7-29-2011

Attaining a STARS 3 Rating in Keystone STARS Programs: Child Care Preschool Teachers' Perceptions of Quality

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ATTAINING A STARS 3 RATING IN KEYSTONE STARS PROGRAMS: CHILD CARE PRESCHOOL TEACHERS' PERCEPTIONS OF QUALITY

A Dissertation

Submitted to the School of Graduate Studies and Research

In Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

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December 2011

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Title: Attaining a STARS 3 Rating in Keystone STARS Programs: Child Care Preschool Teachers' Perceptions of Quality

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In the United States, child care has been a "patchwork" because it is provided through various organizations with no universal coordination to ensure affordability, accessibility, or quality (Zigler et al., 2009). This is the case despite research indicating that high-quality child care is beneficial to children and society (Harrison, 2008; Schweinhart, 1993). Several states have implemented quality rating improvement systems to support child care programs in elevating the quality of their programming through the development of standards and supports. In Pennsylvania, Keystone STARS was created to improve quality and unify standards.

In order for a program to attain a STARS 3 rating in the Pennsylvania system, teachers are held accountable for quality practices in their classrooms as outside STARS assessors evaluate them. The literature suggests teachers need more opportunities to become socialized, or *acculturated* to the norms of their profession (Handelsman et al., 2005). Moreover, professional development opportunities that enable teachers to learn about high-quality practices have proven instrumental in the professional acculturation of preschool teachers (Arnett, 1989; Pearson & Moomaw, 2005). The current study investigated perceptions held by preschool teachers about the quality of their classrooms and the connection between teacher perceptions and their acculturation experiences.

Procedures for data collection included the comparison of quality scores among preschool teachers and STARS assessors on the *Early Childhood Environment Rating Scale – Revised* (*ECERS-R*). To investigate underlying reasons for preschool teachers' self-assessment scores, personal interviews were conducted with a sample of preschool teachers from participating child care programs.

Results indicated that teachers' and assessors' scores showed significant differences on four of the seven *ECERS-R* subscales. Furthermore, teachers' interviews indicated that, while they agreed with aspects of the STARS program and use of the *ECERS-R*, frustrations with aspects of the STARS assessment hindered some teachers from accepting quality standards that guide the STARS program.

Implications for professional development of preschool teachers in child care centers and for quality rating improvement systems are discussed. Furthermore, possibilities for future research include examining infant/toddler care practices that may acculturate teachers into the norms of quality expected by quality rating improvement systems like Keystone STARS.

ACKNOWLEGEMENTS

First, I must thank Dr. Mary Jalongo for the support and guidance she has provided me not just during the writing of my dissertation, but throughout my doctoral studies. It has been an honor to work with her, and I am a better, more thoughtful educator as a result of the time she has invested in me. I would also like to thank Dr. Susan Fello and Dr. Sue Rieg for their thoughtful guidance and support and for being such exemplary role models for all educators.

To my children: Erik, Jamie, and Ella – your love is what inspires me to always move forward and try my best. For the countless times you've heard me say, "Not now, Mommy's working on her dissertation," I thank you for your understanding. Mommy loves you with all of her heart!

I must thank my husband Carl for being such a hands-on dad. He has picked up the slack an infinite number of times so that I could write. Thank you for running interference, taking a backseat countless times, and reminding me at my weakest moments that I could do this.

I would be terribly remiss if I did not thank my mother who has read this dissertation throughout its development, made suggestions, edited, listened to my complaints, and encouraged me to finish. I am truly grateful for the love, support, and back-up babysitting my parents have provided as well. Without you, I don't know how I would have achieved this goal.

Finally, I dedicate this dissertation to the memory of my grandparents James W. and Doris E. Hall. I miss you both, and am so grateful to be your granddaughter.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

STATEMENT OF THE PROBLEM

Child care in the United States is often referred to as a "patchwork" system, pieced together through various private and public entities with little to no universal coordination or standards from which to operate (Steinfels, 1973; Zigler, Marsland, & Lord, 2009). Even though the majority of industrialized countries throughout the world have established universal systems of child care, the United States continues to offer uncoordinated types of care for young children and families that has continuously resulted in programming that is too costly for working-class families, difficult to access in some geographic areas, and of unacceptable overall quality (Katner, 2009; Katz, 1999). Inconsistencies in the structure and delivery of services among states have rendered child care a difficult industry to successfully regulate and assess, even though research consistently indicates that young children need to attend child care programs that are of high-quality (Copple & Bredekamp, 2009; Harrison, 2008). As a result, many states have implemented statewide initiatives, commonly called quality rating improvement systems, intended to address issues of affordability, accessibility, and quality in child care (Child Trends, 2010; Zellman & Perlman, 2008).

Pennsylvania is one of several states in which a quality rating improvement system has been implemented. In 2002, Pennsylvania instituted a statewide quality rating program intended to encourage continuous quality enhancement efforts in child care programs, and to provide a variety of supports for those facilities that upgraded their programs by using evidence-based practices (Sirinides, 2010). Just as five-star rating systems are commonly used to evaluate movies, books, and other programs, the

Pennsylvania Departments of Education and Public Welfare sought to create a rating system for Pennsylvania child care programs that would be understandable and accessible to parents, families, and communities as they sought to identify high-quality programs for young children. This program, titled Keystone STARS, is a four star rating system designed to increase the use of quality practices in child care programs that had not previously been subjected to such standards. The term STARS is an acronym used by the Pennsylvania program and stands for: Standards, Training/professional development, Assistance, Resources, and Support. It is these five components upon which the program has built increasingly rigorous standards that child care programs must meet to progress from a STARS 1 (the lowest level) toward a STARS 4 (the highest level) designation. The STARS program goals are encouraged through awarding participating child care programs a quality rating ranging from 1 STARS (lowest) to 4 STARS (highest) as they achieve increasingly rigorous STARS standards. Each STARS level builds on the previous level to encourage programs to progress from STARS 1 and 2 designations upward to the STARS 3 and 4 levels. The Office of Child Development and Early Learning reported in their 2008 report that over 5,000 Pennsylvania child care programs serving more than 170,000 children from birth to age 12 participated in the Keystone STARS program.

The purpose of Keystone STARS is to establish research-based standards of high-quality practice into a system that child care providers can implement into their programs. Each STARS level was designed to build upon the previous one with the intention of encouraging the adoption of continuous quality enhancement efforts. The initiative specifically focuses on overall program quality by targeting staff qualifications/

professional development, learning programs, partnerships with families/communities, and leadership/management.

Young children benefit significantly from high-quality child care programs (Harrison, 2008; Love et al., 2003). Research has indicated that high-quality standards are the key to making the effects of child care programs long-lasting (NIEER, 2009) and may strengthen children's school readiness skills (Fontaine, Torre, Grafwallner & Underhill, 2006). Other studies have similarly suggested that high-quality child care programs may even serve to narrow the achievement gap, reduce crime rates, and produce adults with higher earning potential, thereby offering an excellent return on investments in quality child care programs (Berrueta-Clement, Schweinhart, Barnett, Epstein & Weikart, 1984; Harrison, 2008; Schweinhart, 1993). In fact, Schweinhart, Montie, Xiang, Barnett, Belfield, and Nores (2005) estimated that for every $1.00 invested in child care programs, $16.14 is returned to society due to increased high school graduation rates and reduced costs to the juvenile justice and welfare systems. Research studies including The Chicago Child-Parent Centers (Reynolds, 2000; Sullivan, 1971), and the Abecedarian Project (Ramey, Campbell & Blair, 1998; Ramey, Campbell, Burchinal, Skinner, Gardner & Ramey, 2000) reported that investments in high-quality early childhood programming yield sustained positive outcomes across life domains. Together these findings reveal that quality is not simply an over-used expression, but an essential characteristic of programs that nurture young children toward positive outcomes that ultimately will benefit society.

Although researchers of child care generally agree that child care programs for young children should meet high-quality standards (Early et al., 2007; Hsueh & Barton,

2005), the perspectives of child care providers and the observations of external evaluators of program quality can be discrepant (Manlove, 2001; Raban, Ure & Waniganayake, 2003). Preschool teachers employed in child care centers may use teaching strategies that reflect their personal beliefs and experiences rather than adopting research-based strategies that are less familiar to them. This makes assessing quality a complex issue that is inextricably bound with the professional development of preschool teachers employed in child care centers.

