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The Relationship Between Preschool Teachers' Beliefs About School Readiness and Classroom Practice in Tennessee Child Care Programs

Joanna Hope Denny
University of Tennessee - Knoxville

To the Graduate Council:

I am submitting herewith a dissertation written by Joanna Hope Denny entitled "The Relationship Between Preschool Teachers' Beliefs About School Readiness and Classroom Practice in Tennessee Child Care Programs." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Child and Family Studies.

Priscilla Blanton, Major Professor

We have read this dissertation and recommend its acceptance:

Denise Brandon, Ralph Brockett, Rena Hallam

Accepted for the Council:
Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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The Relationship between Preschool Teachers' Beliefs about School Readiness and Classroom Practice in Tennessee Child Care Programs

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Joanna Hope Denny

August 2009

DEDICATION

Since I was a child, my mother, **Teresa Denny Bowman**, encouraged me to "get my education". I don't believe either one of us knew exactly what all that would mean. However, if it wasn't for her instilling this desire to pursue my education, I know I would not be at this place.

My father, **David Denny**, challenged me to "say what I mean and mean what I say". Our family conversations and debates set the foundation for me to become the type of thinker I am.

Finally, my grandparents, **Harry and JoAnne Lawson**, imparted to me their own love of learning. In particular, my grandmother nurtured a love of books and words from the very beginning of my life. I am so grateful for their commitment to me and my education. They are truly missed.

It is for these very important people that I lovingly dedicate this manuscript.

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ABSTRACT

Over the past two decades, children's school readiness has gained national attention. This has resulted in a variety of national, state, and local initiatives often with an emphasis on accountability. However, the beliefs of those who are held accountable (teachers, administrators, and parents) are rarely included in the development of such systems. This study sought to identify any relationships between teacher beliefs about school readiness with parents' beliefs or directors' beliefs about school readiness. Additionally, the study examined predictors of teacher beliefs and whether teacher beliefs were related to teachers' practices in the classroom.

This study used a statewide sample of 114 preschool teachers of community-based child care programs. Teachers, parents, and director beliefs were examined using the same 13-item question while child care quality was examined in four distinct ways: global quality (as measured by ECERS-R), curricular quality (as measured by ECERS-E), the quality of teacher-child interactions, and instructional quality (both of which are measured by the CLASS). The findings indicate that teachers, directors, and parents believe that both academic and social skills are very important in preparing children for kindergarten. Parents placed more emphasis on both sets of skills than teachers and directors. Teacher years of experience in early childhood education was negatively related to their beliefs about academic skills while the level of urbanization and program type were positive predictors of teachers' beliefs about school readiness skills. Teacher beliefs about school readiness were not related to the practices associated with any of the types of quality captured in this study.

Although these beliefs do not translate into practice, there is reason to think that beliefs are still important in understanding what teachers do in the classroom. As a result of their job demands, preschool teachers may no longer be aware of the teaching practices they are utilizing.

Those working with teachers can help them make this connection by encouraging them to think about their beliefs and then examine their beliefs in the context of the classroom. Policymakers can support practice by allocating resources to provide opportunities for teachers to increase their formal education.

TABLE OF CONTENTS

LIST OF TABLES

I. Introduction

Over one-fourth of the U.S. population aged three and older are in educational programs, with over 5 million children or 49 percent of children aged three and four enrolled in early educational programs. This does not include the millions of children under the age of 3 that are currently in a variety of early childhood programs. In the state of Tennessee, an estimated 6.6% of the population (approximately 400,000 children) is between the ages of 0 and 4 years (U.S. Census Bureau, 2000). The National Association of Child Care Resource and Referral Agencies (2007) approximate that there are 347,600 child care spaces in Tennessee with 96% of these slots in child care centers. These statistics coupled with the fact that children spend an average of almost 25 hours a week in center-based care (National Center for Educational Statistics, 2005) have researchers, politicians, educators, and parents concerned with what is happening in child care programs. The concern becomes even greater when researchers find that up to one-third of American children entering kindergarten lack at least some of the skills needed for a successful learning experience (Russ, et al, 2007).

Issues related to school readiness emerged to the national forefront in the early 1990s. In a bipartisan effort, state governors convened to establish educational goals for the nation. Among the eight goals the National Goals Panel issued, the first was that by the year 2000, all children in America would start school "ready to learn". This initiative was funded and then replaced by the No Child Left Behind Act of 2001 (National Center for Home Education, 2002).

The No Child Left Behind Act of 2001 has become the guiding initiative of elementary and secondary systems. As an expansion of the No Child Left Behind Act, the governing administration enacted the Good Start, Grow Smart initiative. The goal of this early childhood initiative is to "ensure that young children are equipped with the skills they will need to start

school ready to learn" (Good Start, Grow Smart Executive Summary, p. 1). To achieve this initiative, three areas are addressed: implementing an accountability system in Head Start programs; asking states to define criteria of high quality programs and to align these standards with their state's K-12 standards; and to use a public awareness campaign targeting parents, educators, and child care providers.

These systems of accountability require parents, teachers, and administrators of early childhood programs and elementary schools to prepare children to meet the expectations of outside systems. However, there is a concern the expectations of accountability systems imply that the concept of school readiness resides in the child, as an observable, measurable entity. As a result, principles predict a "push down" of curriculum that would cause preschools to shift from a more creative play based approach to a more structured learning curriculum (Wesley & Buysse, 2003). In fact, the responses of many preschools, child care programs, and public schools to the barrage of information indicating that young children arrive at kindergarten unprepared has been a rapid retreat "back to the basics." This usually means a more academic and highly structured approach to early childhood education (Cassidy, Mims, Rucker, & Boone, 2003).

The pressure for teachers to have children prepared to exhibit certain skills increases as one moves across the spectrum of teacher-directed to child-directed viewpoints, with child-directed teachers feeling more pressure (Parker & Neuharth-Prickett, 2006). This pressure may indicate that teachers' beliefs and practices may not align with the system in which they teach. Children acquire the foundations of knowledge and dispositions to learn during the early childhood years—teacher beliefs and practices are at the heart of this socialization process and help set the climate for learning (Vartuli, 1999). Teacher beliefs about the important elements of

school readiness are critical to the structure of the program and are thought to be associated with quality of care and students' subsequent academic performance (Lara-Cinisomo, Richie, Howes, & Karoly, 2008).

While local school systems feel most of the pressure from accountability systems, the pressure is beginning to affect preschools in child care programs. Teachers often make reference to the demands and expectations of kindergarten. They desire to prepare their students to succeed and thrive as they begin their formal educational careers. However, the content and the practices used to teach these areas are sometimes at odds with the early childhood education research. For example, in assessing the state of kindergarten, Bryant, Clifford, and Peisner (1991) found that 20% of kindergarten classrooms met the minimum standards for developmental appropriateness with another 20% approaching these standards. The developmental appropriateness in each content area, as measured by the researchers, varied widely across classes, but most kindergarteners experienced much time with worksheets, rote learning, and didactic instruction. The knowledge that the aforementioned practices, which are not associated with developmentally appropriate practice, are what children will be experiencing in kindergarten may lead preschool teachers to prepare children to meet these expectations. It is unknown whether this also has an impact on preschool teachers' beliefs.

Rationale for study

Implicit theories are ideas about instruction that emerge from teachers' personal experience and practical knowledge (Charlesworth, Hart, Burts, Thomasson, Mosley, & Fleege, 1993). Research focused on implicit theory in early childhood education examines what teachers believe about the nature of children and how these beliefs are manifested in their practice. Research (Delaney, 1997) has found that what teachers believe seems to become reality for them

in their classrooms. Beliefs can be considered implicit theory because they: a) are accessible to the person, b) are stable, c) are structured, and d) influence behavior (Delaney, 1997).

Teachers have beliefs about a variety of educational arenas including their work, their roles and responsibilities, and the subject matter they teach (Levitt, 2001). The decisions made extemporaneously in the midst of the stress, uncertainty, and tensions of the early education classroom are based mainly on teachers' beliefs (Vartuli, 1999). It is important, then, to describe better the school readiness beliefs of teachers.

Both child care practices and teachers' beliefs are typically viewed in terms of developmentally appropriate practice and developmentally inappropriate practice. Other terms used to describe this continuum are child-directed and teacher-directed practices. To be considered child-directed, activities are initiated by the children and are often in the form of play. Teacher-directed practices are often those activities that take a more academic approach. These activities usually involve limited input from the children and may include such things as completing worksheets, drilling, and prolonged periods of large group activities.

When researchers examine child care quality, they examine quality in terms of developmentally appropriate practice (DAP). The leading instruments defining child care quality use the DAP lens. The state of Tennessee is attempting to improve the quality of child care by assessing yearly each child care program on a set of such instruments known as the Environment Rating Scales. While there has been improvement in overall scores across time (Pope, Magda, Homer, & Cunningham, 2008), the improvement has not necessarily changed the beliefs of child care providers. Although teachers want to provide quality care, they are not always in agreement with the requirements of the Environment Rating Scales. Many teachers state that the scales do not capture the total picture of quality (Pope, Denny, Homer, & Ricci, 2006).

As previously stated, a change in practice does not necessarily mean a change in beliefs. But are beliefs and practices related? Studies have demonstrated that there are modest but positive correlations between beliefs and practices (Levitt, 2001; Stipek & Byler, 1997; McMullen, et al, 2006). When relationships are not found, external influences such as administrators' and parental expectations are cited as reasons teachers do not practice what they believe (Rusher, McGrevin, & Lambiotte, 1992).

Purpose of the Study

The purpose of this study was to assess the beliefs about school readiness from a group of community-based teachers to examine the characteristics that predicted teacher beliefs and the relationship between beliefs and practice. Additionally, this study sought to examine the relationships between teacher beliefs about school readiness and directors' and/or parents' beliefs about school readiness. It was hoped that the study would contribute to the current research in several important ways. First, the beliefs of teachers, directors, and parents were identified quantitatively by using the same items. This allowed for statistical examination of relationships. Secondly, this study used a statewide sample of preschool teachers of community-based child care programs. The current research literature primarily includes kindergarten teachers when discussing beliefs about school readiness. Preschool teachers are typically included in the literature when examining the relationships between quality child care and child outcomes. However, when preschool teachers are the focus of belief studies, it is usually those teachers who work in state-funded prekindergarten classrooms. Finally, research studies typically examine practices from a global perspective, which may or may not include an instrument designed to assess teacher-child interactions. This study examined child care quality in four distinct ways: global quality, curricular quality, the quality of teacher-child interactions, and

instructional quality. When studies have examined the link between beliefs and practice, they have typically used global measures of quality.

Research Questions

As a result of identifying the gaps in the current research literature, this study sought to answer the following questions:

1. What are the beliefs of preschool teachers in community-based child care about school readiness?
    a. What is the relationship between teacher, classroom, and program characteristics and teacher beliefs?
    b. Are teacher beliefs about school readiness related to directors' beliefs about school readiness and/or parents' beliefs about school readiness?
2. What is the relationship between teacher beliefs about school readiness and classroom practice?
    a. What is the relationship between teacher beliefs and global quality?
    b. What is the relationship between teacher beliefs and curricular quality?
    c. What is the relationship between teacher beliefs and emotional quality?
    d. What is the relationship between teacher beliefs and instructional quality?

Assumptions

As with any study, there are certain premises that are accepted. The following were assumptions for this study:

1. School readiness beliefs can be identified and reliably measured.
2. The selected belief instrument provides an adequate range and dimensions of beliefs about school readiness.

3. Teachers, directors, and parents have carefully considered each item on the school readiness belief scale before answering.
4. The instruments used to capture child care quality practices are valid and reliable indicators of teacher practice.
5. Teachers put their beliefs into practice.
6. The sample was selected using a stratified random selection method and could be reasonably expected to represent the population at large.

Definitions

The following definitions are utilized in the current study:

Accreditation

Accreditation refers to the outside certification of an early childhood program based on such merits of quality, curriculum, facilities, etc. There is no specific accrediting body that is used as the definition of this variable.

Assessment

The use of assessment by teachers is defined as the regular observation and evaluation of the children in a teacher's classroom. There are no specific criteria for what constitutes an "assessment", teacher-made and purchased assessment tools are considered.

Child Care Quality

Defining quality in child care settings is a complex task. Researchers have noted that different stakeholders, whether they are parents, children, or researchers emphasize very different dimensions of quality in their definitions. Quality child care is often looked at through two lenses: structural quality and process quality. The characteristics of child care providers are often part of what is defined as structural quality. Structural quality includes staff/child ratios and

group size (Cegolwski, 2004; Goelman Forer, Kershaw, Doherty, Lero, & LaGrange, 2006). In contrast, process quality examines the interactions and experiences children have within the classroom and/or child care program (Goelman , et al, 2006) and are more related to the characteristics of quality programs. Process quality entails adult responsiveness to and behavior with children (Ceglowski, 2004), whether social interactions are positive or harsh, and refers to the children's experiences in care, particularly teacher provision of developmentally appropriate or inappropriate activities (Howes & Smith, 1995).

This study examines four different aspects of process quality. Global quality is defined by the evaluation of such things as health/safety, physical structure, materials, and some interactions as measured by the Early Childhood Environment Rating Scale-Revised (Harms, Clifford, & Cryer, 2005). Curricular quality is the level at which a teacher successfully implements instructional practices in the classroom and is measured by the Early Childhood Environment Rating Scale-Extended (Sylva, Siraj-Blatchford, & Taggert, 2006). Emotional quality is defined as the level of positive climate, sensitivity, and regard for children in the interactions between students and their teacher(s). Finally, instructional quality is defined by the quality of feedback, language modeling, and concept development used to facilitate children's learning. Although the use of materials may be considered in this type of quality, the types of materials are not. Emotional quality and instructional quality are measured by the Classroom Assessment Scoring System (Pianta, La Paro, & Hamre, 2006).

Curriculum

The use of curriculum by teachers is defined as the use of a guiding academic philosophy and program in the planning of children's activities. A curriculum can be teacher- or center-designed or may be a formalized curriculum that is available for purchase.

Developmentally Appropriate Practice

The term developmentally appropriate practice, often referred to as DAP, is the predominant philosophy in early childhood education. The commonly accepted definition of developmentally appropriate practice established by the National Association for the Education of Young Children (Bredekamp & Copple, 1997) is used in this study. Developmentally appropriate practice is the result of professionals making decisions based on: a) the knowledge of child development and learning, b) the knowledge about the individual child's strengths, interests, and needs, and c) the knowledge about the social and cultural contexts in which the children live.

Experience

Teacher experience is defined in two ways: a) the number of years and months experience as lead teacher in the current child care program, and b) the number of years and months experience in the early childhood education field.

School readiness

It can be a challenge to define a term that means different things to different people. Piotrkowski (2004) believes the term school readiness can be a useful concept if: a) it is not treated as a static attribute of children; b) it incorporates the multiple aspects of children's functioning that are important for school success; and c) it takes into account the joint responsibilities that families, communities, and schools have in providing caring environments that promote children's learning.

The notion of readiness connects development to the requirements of a particular context (Graue, Kroeger, & Brown, 2003). Readiness implies the mastery of certain basic skills or abilities that, in turn, permit a child to function successfully in a school setting, both

academically and socially (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006). Furthermore, readiness also can be viewed as a level of maturity that is determined by certain social skills, such as self-control and cooperation (Nelson, 2005). In the specifics of school readiness, this may include good physical and mental health, effective communication skills, and an approach to learning characterized as enthusiastic and curious (Wesley & Buysse, 2003). The National Education Goals Panel (Kagan, Moore, & Bredekamp, 1995; Shore, 1998) defines school readiness as comprising five domains of a child's development and learning: physical health and motor development, social and emotional development, approaches toward learning, language development, and cognitive general knowledge. This study will examine school readiness in terms of thirteen skills that incorporate some elements of the previous definitions. Respondents will identify each skill on a Likert-type scale ranging from "not important" to "essential".

Teacher Beliefs

The definition of teacher beliefs has been widely addressed. Smith and Shepard (1988) define a belief in simple terms as something to which an individual holds to be true. Beliefs may or may not be based on irrefutable facts and truths. Beliefs can also be held without the full awareness of the individual who holds them. In defining beliefs in terms of education, beliefs include ideas about students and the learning process, about the roles of schools in society, and about their curriculum (Levitt, 2001).

Rimm-Kaufman, Storm, Sawyer, Pianta and LaParo (2006) identify seven aspects of teacher beliefs.

"Teacher beliefs:

a) are based on judgment, evaluation, and values and do not require evidence to back them up
b) guide their thinking, meaning-making, decision-making, and behavior in the classroom

c) may be unconscious such that the holder of beliefs is unaware of the ways in which they inform behavior
d) cross between their personal and professional lives, reflecting both personal and cultural sources of knowledge,
e) become more personalized and richer as classroom experience grows
f) may impede efforts to change classroom practice, and
g) are value-laden and can guide thinking and action" (p. 143)

For the purposes of this study, "teacher beliefs" are defined as those ideas accepted as true.

Teacher Education

Teacher education is defined as the formal education completed by the teacher prior to their participation in the study.

Teacher Practices

Practices are often considered as evidence of beliefs. Indeed, Levitt (2001) asserts: "Evidence of beliefs include belief statements (what a person says), intentions to behave in a certain manner (what a person plans to do), and behavior relative to the belief in question (what a person does)" (p.7). In this study, practices refer to actions taken (Smith & Shepard, 1988) and repeated behaviors or patterns of instruction.

Type of Degree

The type of degree is defined in terms of a degree in early childhood education or similar field.

This chapter presented a brief introduction to this study including the rationale and purpose. In Chapter Two, the literature on teacher beliefs and practice is reviewed and the theoretical framework for the study is presented. In Chapter Three, a description of the methods and statistical analyses used in this study are explained. The findings from the study are outlined in Chapter Four. Finally, in Chapter Five, the results are discussed and implications policy, practice and future research are identified.

II. Literature Review

The impact of process quality care on child outcomes is evident in children as young as 1 year of age (Burchinal, Roberts, Riggins, Ziesel, Neebe, & Bryant, 2000). Research is more robust in examining child care and child outcomes for preschoolers. Even when not accounting for quality, students who attended preschool were found to have significantly higher mathematic and reading scores than children who did not attend preschool (Nelson, 2005). Children attending a comprehensive early education program, part of a state-wide enhancement grant initiative, were more likely to attain school readiness than children from the same at-risk categories who did not attend the program, including children with limited English proficiency and students who received free and reduced meals in kindergarten (Fontaine, Torre, & Grafwallner, 2006). When comparing children with various early care arrangements, children who had more center experience demonstrated better language skills and better performance on a memory test than did children with less center-type experience (NICHD, 2002).

