 10s; begins counting forward at any number between 1 and 120; counts backward from 20** • Says, "I can count to 50 really fast: 10, 20, 30, 40, 50!" • Accurately counts from 115 to 120 beginning at 115 when asked to do so		**Counts to 1,000 to determine how many; uses skip counting (2s, 5s, 10s, and 100s); begins counting at any number between 1 and 1,000; switches between skip counts** • Counts to 1,000 by 100s: "100, 200, 300...700, 800, 900, 1,000!" • When asked to count to 200, begins counting by 2s but then changes to counting by 10s when she realizes it is taking too long		**Counts to more than 1,000 using number word patterns (e.g., tens, teens) and skip counting; uses skip counting by 2s, 4s, 5s, 6s, 10s, and 100s** • Begins counting, "999, 1,000, 1,110, 1,120, 1,130...1,180, 1,190, 2,000." • Groups objects into sets of four and then counts them: "Four, eight, twelve, sixteen, twenty, twenty-four, twenty-eight, thirty-two...."	