Learning the intricacies of providing quality programming can be an overwhelming process (Raban et al., 2003). Preschool teachers employed in child care centers working toward a STARS 3 rating may feel confused, conflicted, and even opposed to the STARS process if they lack clarity in defining quality in a way that supports the Keystone STARS standards.

Such misunderstandings can be problematic for child care programs working toward a STARS 3 designation. It is during the process of acquiring a STARS 3 rating that outside assessors first observe and rate individual classrooms; therefore, the pressure is on preschool teachers employed in child care centers to emulate quality standards at a level consistent with the STARS 3 expectations. Typically, preschool teachers employed in child care centers are not directly involved in the STARS process until their administrators begin to work toward a STARS 3 designation visit. It is at this point when preschool teachers employed in child care centers become the focus for the measure, and must meet carefully articulated criteria to enable their center to attain a STARS 3 rating. Center administrators typically attend trainings that describe and teach the use of the STARS assessment tool (the *Early Childhood Environment Rating Scale – Revised),* but

many preschool teachers employed in child care centers must go through a self-assessment process in their classrooms, and prepare for outside assessments, without benefit of these trainings. Consequently, untrained preschool teachers employed in child care centers may not have learned quality principles that are congruent with the research literature that informs the STARS program standards.

If discrepancies exist between the ideas of preschool teachers employed in child care centers and those of STARS assessors about what constitutes quality in child care, then preschool teachers employed in child care centers may feel overwhelmed, confused, or even resentful about the STARS program demands (Raban et al., 2003). Furthermore, misunderstandings about how their assessment scores on the *Early Childhood Environment Rating Scale – Revised (ECERS-R)* are interpreted can lead to further detachment from the process of improving the quality of their classroom environments and prevent programs from attaining a higher STARS rating (Warash, Markstrom & Lucci, 2005).

The means by which standards of quality are communicated to preschool teachers employed in child care centers may be a problem that prevents successful implementation of STARS; however, it could be remediated if preschool teachers employed in child care centers were better acculturated to the quality expectations of their programs. In particular, relevant professional development opportunities for preschool teachers employed in child care centers need to be more accessible (Warash, Ward & Rotilie, 2008).

Purpose of the Study

The purpose of this study is twofold. First, this study will determine if significant differences exist between perceptions of child care preschool teachers and outside evaluators' ratings of classroom quality reported in the research literature. This comparison will be accomplished through statistical analysis of the seven subscales of the *Early Childhood Environment Rating Scale–Revised (ECERS-R)* (Harms, Clifford & Cryer, 1998). The *ECERS-R* is the instrument used to assess quality ratings of child care programs participating in the Keystone STARS program. The *ECERS-R* is a program assessment tool developed at the University of North Carolina's Franklin Porter Graham Child Development Institute and provides research-based criteria to preschool classrooms serving children ages 2-5 who want to make quality improvements in their curriculum (in Pennsylvania, a child is not considered to be a preschooler until the age of three years). It contains 43 quality indicators organized into seven subscales evaluating program infrastructure and teacher activities with children in the classrooms. Use of the *ECERS-R* has become the "gold standard" for assessing and informing quality improvement processes due to its high reliability, high validity, and research-based items indicating that quality as it is measured by the *ECERS-R* has predictive validity (Warash et al., 2008).

Secondly, previous studies of quality child care demonstrate teacher-evaluator differences in their findings but have not explored the sources or potential causes of them from the preschool teachers' points of view. This study is designed to test for perceptual differences as well as theorize about the specifics of discovered disparities. To compare/contrast with the quantitative data collected via the *ECERS-R*, a sample of

volunteer preschool teachers employed in child care centers will be asked to participate in individual interviews to further investigate their personal experiences in developing quality learning environments and participating in the STARS program. Qualitative data from this study may help to fine tune the process of preparing preschool teachers employed in child care centers to be involved in improving the quality of their programs by acquiring information that may enhance the support teachers receive as they acculturate to the standards of the profession.

Theoretical Framework

Despite the evidence supporting the significance of quality child care, program quality still varies widely (Belsky, Burchinal, McCartney, Vandell, Clarke-Stewart & Owen, 2007). In fact, several national studies have indicated that a disturbing amount of child care offered has been of historically low to mediocre quality (Helburn, 1995; National Institute of Child Health and Human Development, 2005; Peisner-Feinberg, 2000). An investigation into the beliefs of preschool teachers who work in participating Pennsylvania Keystone STARS child care programs is similarly hypothesized to reveal differences in their understanding of practices constituting quality child care from those reported in the research literature and used by STARS program evaluators. This study will go a further step by attempting to elucidate possible reasons for these differences and to clarify inconsistencies in beliefs about quality child care among a group of preschool teachers employed in child care centers.

One possible source of preschool teachers' employed in child care centers lack of research-based knowledge is the challenge some of them may experience in socializing to

quality “norms” such as those of Keystone STARS (Matsudaira, 2006). Several authors have used the term *acculturation* (Berry, 1980) to explain the socialization process of individuals into their respective professions (Gottlieb, Handelsman & Knapp, 2002, 2008; Knapp & VandeCreek, 2006; Matsudaira, 2006). The current study theorizes that discovered differences between preschool teachers employed in child care centers and STARS evaluators may reflect variations in preschool teachers’ professional acculturation. Such differences may be attributable in part to limited training and professional development opportunities for preschool teachers employed in child care centers.

Teacher training and qualifications in early childhood education generally – and for child care in particular - have varied widely among states, ranging from less than a high school diploma, to a Child Development Associate (CDA) credential, to associate or more advanced degrees in child development or early childhood education (Goffin & Day, 1994; U.S. Bureau of Labor Statistics, 2010). It is vitally important that training opportunities are available that target teachers at their varying levels of development so that they can expand their knowledge base while developing a professional identity (Smith, 2007).

The connection between teachers’ personal identities and development as professionals should not be disregarded (Nias, 1989). Preschool teachers employed in child care centers need access to professional development that promotes understanding and adoption of the knowledge, skills, and attitudes that are indicative of high-quality practices, fewer differences regarding the provision of quality programming may exist (Darling-Hammond & Bransford, 2005).

Definition of Terms

Acculturation: This term refers to changes that occur in individuals and are apparent through their altered behaviors, attitudes, values, and identities (Berry, 1980; Gottlieb et al., 2002, 2008; Knapp & VandeCreek, 2006; Matsudaira, 2006). For preschool teachers employed in child care centers, this study uses the term acculturation to define the professional development of these teachers as they are exposed to the standards of quality expected as they progress to higher STARS levels.

Administrators: For this study, administrators refer primarily to child care center directors who bear major responsibility for determining when and how a program progresses through the STARS levels.

Assessors: Pennsylvania Environment Rating Scale assessors are employees of the Pennsylvania Key and are specifically trained to provide reliable observational assessments of Keystone STARS preschool program's quality by conducting *ECERS-R* assessments at STARS 3 and 4 levels. To ensure continued accuracy in the assessment process, assessors go through an ongoing inter-rater reliability process that requires all assessors to conduct observations with other assessors at least every ten site visits.

Child care programs: For the purposes of this study, child care programs will refer to the Pennsylvania Department of Public Welfare (DPW) certified child care programs that participate in the Keystone STARS initiative.

Early Childhood Environment Rating Scale – Revised (*ECERS-R*): An assessment instrument developed to rate the level of quality in preschool classrooms. In Pennsylvania, the *ECERS-R* is the tool used to assess the quality of individual preschool

classrooms in child care centers applying to earn a STARS 3 rating from the Keystone STARS imitative (Harms et al., 1998).

Keystone STARS: A four-star rating system designed to encourage quality improvement in Pennsylvania certified child care programs developed in Pennsylvania in 2002. Child care programs can voluntarily participate in the program to earn ratings ranging from STARS 1 (lowest indicator of quality) to STARS 4 (highest indicator of quality) (Sirinides, 2010). STARS is an acronym for: Standards, Training/professional development, Assistance, Resources, and Support.

Preschool: In Pennsylvania, a classroom for preschool age children includes children aged three years until their entrance into kindergarten in either a public or private school (Pennsylvania Department of Public Welfare, 2008).

Preschool-aged child: According to the Early Childhood Environment Rating Scale-Revised, a child who is between the ages of two years, six months through five years of age is considered a preschooler. In Pennsylvania; however, a child may not be considered a preschooler until the age of three years, and remains a preschooler until the child begins kindergarten, according to the Pennsylvania Department of Public Welfare's (2008) state certification regulations for child care centers.