Global Quality

When examining overall or global child care quality, high quality care was associated with a myriad of child cognitive and social outcomes. These associations were still significant when accounting for family and other child care characteristics (NICHD, 2006; Howes et al., 2008; Burchinal et al., 2000). Children who attended higher quality child care centers scored higher on tests of pre-academic skills (Buchinal & Cryer, 2003; Magnuson, Ruhm, & Waldfoger, 2007; NICHD, 2002) and language when compared to children who attended lower quality child care programs (Burchinal & Cryer, 2003; Howes et al., 2008; NICHD, 2002). In addition, children who experienced care that increased in quality over time had better pre-academic skills

(NICHD, 2002). More specifically, high instructional quality was positively associated with receptive language skills (Howes et al., 2008).

Children who attend high quality programs also make stronger academic gains during the program year (Abbott-Shim, Lambert, & McCarty, 2003; Howes et al., 2008). As one might expect, the highest growth was achieved by children who started out scoring lower on tests at the beginning of the school year (Abbott-Shim, Lambert, & McCarty, 2003). While these gains impacted children from lower-income families to a greater extent (Abbott-Shim, Lambert, & McCarty, 2003), gains were not limited to just low-income children (Howes et al., 2008). Unfortunately, researchers found that children who were in programs whose quality decreased over time had lower academic skills (NICHD, 2002).

Studies have found associations between child care quality and outcomes for all children, regardless of race, ethnicity, and income (Burchinal & Cryer, 2003; Howes et al., 2008; Magnuson, Ruhm, & Waldfogel, 2007). However, the associations between quality care and outcomes may be stronger for some sub-groups of children. The effect sizes on reading and mathematic skills are slightly larger and are evident longer for disadvantaged children attending pre-kindergarten (Magnuson, Ruhm, & Waldfogel, 2007). Disadvantaged children also have larger gains on teacher ratings on language and literacy scores (Howes et al., 2008). In addition, a stronger association between quality of care and receptive language skills was found for African-American children and Hispanic children (Burchinal & Cryer, 2003).

While positive impacts on child outcomes are well documented in the research literature, there are some indicators that child care has not always positively impacted child outcomes. Children who spend high amounts of time in child care (more than 30 hours) were found to have moderately more social skills at 24 months but exhibited more problem behavior by 36 months

and more caregiver-child conflict and negative behavior with peers at 54 months than those who spent less than 10 hours a week in child care (NICHD, 2002). When examined in the context of child and family characteristics, the amount of center care was a stronger predictor of negative behavior than when considered alone (NICHD, 2006). Preschool has also been associated with an increase in externalizing (aggressive) behaviors and lower levels of self-control (Magnuson, Ruhm, & Waldfogel, 2007). Unfortunately, quality child care does not seem to mitigate socially negative behavior (Fantuzzo, Bulotsky-Shearer, Fusco, & McWayne, 2005). Children who demonstrated socially negative behavior at the beginning of the school year manifested greater levels of unpredictable and negative emotion in the classroom at year's end (Fantuzzo et al., 2005). Belsky, Burchinal, McCartney, Vandell, Clarke-Stewart, and Owen (2007) found evidence that these negative outcomes were still significant for children even until 6th grade.

Long-term Effects on Child Outcomes

Longitudinal studies suggest that high quality early care and education can positively impact children's learning and development, particularly for high risk children. Results from the Abecerdarian Project showed that children in the treatment group (full-time, high quality care from infancy) scored higher on both cognitive and academic tests to age 21 (Campbell, Pungello, Miller-Johnson, Burchinal, & Ramey, 2001). Furthermore, the growth trajectories of both the treatment and control groups showed steeper increases for treatment children, and those trajectories did not converge by young adulthood (Campbell et al., 2001).

Evidence exists that high quality care has long-term impacts on children who attend community child care programs. For example, the Cost, Quality, and Child Outcomes Study (Peisner-Feinberg et al., 2001) found children who experienced higher quality preschool care scored higher on measures of receptive language, math, cognitive and attention skills, problem

behaviors, and sociability through 2nd grade. More specifically, observed classroom practices were related to children's language and academic skills, whereas the closeness of the teacher-child relationships was related to both cognitive and social skills. These outcomes were even stronger when the children came from an at-risk background (Peisner-Feinberg et al., 2001).

This study does not examine the relationship between child care quality and child outcomes. However, it is important to understand this relationship for two reasons: a) child outcomes are viewed through a school readiness lens and b) teachers of preschool children are often aware of these and other expected outcomes. Since process quality of a child care program is the direct result of teacher practices, the examination of teacher beliefs about school readiness and teacher practice may provide further understanding of the link between child care quality and child outcomes.

In this chapter, I will describe the theoretical framework that underscores the current study. Next, I will discuss current research on teachers' beliefs about school readiness and the teacher characteristics and external variables associated with teacher beliefs. I will then explore the relationship between beliefs and practices. Finally, I will present research findings identifying potential influences on teacher practices.

Theoretical Framework

Teachers do not operate in a microcosm that only includes themselves; rather, they operate as a part of a larger system that includes administrators of the programs where they work, the parents of the children they serve, and the community in which the program resides and in which they may live. These external associations have the potential to impact teacher

beliefs in different ways. Bronfenbrenner's ecological theory of development provides a useful interpretation of these interactions.

Bronfenbrenner's (1977; 1979; Bronfenbrenner & Morris, 2006) theory is often described with the analogy of Russian nesting dolls. The innermost doll is referred to as the microsystem. The microsystem is the relationship between a person and the environment in an immediate setting that contains the person. For this study, it is the teacher in his or her classroom. The "doll" surrounding the microsystem is the mesosystem. This system is comprised of the interrelationships between the major settings that contain the person being studied at a particular point in his or her life. For the preschool teacher, this may include the child care program as well as his or her family. The exosystem encompasses both the mesosystem and microsystem. The exosystem contains the social structures, both formal and informal, which do not contain the person directly but are an extension of the mesosystem. This would include such structures as the neighborhoods the teacher lives and works in, the families of the children in her classroom, mass media and some forms of government. Finally, the outermost "doll" is the macrosystem. According to Bronfenbrenner (1979), this does not include a specific context but rather contains general prototypes or overarching patterns in the culture or subculture such as the economic, legal, and political climates including public policy. It is in this system that major differentiations in belief systems and practices occur.

Bronfenbrenner's theory goes beyond the description of settings to include propositions. These propositions help to interpret and research the interrelationships between settings. One such proposition identifies the requirement of reciprocity; that is, not only the effect of A on B, but also the effect of B on A (Bronfrenbrenner, 1977). This is a particularly useful concept when examining belief systems. Beliefs are dynamic and are subject not only to external and internal

influences but also have an impact on their immediate and surrounding settings. In addition to the idea that teacher beliefs affect the programs in which they work, teachers' beliefs about school readiness are affected by the beliefs and practices of the administrators for whom they work and the parents they serve. The question is whether or not these variables are significantly associated with teachers' beliefs.

Another important concept in the ecological theory is that of ecological transitions. In ecological transitions, there is a change in role-expectations for behavior associated with particular positions in society. This principle not only indicates changes made by the developing person but also changes by the persons in the developing person's environment (Bronfenbrenner, 1979). To illustrate this idea, Bronfrenbrenner gives the example of a 3-year-old child learning to talk. The child learns to talk only if others talk around and speak directly to the child.

Bronfenbrenner's ideas of ecological transitions are particularly dominant in the child care transition literature (Pianta, Rimm-Kaufman, & Cox, 1999; Ramey & Ramey, 1999; Rous, Hallam, Harbin, McCormick, & Jung, 2007). Pianta, Rimm-Kaufman, and Cox (1999) view the child's transition from preschool to kindergarten as connections among contexts and the influence of each context. These relationships are influenced by parents' economic, educational, and personal resources; the school's openness to and communication with families; and the community values and culture.

Ecological theory has also been utilized in the frameworks in children-at-risk research and the research of children with disabilities. Ramey and Ramey (1999) reiterate the combined involvement of the child, family, school, and community in transitions. Additionally, Ramey and Ramey contend that the same mediating factors affect the successful adjustment at each level (child, family, school, and community). Although the interactions between all contexts are

important to children, the interactions between the child's immediate contexts have the most direct impact. Therefore, it is important to identify ways in which the interactions between contexts can provide smooth transitions for children. Rous and colleagues (2007) identify the use of developmentally appropriate practice and/or common expectations for children as a way to support continuity of care for children with disabilities.

The principles of ecological theory are equally important to the beliefs of school readiness. As a child transitions from the preschool setting to a more formalized educational setting (kindergarten), the expectations for the child will change. This study seeks to capture the beliefs of a key person in that transition, the preschool teacher, and to find out if the beliefs are associated with the pedagogical practices the teacher uses. This study further seeks to identify the relationships between the beliefs of the administrator (director of program) and the parents with the teachers' beliefs.

School Readiness Beliefs

Teacher Beliefs about School Readiness

Teacher pedagogical beliefs and practices are often described in terms such as child-initiated and child-centered or teacher-initiated, didactic, and academically directed (Vartuli, 1999). Although most teachers incorporate aspects of both philosophical principles in their practice, teachers' beliefs typically fall along a continuum of child-centered to teacher-directed beliefs. Research conducted on teachers' beliefs is more prevalent for kindergarten and primary school teachers; however, some research has been conducted on the beliefs of teachers in preschools, namely state-sponsored pre-kindergarten. This section will discuss current research for preschool and kindergarten teachers' beliefs about school readiness.

Teachers, who believe children are more ready for school today, frequently mentioned a good preschool experience as contributing to the children's academic preparedness (Espinosa, Thornburg, & Mathews, 1997). For community preschool teachers, a good preschool experience means preschoolers should "have fun". Additionally, these teachers believe preschoolers' interests and their everyday lives should be the basis of curriculum and that preschoolers should learn through play, exploration, and discovery. Preschool teachers were less likely to feel that academic learning was important because they felt children should not be hurried and their childhood should be preserved (Lee, 2006).

Kindergarten teachers' pedagogical beliefs are often similar to preschool teachers. Kindergarten teachers tended to disagree with a strong emphasis on academics, but they agreed firmly with child-centered practices (Rusher, McGrevin, & Lambiotte, 1992). However, there is some evidence that pedagogical beliefs, as it relates to developmentally appropriate (DAP), differ from preschool and primary school teachers (McMullen, 1999; Vartuli, 1999). Compared to primary school teachers, preschool teachers reported higher agreement with the DAP framework and practices (McMullen, 1999). Similarly, Vartuli (1999) found significant differences in teacher belief score means between Head Start and primary school teachers up to third-grade. As the grade level increased, teachers were less likely to express beliefs consistent with developmentally appropriate practice. More specifically, when asked to rate the importance of instructional areas such as guidance, teaching strategies, and language development and literacy, teachers in first-, second-, and third-grade did not rank these developmentally appropriate practices as high as did the Head Start and kindergarten teachers.

The differences and similarities between prekindergarten and kindergarten teachers are particularly important when it comes to beliefs about school readiness. In a qualitative study

examining beliefs about school readiness, both groups of teachers stressed the critical importance of social and emotional development as well as language development and communication while de-emphasizing academic skills. Prekindergarten teachers, particularly, spoke of the importance of building children's confidence, stimulating their creativity, engaging their attention, and being mindful of their curiosity related to various tasks (Wesley & Buysse, 2003).

Kindergarten teachers viewed children's social skills as a higher priority than academic skills when determining school readiness. More specifically, they rated skills such as "tells wants and thoughts"; "not disruptive of class"; "follows directions"; and "takes turns and shares" as the highest skills needed in a child that was "ready" for school (Lin, Lawrence, & Gorrell, 2003). For some kindergarten teachers, there is a prototype of what a kindergarten child should be. This prototype centered on a child's age, stamina, maturity, and work habits. Younger meant less acceptable; the most frequently observed kindergarten behaviors became the definition of "normal" and in turn defined deviance; and maturity was considered a multidimensional characteristic, located primarily in the social realm (Graue, Kroeger, & Brown, 2003).

Kindergarten teachers' beliefs about academic and social readiness also influence their beliefs about kindergarten retention. Teachers who believed that socially immature children should be retained tended to believe that children should not be retained for poor mastery of the curriculum. However, the more kindergarten teachers endorsed highly structured, teacher-directed approaches and the less they endorsed child-centered approaches, the more they believed it was important to retain children who had not mastered the academic curriculum. Additionally, teachers who perceived the value in standardized tests had higher scores on the basic-skills orientation beliefs scale than teachers who claimed the standardized tests had no value (Stipek & Byler, 1997).

Regardless of the self-described instructional approach, teachers believe kindergarten has become more academic in nature (Parker & Neuharth-Pritchett, 2006). Although many individuals who implement kindergarten programs may not believe these programs best serve the needs of young children (Hatch & Freeman, 1988), others see a need for an academic approach to teaching. Some teachers believe that teacher style is dependent upon the subject matter and some subjects require some firm fixed knowledge that children would be unlikely to discover on their own (Gipps, McCullum & Brown, 1999). According to this ideology, teacher-directed strategies are best suited for transmission of this type of knowledge.

For those teachers who initiate more activities of an academic nature, an important rationale for teaching skills, structuring tasks, and providing direct instruction was the perceived need to prepare students for first grade work (Hatch & Freeman, 1988). The idea of preparing students is further supported with the finding that the knowledge teachers transmitted matched closely with the knowledge that was tested under national assessment requirements. Knowledge that could be discovered by children corresponded with knowledge that teachers assessed. Knowledge that was not formally or informally assessed could be "negotiated" by giving children some control over their learning (Gipps, McCullum & Brown, 1999).

Variables associated with teacher beliefs

In order to gain a better understanding of teacher beliefs, it is important to recognize the relationships between teacher characteristics and beliefs about school readiness. Characteristics such as education, experience, and training have been identified as teacher characteristics associated with a variety of teacher beliefs. For example, teacher beliefs about children's literacy were influenced strongly by teacher education, with more educated teachers expressing higher agreement with literacy beliefs (Yoo, 2005). The type of education may also influence

beliefs. Teachers who majored in either early childhood or elementary education programs as undergraduates indicated higher agreement with child-centeredness and appropriate activities (Rusher, McGrevin, & Lambiotte, 1992). Whitebook, Howes, and Philips (1989) reported similar findings in that teachers with more early childhood education training had stronger beliefs about the importance of developmentally appropriate practices.

Although McMullen (1999) found a significant difference in teacher education influence on beliefs of developmentally appropriate practice, she found different associations when teacher education was combined with experience. Typically, teachers ranked as "high" in DAP had early childhood or child development content at some point in their teaching preparation. However, primary teachers with degrees in early childhood or elementary education in combination with preschool teaching experience scored higher in DAP than those with elementary degrees and no preschool teaching experience. Studies have not always reported teacher education to be associated with stronger developmentally appropriate beliefs or greater practice. Perhaps this is because higher educational levels would not guarantee course work in developmentally appropriate practice (Vartuli, 1999).

Vartuli (1999) found no significant relationship between years of teaching experience and teacher DAP beliefs. Additionally, an examination of teachers' years of experience by specific groups of years (0-2; 3-5; 6-8; and more than 9) did not reveal any differences on teachers' beliefs about literacy (Yoo, 2005). Other studies have yielded unanticipated results. There were significant, but low positive correlations between teachers' age and job experience and their beliefs about academics; negative correlations were found between age and job experience and beliefs about appropriate activities (Rusher, McGrevin, & Lambiotte, 1992). Teachers with more experience were more likely to believe that all students should be held to a common standard and

were more in favor of a common curriculum—two ideas that are more in opposition to than in favor of developmentally appropriate practice (Brousseau, Book, & Byers, 1988).

Older teachers reported lower expectations about kindergarten children's academic skills; they were less likely than younger teachers to say that those skills were very important or essential. There were no statistically significant differences between these two groups with regards to expectations for social skills (Lin, Lawrence, & Gorrell, 2003). Although age cannot be substituted for experience, it is likely that older teachers have more teaching experience.

Finally, training and exposure to specific ideologies might influence the way teachers think. When comparing teachers who were trained specifically in a responsive classroom approach to teachers who were not, Rimm-Kauffman and colleagues (2006) found differences between the two groups. More importance was placed on the teacher direction of behavior by middle and high school pre-service teachers not trained in the responsive approach than those pre-service teachers who had trained in the responsive classroom approach. Responsive classroom teachers emphasized self-regulation and autonomy; however, the effect sizes were small. Likewise, exposure to a specific type of literacy curriculum influenced emphasis on literacy compared to those who did not have the experience (Yoo, 2005).

Relationship between Teacher, Administrator, and Parental Beliefs

Preschool teachers interact with parents and program administrators on a day-to-day basis. Through these interactions, teachers are given insight not only to the beliefs of parents and directors but also to their expectations. There is evidence that the individual beliefs of school administrators are consistent with the philosophies enacted in the classroom (Wing, 1989) and the beliefs of the teachers who enact them (Bryant, Clifford, & Peisner, 1997). Most studies (Hatch & Freeman, 1988; Parker & Neuharth-Pritchett, 2006; Rusher, McGrevin, & Lambiotte,

1992), however, reveal incongruence between teachers' and administrators' beliefs and preferences. These differences were mainly found between elementary educators in the area of academic instruction. Principals and supervisors frequently took the position that the school district's course of kindergarten study, designed to meet state standards, ought to be followed in their programs (Hatch & Freeman, 1988). Kindergarten teachers disagreed with emphasizing academics significantly more than principals and significantly more than they perceived their school districts' emphasis (Rusher, McGrevin, & Lambiotte, 1992).

Teachers acknowledged a gap between the district philosophy and their personal beliefs, but principals essentially did not (Rusher, McGrevin, & Lambiotte, 1992). Not surprisingly, Hatch and Freeman (1988) concluded the extent of what they termed "philosophy-reality conflicts" were more widespread among kindergarten teachers than among principals or supervisors. These differences result in teachers feeling the pressures of their administrators' preferences and often perceiving themselves as not having control of curriculum and its delivery or having individual choices about instructional practices (Parker & Neuharth-Pritchett, 2006).

Teachers are not only confronted with the opinions of administrators, but they also respond to the beliefs of parents. Although the topic of parental beliefs about school readiness is not widely researched, existing research suggests that parents' and professionals' beliefs may be closely aligned (Wesley & Buysse, 2003) but with some differences (Piotrowski, Botsko, & Matthews, 2000). Parents' conceptions of readiness are not as clearly defined as those of professionals who have had experience applying readiness concepts; nonetheless, parents, like teachers, exhibit a belief that children's first experiences with formal education should be much more than academics (Wesley & Buysse, 2003).