Preschool teachers: For the purposes of this study, preschool teachers are those individuals working in Pennsylvania certified child care centers whose primary role is to provide educational planning and instruction for children in preschool classrooms.

Professional development: For the purposes of this study, professional development refers to any type of formal or informal training aimed at educating preschool teachers employed in child care centers on how to improve quality in their classrooms.

Quality: In child care programs, quality has been determined to consist of those elements of an early childhood environment that are most conducive to positive child outcomes in both academic and social domains (Pianta et al., 2005). Recommended areas to consider for the provision of quality programs include: (a) environmental and physical space of settings for children, (b) curriculum content and pedagogy, (c) educators and caregivers, (d) partnerships with families and communities, (e) services for children with special needs, and (f) accountability, supervision/management of programs (ACEI, 2000).

Self-assessment: In this study, self-assessment refers to the Keystone STARS requirement at STARS 2 that requires centers to conduct annual self-assessments using the *ECERS-R* for all preschool classrooms (Pennsylvania Early Learning Keys to Quality, 2010a).

Assumptions

The first assumption of this study is that participating programs will be willing to share both their self-assessment and outside assessor's *ECERS-R* scores. The second assumption is that preschool teachers employed in child care centers will be willing to candidly discuss their experiences and share personal beliefs about their quality practices.

Limitations

ECERS-R scores from Keystone STARS participating programs will be the source of data in this study primarily because of the convenience of this sample. Thus, the findings from this study may not be specifically generalized to similar programs implemented in other states or regions in the United States, but it will fill a gap in the

current research literature regarding how child care professionals are acculturated into the teaching profession (Berry, 1980; Fuhui, Linda, & Aida, 2010; Gottlieb et al., 2002, 2008; Knapp & VandeCreek, 2006; Matsudaira, 2006; McCormick & Brennan, 2001). Another limitation might be that data will only be available from those child care programs who agree to provide *ECERS-R* data so that results may be skewed toward more positive evaluations. It will be strongly emphasized that identity of specific programs will not be reported so that evaluative scores will be confidential.

Research Questions

The following research questions were developed to guide this study:

1. What beliefs do preschool teachers employed in child care centers with a STARS 3 rating hold about the quality of care they provide to the children in their classrooms?
2. What are the Keystone STARS assessors' perceptions of the quality of care provided in the assessed classrooms as reflected in scores on the *ECERS-R*?
3. How do preschool teachers' perceptions of the quality of their child care center classrooms compare/contrast with the state assessors' perspectives on the same classrooms?
4. What underlying reasons do preschool teachers employed in child care centers provide for their appraisals of the quality of their classrooms?

Significance of the Study

A theorized disconnect between evidence-based definitions of quality in child care programming and the outside evaluations of these programs based on these definitions has been reported in the professional literature (Battey & Franke, 2008). However, the means by which the communication of evidence-based best practices in child care is communicated to child care preschool teachers and the methods by which teachers are acculturated into the profession has received less attention in the literature and is a theoretical focus of this study.

The Pennsylvania Keystone STARS program is an example of a successful state initiative based on research reporting a link between high-quality child care and improved developmental outcomes for children (Sirinides, 2010). The experience and beliefs of preschool teachers employed in child care centers who have a key role in the advanced credentialing of their respective programs has not been specifically addressed. Specifically absent from this literature is the process by which preschool teachers employed in child care centers are socialized into their professional roles in quality improvement programs in general, and the Keystone STARS designation process in particular. This study expects to also find differences in perceived quality of care in preschool classrooms between the preschool teachers employed in child care centers and outside assessors as reported in previous studies (Warash et al., 2005). This study will take these findings further by reporting teachers' perceptions of the quality improvement process and detecting patterns that may serve to inform professional development efforts in Pennsylvania's early childhood system. Finally, results will be used to develop recommendations for professional development strategies for preschool teachers

employed in child care centers intended to enhance the continuous quality improvement process in child care programming.

Summary

The Children's Defense Fund (2010) states that children who attend high-quality early childhood programs tend to have positive academic outcomes and that this is particularly important for children from lower socioeconomic backgrounds. Others have recommended that high-quality early childhood education will serve to narrow the achievement gap, reduce crime rates, and produce adults with higher earning potential, thus, contributing a greater financial return to society (Berrueta-Clement et al., 1984; Harrison, 2008; Schweinhart, 1993). To this end, several U.S. states have initiated statewide projects designed to encourage the improvement of quality child care through standards-based programs that emphasize evidence-based child care practices. Pennsylvania is one of the states that has created such a program named Keystone STARS.

Given that preschool teachers employed in child care centers are crucial to attaining a successful STARS 3 rating in the Pennsylvania Keystone STARS initiative, a discrepancy between teachers' and assessors' beliefs about practices considered to be indicative of quality in child care can be detrimental to those programs pursuing quality ratings in the STARS program. Moreover, lack of a universal understanding of how to ensure high-quality practices will continue to have an adverse effect on children and families for whom child care programs are intended to benefit.

This study theorizes that the process of attaining a STARS 3 or 4 designations can be arduous and stressful for preschool teachers employed in child care centers who may feel ill-prepared to navigate the evaluative process. Of interest to this study are the perceptions of preschool teachers employed in child care centers. Are their ideas about quality discrepant from those who rate their classrooms? Furthermore, if there are differences, it is valuable to find out why these differences exist. It may be discovered that hypothesized differences are, in the opinion of the respondents, due to a lack of professional development opportunities. Or, differences may be related to conflicting beliefs about how to provide an evidenced-based quality learning environment. In addition, the "norms of quality" established by the Keystone STARS program standards through the use of the *ECERS-R* assessment tool may not be perceived by preschool teachers employed in child care centers as reliable indicators of quality. It is through the exploration of preschool teachers' perceptions that this study plans to contribute to the literature and suggest potential avenues of further study.

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

The review of literature for this study will focus on four specific topic areas that inform this dissertation research: (1) the theoretical view that likens cultural acculturation to the professional socialization process of preschool teachers employed in child care centers, (2) the role of professional development in teachers' ongoing growth in the field of child care, (3) the definitions and practices current research has identified as indicative of high-quality child care programs, and (4) Pennsylvania's efforts to improve child outcomes through implementation of the Keystone STARS program standards for providing high-quality child care. Collectively, these discussions help to provide the backdrop for this study.

This study primarily seeks to explore teachers' perceptions as they acquire a STARS 3 rating in the STARS initiative and secondarily posits that a process of professional acculturation occurs as preschool teachers employed in child care centers are optimally socialized into their professional roles. Applying this theoretical orientation to education, successful acculturation results in preschool teachers who are more committed to their facilities progression through STARS because their goals for children and beliefs about quality child care are congruent with the evidence-based practices advocated by the Keystone STARS initiative. Consequently, this study asserts that targeted professional development opportunities promote the successful acculturation of teachers into the profession. Together, discussions of the quality child care practices emphasized in the Keystone STARS program and the theoretical underpinnings of how preschool teachers view, learn, and implement them are the positions of this dissertation research.

Acculturation Theory

Professions have been characterized as "discrete cultures with… [their] own traditions, values, and methods" (Handelsman, Gottlieb, & Knapp, 2005, p. 59) so that new members must be socialized into the norms of the profession. Novice professionals encounter theoretical standards and a multiplicity of other experiences that inform and define their unique professional role. These experiences necessitate an expansion of one's self-view to accommodate a professional identity as new professionals become more competent in their discipline. What this means for professionals is that they must incorporate their personal knowledge with what their discipline teaches them to form an integrated professional identity (Smith, 2007). The professional literature across disciplines has likened this integration of identities as an acculturation to a new professional identity describing the process by which individuals adapt to a new profession as one would when adjusting to a new culture (Berry, 1980, 1997, 2003; Gottlieb et al., 2008; Handelsman, et al., 2005).

Schwartz, Zamboanga and Szapocznik (2010) described the construct of professional acculturation as more appropriately labeled as "behavioral acculturation, value acculturation, or identity-based acculturation" as an "expanded, multidimensional model of acculturation" that better reflects the socialization process across contexts and people (p. 238). If the process is successful it should ultimately create an internalized template for understanding and interpreting professional roles and experiences (Ivey, D'Andrea, Ivey, & Simek-Morgan, 2002). Such professional representations emerge from interactions with "institutions, communications, values…and social and interpersonal relationships" (Baruth & Manning, 2003). Similarly, Wilcoxon, Remley,

Gladding, and Huber (2007) described professional acculturation as a melding of one's personal, institutional and professional value systems.

John Berry was the first author to propose a model of adaptation and acculturation (Berry 1980; Berry & Sam, 1997) that has been used by several authors to depict the socialization process of professionals into the norms of their respective disciplines (Handelsman et al., 2005). Although Berry's model was originally developed to explain immigrant adaptation, the notion of acculturation has come to also explain how sustained intergroup contact changes the behaviors and psychological processes among new members of professions (Berry, Trimble, & Olmedo 1986; Berry & Kim, 1988). The model proposes two major variables to explain the acculturation process, maintenance and contact or participation. Maintenance refers to the degree new professionals retain the ideas of their previous groups' traditions and ideas of right and wrong, whereas contact/participation refers to the degree to which new professionals adopt the traditions, norms and values of their new profession (Handelsman et al., 2005). The extent to which professionals retain previous traditions, norms, and values either consciously or unconsciously determines one of four categories or *strategies* of one's professional acculturation. Figure 1 describes Berry's four strategies of acculturation.

Berry and subsequent writers proposed that those functioning at relatively high levels on both maintenance and contact fall into an *integration strategy* indicating that they are combining both their personal and professional identities in adapting to their new discipline. *Integrationists* likely have "a richer, more sophisticated appreciation for the underlying principles of both cultures" (Handelsman et al., 2005, p. 60) and can fully

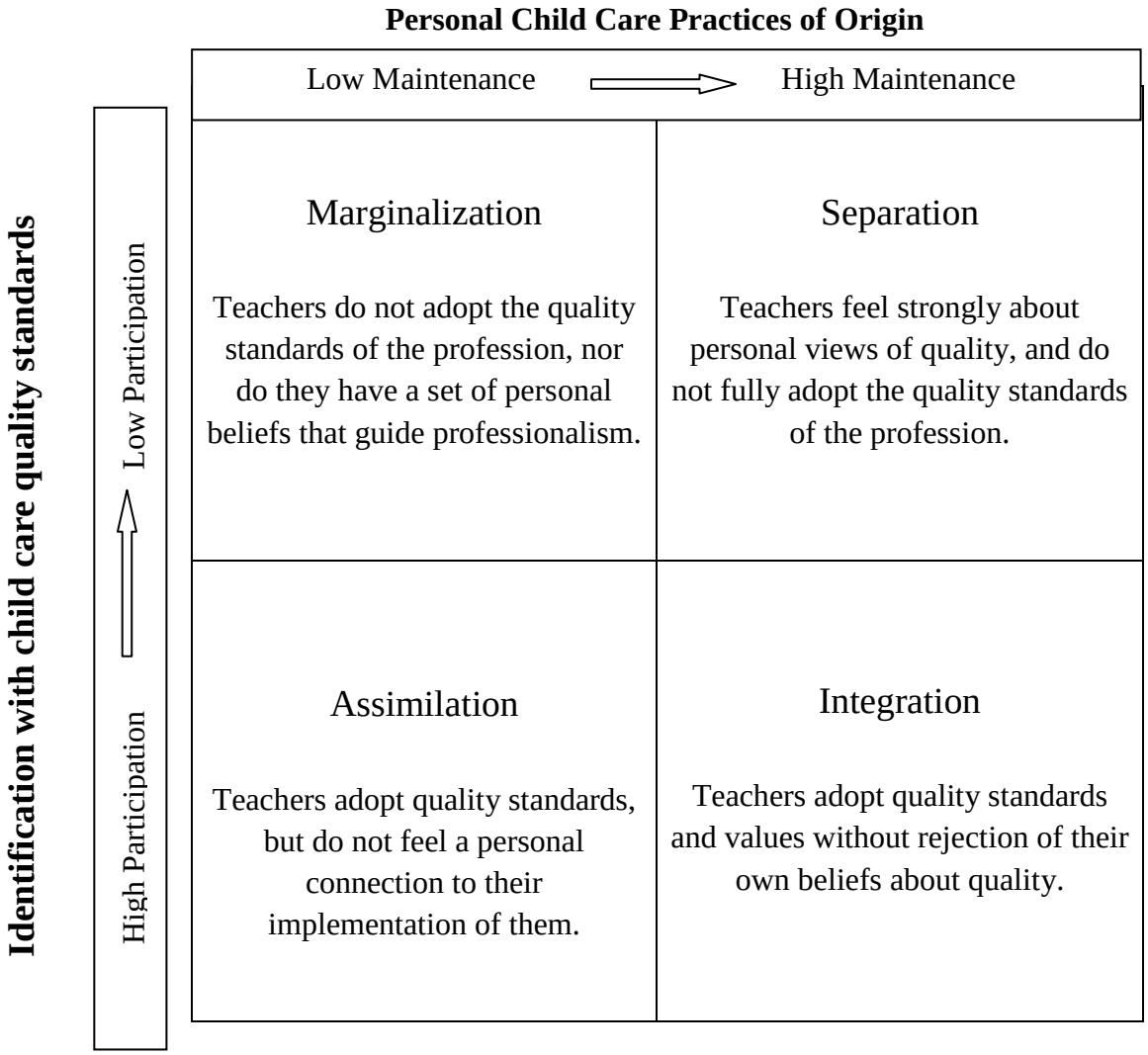

Figure 1. Acculturation Model of Professional Socialization as Applied to Child Care. Adapted from Gottlieb, M. C., Handelsman, M. M., & Knapp, S. J. (2002). *Training ethical psychologists: An acculturation model.* Retrieved from ERIC database. (CG032070).

accept the quality standards their professional role demands. This strategy is the most desirable outcome when training teachers.

Two less optimal acculturation strategies are *separation* and *assimilation*. Each represents an imbalance between maintenance and contact and represents problematic socialization to ones professional role (Berry, 1997; Berry et al., 1997). *Separated* individuals are described as high in maintenance but low in contact so that they make professional decisions based primarily on their personal values because they do not satisfactorily identify with their professions' traditions, norms, and values. Handelsman et al. (2005) warned that *separated* individuals may believe that their own ideas and values are sufficient to guide their work. They may also resist new standards and the supporting evidence so that, over time, they become uninformed and refuse to accept or may even defy new guidelines about how to conduct their professional roles.

Conversely, *assimilated* individuals over identify with professional standards that they dissociate from their personal values. This literal compliance combined with a lack of understanding of an evidentiary foundation renders their professional conduct robotic and lacking in the effective application of quality instructional strategies (Handelsman et al., 2005).

The final category proposed by Berry has been termed *marginalization* and is described as the most problematic alternative revealing individuals who have low identification with both personal and professional cultures and can lead to an "enduring state of alienation" (Handelsman et al., 2005, p. 61). New professionals falling into this category are believed to lack well-developed personal morals, and therefore fail to internalize the values and norms of their respective disciplines. They will perform their

assigned roles in a cursory manner doing enough to get by; however, are inconsistent in their application of best practices in child care. Preschool teachers employed in child care centers who marginalize their role have the potential to impede the development of the children in their care, and thwart their centers' attempts at trying to attain quality standards. They typically minimize the importance of evidence-based strategies for delivering quality child care when their conduct is questioned.

To summarize, Berry et al. (1989) defined a model of acculturation as an overarching process of adjusting to a new culture that involves changes in identification with one's primary cultural group and the new cultural group. They further posited that individuals, who demonstrated an inclination for adopting the norms and values of both identities, rather than remaining solely with those of their primary cultural group, experience a less stressful professional acculturation. Thus, experiences that promote adaption as outlined by Berry's theory would be best for encouraging teachers to utilize quality child care practices.

Generally, undergraduate and graduate teacher training programs have been the most important experiences for the professional acculturation of teachers with the primary pedagogical goal being the conveyance of the values and belief systems of the discipline (Manlove, 2001). It is presumed that these educational experiences will impart a deeper understanding of the profession's standards by embedding students in the social context of the discipline as they complete their course of study (Friere, 1994). It is during these early teacher preparation experiences that current quality child care practices are intended to be learned and reinforced (Sanchez & Fried, 1997). Albert Bandura (1977), the originator of social learning theory, posited that people learn through observing,

imitation, and modeling others. According to Bandura (1977), "Most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action" (p. 22). Likewise, professional acculturation is additionally gleaned from the continuing integration of ongoing professional development opportunities that enable teachers to gather new information through a variety of social networks (in-service trainings, membership in professional organizations, conferences, college coursework, etc.). Acculturation demands the interplay of dissonance and integration and an intersection of the various roles professionals hold in their lives (Wilcoxon et al., 2007). For example, professionals who work with children must differentiate between their parental roles and their teacher roles so as to fulfill both responsibilities effectively and appropriately.