However, parents do have distinct ideas about what children should learn. Piotrowski, Botsko, and Matthews (2000) found that parents believed that basic knowledge (knowing the alphabet, colors, etc.) was absolutely necessary at kindergarten entry. Parents also placed greater importance on children having advanced knowledge (knowing address/telephone, writes first name, can read simple stories) than preschool and kindergarten teachers. Additionally, parents rated compliance with teacher authority as absolutely necessary more so than teachers. Parental beliefs did not differ by educational level but ethnicity was associated with beliefs about school readiness. Hispanic parents placed slightly more importance on a child being able to communicate needs and feelings in his or her own language, being emotionally mature, and being interested and engaged (Piotrkowski, Botsko, & Matthews, 2000). This may be because parents in minority racial and ethnic groups express more concern for their children's readiness to enter kindergarten (Diamond, Reagan, & Bandyk, 2000).

Similar to the distinctions in beliefs between teachers and administrators, the differences between parents and teachers provide tension for teachers. For example, preschool and kindergarten teachers reported that parents emphasized basic skills and this influenced their use of more structured approaches than they liked (Stipek & Byler, 1997). Further research in these areas may help explain the associations between teacher beliefs and practice.

Not only do teachers consider the beliefs of administrators and parents, they also consider the home environments of the children they serve. Teachers who served low-income children did not necessarily have different beliefs about school readiness from teachers who did not serve low-income children, but they did have distinct ideas. Teachers did not evaluate children of lower socio-economic status differently in terms of competence; yet, teachers perceived children who had initiated and engaged in more conversation with adults as more competent (Tudge,

Odero, Hogan, & Etz, 2003). Teachers of economically disadvantaged children also rated knowledge as a more important goal and tended to agree more with a basic skills orientation than did teachers of middle class children (Stipek & Byler, 1997).

Another perspective on school-readiness emerged from teachers serving low-income, urban children. Teachers felt that in order to prepare a child for school, three levels must be addressed: child, home, and teacher. The child level is made up of individual characteristics such as social skills, basic skills, and reasoning skills. The home-level characteristics include home environment and parental preparation with child. Finally, the teacher-level characteristics were collaboration and communication between teachers and parents (Lara-Cinisomo, et al, 2008).

School Readiness and Society-at-large

There is some evidence that there are regional differences associated with teachers' school readiness beliefs. Teachers from all regions appeared to view social and academic dimensions of kindergarten as being interdependent; that is, early emphasis on social and personal factors is a prerequisite to sustained academic performance. However, kindergarten teachers in the South reported higher social and academic expectations than kindergarten teachers from the West (Lin, Lawrence, & Gorrell, 2003). Nonetheless, the greater impact of society may stem from the laws and programs the government sets forth.

The mandate that all children should be ready for school by 2000, later replaced by the No Child Left Behind Act, has created an environment of accountability. The responses to these expectations, however, are diverse. The National Education Goals Panel (Kagan, Moore, & Bredekemp, 1995; Shore, 1998) defines school readiness as five domains of a child's development and learning: physical health and motor development, social and emotional development, approaches toward learning, language development, and cognitive general

knowledge. Others view readiness as a two-dimensional concept: children are ready for school and schools should be ready for children (Saluja, Scott-Little, & Clifford, 2000). The National School Readiness Indicators Initiative (Rhode Island KIDS COUNT, 2005) created a ready child equation that consists of ready families, ready communities, ready services and ready schools. However, the connections to these examples of defining school readiness have been minimal.

No state has a formal definition of school readiness; however, five states report that local school districts may have individual definitions (Saluja, Scott-Little, & Clifford, 2000). An examination of state policies on school readiness (Saluja, Scott-Little, & Clifford, 2000) found that 18 states conduct statewide screening or assessment on children when they enter kindergarten, whereas 26 states do not mandate readiness assessments, but assessments may occur at the local level. Six states view readiness in terms of the school being ready for the child while five states have benchmarks and/or a framework for school readiness. There are school readiness initiatives in place for 16 states.

The state of Tennessee does not have an initiative specifically designed as a school readiness initiative. The state's current administration is a strong advocate for universal pre-kindergarten (Bredesen, 2005). However, not all of the state's preschool children have the option of attending state-funded pre-kindergarten. In 2001, Tennessee implemented a quality rating and improvement system for child care programs licensed by the Department of Human Services. This initiative was designed to improve the overall quality of child care which results in having children better prepared for school.

Beliefs and Practice

Beliefs and practices have been examined from the overall philosophy to specific topics. Regardless of the perspective taken, research concerning the relationship between beliefs and

practices is mixed. Congruence between beliefs and practices has been found between overall teaching philosophies and overall practice (Olafson & Schraw, 2006). However, these teachers only practiced some of their teaching philosophies. Over a third of the teachers used practices assigned to a set of beliefs to which they did not ascribe. Conversely, teachers did not use practices assigned to the set of beliefs to which they specified alignment. Practicing beliefs in part is not an uncommon finding. In a more specific study of elementary science teachers, researchers deducted five overall beliefs about teaching science. However, when teachers' practices were observed, practices supported only one set of beliefs (Levitt, 2001).

The examination of practices by early childhood educators is typically centered on developmentally appropriate practice. As previously described, developmentally appropriate practice is driven by children's needs and interests. Preschool and kindergarten, but not first-grade, teachers' beliefs about appropriate and effective practices for young children were positively correlated with practices they implemented in their classrooms (Stipek & Byler, 1997). Based on observations of classroom practices, teachers who implemented "child-directed choice/play time" or "emergent literacy and language development activities" were more likely to report holding DAP beliefs. In comparison, those teachers who were categorized as adhering to "consistent routines", "organized classrooms", "preplanned curriculum", and/or "teacher-directed learning" were more likely to report holding beliefs more in line with a teacher-directed or academically oriented philosophy (McMullen, et al 2006). Both findings give support to teachers practicing what they believe.

Other studies have found a moderate correlation between developmentally appropriate beliefs and developmentally appropriate practices (Charlesworth, et al 1993; Vartuli, 1999). The association between beliefs and practice were moderate for Head Start and kindergarten teachers

(r =.68 to r =.69), and low to moderate for first-, second-, and third grade teachers (r =.33 to r=.57). These findings revealed that classroom instruction centered more on the teacher-directed behavior as the grade level increased (Vartuli, 1999).

Despite the modest correlations found in some studies, the relationship between beliefs and practice continue when examined with other variables and interventions. Developmentally appropriate belief scores was the primary predictor of DAP practices for primary and preschool teachers when studied with such variables as internal locus of control and teaching efficacy (McMullen, 1999). Classroom characteristics, teacher characteristics, and teacher beliefs accounted for 42% of the variance in observed classroom practice while teachers' beliefs about developmentally appropriate and developmentally inappropriate practice explained 11% of variance (Maxwell, McWilliam, Hemmeter, Ault, & Schuster, 2001). The association between beliefs and practice still exists, even when teachers are taught specific practice (Lee, Baik, & Charlesworth, 2006). When teachers were studied on their use of scaffolding, differences between teacher belief orientations (DAP versus inappropriate DAP) still remained after teachers were trained specifically in the scaffolding approach.

With the ever-increasing diversification of the population of children in the United States, the relationship between belief and practice is of importance in a cross-cultural context. In an international study of teachers beliefs and practices, McMullen and fellow researchers (2005) found that self-reported beliefs associated with developmentally appropriate practice were positively related to the self-reported frequency of engagement in instructional activities related to this philosophy in teaching professionals in all five countries (United States, China, Turkey, Taiwan, and Korea). Although evidence of this relationship was weakest in the sample from China and strongest in the United States, these relationships may be magnified when examining

cultural differences. China, Taiwan, and Korea are societies with a focus on collectivism while DAP is more of an individualistic philosophy (McMullen, et al, 2005).

Variables Associated with Teacher Practice

Just as the ecological theory is useful in explaining teacher beliefs, it is also helpful in explaining the relationship between internal and external variables associated with teacher practice. McMullen (1999) asserts that personality factors such as self-efficacy, locus of control, and trait anxiety in addition to education and professional experiences mediate beliefs and practices. New teachers may lack resources and coping skills to implement what they have been taught and what they may truly believe are best practices with young children (Buchanan, Burts, Bidner, White, & Charlesworth, 1997).

Among those teachers who insist that they really do believe in DAP, the discrepancy between beliefs and practices is attributed to a number of environmental or work-related stresses. The most common among these complaints are feelings of being unsupported by parents, colleagues, and administrators, and the teachers' perception that they must emphasize skill development and prepare students for standardized tests (McMullen, 1999). High teacher stress and tension caused by parental and administrative expectations, extensive and increasing curricular demands, and insufficient time to meet expected instructional and curricular requirements contribute to decreased willingness to adopt diverse instructional active learning strategies (Vartuli, 1999) and thus may influence the activities in the classroom.

Systems outside of those directly related to the teacher may indirectly impact practice. The quality of professional preparation was one example of a mediator of teacher beliefs and practice (Veenman, 1984). However, the predictors of kindergarten class quality (an indicator of teacher practices) were not related to region of state, size of school, or per pupil expenditure, but

were related to influence of individual teacher, principal, or both (Bryant, Clifford, Peisner, 1991).

The reasons why teachers believe what they believe and practice what they practice are complex. The struggle is when the two do not align. According to Rusher, McGrevin, and Lambiotte (1992), teachers who are coerced into teaching under policies contrary to their beliefs have a limited number of choices. These choices include: a) being true to their personal beliefs by closing the classroom door and working in secret noncompliance; b) modifying their teaching practices to reflect district policies, creating cognitive dissonance for themselves; or c) leaving the profession altogether.

Teachers rarely hold only beliefs at one end of the continuum of developmentally appropriate practice. However, teachers usually show preferences for particular frameworks. To better understand teachers' decisions in planning and teaching, it is necessary to understand what teachers believe is important (Charlesworth,, et al, 1993). This study describes the school readiness beliefs of teachers, directors, and parents by using the same items. Describing beliefs, particularly teacher beliefs, is only the first step to understanding them. Teacher education and experience, location of the program, and the characteristics of the children served have all been shown to have some influence on these beliefs. Therefore, I examined teacher, program, classroom, and family characteristics in relationship to teacher beliefs about school readiness.

Research has demonstrated that what teachers believe is not always manifested in teacher practices. When there is a relationship between beliefs and practice, it is often a moderate one. This study sought to explore the relationship between beliefs and practices in four distinct ways: global, curricular, interactional, and instructional.

In summary, teacher beliefs are a reference and aid when making decisions in the classroom. For preschool and kindergarten teachers, their beliefs about school readiness are based more strongly in child-centered practices than are those of early elementary school teachers. Although preschool and kindergarten teachers tend to emphasize social skills over academic skills, there is an acknowledgement of the divergence of developmentally appropriate practice and the academic expectations for children in formal educational settings.

Research findings have been mixed in regards to what factors are associated with teacher beliefs, but there is evidence that teacher education and experience do matter. It cannot be forgotten that teachers operate in a larger community. While administrators' and parents' beliefs are often closely aligned to teacher beliefs, differences, when they do occur, may create pressure to instruct children in a manner that may be at odds with their beliefs. Thus, it is not surprising that the association between belief and practice is frequently a moderate one.

III. Method

In 2000, the state of Tennessee enacted the Star-Quality Rating and Report Card Program (STARS). The goals and objectives of the STARS program, as outlined in T.C.A.§ 71-3-502, are (1) to encourage and recognize quality child care programs, (2) to improve the quality of child care in Tennessee, and (3) to provide support and information to parents as they seek to secure quality child care for their children. Although the STARS program is not a school readiness initiative, an underlying assumption is that high quality programs will result in children being better prepared for school.

The Tennessee Department of Human Services (DHS) contracted The University of Tennessee, College of Social Work Office of Research and Public Service (SWORPS) to conduct an outcome evaluation on the STARS program. The study, entitled the Tennessee Child Care Quality and Child Outcomes study, examined the effects of quality child care on preschoolers' school readiness skills. The study collected data on 116 programs and 442 children and families. The University of Tennessee gave IRB approval (IRB # 7124B) for both years of the Tennessee Child Care Quality and Child Outcomes study. Although this research study utilizes secondary data from that evaluation, I am the project manager for the Tennessee Child Care Quality and Child Outcomes study and have been involved in every aspect of the study.

Program Selection

A total of 114 programs, licensed by the Tennessee Department of Human Services (DHS), were included in this study. Initially, the study was piloted with 40 programs in two regions of the state. After data were gathered from these 40 programs, the researchers reviewed the data collection procedures and instruments to identify any problems. Since no major

problems were identified, data collection continued to encompass an additional 76 DHS licensed programs across the state of Tennessee.[1]

To guarantee geographic representation in the selection of programs, researchers used a stratified random selection method and divided the state of Tennessee and its 95 counties into three classifications: urban (percent of total population 75 to 100% urban), mixed (percent of total population 50 to 74.9% urban), and rural (percent of total population 0 to 49.9% urban). The divisions were drawn from the 2000 U.S. Census data, which defines an urban population as one where persons living in core census block groups have a population density of at least 1,000 people per square mile. Once counties were designated by size, an urban, mixed, and rural county or counties were selected in each of the grand regions of the state (East, Middle, and West). Then, the proportion of child care centers that have classrooms with 4-year old children was calculated for each geographic stratum.

Three other considerations were used in the sample selection process. 1) The sample was to include counties in which providers generally scored high on assessments as well as counties in which providers generally scored low. Assessment score information was gathered from historic data collected during year 4 of the STARS project (August 1, 2004 through July 31, 2005). 2) The racial composition (white versus non-white) of the counties was to correspond to that of the state of Tennessee. 3) The poverty level (percent of families with children under 5 living below poverty level) was to be reflective of the state of Tennessee.

The racial and poverty level information was gathered from the 2000 U.S. Census. Overall, 116 programs were randomly selected in 9 geographical regions in proportion to the state's child care population: Rural East; Rural Middle; Rural West; Mixed East; Mixed Middle;

[1] Two programs were not included in data analyses because they were determined to be ineligible after data were collected.

Mixed West; Urban East; Urban Middle; Urban West. See Table 1 for the distribution of programs.

Recruitment

A letter by a Department of Human Services administrator introducing the project was mailed to each child care program selected for the study. A flyer about the project and a page of frequently asked questions was included with the letter to give the provider information about the logistics of the study and their potential involvement (See Appendix A for a copy of these materials). Follow-up calls were made to each program to encourage participation and answer any questions that providers might have. During these phone calls, research team members explained the project further and established eligibility of the programs for the study. For eligible providers that were interested in participating or finding out more information about the project, an on-site recruitment visit was scheduled. If a program was not interested or not eligible, the reason for its non-participation was recorded for later analysis and documentation. If a participating program had more than one eligible classroom, a random selection determined which classroom would be included in the study. Consent forms were obtained from participating directors, teachers, and children. (See Appendix B for copies of the consent forms.)

Eligibility

Programs

Researchers established standard criteria to determine eligibility for participation in the study. Programs were required to have at least one classroom with six age-eligible children. Children were considered age-eligible if their birthdates fell within the time frame to enter kindergarten for the upcoming school year. Three additional criteria were established for programs. First, the program had to be operational for six months prior to data collection. Next,

Table 1.

Comparison of Target versus Actual Distribution of Sample According to State Makeup of Region and Location

Region	% of Distribution	Target Number	Actual Number
Rural East	8.6	10	6
Rural Middle	8.6	10	8
Rural West	5.4	6	9
Mixed East	11.4	13	16
Mixed Middle	16.6	19	19
Mixed West	3.9	5	4
Urban East	12.5	15	16
Urban Middle	13.0	15	16
Urban West	20.0	23	22
Total	100.0	116	116*

*Note: Two programs were not included in data analyses because they were determined to be ineligible after data were collected.

the program could not have been issued a new license within the past year. Finally, programs had to operate at least 20 hours a week.

Sample Description

The sampling frame began with 514 programs, 313 of which met the eligibility criteria. All eligible programs were invited to participate in the study; however, 129 (41 %) programs initially declined and 35 (11%) programs agreed to an on-site visit but later declined to participate. This left 149 programs that agreed to participate; however, data collection was completed on only 116. (The primary reason for not completing data collection was a lack of participation by parents.) Therefore, the overall participation rate was 48% with an overall completion rate of 78%. This response rate is lower than most national studies (69% for the Early Childhood Longitudinal Study (NCES, 2000) and 78% for NCEDL (Clifford, et al, 2005)), but is comparable to that of the Cost, Quality, and Child Outcome Study (52.3%) (Peisner-Feinberg & Burchinal, 1997).

Programs

Usable data were collected on 114 programs. As noted previously in the footnotes, two of the eligible programs were later dropped from the analyses after data collection occurred because participating children did not fit the criteria and the programs were therefore determined to be ineligible. The participating programs represented a variety of geographical locations in that 20.2% were located in rural areas (n=23), 34.2% were in mixed areas (n=39), and 45.6% were urban (n=52).

The providers in the sample represented a mix of Program Assessment star ratings as determined by the Tennessee Report Card and Star Quality Program: 0 stars (n=17), 1 star (n=16), 2 stars (n=31) and 3 stars (n=50). Approximately 24% (n=27) of the programs were

accredited, with the majority receiving accreditation through the National Association for the Education of Young Children. There were slightly more non-profit programs in the study (n=65) than for-profit programs (n=49). The non-profit programs included Head Start programs, which comprised 6.1% of the sample.

The majority of the centers (56.1%) had a program size between 50 to 100 children (n=64) with 15.8% of the centers having less than 50 children (n=18) and 28.1% of the sample having more than 100 children (n=32). The vast majority of the classrooms (n=74) did not contain a child with an identified disability. The majority of the programs (n=78) had less than 25% of their children receiving subsidy with 6.7% (n=7) serving more than 75% of children receiving subsidy.

The researchers collected data on both the program and on the particular classroom where the observation took place. See Tables 2 and 3for a complete description of program characteristics and Tables 4 and 5 for classroom characteristics.

Directors

All of the 114 directors completed a questionnaire providing information about the characteristics of their programs and their own qualifications (See Appendix C for a copy of the Director Questionnaire). Directors were primarily non-Hispanic (99.1%), and more than three-fourths were white (78.2%). Less than 2% of the population was male. Black/African American directors comprised 15.5% of the sample, with the remaining respondents indicating an Asian (2.7%), multiple (2.7 %,) or other (0.9%) racial background. Directors had an average of about 9 years experience (SD = 7.84) in their current child care programs. Overall, directors averaged a little over 17 years experience (SD = 8.17) in the early childhood education field. The directors'

Table 2.

Characteristics of Participating Programs

Characteristic	N	%
Overall Star Rating		
0 Stars	17	14.9
1 Star	16	14.0
2 Stars	31	27.2
3 Stars	50	43.9
Accredited Program		
No	85	75.9
Yes – NAEYC	22	19.6
Yes – Council on Accreditation	2	1.8
Yes – not specified	3	2.7
Program Type		
For-profit	49	43.0
Non-profit	58	50.9
Head Start	7	6.1
Program Size		
Less than 50 children	18	15.8
50 – 100 children	64	56.1
More than 100 children	32	28.1

Table 2. continued

Characteristic	N	%
Geographical Location		
Rural	23	20.2
Mixed	39	34.2
Urban	52	45.6
Curriculum Used in Program		
No	17	15.0
Yes	96	85.0
Assessment Used in Program		
No	23	20.7
Yes	88	79.3

Table 3.

Subsidy, Racial Composition and Ethnicity of Programs

Characteristic	N	Less than 25%	25-75%	More than 75%
Percentage receiving subsidy	105	74.3%	19.0%	6.7%
Percentage of White children	112	20.5%	17.9%	61.6%
Percentage of Black/African American children	112	68.8%	13.3%	17.9%
Percentage of Asian children	112	98.2%	1.8%	0.0%
Percentage of American Indian or Alaska Native children	112	100.0%	0.0%	0.0%
Percentage of Multi-racial children	112	99.1%	0.9%	0.0%
Percentage of Hispanic children	112	97.3%	1.8%	0.9%

Table 4.

Characteristics of Participating Classrooms

Characteristic	N	%
Classroom Size		
Less than 10 children	7	6.1
10 – 20 children	94	82.5
More than 20 children	13	11.4
Percentage of male children in classroom		
Less than 25%	1	0.9
25 – 50%	59	53.2
51 – 75%	49	44.1
More than 75%	2	1.8
Percentage of female children in classroom		
Less than 25%	2	1.8
25 – 50%	65	58.6
51 – 75%	43	38.7
More than 75%	1	0.9
Children with Identified Disability		
None	74	68.5
One	24	22.2
Two	8	7.4
Three	1	0.9
Four	1	0.9

Table 4. continued

Characteristic	N	%
Curriculum Used in Classroom		
No	14	12.4
Yes	99	87.6
Assessment Used in Classroom		
No	17	15.3
Yes	94	84.7

Table 5.

Racial and Ethnicity Composition of Classrooms

Characteristic	N	Less than 25%	25-75%	More than 75%
Percentage of White children	113	20.4%	25.7%	54.0%
Percentage of Black/African American children	113	70.8%	15.0%	13.2%
Percentage of Asian children	113	99.1%	0.9%	0.0%
Percentage of American Indian or Alaska Native children	113	100.0%	0.0%	0.0%
Percentage of Multi-racial children	113	93.8%	6.2%	0.0%
Percentage of Hispanic children	110	97.3%	1.8%	0.9%

educational level varied with more than one-third having a bachelor's degree (34.2%), 20.2% having an associate's degree or two years of college, and 21.9% of directors completing high school or the GED. Of those with college degrees, 40.7% received the degree in an early childhood education or a related field. Please see Tables 6 and 7 for a complete description of director characteristics.

Teachers

The lead teacher in each classroom completed the teacher survey, providing information about his or her characteristics and qualifications as well as characteristics of his/her classroom (See Appendix D for a copy of the Teacher Questionnaire). When a classroom had co-teachers, the teacher who had been with the program the longest completed the questionnaire. Similar to the directors, the majority of teachers were non-Hispanic (98.2%) and female (96.5%) with male teachers comprising 3.5% of the sample. However, a smaller percentage of the lead teachers than directors were White (68.1%). The remainder included 26.5% Black/African-American teachers, 3.5% multi-racial teachers, and less than one percent (0.9%) was Asian teachers. Although there was some variation in teacher education, most teachers (40.4%) had completed their high school diploma or GED. Others (17.5%) completed an associate's degree or two years of college and 22.8% had received a bachelor's degree or 4 years of college. Of those who had completed a college degree, more than one-third (35.4%) received the degree in early childhood education or a related field. See Tables 8 and 9 for a complete look at teacher characteristics.

Families and Children

Among the 114 programs, data were collected on 435 families using the Family Questionnaire located in Appendix E. The majority of these families were white (76.2%) and

Table 6.

Director's Years of Experience

Years of Experience	Mean	Minimum	Maximum	SD
At current program	8.89	0.25	28.58	7.84
Total years in ECE	17.13	0.00	39.67	8.17

Table 7.

Characteristics of Participating Directors

Characteristic	N	%
Educational Level		
High school diploma or GED	25	21.9
Associate's degree or 2 year college	23	20.2
Bachelor's degree or 4 year college	39	34.2
Master's Degree	16	14.0
Other	11	9.6
ECE or Child Development Degree		
No	67	59.3
Yes	46	40.7
Current Professional Development Activities		
No	84	75.0
Yes – TECTA	9	8.0

Table 7. continued

Characteristic	N	%
Yes – CDA	7	6.2
Yes – associate's degree	2	1.8
Yes – not specified	10	8.9
Gender		
Male	2	1.8
Female	112	98.2
Race		
White	86	78.2
Black/African American	17	15.5
Asian	3	2.7
Multi-racial	3	2.7
Other	1	0.9
Ethnicity		
Hispanic	1	0.9
Non-Hispanic	113	99.1

Table 8.

Teacher's Years of Experience

Years of Experience	Mean	Minimum	Maximum	*SD*
At current program	5.48	0.08	30.0	5.91
Total years in ECE	11.50	0.17	37.42	8.27

Table 9.

Lead Teacher Characteristics in Participating Programs

Characteristic	N	%
Educational Level		
High school diploma or GED	46	40.4
Associate's degree or 2 year college	20	17.5
Bachelor's degree or 4 year college	26	22.8
Post-graduate degree	8	7.0
Other	14	12.3
ECE or Child Development Degree		
No	73	64.6
Yes	40	35.4
Current Professional Development Activities		
No	83	73.5
Yes – TECTA	8	7.1
Yes – CDA	3	2.6

Table 9. continued

Characteristic	N	%
Yes – associate's degree	2	1.8
Yes – not specified	16	14.2
Gender		
Male	4	3.5
Female	110	96.5
Race		
White	77	68.1
Black/African American	30	26.5
Asian	1	0.9
Multi-racial	4	3.5
Other	1	0.9
Ethnicity		
Hispanic	2	1.8
Non-Hispanic	111	98.2

non-Hispanic (97.7%). About one-fifth of the families were Black/African American (20.1%) and less than two percent (1.8%) were Asian. The educational level of the mother varied with 19% of mothers completing high school or a GED, 29% having some college education, 34.2 % of mothers having either an associate's or bachelor's degree, and 14.8% having completed a graduate degree. Slightly more than half (50.5%) of participating families earned $50,000 or more a year, placing them at least in the middle–income bracket, while one-fourth reported incomes less than $30,000 per year. A few of these families (3.5%) reported annual incomes less than $5,000 and thus were living in extreme poverty. Approximately 21% of respondents indicated that they received some form of child care tuition assistance, and that assistance typically came from a government agency such as DHS. See Table 10 for participating family characteristics.

Data Collection Process

Typically, two project staff (a child data collector and a classroom data collector) gathered information over a two to three day period at each participating center. On the first day of data collection, both the child data collector and classroom data collector visited the center and spoke with the director and classroom teacher to acquire consent forms if they had not been previously acquired. Additionally, data collectors reviewed the appropriate paperwork to assure that at least three children met all eligibility requirements and that data collection could continue. In the event that there were not three eligible children, data collection was postponed and/or cancelled. To maintain the structure of the classroom, the program was instructed that all regular teachers associated with the class must be present and participate in activities as they normally would. Since only one child was assessed at a time and the transitions between assessments

Table 10.

Characteristics of Participating Families

Characteristic	N	%
Race		
White	330	76.2
Black/African American	87	20.1
Asian	8	1.8
American Indian or Alaska Native	1	0.2
Multi-racial	2	0.5
Other	5	1.2
Ethnicity		
Hispanic	10	2.3
Non-Hispanic	424	97.7
Maternal Educational Level		
Less than high school	13	3.0
High school diploma or GED	81	19.0
Some college or trade school	124	29.0
Associate's degree or 2 year college	44	10.3
Bachelor's degree or 4 year college	102	23.9
Post-graduate degree	63	14.8
Family Income		
Less than $5,000	15	3.5

Table 10. continued

Characteristic	N	%
$5,000 to $9,999	19	4.4
$10,000 to $19,999	33	7.7
$20,000 to $29,999	39	9.1
$30,000 to $39,999	35	8.2
$40,000 to $49,999	33	7.7
$50,000 or more	216	50.5
Don't know	10	2.3
Refused to answer	28	6.5
Receives Tuition Assistance		
No	344	79.3
Yes	90	20.7

provided minimal interruptions, these observations were considered an acceptable representation of the classroom.

The two data collectors had specific roles and responsibilities divided over the two days: one data collector gathered data on the children while the other data collector collected classroom data. The classroom data collector observed the classroom using the Early Childhood Environment Rating Scale-Revised (ECERS-R) and the Early Childhood Environment Rating Scale-Extended (ECERS-E) or the Classroom Assessment Scoring System (CLASS). The second day of data collection included another classroom observation with the other observation tool(s) not used the previous day. In most instances, different observers were used on the two different days of data collection.

The time in the classroom varied according to the instrument used. The classroom observer stayed a minimum of three hours when using the ECERS-R and ECERS-E. The vast majority of these observations included a longer observation time to ensure that all elements of the instruments were observed (i.e., greeting/departing to nap). A 20-30 minute interview with the lead teacher was conducted in conjunction with the ECERS-R and ECERS-E observation. Observers using the CLASS stayed a minimum of two and a half hours.

In over 75 percent of the observations, data collection was completed within two consecutive days. In those instances when data collection was not completed consecutively, the most common reasons were an absent child and program scheduling requests. However, all data collection was completed within 30 days from the first day of data collection with most on-site data collection completed within a week's time.

Incentives

All participants in the study received some incentive for their participation. Directors were given a $75 gift card for their participation. Teachers were given a $50 gift card for their participation. Parents who consented and were selected to participate received a $25 gift card upon the completion of their participation in the study. All children in the selected classroom received a children's book regardless of whether they participated or not. In addition to these incentives, the program was paid $10 per child assessed to cover any staffing arrangements that were needed during the child data collection.

Measures

Early Childhood Environment Rating Scale-Revised (ECERS-R)

The ECERS-R (Harms, Clifford, & Cryer, 2005) is a widely used instrument to assess child care quality in classrooms with children ages 2 ½ to 5. Although the scale contains 43 items, only 37 items were used to evaluate the program. This is consistent with the implementation of the scale in the Tennessee STAR Quality Rating and Report Card Program and other research conducted with the scale in Tennessee. The 37 items include the subscales of Space for Furnishings, Personal Care Routines, Language-Reasoning, Activities, Interactions, and Program Structure. Assessment with the instrument yields composite and subscale scores.

The scale utilizes a 7-point scoring system with a score of 1 indicating "inadequate" quality care and a score of 7 indicating "excellent" quality care. A score of 5 or higher is considered "good" quality care. Scores are determined by the number of indicators met under the levels of 1, 3, 5, and 7. The instrument has been widely used for research, professional development, and accountability.

The authors have previously established reliability and validity for this measure. The ECERS-R was found to be reliable at the indicator and item level as well as the overall score. The percentage of agreement across the 470 indicators was 86.1% while there was exact agreement for 48% of the items (Harms, Clifford, & Cryer, 2005). The ECERS-R has been widely used in research studies and a relationship between quality care as determined by the ECERS-R and child outcomes has been established (Goelman et al, 2006; Burchinal, et al, 2000). Thus, the instrument has good predictive validity.

The data collectors had been previously trained to use the ECERS-R and were experienced with using the scale for program assessment or data collection purposes. To ensure consistency with the current state of Tennessee's report card program, the Tennessee Additional Notes, created as a supplement and explanation for the ECERS-R, was used in this study. Data collectors demonstrated their reliability with the scale and these notes.

Early Childhood Environment Rating Scale-Extended (ECERS-E)

The ECERS-E (Sylva, Siraj-Blatchford, & Taggert, 2006) is an instrument capturing child care quality in preschool classrooms. It was designed to be a supplement to the ECERS-R to assess curriculum and pedagogy for programs utilizing English Curriculum. Although it was specifically established to evaluate the English Curriculum, it has been used in various countries to evaluate curricular activities in the child care classroom.

The curricular subscales are Literacy, Mathematics, Science and Environment, and Diversity. The scale utilizes the same 7-point scoring system as the ECERS-R with scores of 5 or higher considered "good" quality care for children. This instrument also yields composite and subscale scores.

Validity and reliability for this instrument has been previously established by the authors. Construct validity was established through a strong correlation with the ECERS-R (r=.78) and two factors of the Caregiver Interaction Scale (r = -.45 to r=.59) The ECERS-E has been shown to be a significant predictor of children's scores on pre-reading, general mathematical concepts, and non verbal reasoning skills. Reliability was established on 25 randomly selected centers; Kappas ranged from 0.83 to 0.97 (Sylva, Siraj-Blatchford, & Taggert, 2006).

At the time of this study, the ECERS-E had limited use in the United States. To train data collectors, a selected group of "anchors" contacted current users of the instrument as well as the authors of the scale to ascertain the use of the instrument and to clarify certain points about scoring. The anchors established a set of Tennessee Additional Notes for the instrument and demonstrated reliability among each other. Once reliability among the anchors was established, the data collectors were trained.

Classroom Assessment Scoring System-Preschool Version

The CLASS (Pianta, La Paro, & Hamre, 2006) has been used to capture classroom quality in preschool programs by rating the interactions between teachers and students. The CLASS has been used as a professional development tool for early childhood educators and as a research tool.

The CLASS instrument is divided into four domains and subscale scores are calculated for each domain. The Emotional Support domain examines the dimensions of positive and negative climate of the classroom, teacher sensitivity, and regard for student perspectives. Classroom Organization examines such classroom dimensions as behavior management, how the teacher manages instructional time and routines, and what a teacher does during lesson or activity times. Instructional Support evaluates the instructional activities of the teacher and

includes the dimensions of concept development, quality of feedback, and language modeling. Student Outcomes focuses on how engaged the children are during the observation.

The instrument is scored in cycles of 20 minutes of observation, followed by up to 10 minutes of scoring. Each item is scored using the score ranges of low (1, 2), mid (3, 4, 5), and high (6, 7). Subscale scores are obtained and then averaged across cycles to yield classroom scores for each domain. A composite score is not calculated on the CLASS.

Reliability and validity have been previously established by the authors. Reliability was examined in the context of stability. Scores were found to be stable across cycles and across time with correlations on item scores between two days of observation ranging from $r = .73$ to $r = .85$. To establish validity, the authors utilized multiple methods including criterion and predictive validity procedures. The authors compared the CLASS to two factors of the ECERS-R and the Snapshot, another measure of classroom quality. The domains were significantly correlated with the measures ranging from $r = .12$ to $r = .63$. Studies also demonstrated the relationship between the CLASS and expressive and receptive language outcomes for children, thus indicated predictive validity (Pianta, La Paro, & Hamre, 2006).

Inter-rater Reliability. It is a common practice to use inter-rater agreement for all three of the measures used in this study. Inter-rater reliability is established when a data collector observes a classroom at the same time as a "gold standard" user. A "gold standard" user has a well-established reliability history and serves as a monitor for assuring continued assessor reliability. After an observation, the data collector and "gold standard" user debrief and come to a consensus score for each item. A user is considered in agreement with an item score if the user's score is within one point of the consensus score. An inter-rater reliability score is a

percentage calculated by dividing the number of items in agreement into the total number of items assessed.

Sometimes, as in the case of the CLASS, the "gold standard" is a series of master-coded video vignettes. Instead of coming to a consensus score, the data collector compares his or her scores with the master-code. A user is considered in agreement with an item score if the user's score is within one point of the master code. The inter-rater reliability score is calculated in the same manner as aforementioned: the number of items in agreement is divided into the total number of items assessed.

To be considered a reliable user on the ECERS-R and ECERS-E, the data collector had to demonstrate a score of at least 85% agreement with the "gold standard" user. Data collectors surpassed this reliability score, with an average reliability score of 94% for the ECERS-R and an average reliability score of 96% for the ECERS-E. At 4-5 month intervals, reliability checks were conducted between the data collectors and the "gold standard" user in programs not associated with the study.

A certified trainer from the institute that oversees the use of the CLASS provided training to the original set of data collectors. An internal project staff member became certified to train others to use the CLASS and conducted a second training later in the data collection process. A reliability score of 80% was needed to be considered a reliable user, and all data collectors exceeded this score with an overall average of 89%. As suggested by institute trainers, data collectors took a "drift test" provided by the CLASS trainers during the data collection period to assure continued reliability. All data collectors demonstrated reliability on this test.

Questionnaires

Three questionnaires were designed for the study – one for directors, one for teachers, and one for parents. (Copies of these questionnaires can be found in the appendixes). All questionnaires contained a set of questions to elicit information on demographic characteristics such as age, race, ethnicity, gender, and education. Directors were asked to identify particulars about their center whereas teachers answered questions dealing with classroom specifics (i.e., curriculum used, number of children in class). Parents were asked questions to profile their family and young child and elicit their opinions about children's readiness for kindergarten. The questionnaires were self-administered; however, participants were given a toll-free number to call if they had questions about any part of the study, including issues about the questionnaires.

School Readiness Belief Scale

Directors, teachers and parents were asked to complete a 13-item question soliciting their views on school readiness as a part of their questionnaire. This scale has been previously used in the Early Childhood Longitudinal Study-Kindergarten cohort (Lin, Lawrence, & Gorrell, 2003) and the Early Childhood Longitudinal Study – Birth cohort.

Respondents used a Likert-type scale to answer how much they agreed an item was an important skill for a child to master before entering kindergarten. A score of 1 indicates "not important" with a score of 5 meaning "essential". Sample items include: "Finishes tasks"; "Is able to use pencils and paint brushes"; "Identifies primary colors and shapes"; and "Is sensitive to other children's feelings".

Method of Analyses

In this section, statistical analyses used to answer this study's research questions will be discussed. These analyses utilize the answers given to the 13-item question soliciting participants' beliefs on school readiness. A previous study utilizing the same school readiness belief scale found two factors: academic expectation and social expectation (Lin, Lawrence, & Gorrell, 2003). The "academic" factor contains items that assist children in fulfilling the academic expectations found in a school setting. The "social" factor is made up of those items that children are expected to act out in the school setting. It is hypothesized that two constructs will also be found in this study. To test this hypothesis, a confirmatory factor analysis was used. More specifically, principal factor analysis was used to confirm the two factors. In addition, research has demonstrated a negative association between academic skills and social skill belief orientations. Therefore, a promax rotation was used. The cutoff point was .30. If two constructs were confirmed, item scores for each construct would be summed and divided to create a mean subscale score. These subscale scores were used separately to answer the following research questions.