As quality child care practices change and emerge, "continuing educational courses present an excellent opportunity" (Handelsman et al., 2005, p. 63) for preschool teachers employed in child care center to professionally acculturate to the "norms" of quality child care. A thesis of this study is that supporting preschool teachers employed in child care in integrating the evidence-based underpinnings of the Keystone STARS into their instructional practices will assist the promotion of quality across child care programming.

Professional Development in Child Care

Early childhood teachers have fought long and hard to overcome the lack of recognition, respect, and support for the profession (Cohen, Moffitt, & Golden, 2007).

At the same time, accountability has increased for preschool teachers as the focus to ensure young students are "ready" for kindergarten has accelerated within the larger educational and political systems (Tileston, 2004). Consequently, increased efforts to provide training to enable teachers to meet more rigorous standards continue to evolve (Helterbran & Fennimore, 2004) because effective teachers need to have available ongoing opportunities to develop their knowledge, skills, and attitudes that inform their classroom practices (Darling-Hammond & Bransford, 2005). Unfortunately, the fragmented nature of professional development opportunities for child care teachers has resulted in reports of unequal levels of satisfaction, even after teachers have attended the same training sessions (Battey & Franke, 2008).

Research has clearly revealed that teacher qualifications and training are strongly linked to the quality of care children receive (Barnett, 2003; National Association for the Education of Young Children [NAEYC], 2007). In one study, Arnett (1989) compared teachers with Bachelor's degrees in early childhood education with teachers who had or were working toward an Associate's degrees, and a group of teachers with no training. The study indicated that teachers holding Bachelor's degrees had more positive interactions with the children, reported favorable attitudes toward their job, and were less punitive and detached than the teachers with less or no formal training. The National Child Care Staffing Study (NCCSS) (Whitebrook, Howes & Phillips, 1990) studied teachers in over 200 child care centers to determine the effect of teacher qualifications on the quality of care provided to the children. It was reported that teachers with four-year degrees (or higher) provided more sensitive, less harsh, less detached, and more

appropriate care than teachers with an Associate's degree, some college experience, or a high school diploma.

In 2002, a study of 553 child care center classrooms revealed similar findings to previous studies. Teachers with Bachelor's degrees received a higher quality rating and were found to provide more skillful care to children in their classrooms (Burchinal, Cryer, & Clifford, 2002). Another study (Early et al., 2007) looked at the relationship between teacher qualifications and quality of care, but revealed different findings from previous studies. This study indicated that focusing solely on teachers' levels of educational attainment produced null or contradictory associations between level of education and quality of care. In this instance, the researchers suggested that while previous research undeniably shows a relationship between educational attainment and child care quality, it must be considered that other factors may be significant to teachers' abilities to provide high-quality experiences for children.

Based on various research findings, it has become common practice among many states to require preschool teachers employed in child care centers to have earned a Bachelor's degree in early childhood education or child development within quality improvement rating systems (Early et al., 2007). In fact, Pennsylvania's Keystone STARS standards stipulates at the STARS 4 level, a minimum of 50% of all teachers must hold a minimum of a Bachelor's degree in Early Childhood Education or Human Development and Family Studies (PA Early Learning Keys to Quality, 2010a). However, this can be a difficult and seemingly impossible requirement for teachers who have limited or no college-level experiences (Whitebrook, 2003). In addition, it can be a challenging endeavor to provide long-term incentives for child care teachers to pursue a

college degree when the current average salary for a teacher employed in a child care center is $9.30 per hour (U.S. Bureau of Labor Statistics, 2011). Research indicates that a large number of child care professionals do not have a level of education commensurate with their positions (National Governors' Association Center for Best Practices, 2010). In fact, approximately 43% of teachers employed in child care programs in 1985 held a Bachelor's degree, but in 2004 that number reportedly fell to 30% (Herzenberg, Price, & Bradley, 2004). To increase the overall qualifications of preschool teachers employed in child care centers, a greater emphasis has been placed on creating systems that enable teachers to enter the professional development system at different levels and progress based on both their state's requirements and their individualized goals. It has been hypothesized that teachers who are given opportunities to be included in the charting of their own professional development, develop more autonomy, empowerment, and a greater sense of professionalism (Pearson & Moomaw, 2005). One approach that has become more common has been the development of an early childhood career *lattice* that enables individualized progression toward professional goals (Bredekamp & Willer, 1992). In Pennsylvania, a career lattice was developed to give early childhood practitioners direction in their professional growth, and to encourage teachers to be instrumental in their development process. Table 1 details Pennsylvania's Early Learning Keys to Quality Career Lattice.

Prior to the inception of the Keystone STARS program, child care providers in Pennsylvania were required to attend six hours of professional development annually under the Department of Public Welfare's (DPW) licensing code (DPW, 2008). The Keystone STARS standards hold preschool teachers employed in child care centers to a

Table 1

Pennsylvania Early Learning Keys to Quality Career Lattice

Level	Educational Attainment/Hours of Training Required	Positions in Center-Based Programs
I	High School Diploma/GED 15 Hours Orientation Training	Teacher Aides
II	45 Hours Training OR 3 Early Childhood Education Credits	Assistant Teacher Assistant Group Supervisor
III	Early Childhood Credential (CDA, CCA) OR 6 Early Childhood Education Credits	Assistant Teacher Assistant Group Supervisor
IV	30 College Credits including 12 Early Childhood Credits	Assistant Teacher Assistant Group Supervisor
V	Associate's Degree in Early Childhood/Human Development Family Studies OR Related Field including 18 Early Childhood Education Credits	Director Lead Teacher Group Supervisor
VI	Bachelor's Degree in Early Childhood/Human Development Family Studies OR Related Field including 18 Early Childhood Education Credits	Director Lead Teacher Group Supervisor
VII	Master's Degree in Early Childhood/Human Development Family Studies OR Related Field including 30 Early Childhood Education Credits	Director Lead Teacher Group Supervisor
VIII	Ph.D. or Ed.D. in Early Childhood/Human Development Family Studies OR Related Field including 30 Early Childhood Education Credits	Director Lead Teacher Group Supervisor

Note. Adapted from "Pennsylvania Early Learning Keys to Quality Career Lattice," by Pennsylvania Early Learning Keys to Quality, 2010.

higher standard of training. The STARS standards for attaining a STARS 3 rating mandates that all teachers and assistant teachers complete *at least* eighteen hours annually of professional development based partially on personally identified needs and state required sessions, such as pediatric first aid. To guide teachers as they plan for their training, all child care staff in STARS facilities must chart their completed trainings and plan for their future training by recording this information in a professional development record (PDR) (Pennsylvania Early Learning Keys to Quality, 2010a).

One intention of the PDR is to enable teachers to become more reflective and engaged in the planning of their professional goals and ongoing growth. Furthermore, it is hypothesized that when teachers are actively involved in selecting the professional development trainings they deem relevant to their personal situations, they are more likely to improve their practices as a result of those instructional experiences (Battey et al., 2008; Bygdeson-Larson, 2006; Noble, 2007).

Quality Child Care

Child care emerged in the United States in the 19th century as part of a welfare movement to enable immigrants and other poor working-class families to sustain employment. In the 1840's nursery schools began in Boston and were designed specifically for poor working mothers whose spouses were merchant seamen (Boschee & Jacobs, 1997). Thus, child care was seen more as a social service rather than an educational endeavor. According to Scarr and Weinberg (1986), "Day care was founded as a social service to alleviate the child care problems of parents who had to work and to prevent young children from wandering the streets" (p. 1141). During the Great

Depression of the 1930's and World War II, the federal government assumed the cost of child care to encourage parents to find jobs, or to enable mothers to work during the war while so many men were overseas (Boschee et al., 1997). Again, this was seen as a necessary service to thwart a struggling economy and to ensure the production of war planes, not as a means to promoting developmentally appropriate practices. It was not until organizations like The National Association for Young Children and the Association for Childhood Education International made the need for high-quality child care services a forum to which others would listen. Although both organizations existed during the early years of child care in the United States and were making some strides to improve the quality of child care for children, it was not until the 1960's that the quality of child care services received greater attention (Association for Childhood Education International, 2011; National Association for the Education of Young Children, 2011b).