Research Question # 1a: What is the relationship between teacher, classroom, and program characteristics and teacher beliefs?

It was hypothesized that program, classroom, and teacher characteristics would be associated with preschool teacher beliefs about school readiness skills. To examine this question, ordinary least squares (OLS) regression was used. Multiple regression is ideally suited for "analyzing collective and separate effects of two or more independent variables on a dependent variable" (Pedhazur, 1997). Multiple regression includes a beta weight—the effect of a particular

independent variable on the dependent variable when other independent, or predictor, variables are controlled (Rubin & Babbie, 1997).

The assumed two subscales: "academic" and "social" served as dependent variables. Independent variables considered, by type, are as follows:

Lead Teacher Characteristics

- Lead Teacher years of experience in current program,
- Lead Teacher years of experience in early childhood education,
- Teacher education level (High School Diploma or GED, Associate's degree or some college, and Bachelor's or other advanced degree),
- Teacher degree in early childhood or child development,
- Teacher currently enrolled in early childhood professional development program,
- Teacher race,
- Teacher gender, and
- Teacher ethnicity.

Program Characteristics

- Accredited program (No or yes),
- Percent children in program receiving subsidy,
- Percent child race in program (White and non-white),
- Percent child ethnicity in program (Hispanic and non-Hispanic),
- Child assessment used in program (No or yes),
- Curriculum used in program (No or yes)
- Program-type (For-profit, non-profit, or Head Start), and
- County type (rural, mixed, or urban).

Classroom Characteristics

- Child assessment used in classroom (No or yes), and
- Curriculum used in program (No or yes).

Research Question #1b: Are teacher beliefs about school readiness related to directors' beliefs about school readiness and/or parents' beliefs about school readiness?

In order to determine what the school readiness beliefs are for directors, teachers, and parents, descriptive statistics of means, ranges, and standard deviations were used. Pearson product-movement correlations were used to determine if there were any significant relationships between teacher and director beliefs or teacher and parent beliefs on school readiness. Additionally, mean differences were examined by conducting t-tests.

Research Question #2: What is the relationship between teacher beliefs about school readiness and classroom practice?

Pearson correlations were used to compare scores on the school readiness belief constructs to the total and subscale scores of the ECERS-R for global quality, the total and subscale scores of the ECERS-E for curricular quality, the Emotional Support subscale of the CLASS measure for emotional climate quality, and the Classroom Organization and Instructional Support subscales of the CLASS measure for instructional quality.

In this chapter, I outlined the criteria for inclusion in this study as well as the recruitment, and data collection procedures. I reviewed each of the measures used and examined reliability and validity issues, where appropriate. Finally, I described the analytical procedures that were used to answer my research questions. The findings from these analyses are presented in the next chapter.

IV. Results

The intent of this study was to examine community-based preschool teachers' beliefs about school readiness. More specifically, this study sought to identify the characteristics that predicted teacher beliefs about school readiness and whether those beliefs were related to directors' beliefs about school readiness or parents' beliefs about school readiness. Finally, relationships between beliefs and practice were examined. This chapter will present the findings from the analyses conducted to answer these questions.

Assumptions

There are certain assumptions that must be met in statistical analyses. A primary assumption is independence. This assumption was met through the program selection and data collection procedures. Programs were randomly selected and data collection and coding procedures provided anonymity for the participating programs. Additional assumptions for correlation and regression analyses include a normal distribution, linearity, and homoscedasticity (Osborne & Waters, 2002).

To test the assumptions of normality, skewness, kurtosis, and Shapiro-Wilk analyses were conducted. Items were combined into two factors: academic and social skills. Skewness analyses indicated that scores on the director and teacher academic factors were negatively skewed, but were still considered a normal distribution. Scores on the director and teacher social skills factors yielded better results on skewness, but was still slightly skewed to the left. Skewness results on both parents' factor scores were not in the acceptable range. Kurtosis analyses for both factors were in the acceptable range to be considered a normal distribution for directors and teachers but not parents. Shapiro-Wilk tests indicate that the data were

approaching a normal distribution but were not normally distributed for teachers and directors. This was not true for parents. Since the teacher and director skewness and kurtosis scores were in the acceptable range, the data did not need to be transformed. The parent data did not fall within an acceptable range. Jowever, the data was not transformed because the transformation data would make the interpretation of the results less clear, particularly because of the small range for the item responses (Maxwell & Delaney, 2004). Scatterplots were examined for linearity and homoscedasticity and the results confirmed these assumptions. Given the results of the tests for normality the following results should be considered with caution.

Teacher Beliefs

Teachers identified their beliefs about school readiness by rating thirteen items describing different school readiness skills. The range and mean for each item can be found in Table 11. Teachers felt that each of the skills, on average, was very important. The highest rated skill (M=4.60) was the skill of "communicating needs, wants, and thoughts verbally in primary language" and the lowest rated item was being able to "count to 20 or more" (M=3.89).

To answer the research questions posed in this study, it was necessary to determine if the items would load on two factors. Lin, Lawrence, and Gorrell (2003) previously found two factors: academic skills and social skills. A confirmatory factor analysis, using promax rotation with a cut-off of .30, identified two factors. All but two items loaded on the same two factors found by Lin, Lawrence, and Gorrell (2003). These items (Communicating needs, wants, and thoughts verbally and Knows the English language) loaded on the factor labeled academic skills that were previously found to be in the social skills factor. These items were included in the academic factor. The two factors, identified in Table 12, were used for the remaining analyses. Item scores for each factor were added and then divided to create an academic score and a social

Table 11.

Descriptive Statistics by Item of Teacher Beliefs about School Readiness (N = 112)

Variables	Mean	Minimum	Maximum	*SD*
Has good problem solving skills[a]	4.05	2.00	5.00	0.78
Is not disruptive of the class [b]	4.21	2.00	5.00	0.70
Takes turns and shares	4.30	3.00	5.00	0.67
Finishes tasks	4.03	2.00	5.00	0.74
Is sensitive to other children's feelings [a]	4.12	3.00	5.00	0.71
Can follow directions	4.49	3.00	5.00	0.55
Sits still and pays attention	4.06	3.00	5.00	0.75
Identifies primary colors and shapes	4.27	2.00	5.00	0.71
Knows most of the letters of the alphabet	4.07	2.00	5.00	0.73
Is able to use pencils and paint brushes	4.22	3.00	5.00	0.65
Can count to 20 or more	3.89	2.00	5.00	0.81
Knows the English language	4.42	2.00	5.00	0.72
Communicates needs, wants, and thoughts verbally in primary language	4.60	3.00	5.00	0.51

[a]n = 111 [b]n = 109

Table 12.

Factor Analysis of Teacher School Readiness Beliefs

	Factor Loadings	
Item	Social Factor	Academic Factor
Has good problem solving skills	**.82**	
Is not disruptive of the class	**.79**	
Takes turns and shares	**.75**	
Finishes tasks	**.71**	
Is sensitive to other children's feelings	**.68**	
Can follow directions	**.66**	**.41**
Sits still and pays attention	**.56**	**.51**
Identifies primary colors and shapes		**.90**
Knows most of the letters of the alphabet		**.83**
Is able to use pencils and paint brushes		**.82**
Can count to 20 or more	.36	**.66**
Knows the English language		**.64**
Communicates needs, wants, and thoughts verbally in primary language		**.43**
Eigenvalues		
% of variance	44.34	14.57

Note: Factor loadings over .40 appear in bold.

skills score for each teacher. The social skills and academic factors were moderately correlated (r=.542, p<.01).

Teacher Beliefs and Teacher, Program and Classroom Characteristics

This study sought to identify any significant relationships among teacher, program, and classroom characteristics and teacher beliefs. Pearson correlation analyses were initially used to examine this question. Few relationships were found between the selected characteristics and the two belief scales. In particular, teacher's years of experience were negatively associated with both academic and social skill belief scales. The degree of urbanization was positively correlated with social skill beliefs in that beliefs about social skills were higher as the county's population increased. Program type was correlated with academic beliefs; teachers in for-profit programs (M=4.41) held stronger academic beliefs than teachers in non-profit programs (M=4.13). Finally, teachers who used child assessments in their classroom believed social skills were more important (M=4.23) than those who did not (M=3.91). All correlations can be found in Table 13.

In addition to examining the correlations, t-tests were used to examine differences between the dummy variables and teacher beliefs. There were few significant differences. Teachers who used child assessment in the classroom (M= 4.23) had significantly different scores on the social skill factor than those who did not (M=3.91) (t(105) - -2.39, p =.01). Teachers' beliefs on the academic factor were significantly different for teachers who taught in for-profit programs (M=4.41) than those who worked in non-profit programs (4.13) (t(110) = -2.89, p<.01) while teacher beliefs on the social skills factor was approaching significance. Teachers who taught in for-profit programs (M=4.29) had higher belief scores compared to those who taught in non-profit programs (M=4.10) (t(110) = -1.96, p = .053). The degree of urbanization was also approaching significance. Teachers who taught in rural counties (M=4.04)

Table 13.

Correlations between Teacher Beliefs and Teacher, Program, and Classroom Characteristics

	Factors	
Characteristic	Academic	Social Skills
Teacher Characteristics		
Years of experience in ECE	-.46**	-.27*
Years of experience at program	-.23	-.03
Educational level	-.14	.04
Degree in ECE	-.07	.07
Currently enrolled in professional development program	-.07	-.05
Female	-.09	-.05
White	-.10	-.11
Non-Hispanic	-.09	-.14
Program Characteristics		
Accredited program	-.18	-.01
Percentage of children receiving subsidy	.17	-.01
Percentage of non-white children in program	.07	.06
Percentage of Hispanic children in program	-.03	.13
Child assessment used in classroom	.08	.03
Curriculum used in classroom	.00	.03
For-profit program	.27**	.18

Table 13. continued.

	Factors	
Characteristic	Academic	Social Skills
Degree of urbanization	.10	.20*
Classroom Characteristics		
Child assessment used in classroom	.09	.23*
Curriculum used in classroom	-.08	-.01

* p <.05; ** p <.01

held different beliefs on social skills from teachers who taught in urban counties (M=4.29) ($t(72)$=-1.96, p = .054).

To examine the relationship between teacher, program, and classroom characteristics further, regression analyses were conducted. Initially, regression analyses were conducted in three different groupings of characteristics: lead teacher characteristics (8 variables); program and classroom characteristics (10 variables); and teacher, program, and classroom characteristics (18 variables). The list of variables is located at the end of the Methods chapter. Categorical variables were dummied as interval level data:

- 1= yes, 0 = no;
- 1= for-profit, 0 = non-profit
- 1= female, 0 = male;
- 1 = white, 0 = non-white;
- 2 = non-Hispanic, 1= Hispanic;
- 2 = urban, 1 = mixed, and 0 = rural;

Responses to teacher educational level were collapsed into 3 dummy variables: 1 = High school diploma or GED; 2 = Some college or Associate's degree; and 3 = Bachelor's degree or higher.

Analyses were conducted with each of the three groupings of predictor variables and academic beliefs as well as social skills beliefs as dependent variables. None of the analyses were significant. In order to determine a potential model, backward elimination regression analyses were used. When the number of predictor variables is large, it is time consuming to consider all potential models (Johnson & Wichern, 1988). There are three major techniques that are utilized to develop models: forward selection, stepwise, and backward elimination. One concern in using forward selection procedures is that once a variable enters a model, it stays in

the model. Additionally, both forward selection and stepwise procedures assume that a variable entered at any step is nonsignificant, therefore any weaker variable cannot be significant. As a result, these procedures miss some relationships between variables. Backward elimination procedures are the only procedure that allows "key sets" of variables to work together (Younger, 1979). Thus, backward elimination procedures were used to derive models using a cut-off point of .30 so that variables known to be important do not become excluded from the model. The backward regression yielded a model for both academic and social skills beliefs. These models were compared for similarities. In general, items included in the final models identified were similar for both the academic and social skills beliefs.

The regression analysis for the final model of teacher characteristics and academic beliefs was significant. The R^2 for the final model was .244, thus accounting for 24.4% of variance. The total years a teacher was in the early childhood education field was the only significant contributing variable in this model (t (43) = 3.39, p<.01). The longer a teacher is in the field of early childhood education, the less importance a teacher places on academic skills. This model was not significant for teacher characteristics and social skill beliefs. The model is located in Table 14.

The process was repeated for program and classroom characteristics and analyses yielded a 7-variable model. The model was not significant when testing academic beliefs but was significant for social skill beliefs. The R^2 for the model, presented in Table 15, was .151, thus the model accounted for 15.1% of variance in teacher's beliefs about social skills. There were three variables that made significant contributions to the model: assessment used in classroom (t (90) = 2.51, p <.05); degree of urbanization (t (90) = 2.21, p <.05); and for-profit programs (t (90) = 2.05, p <.05). The greatest contribution to the model came from teachers who used

Table 14.

Regression Results for Teacher Characteristics and Teacher Beliefs

	Academic Beliefs			Social Skills Beliefs		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Total years in ECE	-0.03	0.01	-.44**	-0.02	0.01	-.25
Teacher ethnicity	-0.48	0.43	-.14	-0.58	0.53	-.15
Teacher race	-0.08	0.12	-.09	-0.19	0.14	-.18
Teacher educational level	0.02	0.07	.04	0.00	0.08	.01
R^2	.24			.14		
F	4.03**			2.00		

*$p < .05$. **$p < .01$

Table 15.

Regression Results for Program and Classroom Characteristics and Teacher Beliefs

	Academic Beliefs			Social Skills Beliefs		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Assessment used in classroom	0.31	0.15	.22*	0.36	0.14	.26*
Curriculum used in classroom	0.01	0.20	.00	-0.07	0.20	-.04
Curriculum used in program	-0.08	0.19	-.05	-0.02	0.19	-.01
Degree of urbanization	0.06	0.07	.09	0.15	0.07	.22*
For-profit	0.22	0.11	.21*	0.22	0.11	.20*
Percentage of children receiving subsidy	0.22	0.21	.11	-0.02	0.19	-.01
Percentage of Hispanic children in program	0.01	0.01	.13	0.00	0.01	-.02
R^2		.12			.15	
F		1.73			2.28*	

*$p < .05$. **$p < .01$.

assessments in their classrooms (β = .26). The degree of urbanization had a comparable standardized beta (β = .22) meaning as the county's population increased, so did teacher's belief in the importance of social skills. Program type had the lowest contribution to the model but was comparable to the other two significant variables (β = .20).

Finally, backward elimination analyses were conducted using teacher, program, and classroom characteristics. The model was not significant for academic beliefs. However, the analyses for social skill beliefs approached significance (p=.061). This model can be found in Table 16. As found in the program and classroom characteristic model, degree of urbanization and for-profit programs made significant contributions to social skill beliefs.

Comparison of Teacher, Director, and Parent Beliefs

Teachers, directors, and parents, on average, reported that both academic skills and social skills were very important for children to master before starting school. There was a wider range in the scores of parents in terms of beliefs about academic and social skills; however, parents on average scored both sets of skills higher than either teachers or directors (academic M = 4.48; social skills M = 4.34). Table 17 describes the overall scores for teachers, directors, and parents.

Two analyses were used to examine the relationship between teacher and director beliefs and teacher and parent beliefs about school readiness. Paired t-tests were used to determine if there were differences between teacher and director beliefs, but did not reveal any significant differences. Additionally, Pearson correlation analyses revealed no significant relationships. Teacher and parent beliefs were also compared. Significant differences were found between the means of teacher and parent beliefs about academic skills (t=4.52, p<.0001). Parents (M = 4.48) identified academic skills as more important than did teachers (M = 4.25). Differences were also

Table 16.

Regression Results for Program, Classroom, and Teacher Characteristics and Teacher Beliefs

	Academic Beliefs			Social Skills Beliefs		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Teacher race	-0.23	0.16	-.21	-0.26	0.16	-.23
Teacher ethnicity	-0.30	0.37	-.08	-0.51	0.36	-.08
Curriculum used in classroom	0.01	0.19	.01	-0.09	0.19	-.05
Degree of urbanization	0.11	0.08	.16	0.20	0.08	.29*
For-profit program	0.24	0.11	.23*	0.23	0.11	.22*
Percentage of children receiving subsidy	0.29	0.27	.14	-0.17	0.27	-.08
Percentage of Hispanic children in program	0.00	0.01	.05	-0.01	0.01	-.12
Percentage of non-white children in program	-0.00	0.00	-.22	-0.00	0.00	-.20
R^2			.12			.15
F			1.45			1.96

*$p < .05$. **$p < .01$.

Table 17.

Descriptive Statistics of Teacher, Director, and Parent Beliefs

Belief Scores	Mean	Minimum	Maximum	*SD*
Teacher academic belief score[a]	4.25	2.50	5.00	0.52
Teacher social skills belief score[a]	4.18	2.86	5.00	0.52
Director academic belief score[b]	4.14	2.67	5.00	0.53
Director social skills belief score[b]	4.18	3.29	5.00	0.39
Parent academic belief score[c]	4.48	1.00	5.00	0.50
Parent social skills belief score[d]	4.34	1.00	5.00	0.48

[a]n = 112; [b]n = 113; [c]n = 433; [d]n = 423

found between the means of teacher and parent beliefs about social skills (t=2.97, p=.003). Again, parents (M = 4.34) identified social skills as more important than did teachers (M = 4.18) However, there were no significant correlations between teacher and parent beliefs.

Teacher Beliefs and Practice

To examine the relationship between beliefs and practices, the scale belief scores were compared to the scores from classroom quality measures. The descriptive statistics for the quality measures are reported in Table 18 and show the range of quality for each measure as well as how the classrooms, on average, were rated. Of all the measures, programs (and, by extension, teachers) were rated most highly on the Emotional Support and Classroom Organization Domains of the CLASS. Programs also were rated highly on the global measure of quality, ECERS-R. Programs were not rated as highly on the ECERS-E or the Instructional Support Domain of the CLASS.

Correlations were examined between each of the quality measures (including subscales) and the teachers' ratings of academic and social skill belief factors. None of the initial correlations, as indicated in Table 19, were significant. Correlations were conducted again, controlling for race, gender, teacher's years of experience in ECE, and teacher's educational level. Again, none of the correlations were significant.

These relationships were further examined by using regression analyses. For these analyses, teacher, program, and classroom characteristics and academic and social skills beliefs were used as predictor variables with quality ratings as dependent variables. There were no significant relationships when all variables were included. To determine potential models, backward stepwise regression analyses were conducted for each measure using all 20 variables yielding a significant model for each of the measures. Although academic beliefs were found in

Table 18.

Descriptive Statistics for the ECERS-R, ECERS-E, and CLASS (N^a = 113)

Quality Measure	Mean	Minimum	Maximum	SD
ECERS-R Composite score	4.4	2.3	6.7	0.82
ECERS-R Space & furnishings subscale	4.4	2.3	6.8	0.94
ECERS-R Personal care routines subscale	3.8	1.8	6.5	0.94
ECERS-R Language and reasoning subscale	4.6	1.8	7.0	1.07
ECERS-R Activities subscale	4.2	2.0	6.8	0.96
ECERS-R Interaction subscale	5.0	1.2	7.0	1.27
ECERS-R Program structure subscale	4.8	1.7	7.0	1.21
ECERS-E Composite score	3.1	1.5	5.2	0.66
ECERS-E Literacy subscale	3.7	1.8	5.8	0.78
ECERS-E Math subscale	2.9	1.0	6.3	0.92
ECERS-E Science subscale	2.7	1.0	5.7	1.02
ECERS-E Diversity subscale	2.4	1.0	4.7	0.63
CLASS Emotional support domain [b]	5.3	2.8	6.8	0.87
CLASS Classroom organization domain [b]	4.7	1.5	6.5	0.93
CLASS Instructional support domain [b]	2.5	1.1	5.5	0.86
CLASS Student engagement domain [b]	5.3	2.5	7.0	0.92

[a]N= number of classroom observations [b]n = 114

Table 19.

Correlations between Teacher Beliefs and Quality Measures

	Factor	
Quality Measure	Academic	Social Skills
ECERS-R Composite score	-.10	.04
ECERS-R Space and furnishings subscale	-.05	.04
ECERS-R Personal care routines subscale	-.11	.01
ECERS-R Language and reasoning subscale	-.10	.00
ECERS-R Activities subscale	-.09	.07
ECERS-R Interactions subscale	-.12	-.07
ECERS-R Program structure subscale	-.02	.11
ECERS-E Composite score	.00	.06
ECERS-E Literacy subscale	.05	.01
ECERS-E Math subscale	.02	.13
ECERS-E Science subscale	.07	.01
ECERS-E Diversity subscale	.01	.06
CLASS Emotional support domain	-.10	-.06
CLASS Classroom organization domain	-.03	.03
CLASS Instructional support domain	-.15	.00
CLASS Student engagement domain	-.04	.01

all models except one, these ratings, as well as the social skill belief ratings, were included in all models because they were the variables of interest.

The regression analysis for the ECERS-R model was significant. The R^2 for the model was .438, accounting for 43.8% of variance. The variable contributing the most to the model was teacher educational level (t (43) = 3.39, p <.01) (β = .44). Both the number of years the teacher was at the program (t (43) = 2.33, p <.05) (β = .29) and whether or not a teacher was enrolled in a professional development course (t (43) = 2.03, p <.05) (β = .25) were significant contributors to the model. The results are located in Table 20.

Regression analysis yielded a model that was also significant for ECERS-E. The R^2 was .334 with the model presented in Table 21 explaining 33.4% of the variance. The total years a teacher was in the early childhood education field was a significant contributing variable in this model (t (44) = 2.79, p<.01) as was the level of teacher education (t (44) = 2.55, p <.05). The total years of teacher's experience (β = .40) contributed slightly more to the model than teacher's educational level (β = .34).

Finally, regression analyses were conducted for each domain of the CLASS. The models were significant for all domains, except Student Engagement. The R^2 for the Emotional Support Domain was .382 or 38.2% of the variance. Results can be found in Table 22. Two variables made significant contributions to the model: curriculum used in the classroom (t (43) =- 2.18, p <.05) and the variable indicating whether a teacher had degree in early childhood education (ECE) or related field (t (43) = 2.28, p <.05). The use of a curriculum resulted in a .36 unit lower score on the Emotional Support Domain while a teacher having a degree in ECE or related field resulted in a .32 unit higher score.

Table 20.

Regression Results for ECERS-R

	ECERS-R		
Variable	*B*	*SE B*	*β*
Academic beliefs	0.38	0.23	.25
Social skills beliefs	-0.08	0.20	-.06
Curriculum used in classroom	-0.49	0.48	-.16
Years teacher at program	0.05	0.02	.29*
Teacher educational level	0.39	0.12	.44**
Enrolled in professional development course	0.44	0.22	.25*
Curriculum used in program	0.65	0.45	.24
Accredited program	0.29	0.21	.18
Percentage of non-white children in program	-0.00	0.00	-.15
Percentage of Hispanic children in program	-0.03	0.02	-.17
R^2		.44	
F		3.35**	

*p<.05; **p<.01

Table 21.

Regression Results for ECERS-E

	ECERS-E		
Variable	*B*	*SE B*	*β*
Academic beliefs	0.28	0.27	.14
Social skills beliefs	0.03	0.24	.02
Curriculum used in classroom	-0.64	0.43	-.24
Total years teacher in ECE	0.04	0.02	.40**
Teacher educational level	0.31	0.12	.34*
Enrolled in professional development course	0.36	0.22	.22
Curriculum used in program	0.96	0.50	.33
R^2		.33	
F		3.16**	

*p<.05; **p<.01

Table 22.

Regression Results for CLASS Emotional Support Domain

	Emotional Support		
Variable	*B*	*SE B*	*β*
Academic beliefs	0.40	0.27	.24
Social skills beliefs	-0.33	0.23	-.22
Curriculum used in classroom	-1.21	0.56	-.36*
Years teacher at program	0.03	0.02	.16
Teacher has ECE degree	0.57	0.25	.32*
Enrolled in professional development course	0.33	0.26	.17
Curriculum used in program	0.83	0.54	.28
Teacher race	-0.15	0.28	-.08
Teacher gender	0.84	0.81	.13
Accredited program	0.49	0.25	.26
Percentage of non-white children in program	-0.00	0.00	-.12
R^2		.38	
F		2.41*	

*p<.05; **p<.01

The analyses for the Classroom Organization Domain yielded a R^2 of .249 thus explaining 24.9% of variance. These findings are located in Table 23. There were four variables that made significant contributions to the model: curriculum used in the classroom (t (87) = -2.09, p <.05); teacher enrolled in professional development course (t (87) = 2.10, p <.05); accredited program (t (87) = 2.84, p <.01); and percentage of Hispanic children in program (t (87) = -2.13, p <.05). While all made similar contributions, the variable indicating accreditation of programs made the most contribution (β = .29).

The model for the Instructional Support Domain had a R^2 of .435 with the variables in the model accounting for 43.5% of the variance. Results are reported in Table 24. The variable indicating whether or not a program was accredited was the only significant contributor to the model (t (35) = 2.55, p <.05).

In summary, teachers, directors, and parents believe both academic and social skills are very important for children to master before entering kindergarten. Program type, degree of urbanization, the use of child assessments in the classroom, and teachers' years of experience were all significant predictors of teachers' beliefs about school readiness. However, teacher beliefs did not significantly predict teacher practice as measured by the ECERS-R, ECERS-E, and the CLASS. These findings will be discussed in the next chapter.

Table 23.

Regression Results for CLASS Classroom Organization Domain

	Classroom Organization		
Variable	*B*	*SE B*	*β*
Academic beliefs	0.06	0.21	.04
Social skills beliefs	-0.02	0.21	-.01
Curriculum used in classroom	-0.78	0.38	-.25*
Assessment used in classroom	0.19	0.34	.07
Enrolled in professional development course	0.42	0.20	.20*
Teacher race	-0.06	0.27	-.03
Teacher ethnicity	0.62	0.64	.09
Curriculum used in program	0.23	0.35	.08
Assessment used in program	0.16	0.28	.08
Accredited program	0.62	0.22	.29**
Percentage of non-white children in program	-0.00	0.00	-.15
Percentage of Hispanic children in program	-0.02	0.01	-.22*
R^2		.25	
F		2.40*	

*p<.05; **p<.01

Table 24.

Regression Results for CLASS Instructional Support Domain

	Instructional Support		
Variable	*B*	*SE B*	*β*
Academic beliefs	0.10	0.40	.04
Social skills beliefs	-0.44	0.36	-.21
Assessment used in classroom	-0.42	0.59	-.14
Total years teacher in ECE	0.02	0.02	.12
Enrolled in professional development course	0.07	0.31	.03
Teacher race	-0.31	0.39	-.15
Curriculum used in program	0.70	0.58	.19
Assessment used in program	0.39	0.42	.17
Accredited program	0.88	0.34	.37*
Program type	-0.43	0.33	-.20
Percentage of non-white children in program	-0.01	0.01	-.28
R^2		.44	
F		2.45*	

*p<.05; **p<.01

V. Discussion

Beliefs about instruction emerge from teachers' personal experience and practical knowledge (Charlesworth, et al, 1993). Research (Delaney, 1997) has found that what teachers believe seems to become reality for them in their classrooms for it is in the midst of the stress, uncertainty, and tensions of the early education classroom that decisions are extemporaneously based mainly on teachers' beliefs (Vartuli, 1999). It is important, then, to identify teacher beliefs.

The evidence of a person's beliefs can be found in what a person says, what a person plans to do, and what a person does (Levitt, 2001). The goals of this study were to find evidence of preschool teachers' beliefs about school readiness by asking them to evaluate the importance of 13 skills and to see if identified beliefs were related to what they did in the classroom. This study used a statewide sample of 114 preschool teachers of community-based child care programs to answer the following questions:

1. What are the beliefs of preschool teachers in community-based child care about school readiness?
    a. What is the relationship between teacher, classroom, and program characteristics and teacher beliefs?
    b. Are teacher beliefs about school readiness related to directors' beliefs about school readiness and/or parents' beliefs about school readiness?
2. What is the relationship between teacher beliefs about school readiness and classroom practice?
    a. What is the relationship between teacher beliefs and global quality?

b. What is the relationship between teacher beliefs and curricular quality?

c. What is the relationship between teacher beliefs and emotional quality?

d. What is the relationship between teacher beliefs and instructional quality?

The findings, as documented in the previous chapter, indicate that teachers, directors, and parents believe that both academic and social skills are very important in preparing children for kindergarten. Parents place more emphasis on both sets of skills than do teachers and directors. Teachers' years of experience in early childhood education were negatively related to their beliefs about academic skills while the degree of urbanization and for-profit programs were predictive of teachers' beliefs about school readiness skills. Teacher beliefs about school readiness were not related to the practices associated with any of the types of quality captured in this study.

In this chapter, I will discuss these findings. The discussion will includes a synthesis of the results from this study into past research, theory, and practical implications for policy and future research. I will offer possible explanations as to why a relationship between beliefs and practice. Furthermore, I will identify some limitations of this study. The chapter will include with a summary of the study.

Findings

Teacher Beliefs

On average, teachers identified each skill as very important. The exception (counts to 20) was still considered an important skill. These findings differ somewhat from what Lin, et al (2003) found. The items identified as most important and least important were the same; however, the range between these items was markedly different. In this study, the mean item scores ranged from 3.89 (counts to 20) to 4.60 (communicates needs, wants, and thoughts

verbally in primary language). The range in the Lin, Lawrence, and Gorrell (2003) study was 2.55 (counts to 20) to 4.14 (communicates needs, wants, and thoughts verbally in primary language). Additionally, the skills identified as most important in the previous study were those categorized as social skills while academic skills were identified as the least important. Teachers in the current study considered academic skills as slightly more important than social skills. One explanation for this difference may be found in the differences in the factor loadings.

The confirmatory factor analysis in the present study did yield two factors, but two items loaded differently. The items of "Communicates needs, wants, and thoughts" and "Knows English language" loaded on the academic factor in this study. Previously, these items loaded on the social expectation factor. These two items were among the highest rated items by teachers in this study. Since teachers scored these items so highly, it is possible that this may have inflated the overall academic factor scores. However, with the exception of counting to 20, the rest of the items in the academic factor received some of the highest scores. Therefore, the difference in factor loadings may be one reason academic skills were rated as more important than social skills but it does not fully explain teachers' rankings.

Another reason for the difference in findings may be in the population surveyed. Lin and colleagues (2003) studied the beliefs of kindergarten teachers while the participants in this study were community preschool teachers. Previous research, however, indicates that preschool and kindergarten teachers hold similar beliefs about the readiness of children (Wesley & Buysse, 2003; Rusher, McGrevin, & Lambiotte, 1992). This study did not compare kindergarten and preschool teacher beliefs but by using the study by Lin, Lawrence, and Gorrell (2003) as a comparison, it appears that this sample of teachers do not place the same importance on social skills and place a higher importance on academic skills than kindergarten teachers.

These results may be indicative of a shift in policies that emphasizes accountability. Although the No Child Left Behind Act is aimed at elementary and secondary education, the impact of this system of accountability is known in the early childhood education field. Preschool teachers are aware of the expectations that children must meet in the first few years of their formal education. Perhaps this awareness has caused teachers to reevaluate the skills they believe to be most important for children to master before entering kindergarten. Children are assessed on those items that are readily observed. This includes those skills typically labeled as academic. Social expectations, although important, are not the focus of accountability systems and thus may not take on the same importance as they once did.

Teacher, Classroom, and Program Characteristics and Beliefs

Few characteristics in the present study predicted teacher beliefs. Only one teacher characteristic was found to predict academic factor scores: the total years of experience in early childhood education. The more experience a teacher has, the less likely they are to identify academic skills as important. Research has yielded mixed results about the relationship between experience and beliefs; however, this finding is comparable to results from a study using the same instrument to measure beliefs (Lin, Lawrence, & Gorrell, 2003). In that study, older teachers identified academic skills as less important than their younger counterparts. Although age is not a substitute for experience, it is reasonable to assume that a person with more experience may be older than a person with less experience.

The remaining characteristics that predicted teacher beliefs were classroom and program variables. Teachers who used assessments in their classroom identified items on the social skill factor as being more important. This is not surprising since teachers who use assessments are more likely to know and understand the multiple domains of child development. Two other

program characteristics were predictors of teacher beliefs about social skills: program type and degree of urbanization. As the urbanization of a county increased, teachers identified social skills as more important. Additionally, there was an increase in scores on the social skill factor for teachers in for-profit programs when compared to non-profit programs. Although differences between non-profit and for-profit programs have been found (Cornille, Mullis, Mullis, & Shriner, 2006; Mullis, Cornille, Mullis, & Taliano, 2003), these findings provide new information in this area of research.

Previous research has examined beliefs in the context of teacher characteristics; few studies (Lin, Lawrence, & Gorrell, 2003; Tudge, et al, 2003) have found relationships between beliefs and characteristics outside of teacher variables. This study provides some evidence that population density and type of program impact teacher beliefs. More research in this area is needed to explain this relationship, as well as perhaps assessing additional aspects of program context.

Comparison of Teacher, Director, and Parent Beliefs

There were no differences found between teachers' and directors' reported beliefs. Many researchers (Hatch & Freeman, 1988; Parker & Neuharth-Pritchett, 2006; Rusher, McGrevin, & Lambiotte, 1992) have reported incongruence between administrator and teacher beliefs. However, these studies typically include principals and administrators who operate large school systems that include a wide age-range of children, including those who are elementary-age. This study deals specifically with community preschool teachers and the programs' directors. Findings from this study are consistent with Wing's (1989) findings with preschool teachers and program directors.

Past research has also revealed that parents believe that both social and academic skills are important in preparing children for kindergarten (Piotrkowski, Botsko, & Matthews, 2000; Diamond, Reagan, & Bandyk, 2000). The results in this study are consistent with these findings. Parents identified academic and social skills as significantly more important than did teachers. No relationships were found between director and teacher beliefs or parent and teacher beliefs.

The finding that parents and teachers beliefs are different, but are not related may be interpreted in two ways. The first and most succinct reason is that there is not a linear relationship between the two sets of beliefs. A second explanation may be that the difference in group sizes did not allow for the variation needed on both variables to establish this relationship. There were as many as 433 parents in these analyses compared to 112 teachers. Regardless of the explanation, the lack of an established relationship does not mean that teachers are unaware of these differences. Unfortunately, it is beyond the scope of this study to determine teachers' level of awareness and whether it has an impact on classroom behaviors.

Teacher Beliefs and Practice

This study did not reveal any relationships between teacher beliefs and teacher practice. Furthermore, beliefs were not a significant predictor of scores in the measures used. There has been previous evidence (Olafson & Shaw, 2006; McMullen, et al 2006) that an agreement between beliefs and practice is typically at a broader level, such as developmentally appropriate practice (McMullen, et al 2006). More specifically, Olafson and Shaw (2006) concluded that teachers' beliefs were related more at a process level than a content-specific level. In the current study, beliefs about a specific content area, school readiness, are examined in relationship to one global and three specific types of teaching practices: interactions, instruction, and curriculum.

The characteristics that primarily predicted teacher practices centered on teacher experience and education. Buchanan et al (1997) argued that teachers may not implement what they believe because they lack the resources to do so. For preschool teachers, education and experience can be included as needed resources. A large percentage of teachers (40.4%) in this sample only had a high school diploma or the equivalent. While the mean of teachers' years of experience in early childhood education was 11.5 years, the standard deviation was 8.27 which is indicative of the fluidity of employment in the early childhood education field. Without an appropriate level of experience and education, a teacher may not be able to implement practices that align with her beliefs—no matter what those beliefs may be.

Although it was hypothesized that beliefs about school readiness would be associated with types of practice, it was particularly believed that beliefs would have the strongest associations with the Instructional Support Domain of the CLASS and the composite score of ECERS-E. These two measures assessed the instructional and curricular quality of the classroom, both of which require intentionality on the part of the teacher. As previously reported, no associations were found. Levitt (2001) found that a perceived difficulty in using developmentally appropriate practice hindered teachers' use of these practices. It is possible that teachers in this study perceived implementing instructional and curricular quality as difficult, thus explaining the low scores on those measures.

Another possible explanation for low scores on these measures may be the result of a current state initiative. The Tennessee Star-Quality Rating and Report Program begins its ninth year of implementation in August 2009. Although there is evidence that quality has improved over time (Pope, et al, 2008), this study provides some evidence that there are by-products to such initiatives. The teachers in this study performed better on the ECERS-R than they did on the

ECERS-E and the CLASS Domain of Instructional Support. Since teachers are evaluated annually on the ECERS-R, this is not a surprising finding. However, this does indicate that teachers may be placing more emphasis on those aspects of quality covered by the ECERS-R. The ECERS-E and the Instructional Support measures capture intentional teaching practices; yet, the scores for both measures were the lowest of all measures. These finding suggest that quality rating and improvement programs may define they type of quality teachers strive to attain.