Presently, approximately 58% of children ages three to five years of age attend a child care preschool program prior to beginning kindergarten (O'Donnell, 2008). The National Institute of Child Health and Human Development (NICHD) embarked on a longitudinal study in 1991 with the intention of revealing objective criteria that could be used to measure child care quality. Results of their study indicated that the majority of child care provided in the United States is of mediocre quality. As a result, the debate over what constitutes quality care has quickly gained momentum. In 1995, the National Association for the Education of Young Children (NAEYC) asserted that high-quality care should be a universal right for all children. An ongoing debate has persisted, however, as to a comprehensive definition of quality, practices that produce exemplary

programs and assessment methods that accurately identify quality. It is these issues around which a vast amount of research exists.

Definitions of High-Quality Child Care

High-quality child care programming is generally desired by families and early childhood professionals alike (Early et al., 2007; Hsueh & Barton, 2005); however, quality care has been conceptualized and defined in diverse ways (Pianta et al., 2005). Moss and Dahlberg (2008) argued that quality in child care is a highly subjective concept, formed primarily by one's own paradigm. Furthermore, it is a value-based, dynamic concept subject to the varied contexts in which programs operate. While some might believe quality can be derived by following one prescribed theoretical methodology, others believe that a framework for quality exists by examining and synthesizing various theoretical perspectives, such as those proposed by behaviorists (Cohen, 1979; Skinner, 1978), maturationists (Gesell et al., 1940), and constructivists (Bruner & Haste, 1987; Daniels, Cole, & Wertsch, 2007). Such an integrated view recognizes the complexity of defining quality by considering the connections that exist among environments, pedagogy, and partnership variables (Raban et al., 2003). It has also been asserted that because of the dual functionality of child care as both a form of custodial care and education (Klein, 1992), defining the components of high-quality care is simply considering both a child's well-being and our knowledge of child development to better create high-quality criteria (Doherty-Derkowski, 1995).

In an effort to better elucidate quality child care, several professional organizations developed criteria to define quality child care practices. In 1985, The

National Association for the Education of Young Children (NAEYC), created quality care criteria for child care programs intended to provide assistance to child care providers and offer them a means to earn a nationally accredited high-quality rating by adhering to these criteria. These ten standards, which were updated in 2006, include

1. relationships;
2. curriculum;
3. teaching;
4. assessment of child progress;
5. health;
6. teachers;
7. families;
8. community relationships;
9. the physical environment; and
10. leadership and management (NAEYC, 2011a).

Similarly in 2000, The Association for Childhood Education International (ACEI) in collaboration with the U.S. National Committee of the World Organization for Early Childhood (OMEP-USA) developed a set of guidelines intended to define those characteristics of early childhood programs that demonstrated high-quality practices worldwide. These guidelines challenge stakeholders to consider multiple influences in defining quality child care and identified five areas to be considered in establishing quality practices:

1. environment and physical space of settings for children;
2. curriculum content and pedagogy;

3. early childhood educators and caregivers;
4. partnership with families and communities, services for young children with special needs; and
5. accountability, supervision, and management of programs for children (ACEI, 2000).

In their attempts to clarify quality practices in child care, both professional organizations took care to include the complexity posited by the interaction of environments, pedagogy, and partnerships proposed by Raban et al. (2003).

The results of The National Institute of Child Health and Human Development (NICHD) study in 1991 indicated that the majority of child care provided in the United States is of mediocre quality. To enable families to identify child care programs that were of higher quality, NICHD advised families to seek programs for their children that offer low staff- to- child ratios, clean and organized physical environments, variety among materials and activities, and teachers with college degrees (NICHD, 2005) to ensure best outcomes for their children attending these facilities.

From 1993 to 1994, a large scale study was conducted in 401 child care centers in the states of California, Colorado, Connecticut, and North Carolina. This project, titled the *Cost, Quality, and Child Outcomes in Child Care Centers*, examined 826 preschool age children within the 401 participating centers. Additionally, data were collected from child care administrators, teachers, and parents to provide a more comprehensive portrait of the services being offered. The intent of the study was to look at individual programs intensively among the four states as a means to provide a national picture of the overall quality of child care in the United States and to determine if the cost of services had an

impact on levels of program quality. Results of the study revealed that child care at most centers was of poor to mediocre quality. Centers with higher levels of quality, however, typically had

- lower staff: child ratios;
- low staff turnover;
- well-educated staff;
- experienced administrators;
- effective curriculum planning; and
- higher salaries (Helburn, 1995).

As a result of the findings from the study, three key recommendations that were made as a means to potentially improve overall quality of child care services in the United States included

- a campaign through the media to inform the general public about the importance of high-quality child care;
- parent education programs to equip families with the appropriate tools to identify high-quality programs for their children; and
- encouraging states to improve the quality of their child care licensing standards, and of their monitoring systems (Helburn, 1995).

In 2000, a follow-up study to the *Cost, Quality, and Child Outcomes in Child Care Centers* was conducted as the children who attended the participating child care centers began elementary school. Results of this study indicated that high-quality child care had positive effects on children's language ability, social skills, mathematical performance, cognitive skills, ability to remain focused, and problem behaviors through

second grade. Recommendations included increased funding supports from federal and state governments, enhanced professional development opportunities that resulted in higher salaries for teachers and staff, and improved systemic policies regarding child care regulations, funding, and quality expectations (Peisner-Feinberg et al., 2000).

Lilian Katz (1999) has long recognized the complexities involved in defining those features that comprise high-quality child care programs. She suggested that, while a top-down approach (the perspective of those who operate or license programs) to identifying quality is commonly used, it is important to consider the various perspectives of different stakeholders; such as, the children within child care programs (bottom-up perspective), the families who enroll their children (outside-in perspective), the staff who are employed in child care programs (inside perspective), and the views of how a program is perceived by the community and society at-large (outside perspective). It is through careful conversation and consideration of these perspectives that Katz believed meaningful criteria aimed at defining and assessing quality child care could be developed.

Other writers have emphasized the value in determining the ways in which educators view *process* quality and *structural* quality, suggesting that the combination of the two provides the clearest picture of global quality (Cassidy et al., 2005). In an early childhood setting, *process* quality is frequently determined by measuring the experiences of the attending children. Urie Bronfenbrenner (1972) is well-known for his ecological theory. He proposed that children develop in a highly complex environment with varying circles of influence that both impact the child and interact with another. At the center of the circle is the individual child. The child's family is considered most crucially

important to socializing and loving the child. The next layer of influence includes the child's teachers, peers, and neighbors, who are also considered to play a significant role in the child's development. At the next levels of influence are those social settings, individuals, and societal customs that indirectly impact a child's development; such as, their parent's employer to ensure the parents have the financial means to care for their child (Bronfenbrenner, 2005; Bronfenbrenner & Morris, 2006). Bronfenbrenner (1972) described *process* quality when he proposed that a child's ecology, that is, the design of the space which a child occupies, the relationships the child has with people in the physical space of the classroom, and the types of activities that are accessible to them is an important, albeit only one, layer to consider when thinking about the quality of young children's learning experiences. Generally, these three factors comprising Bronfenbrenner's ecological layer of a child's experience in child care are exactly what many early childhood assessment instruments intend to measure and is what Cassidy et al, (2005) defined as *process* quality. Thus, instruments designed to rate levels of *process* quality typically involve observing the materials children have access to, classroom layout and schedule, and the level and frequency of caring interactions between teachers and children (Pianta, et al. 2005).

As defined above, *process* quality is a commonly accepted means of determining the quality of child care programs, and is the intent of a variety of available assessment tools; such as, The Early Childhood Environment Rating Scale-Revised (*ECERS-R*) (Harms et al., 1998), and the Caregiver Interaction Scale (Arnett, 1989). It is undeniable that public policy and the politicization of early childhood education is another layer of a child's ecology (Bronfenbrenner, 2005; 1972) that affects children's experiences as well.