Additionally, teachers rarely place importance on only one domain. This is particularly evident in the current study. Teachers considered both academic and social skills as very important and a preference for a particular framework (academic or social) was not readily identifiable. As previously mentioned, the ranges on these belief factors were small, thus providing little variability.

These findings are somewhat alarming when the characteristics of the sample are considered. Almost half of the programs were considered high quality programs, based on previous program assessments. One would expect to find higher performance on the other measures of quality including the ECERS-E and Instructional Support domain. One might also expect that teachers in higher quality programs would place less importance on academic skills. The range and means on these measures indicate that this was not the case.

The small range of scores on the belief factors and ECERS-E and CLASS Instructional Domain as well as the overall low scores on those particular two measures may contribute to the lack of association between beliefs and practice. A sample that produced a wider range of scores, including some programs that had scores of "good" or better on quality measures and a wider range of belief scores, may generate different findings.

Finally, in considering practice, it is important to remember that the classroom observation scores on the ECERS-R, ECERS-E, and CLASS indicate a point in time snapshot of what is happening in the classroom. Although effort was made to observe a "typical day" in each program, it is recognized that every day is unique in child care. Additionally, a one-day observation for each classroom measure is not at all a complete picture. It is possible to observe a "bad" day for a typically high-performing classroom or conversely, a "good" day for a low-performing classroom. This could also contribute to the lack of range on certain classroom measures.

Theoretical Implications

Bronfenbrenner's ecological theory was utilized as the framework for this study. It is understood that as a child transitions from the preschool setting to a more formalized educational setting (kindergarten), the expectations for the child will change. The ecological theory reminds us that the interactions between environments are key and that these interactions serve as the primary mechanism for achild's development (Hamre & Pianta, 2007). The interactions examined in the current study included the relationships between teachers' beliefs and classroom and program characteristics and the relationships between teachers' beliefs and director and parent beliefs.

The findings that program type and county type predicted teacher beliefs provide evidence that interactions at the mesosystem (program) and exosystem (county) are important. This study does not explain these relationships in total, but it does inform researchers that knowing what is happening in other contexts outside of the teacher-class has relevance to what happens inside the classroom. Future research in looking beyond the classroom and including more contextual variables would be beneficial to the field.

Doucet and Tudge (2007) describe the importance in recognizing the match or mismatch of activities found in the mesosystem. This study did not identify activities but it did identify the beliefs of the participants within a mesosystem, namely those of the director and the parent. Teachers and directors were not different in their beliefs about school readiness. However, there were significant differences between parents and teachers in the importance they placed on academic and social skills in preparing children for kindergarten. Although both agreed that they were important, as has been mentioned, parents thought they were more important than did teachers. This difference requires consideration as to whether parents and teachers have the same expectations of children as they transition into kindergarten and what impact do these dissimilarities have, if any.

Implications for Policy, Practice, and Future Research

Analyses from this study yielded few significant relationships; however, the results do provide important knowledge for those working with and invested in preschool teachers and implications for future research. Teachers in this study were asked to evaluate the importance of 13 school readiness skills. This activity encouraged teachers to think about their own beliefs, values, and perhaps roles in this area. Several explanations have been given as possible reasons why teachers' beliefs and practice were not related. Another explanation is that teachers are not making the connection between beliefs and practice. Preschool teachers have demanding jobs and often get so caught up in the day-to-day activities of the classroom that they may no longer be aware of the teaching practices they are utilizing. Those working with teachers can help them make this connection by encouraging them to think about their beliefs and then to examine their beliefs in the context of the classroom.

In addition to helping teachers become aware of their beliefs, early childhood education professionals can help teachers ground their beliefs in developmentally appropriate practice. Trepnaier-Street, Adler, and Taylor (2007) found the use of mentoring increased college students' beliefs on developmentally appropriate practice. In the current study, teachers placed more importance on academic skills than social skills. This does not mean that teachers do not have knowledge of and/or experience in developmentally appropriate practice, but it may be an indication that they do not. Inappropriate teaching techniques are often used when teaching children such skills as counting to 20 and recognizing the alphabet. Further exploration of this area is needed to identify teachers' knowledge in developmentally appropriate practice.

Knowledge about children's development and early childhood education is not only important for teachers, but also for the community-at-large and in particular, parents. Parents identified academic skills as more important than social skills and both sets of skills as significantly more important than did teachers. Although there are several explanations as to why this might be, one possible reason may be a lack of knowledge or understanding about the early childhood education field. Early childhood educators, advocates, and even policy makers can provide this education through such activities as campaign ads, parent education classes, and easy-to-access literature. In the state of Tennessee, efforts were initially made to increase parents' understanding about quality and indirectly developmentally appropriate practice during the implementation of the STAR Quality Rating and Report Card program. Most recently, Tennessee has partnered with the Strengthening Families initiative to provide parent education with a focus on the prevention of child abuse and neglect. However, there have been no recent attempts aimed directly at increasing parents understanding of developmentally appropriate practice.

The results also provide evidence outside the focus of this study to help policymakers support teacher practice, and thus the quality of child care programs. Education and experience were predictors of practice, as indicated by several measures of quality. Policymakers can support teachers by allocating resources such as monetary funds and programs to provide opportunities for teachers to increase their formal education. In addition, this study revealed that programs that serve a higher percentage of subsidy and minority children were more likely to score lower on the measures of quality than those programs who did not serve these children. Again, legislators can provide funding and other available resources to focus on the improvement of quality in programs serving an at-risk population.

Finally, a relationship between beliefs and practice was not established in this study. However, beliefs were consistently present in the models yielded through backward regression. Even though beliefs were not a significant predictor of practice, the inclusion of beliefs in the models may indicate that they are important. Further research with larger sample sizes should be conducted to explore the role of beliefs in predicting practice. More research is also needed to explain the interactions between teacher beliefs and program and classroom characteristics, particularly county and program type.

Limitations

This study was unique in that it assessed beliefs about school readiness using a sample of community-based preschool teachers. Three different measures were used to test whether those beliefs translated into practice. However, the study had some limitations that should be noted. One such concern is that of the participation rate. There are several possible explanations as to why programs chose not to participate in this study. As previously mentioned, the state of Tennessee assesses child care programs annually. The majority of the providers who did not

participate cited reasons related to this annual assessment. Some did not want to participate because they did not like the state program while others were preparing for their annual assessment and felt that the study would be distracting. In addition to reasons related to the annual evaluation, other explanations for the lack of participation included a lack of interest by parents, lack of support by their center's board of directors, and the researchers' inability to establish contact with the program.

Since the participation rate was low, certain sample characteristics were compared to the population of Tennessee's center programs to determine if the sample was representative of the population. Analyses revealed no significant differences in terms of region, county type (degree of urbanization), and Head Start representation. However, there was a significant difference in how well programs had performed on the state's annual assessment ($X^2 = 11.997$; $p<.01$). The study sample had an under-representation of 0-star and 1-star programs and an over-representation of 2-stars and 3-stars programs. The implications of this limitation have been discussed earlier in this chapter.

Another limitation of this study is noted in the Results chapter. The distribution of the sample was slightly skewed to the left indicating that participants in this study identified the skills as very important to essential. Kurtosis and skewness tests indicated that the director and teacher scores still met a normal distribution; however, the parents' scores did not have a normal distribution. The results using the parent data should be interpreted with caution.

The size of the sample is especially important when using analytical techniques such as multiple regression. Opinions on how many subjects are needed to conduct regression analyses are varied (Green, 1991; Knofczynski & Mundfrom, 2008). One rule-of-thumb is to use a ratio of 5:1; 5 subjects to each variable included in the analyses with no fewer than 100 cases

(Tabachnick & Fidell (1989) as cited in Green, 1991). However, the use of this guide may not prove adequate in dealing with multiple variables. Another way to analyze the number of subjects needed is to use a minimum number of subjects according to a specified effect size and the number of predictors used in the analysis (Green, 1991). For example, regression analyses in this study were initially run with up to 19 variables. If aiming for a medium effect size, a minimum of 156 subjects is required. The number of variables in the study's model was reduced after utilizing backwards regression, but the highest number of variables in model was still 12. A minimum number of cases for 10 variables is 117. If a research team believes a small effect size is valuable, a minimum of 390 subjects are needed with just one predictor variable (Green, 1991). Additionally, Knofczynski and Mundfrom (2008) argue that more cases are needed when using multiple regression analyses for prediction than for just explanation. This study had a sample of 114 programs and teachers which is below the requirements to detect a medium effect size. A replication study with a larger sample size may produce different findings.

Conclusion

The invention and implementation of the quality rating and improvement systems has ushered early childhood education into a new era of accountability. The demands of these systems, coupled with the expectations of elementary and secondary accountability systems, exert a new type of pressure on preschool teachers as it relates to preparing children for kindergarten. This study sought to identify the beliefs of community-based preschool teachers about school readiness and to examine these beliefs in the context of the classroom and program. Additionally, this study wanted to examine the relationship between beliefs and practice.

In many cases, it yielded more questions than it answered but it did reveal that teachers believe that both academic and social skills are very important for children who are transitioning

to kindergarten. Although these beliefs were not related to practice in this study, beliefs as unrelated to what teachers do. The range in teacher belief scores and the scores from the instruments measuring teacher practice was very small. Future studies that include a large sample with more variability may be able to identify a relationship. Meanwhile, policymakers and early childhood advocates can support what is known to predict quality: teacher education. Research can further facilitate the belief-practice question by soliciting the "why" behind teacher beliefs.

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Appendixes

Appendix A

Recruitment Materials

STATE OF TENNESSEE
DEPARTMENT OF HUMAN SERVICES
www.state.tn.us/humanserv/
CITIZENS PLAZA BUILDING
400 DEADERICK STREET
NASHVILLE, TN 37248
Telephone 615-313-4700 TTY 1-800-270-1349
Fax 615-741-4165

PHIL BREDESEN
Governor

VIRGINIA T. LODGE
Commissioner

September 29, 2006

Provider Name
Child Care Program
Address
City, TN Zip

Dear Provider,

As a current provider of child care, you are being asked to participate in an important study. Your program was randomly selected for the study and participation is completely voluntary.

This study is being conducted by The University of Tennessee, College of Social Work Office of Research and Public Service (SWORPS) for the Tennessee Department of Human Services (DHS). The purpose of this study is to understand how quality child care impacts school readiness skills. The study involves the collection of data at the classroom and child levels, if consent is granted by the provider, the teacher, and the parents of the child.

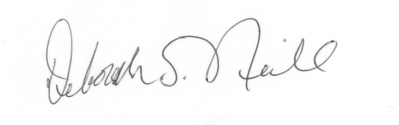
At the classroom level, the study will use three different measures of child care quality. At the child level, standardized tests will be administered to children who will be attending kindergarten next year to identify school readiness skills. By examining child outcomes, it is possible to see how different aspects of child care quality impact school readiness skills.

We need your participation to make this a successful study. Your participation does not involve a lot of time. Most of the data can be collected in two days. You, your teacher, and the selected children's' families will be compensated for their involvement.

In the next few weeks, a member of The University of Tennessee SWORPS research team will contact you to ask if you are interested in participating. At that time, they will provide you with more details about your center's role in the study. If you should have any questions about the study, you may contact the Child Care Program Office at 615.313.4778.

Thank you in advance for your assistance with this important project.

Sincerely,



Deborah Neill, Director
Child Care, Adult & Community Programs
Tennessee Department of Human Services

Frequently Asked Questions

Why should I participate?
By participating, you will be involved in a very important study to see if the quality of child care is related to school readiness skills in preschoolers. In addition, you will receive a gift card to Wal-mart once all of the data is collected from your center.

Who is conducting the study?
The study is conducted by a research team at The University of Tennessee, College of Social Work, Office of Research and Public Service—often referred to as UT SWORPS. We were asked to do the study and are funded by the Tennessee Department of Human Services.

What happens if I choose not to participate?
Nothing. We would like to have you as a part of our study but participation is completely voluntary. If you agree to participate but change your mind, you are free to stop participation at any point during the process. Any personal data that we may have collected will be destroyed.

How does this affect my STARS program assessment?
Although we are looking at the quality of child care programs, this research project is independent of the STARS program. That means that any data we collect from your program will not affect your STAR rating. This also means that the data cannot be used to substitute for any part of the STARS assessment program.

How did you get my name?
Counties were randomly selected based on population size and location (east, middle, west Tennessee). Once the counties were selected, we randomly selected programs from those counties.

What are the qualifications of the data collectors?
All of the data collectors have at least a bachelor's degree and all have worked with children in some capacity. In addition, data collectors have been thoroughly trained to conduct appropriate assessments and to uphold ethical standards in working with children, teachers, and directors.

How many eligible children do I need to participate?
You must have at least one classroom that has 6 age-eligible children. From the families that give consent to participate, we must have at least 3 children that meet all eligibility requirements.

How is eligibility determined?
Eligibility is determined by three criteria. Children must: 1) be eligible to attend kindergarten in Fall 2007 (born between October 1, 2001, and September 30, 2002); 2) have no identified special need as indicated by family report; and 3) have attended the program for 6 months.

What happens if I don't have enough eligible children?
If you have more than one classroom with 6 age-eligible children, we will try to use a second classroom/teacher. If you don't have a second classroom, we won't be able to use your center for this study. However, we hope that you will consider participating again in future research studies.

What do I need to have ready for the data collectors?
You will need to have the envelope with all of the sealed parent consent forms. This will be given to the child data collector. You will also need to have a copy of the classroom schedule, a copy of a month (4 weeks) of lesson plans, and a sample of a child's portfolio (for the classroom observer to look through).

How will the sample child's portfolio be used?

We ask to see a sample of a child's portfolio only to help us score one of the classroom instruments. We do not want to see any identifying information about the child. We will take a few general notes about what is in the portfolio. We will not ask for a copy or take any material from the portfolio. If you do not keep portfolios on your children, that's okay. We only want to see what you normally do.

When will my participation start?

Participation will begin once we have collected consent forms from the director and teacher. We will then put parent packets in children's cubbies. You will receive a call from one of our research team members to schedule dates and times for the data collection.

How long will data collection take?
We will spend two to three mornings/early afternoons at your center collecting data. The first morning of data collection will also include child data collection. Also, if any of the selected children are absent on the day of the child data collector visit, she may have to come back to the center to do the assessment for the absent child(ren).

What happens if a child doesn't want to participate?
We ask that an adult from the child care center always accompany the child during the assessment. If the child is apprehensive or doesn't want to be assessed at that time, we will wait and ask again later. If, during the assessment, the child no longer wants to participate we will return him or her to the classroom. We will never force a child to participate if he or she does not want to.

How long do I continue to accept consent forms?
We will give parents at least five business days to return consent forms. We plan to start data collection shortly after that time. However, we may not be able to start data collection the following week. You may continue to collect consent forms until the first day of data collection. After we begin data collection, we will no longer be able to include any other consenting families.

When will I receive my incentive?
Once all data collection—classroom and child—have been completed, we will mail you and your teacher's incentives within a few days. We will mail the families their incentives after the child has been assessed and we have received their second survey.

How will I get my payment for substitutes?
After assessments have been completed on all selected children in your center, we will invoice our business department. You will receive a check in the mail ($10 per child assessed) about 4-6 weeks after data collection has ended.

When will I know the results of the study?
It will take several months to complete data collection from all of the centers. We will then need to have time to analyze and write up the results. We will post them on our website (www.sworps.utk.edu) when we do and send you a postcard upon the completion of the study.

I have more questions. Whom do I contact?
Please contact us at 865-974-0934 or, if outside the 865 area code, call 1-877-631-9980 (toll free). We would be happy to answer any other questions you may have.

YOUR CHILD CARE PROGRAM

has an opportunity to participate in a study.

What is the purpose of the study?

- To study the impact of the Tennessee STAR Quality Rating and Report Card program on preschoolers'* school readiness

How can I be involved?

- Your child care program has been selected for participation.
- We would like for you to
  - complete a questionnaire that is enclosed in this packet,
  - provide information on your preschool classrooms,
  - assist us with explaining the study to parents and teachers, and
  - allow us to collect data in selected classrooms.

What are the benefits to me and my program?

- Upon completion of the data collection, you will receive a $75 Wal-Mart gift card.
- You will also be able to read about the study findings after the study is complete.

Who do I call if I have questions?

- You can call toll-free at 1-877-631-9980 for Bingham or Hope if you have questions.

Receive a **$75** Wal-Mart card

* *Preschooler is defined as a child who is eligible to enter kindergarten in Fall 2007.*

DIRECTOR PACKET

YOUR CLASSROOM
has an opportunity to participate in a study.

What is the purpose of the study?

- To study the impact of the Tennessee STAR Quality Rating and Report Card program on preschoolers'* school readiness

How can I be involved?

- Your classroom has been selected for participation.
- We would like for you to collect consent forms from the families of eligible children in your classrooms. From this group, 4 children will be randomly selected.
- We would like for you to
  - complete a questionnaire that is enclosed in this packet,
  - provide information on participating children,
  - allow us to observe your classroom, and
  - participate in a brief interview with us.

What are the benefits to me and my program?

- Upon completion of the data collection, you will receive a $50 Wal-Mart gift card.
- You will also be able to read about the study findings after the study is complete.

Who do I call if I have questions?

- You can call toll-free at 1-877-631-9980 for Bingham or Hope if you have questions.

Receive a **$50** Wal-Mart card

* *Preschooler is defined as a child who is eligible to enter kindergarten in Fall 2007.*

TEACHER PACKET

Appendix B

Director, Teacher, and Parent Consent Forms

Tennessee Child-Care Quality and School Readiness Outcomes Study
Participant Informed Consent (Director)

You are invited to participate in a research study of child care quality in Tennessee. The purpose of this study is to examine the relationship between child care quality and school readiness skills in preschoolers. The state's rated license has been used for the past five years as a measure of child care quality. This study will use the components of the rating scale to define quality. Standardized tests will be administered to children who will be attending kindergarten the following year to identify school readiness skills. By examining quality child care in this way, it may also be used to determine the effectiveness of the state-funded initiative.

By agreeing to participate, you are asked to identify all classrooms that have children who will be eligible to enter kindergarten the following year. You will be contacted to schedule a day and time for the data collector to come to your center. You are asked to find a "quiet place" that can be used for testing. A staff member will need to go with each child to the assessment and is required to be with the child during that time. You will also be compensated $10 per child assessed to subsidize the costs of teacher substitutes while children are being assessed. In addition, you will be asked to complete a short director's questionnaire. Estimated completion time is 5 minutes. The selected classroom at your center will be observed for 8 – 10 hours over a two-day period, and the teacher will be asked to participate in a 30-minute interview regarding practices in his/her classroom. The researcher will also need to review a daily schedule and lesson plans for one month for that classroom in order to complete one of the observations. Additionally, the teacher will be asked to complete a short survey for participating children and to collect consent forms. Data collection is planned to occur on consecutive days and will be completed within a 30-day period. There are minimal risks to participation. For agreeing to participate in this study, you will receive feedback about the study findings. In addition, you will receive a $75 gift card to Wal-Mart to purchase materials and supplies for your center.

Your identity will be kept confidential. This means that information about you will be collected by a case number only without your name attached. Only the research team will be able to review the forms you have completed and the forms will be included in a computer database under a code number only (with names not included). The data will be kept in a locked file in a locked office in the College of Social Work Office of Research and Public Service, Conference Center Building, Suite B090L-4. Only information about all participants as a group will be used for analysis and reports. Your name will not be on any reports or presentations. Individual data will be maintained in locked files for up to three years after program participation.

If you have questions at any time about the study or the procedures, you many contact the researcher, Maryanne Cunningham, at The University of Tennessee-SWORPS, 600 Henley Street, Suite B80, Knoxville, TN 37996 or toll free at 1-877-631-9980. If you have questions about your rights as a participant, contact the Compliance Section at (865) 974-3466. Your participation in this study is voluntary, you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at anytime without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be destroyed.

I have read and understand the explanation of the study and my role in it. I understand there are no anticipated risks other than what has been stated and that my participation is voluntary. I also know I can withdraw at any time. I agree to participate.

Name _____ Date _____
(Please Print)

Signature _____

Tennessee Child-Care Quality and School Readiness Outcomes Study
Participant Informed Consent (Teacher)

You are invited to participate in a study of child care quality in Tennessee. The purpose of this study is to see if the quality of child care impacts school readiness skills. The state's rated license has been used for the past five years as a way to measure child care quality. This study will use the components of the rating scale to define quality. Standardized tests will be given to children who will be attending kindergarten the following year to identify school readiness skills. By examining quality child care in this way, it may also be used to determine the effectiveness of the state-funded initiative.

For this research project, you will be asked to complete a social skills checklist on up to four children in your classroom and a short teacher survey. Estimated completion time is 90 minutes. You will be asked to collect the family consent forms from participating families in your classroom and provide them to the project data collector. The director *may* also ask you to go with the children to the testing area when the data collector comes to administer child assessments (in this case a substitute will be provided). Additionally, your classroom will be observed for 8 – 10 hours over a two-day period, and you will be asked to participate in a 30-minute interview regarding practices in your classroom. You will also be asked to see past lesson plans. Data collection is planned to occur on consecutive days and will be completed within a 30-day period. There are minimal risks to participation. For agreeing to participate in this study, you will receive feedback about the study findings. In addition, you will receive a $50 gift card to Wal-Mart.

Your identity will be kept confidential. This means that information about you will be collected by a case number only without your name attached. Only the research team will be able to review the forms you have completed and the forms will be included in a computer database under a code number only (with names not included). The data will be kept in a locked file in a locked office in the College of Social Work Office of Research and Public Service, Conference Center Building, Suite B090L-4. Only information about all participants as a group will be used for analysis and reports. Your name will not be on any reports or presentations. Individual data will be maintained in locked files for up to three years after program participation.

If you have questions at any time about the study or the procedures, you many contact the researcher, Maryanne Cunningham, at The University of Tennessee-SWORPS, 600 Henley Street, Suite B80, Knoxville, TN 37996 or toll free at 1-877-631-9980. If you have questions about your rights as a participant, contact the Compliance Section at (865) 974-3466. Your participation in this study is voluntary you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at anytime without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be destroyed.

I have read and understand the explanation of the study and my role in it. I understand there are no anticipated risks other than what has been stated and that my participation is voluntary. I also know I can withdraw at any time. I agree to participate.

_____

Name _____ Date _____
(Please Print)

Signature _____

Tennessee Child-Care Quality and School Readiness Outcomes Study
Participant Informed Consent (Parent)

You are asked to take part in a research study of child care quality in Tennessee. The purpose of this study is to see if the quality of child care has an impact on a child's ability to do well in school. The state's rated license has been used for the past five years as a measure of child care quality. This study will use the star-rating scale to define quality.

By agreeing to be involved, you are asked to complete a short family survey and a checklist about your child. By giving agreement for your child to participate, your child ***may*** be asked to participate in a brief assessment that will last about 30-45 minutes. The assessment will occur while your child is at his or her child care. Your child will be out of the classroom and in a chosen "quiet place" while testing. The testing will include games and activities that ask your child to follow directions as well as identify objects, letters, and numbers. A staff member of your child care program will go with the child while he/she is testing. This staff member will stay with your child while the data collector gives all tests. There are very few risks to participation. However, it is possible that some children may experience some discomfort or lack of interest in completing the tests. The data collector has been trained to work with children. If your child becomes upset during the test or no longer wants to participate, he/she will not be made to finish the tests. If you agree to participate and your child is selected, you will receive feedback about the study findings. In addition, you will receive a $25 gift card to Wal-Mart.

Your identity and your child's identity will be kept confidential. All information about you and your child will be identified by a number. No names will be used. Only the research team will be able to review the information. The data will be kept in a locked file in a locked office in the College of Social Work Office of Research and Public Service, Conference Center Building, Suite B090L-4. The information will be kept as a computer record under a code number (with no names attached). The reports will include information about all participants as a group, and not information about any individuals. Neither your name nor your child's name will ever be used in a report or presentation. Individual data will be kept in locked files for up to three years after the program is finished.

If you have questions at any time about the study or the procedures, you many contact the researcher, Maryanne Cunningham, at The University of Tennessee-SWORPS, 600 Henley Street, Suite B80, Knoxville, TN 37996 or call toll free at 1-877-631-9980. If you have questions about your rights as a participant, contact the Compliance Section at (865) 974-3466.

Your participation in this study is your choice; you may choose not to participate without punishment. If you choose not to participate, it will not affect your child's enrollment or the services you receive from the center. If you decide to participate, you may choose to leave the study at anytime without penalty and without loss of benefits to which you are entitled. If you withdraw from the study before data collection is completed, your data will be destroyed.

I have read and understand the explanation of the study and my role in it. I understand there are no anticipated risks other than what has been stated and that my participation is voluntary. I also know I can withdraw at any time. I agree to participate and give my permission for my child to participate.

_____

Name _____ Date _____
(Please Print)

Signature _____

Appendix C

Director Questionnaire

Tennessee Child Care Quality and Child Outcomes Study
Director Questionnaire

Thank you for agreeing to participate in this study. Please complete the following survey about your program.

Program Characteristics

_____ **1. Which of the following best describes your child care program (*Please select only one type)*?**

1. For-profit
2. Non-profit
3. Head Start
4. Combined (Head Start and For-profit child care)
5. Combined (Head Start and Non-profit child care)
6. Other (specify) _____

_____ **2. How many children are currently enrolled in your child care program?**

3. Indicate the number of children enrolled in your program by age group

_____ Infants (Birth-12 months)
_____ Toddlers (13-35 months)
_____ Preschoolers (3-5 years)
_____ School Age (6-12 years)

4. What percentage of children enrolled in your program are of the following ethnic groups? (Combined total should equal 100%)

_____ 1. Hispanic
_____ 2. Non-Hispanic

5. What percentage of children enrolled in your program are of the following racial groups? (Combined total should equal 100%)

_____ 1. American Indian or Alaska Native
_____ 2. Asian
_____ 3. Black/African American
_____ 4. Native Hawaiian or Pacific Islander
_____ 5. White
_____ 6. Multi-racial
_____ 7. Other (specify) _____

_____ **6. How many children in your program receive child care subsidy?**

_____ **7. Does your child care program use a curriculum?**

1. No
2. Yes If YES, specify _____

_____ **8. Does your child care program use any type of child assessment?**

1. No
2. Yes If YES, specify _____

_____ **9. Is your program accredited?**

1. No
2. Yes
   If YES, what is the accreditation organization? _____

10. How important do you believe the following characteristics are for a child to be ready for kindergarten? ***Please select the answer that best reflects what you believe (select only one answer per line).***

	Not important	Not very important	Somewhat important	Very important	Essential
a. Finishes tasks	1	2	3	4	5
b. Can count to 20 or more	1	2	3	4	5
c. Takes turns and shares	1	2	3	4	5
d. Has good problem-solving skills	1	2	3	4	5
e. Is able to use pencils and paint brushes	1	2	3	4	5
f. Is not disruptive of the class	1	2	3	4	5
g. Knows the English language	1	2	3	4	5
h. Is sensitive to other children's feelings	1	2	3	4	5
i. Sits still and pays attention	1	2	3	4	5
j. Knows most of the letters of the alphabet	1	2	3	4	5
k. Can follow directions	1	2	3	4	5
l. Identifies primary colors and shapes	1	2	3	4	5
m. Communicates needs, wants, and thoughts verbally in primary language	1	2	3	4	5

Director Characteristics

11. How long have you worked as the director of this child care program?

_____ _____
years months

12. How long have you worked in the field of early childhood education?

_____ _____
years months

_____ **13. What is the highest level of education you have completed?**

1. High School Diploma or GED
2. Associate's degree or 2 year college
3. Bachelor's degree or 4 year college
4. Master's degree
5. Specialist degree
6. Doctorate degree
7. Other (specify) _____

_____ **14. Do you have a degree in early childhood or child development?**

1. No
2. Yes If YES, specify _____

_____ **15. Are you currently enrolled in any type of early childhood professional development program?**

1. No
2. Yes If YES, indicate the program(s)
   1. CDA
   2. TECTA
   3. Associate's degree program
   4. Other (specify) _____

_____ **16. What is your gender?**

1. Female
2. Male

_____ **17. Which best describes your ethnic group?**

_____ 1. Hispanic
_____ 2. Non-Hispanic

_____ 18. Which best describes your racial group?

_____ 1. American Indian or Alaska Native
_____ 2. Asian
_____ 3. Black/African American
_____ 4. Native Hawaiian or Pacific Islander
_____ 5. White
_____ 6. Multi-racial
_____ 7. Other (specify) _____

Appendix D

Teacher Questionnaire

Tennessee Child Care Quality and Child Outcomes Study
Teacher Questionnaire

Thank you for agreeing to participate in this study. Please complete the following survey about your classroom.

Classroom Characteristics

_____ **1. How many children are currently enrolled in your classroom?**

2. How many children in your class belong to each of the following ethnic groups?

_____ 1. Hispanic
_____ 2. Non-Hispanic

3. How many children in your class belong to each of the following racial groups?

_____ 1. American Indian or Alaska Native
_____ 2. Asian
_____ 3. Black/African American
_____ 4. Native Hawaiian or Pacific Islander
_____ 5. White
_____ 6. Multi-racial
_____ 7. Other (specify) _____

4. How many boys and girls are in your class?

_____ 1. Boys
_____ 2. Girls

_____ **5. How many children in your class have identified disabilities (receive early childhood special education)?**

_____ **6. Do you use a curriculum in your classroom?**

1. No
2. Yes If YES, specify _____

_____ **7. Do you use any type of child assessment with the children in your classroom?**

1. No
2. Yes If YES, specify _____

Views on Readiness

8. How important do you believe the following characteristics are for a child to be ready for kindergarten? ***Please select the answer that best reflects what you believe (select only one answer per line).***

	Not important	**Not very important**	**Somewhat important**	**Very important**	**Essential**
a. Finishes tasks	1	2	3	4	5
b. Can count to 20 or more	1	2	3	4	5
c. Takes turns and shares	1	2	3	4	5
d. Has good problem-solving skills	1	2	3	4	5
e. Is able to use pencils and paint brushes	1	2	3	4	5
f. Is not disruptive of the class	1	2	3	4	5
g. Knows the English language	1	2	3	4	5
h. Is sensitive to other children's feelings	1	2	3	4	5
i. Sits still and pays attention	1	2	3	4	5
j. Knows most of the letters of the alphabet	1	2	3	4	5
k. Can follow directions	1	2	3	4	5
l. Identifies primary colors and shapes	1	2	3	4	5
m. Communicates needs, wants, and thoughts verbally in primary language	1	2	3	4	5

Teacher Characteristics

9. How long have you worked as a lead teacher in this child care program?

_____ _____
years months

10. How long have you worked in the field of early childhood education?

_____ _____
years months

_____ **11. What is the highest level of education you have completed?**

1. High School Diploma or GED
2. Associate's degree or 2 year college
3. Bachelor's degree or 4 year college
4. Master's degree
5. Specialist degree
6. Doctorate degree
7. Other (specify) _____

_____ **12. Do you have a degree in early childhood or child development?**

1. No
2. Yes If YES, specify _____

_____ 13. Are you currently enrolled in any type of early childhood professional development program?

1. No
2. Yes If YES, indicate the program(s)
   1. CDA
   2. TECTA
   3. Associate's degree program
   4. Other (specify) _____

_____ **14. What is your gender?**

1. Female
2. Male

_____ **15. Which best describes your ethnic group?**

_____ 1. Hispanic
_____ 2. Non-Hispanic

_____ 16. Which best describes your racial group?

_____ 1. American Indian or Alaska Native
_____ 2. Asian
_____ 3. Black/African American
_____ 4. Native Hawaiian or Pacific Islander
_____ 5. White
_____ 6. Multi-racial
_____ 7. Other (specify) _____

Appendix E

Family Questionnaire

Tennessee Child Care Quality and Child Outcomes Study
Family Questionnaire

Child Characteristics

1. What is your child's birth date? _____ _____ _____
month day year

2. **How old was your child when he/she started regularly attending child care (cared for by someone besides immediate family members)?**

_____ _____
years months

3. How long has your child been attending his/her current child care program?

_____ _____
years months

_____ **4. On average, how many hours each week is your child in this child care program?**

_____ **5. Does any person or agency help you pay for the cost of child care?**

1. No
2. Yes If YES, indicate who helps
   1. Government agency
   2. Employer
   3. One of the child's biological parents
   4. Friend or relative
   5. Other (specify) _____

_____ **6. What is your child's gender?**

1. Female
2. Male

_____ **7. Which best describes your child's ethnic group?**

_____ 1. Hispanic
_____ 2. Non-Hispanic

_____ **8. Which best describes your child's racial group?**

_____ 1. American Indian or Alaska Native
_____ 2. Asian
_____ 3. Black/African American
_____ 4. Native Hawaiian or Pacific Islander
_____ 5. White
_____ 6. Multi-racial
_____ 7. Other (specify) _____

9. How important do you believe the following characteristics are for a child to be ready for kindergarten? ***Please select the answer that best reflects what you believe (select only one answer per line).***

	Not important	**Not very important**	**Somewhat important**	**Very important**	**Essential**
a. Finishes tasks	1	2	3	4	5
b. Can count to 20 or more	1	2	3	4	5
c. Takes turns and shares	1	2	3	4	5
d. Has good problem-solving skills	1	2	3	4	5
e. Is able to use pencils and paint brushes	1	2	3	4	5
f. Is not disruptive of the class	1	2	3	4	5
g. Knows the English language	1	2	3	4	5
h. Is sensitive to other children's feelings	1	2	3	4	5
i. Sits still and pays attention	1	2	3	4	5
j. Knows most of the letters of the alphabet	1	2	3	4	5
k. Can follow directions	1	2	3	4	5
l. Identifies primary colors and shapes	1	2	3	4	5
m. Communicates needs, wants, and thoughts verbally in primary language	1	2	3	4	5

Respondent Characteristics

_____ 10. What is your relationship to this child?

1. Mother
2. Father
3. Guardian
4. Other (specify) _____

_____ 11. What is your gender?

1. Female
2. Male

_____ 12. Which best describes your ethnic group?

_____ 1. Hispanic
_____ 2. Non-Hispanic

_____ 13. Which best describes your racial group?

_____ 1. American Indian or Alaska Native
_____ 2. Asian
_____ 3. Black/African American
_____ 4. Native Hawaiian or Pacific Islander
_____ 5. White
_____ 6. Multi-racial
_____ 7. Other (specify) _____

_____ 14. What is the highest level of education you have completed?

1. 8th grade or less
2. Some high school
3. High School Diploma or GED
4. Some college
5. Associate's degree or 2 year college
6. Bachelor's degree or 4 year college
7. Master's degree
8. Doctorate degree
9. Other (specify) _____

_____ 15. If you are not the mother of this child, what is the highest level of education the mother has completed?

1. 8th grade or less
2. Some high school
3. High School Diploma or GED
4. Some college
5. Associate's degree or 2 year college
6. Bachelor's degree or 4 year college
7. Master's degree
8. Doctorate degree
9. Other (specify) _____
10. N/A

_____ 16. What is the total annual household income from all sources?

1. Less than $5000
2. $5000 - $9999
3. $10,000 - $19,999
4. $20,000 - $29,999
5. $30,000 - $39,999
6. $40,000 - $49,999
7. $50,000 or more
8. Don't know
9. Refuse to answer

Vita

Joanna Hope Denny was born in a rural town in southwestern Virginia. Even though she had a rural upbringing, Hope was able to participate in a variety of educational experiences throughout her primary and secondary education. It was experiences such as national History Day and Odyssey of the Mind competitions and attending Governor Schools where she learned that a commitment to education has rewards. During a part-time job in high school as a disc jockey, she made a decision to pursue a career in broadcast journalism.

She pursued a degree in communications and was a part of the last graduating class at Lee College, now known as Lee University. In the midst of her studies, she shifted her focus from broadcast journalism to interpersonal communication. While working on her senior project, she made the decision to continue her studies in the field of family communication by attending the University of Tennessee to study in the Child and Family Studies graduate program. For her graduate assistantship, she was placed in the Child Development Labs where her experience with children as a youth was placed in a new context.

Upon graduation, she spent a small amount of time in the non-profit sector utilizing her communications degree as a marketing and development director. She came back to the field of early childhood education as a teacher in the University of Tennessee Child Development Labs. She continued her experience in the field as an assessor for the state's quality rating system and gained experience teaching professional development and college courses. Most recently, Hope has worked with the College of Social Work, Office of Research and Public Service in research and program evaluation. Here, she has gained a variety of experiences in evaluating child care initiatives and researching children's school readiness in the context of Tennessee's quality rating and improvement system.

Although her time is often limited, Hope enjoys giving back to her community by supporting local and national non-profit organizations. In particular, she has enjoyed working with Habitat for Humanity and HOPE Initiative. Whenever she needs to be reminded of the good in people, she spends the weekend at Victory Junction Gang Camp. She looks forward to reading and writing for pleasure and finishing one of her many craft projects.