Political decisions shape policies that have a direct influence on the structure of early childhood programs. This element, known as *structural* quality, includes components of programs that serve to inform policy issues: such as, teachers' salaries and benefits, professional development, other factors which affect teachers' abilities to be successful in their jobs (e.g. student-teacher ratios) and program features such as location and length of the school day (Pianta et al., 2005). It is common for the *structural* elements of programming to gain significant attention from policymakers. In fact, many state established standards and guidelines look closely at the *structural* elements of child care programs as determinants of quality because they are easier to regulate (Cassidy et al., 2005).

Different stakeholders may view either *process* or s*tructural* quality as being more definitive than the other; however, research indicates that it is valuable to consider both types of quality because they are inextricably linked in providing a comprehensive picture of the performance of child care programs. *Structural* quality tends to regard the indicators having an indirect impact on children who attend child care programs as most significant. Some writers posit that it is the *structural* components that inform and influence *process* quality (Cassidy et al., 2005; Moss & Dahlberg, 2008; Pianta et al., 2005). For example, a program that provides a safe and clean environment (*structure*) may lead to teachers with higher morale, thereby improving the quality of interactions between teacher and child (*process*). Because one form of quality influences the other, it is not possible to accurately rate the global quality of programs by looking at only *structure* or only *process*; both are crucial pieces of the quality child care puzzle.

As the growing demand for quality child care has increased, so has the number of approaches to providing care promising to deliver quality. However, several authors argue that developing specific criteria to which child care programs can aspire is more complex than simple quality child care initiatives can capture in their rating systems. For example, Cassidy et al. (2005) described a "dynamic exchange between individuals and context" (p. 505) that needs to be further researched in order to determine why even with quality initiatives in place variances in the quality of care children receive still exists. In a study by Zellman & Perlman (2008), five states were studied as they implemented quality improvement efforts into their child care systems. As a result of this qualitative study which collected data from numerous stakeholders within each state system, the authors determined that the provision of quality care within an improvement program is a far more difficult and complex process than it may appear.

Approaches to Quality Child Care

The United States is one of few industrialized nations lacking a nationalized child care system that ensures quality care for every child (Howes & Droege, 1994). The absence of a nationally coordinated effort to provide children with high-quality child care has resulted in approaches to programming that have in turn resulted in an overwhelming number of low to mediocre quality child care programs (Helburn, 1995; Peisner-Feinberg et al., 2000; Steinfels, 1973; Zigler et al., 2009). The reauthorization of the Elementary and Secondary Education Act which resulted in No Child Left Behind (NCLB) in 2001 not only raised accountability measures for K-12 programs, but increased the politicization of child care programs as an impetus to prepare preschool aged children for

formal schooling (Akiba & LeTendre, 2009). Thus, the politicization of education during the last decade has prompted the implementation of statewide systems intended to improve the quality of child care through a series of standards, training, and support systems (Zellman & Perlman, 2008).

Quality Rating Improvement Systems

Some researchers and policy-makers have rationalized that implementing programs to assess quality in a standardized manner will make the process of data collection and reporting easier while also improving the quality of care children receive in early child care facilities (Campbell & Anketell, 2007). Consequently, in the last decade it has become a trend for states to implement initiatives for child care programs that are specifically designed to elevate overall quality, and raise the bar beyond basic licensing requirements. These programs, now commonly referred to as quality rating improvement systems (QRIS), generally focus on

- quality standards;
- processes for the ongoing monitoring of standards;
- support systems for quality improvement efforts;
- financial incentives; and
- provision of information to families and the general public about the importance of high-quality early childhood programs (Child Trends, 2010).

Many states have developed standards-based program improvement initiatives in response to the intensified focus on the importance of quality child care and because

private and public funding sources have demanded outcome data to justify funding of child care programs (National Association of Child Care Resource and Referral Agencies, 2009). In 1998, Oklahoma became the first state to employ a quality rating improvement system titled "Reaching for the Stars" (Zellman & Perlman, 2008a). According to a longitudinal study conducted by the Early Childhood Collaborative of Oklahoma (ECCO) during the first four years of the program "Reaching for the Stars," the quality of care available to all children in Oklahoma child care centers improved significantly. Average Early Childhood Environment Rating Scale – Revised (*ECERS-R*) scores rose from a 5.19 average to a 5.75 average, over 75% of centers had experienced upward movement in Oklahoma's program, and staff turnover rates were found to be significantly lower in centers with higher star ratings (Norris, Dunn, & Dykstra, 2003).

As Table 2 illustrates, approximately 24 states nationwide have implemented quality rating improvement systems (QRIS) into their early childhood education frameworks. Additionally, another 22 states are at various stages in the development of their programs as of 2010 (NAEYC, 2010). The titles of these programs vary, but all were designed as a means to assess and improve the quality of care for young children residing in their respective states (Child Trends, 2010).

Pennsylvania Keystone STARS

In 2002, Pennsylvania instituted a state-wide quality rating and improvement program, titled Keystone STARS, designed to encourage continuous quality

Table 2

States with Quality Rating Improvement Systems

State	Year of Implementation	Title of QRIS Program
[1]Arkansas	2009	Better Beginnings
Colorado	2000	Qualistar Rating System
Delaware	2007	Stars for Early Success
District of Columbia	2000	Going for the GOLD
Idaho	2010	Idaho STARS
Illinois	2007	Quality Counts: Quality Rating System
Indiana	2001	Paths to Quality
Iowa	2006	Child Care Quality Rating System
Kentucky	2001	STARS for KIDS NOW
Louisiana	2007	Quality Start
Maine	2007	Quality for ME
Maryland	2001	Maryland Child Care Tiered Reimbursement Program
Mississippi	2006	Mississippi Child Care Quality Step System
[2]Montana	2002	Star Quality Child Care Rating System
New Hampshire	2006	New Hampshire Quality Rating System
New Mexico	2005	Look for the STARS – AIM HIGH
North Carolina	1999	North Carolina Star Rated License System
Ohio	2006	Step up to Quality
Oklahoma	1998	Reaching for the Stars
Oregon	2006	Child Care Quality Indicators Project
Pennsylvania	2002	Keystone STARS
[3]Rhode Island	2005	Successful Start
Tennessee	2001	Star-Quality Child Care Program
Vermont	2003	Step Ahead Recognition System – STARS

Note. Adapted from Tout, K., Starr, R., Soli, M., Moodie, S., Kirby, G., & Boller, K. (2010). *Compendium of quality rating systems and evaluations.* Washington, DC: Child Trends.

[1] Adapted from: Arkansas Department of Human Services (2011). *Better beginnings: Frequently asked questions for providers.* Retrieved from http://www.arbetterbeginnings.com/child-care-providers/faq/.
[2] Adapted from: Montana Department of Public Health and Human Services (2011). *Best beginnings child care scholarships.* Retrieved from http://www.dphhs.mt.gov/hcsd/childcare/bestbeginnings/.
[3] Adapted from: State of Rhode Island Department of Health. (2011). *Successful start.* Retrieved from http://www.health.state.ri.us/programs/successfulstart/.

improvement efforts in child care programs and to provide a variety of supports for facilities that improve their programs using evidence-based practices (Sirinides, 2010).

The Pennsylvania Department of Public Welfare (DPW) sought to create a rating system for Pennsylvania child care programs that would be accessible to parents, families, and communities who sought high-quality child care programs for young children. A pilot project, subsequently developed through a coordinated effort by the DPW and PA Department of Education (Sirinides, 2010), designed what eventually became the Pennsylvania Keystone STARS initiative for quality improvement in the state's child care programs. Just as four or five star rating systems are commonly used to evaluate movies, books, and other products, STARS is an acronym for the Pennsylvania program rating scale of child care programs and stands for: Standards, Training/ professional development, Assistance, Resources, and Support. It is these five components upon which the program has built increasingly rigorous standards in order for programs to move from a STARS 1 toward a STARS 4 designation.

Pennsylvania announced the Early Learning Keys to Quality initiative in 2004 and Keystone STARS became a statewide QRIS under the direction of the newly established Office of Child Development (OCD) as is detailed in Figure 2. The mission of Pennsylvania's Early Learning Keys to Quality system was described:

> To create a comprehensive quality improvement system in which all early learning programs and practitioners are encouraged and supported to improve child outcomes. Improvements in programming are designed to increase the capacity to support children's learning and development;

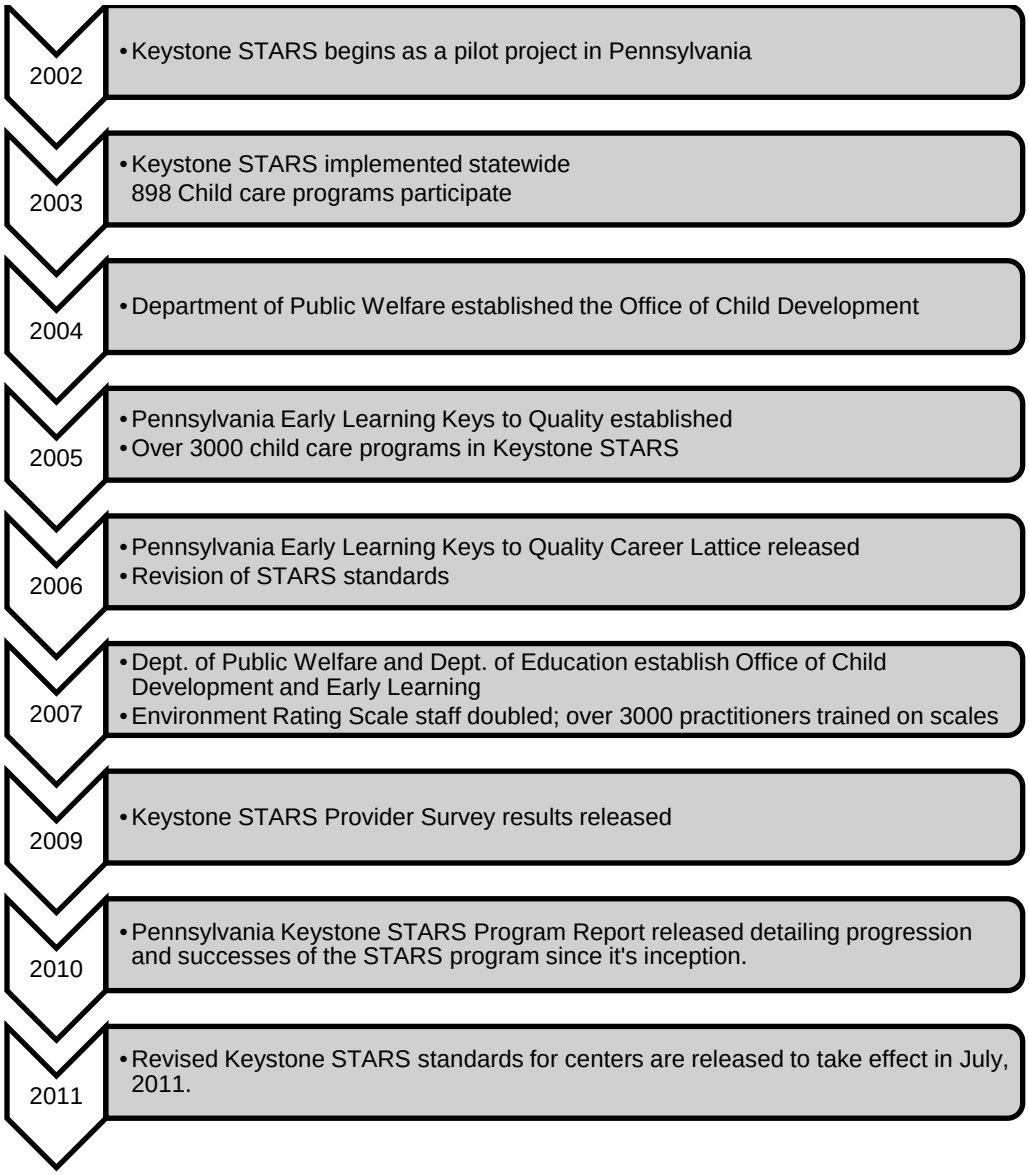

Figure 2: Timeline of the Keystone STARS initiative. Adapted from "Demonstrating Quality: Pennsylvania Keystone STARS 2010 Program Report," by P. Sirinides, 2010, Harrisburg, PA: Pennsylvania Office of Child Development and Early Learning.

> increase educational attainment among practitioners; enhance professional skills and competencies in support of children's learning and development. (Sirinides, 2010, p. 1)

Thus, the current purpose of Keystone STARS is to incorporate research-based standards of high-quality practice into a quality rating improvement initiative that child care providers can implement systematically into their programs to improve practices and foster continuous quality improvement efforts. Additionally, the program provides financial incentives and supports to participating programs to help them succeed in their quality improvement efforts. For example, at the lower STARS levels, support grants are available for programs and can be used to purchase needed materials and equipment to begin quality improvement efforts. At higher STARS tiers, programs can receive merit awards to be used for improvement initiatives including increased staff salaries or annual bonuses. Education and Retention awards are given to highly qualified staff in programs achieving a STARS 2 rating or higher as they attain higher levels of education and assume greater responsibility in their programs. Additionally, programs at the STARS 2 levels and higher received additional reimbursement from the program when they have children enrolled in their programs whose families received assistance to offset the costs of child care services. Table 3 describes the range of financial incentives available to STARS programs at each STARS level.

The initiative specifically focuses on overall program quality by targeting the following components of child care delivery: (a) staff qualifications and professional development, (b) learning programs, (c) partnerships with family and community, and (d) leadership and management (Sirinides, 2010). Table 4 provides a summary of Keystone

Table 3

Financial Incentives and Supports for STARS programs based on STARS level

STARS Level	Support Grant	Merit Award	Education & Retention Award	Tiered Reimbursement
Start with STARS	$435.00- $6300.00	N/A	N/A	N/A
STARS 1	$630.00- $9450.00	N/A	N/A	N/A
STARS 2	N/A	$1575.00- $31,500.00	$600.00- $3090.00	$0.30- $0.70
STARS 3	N/A	$2363.00- $47,250.00	$700.00- $3605.00	$0.95- $2.20
STARS 4	N/A	$3150.00- $63,000.00	$800.00- $4120.00	$1.30- $3.00

Note: Adapted from "Keystone STARS grants and awards FY 10-11," by Pennsylvania Early Learning Keys to Quality.

*All grants and award amounts are determined based on the number of children enrolled in a program.

Rating Scale – Revised (*ECERS-R*) (Harms et al, 1998) to determine if the quality of the classroom environment meets the standards of a STARS 3 rating.

Prior to this *ECERS-R* assessment, preschool teachers employed in child care centers are not required to have their classrooms individually rated by outside assessors and participate in the STARS process only through annual self-assessments they complete for their classroom or by having the program's child care director or other teacher trained in the use of the *ECERS-R* conduct an assessment. Attaining a STARS 2 level, then, is a relatively low-stakes process intended to be used as a guide for development of a self-improvement plan more so than an accountability measure that must be met to raise a program's STARS rating.

As child care programs transition from STARS 2 to STARS 3, teacher participation becomes a crucial component to achieving higher STARS designations. Child care teachers may feel overwhelmed when their classroom environments are observed for the first time by outside assessors (Zaslow, 2009) as is required when attempting to achieve a STARS 3 rating. A STARS 3 ranking is quite desirable to most child care preschool programs who want to remain competitive in their communities, particularly if there are many child care programs from which to choose. A STARS 3 rating communicates that a program has met the stringent standards of quality earned by only 21% of all participating STARS programs statewide (Sirinides, 2010). The cooperation of classroom preschool teachers in adopting the Keystone STARS standards can make or break the efforts of programs trying to earn a higher STARS rating. Furthermore, at the STARS 3 level, child care programs become eligible for increased financial awards and incentives not just at

Table 4

Summary of Keystone STARS Standards for Centers

Keystone STARS Components	Standards By STARS Level			
	STARS 1	STARS 2	STARS 3	STARS 4
Staff Qualifications & Professional Development	Maintain DPW licensing regulations	Meet STARS 1 standards Staff complete New Staff Orientation 50% of teachers at Level V or above on Career Lattice Staff training plans 12 hours of annual training Staff at least 2 hours training on child observation, inclusion, OR ERS	Meet STARS 1 & 2 standards 100% of teachers at Level V or above on Career Lattice 18 hours of annual training Teachers attend 2 hours training on curriculum, assessment, standards OR ERS	Meet STARS 1, 2, and 3 standards 50% of teachers at Level VI or above on Career Lattice 24 hours of annual training
Learning Programs	Site obtains copies of learning standards for all age groups in program Learning Environment	Screenings conducted on children Learning standards used to plan and document learning ERS self-	Demographic information entered into the Early Learning Network Three authentic assessments annually	Program crosswalks, curriculum, and assessment tools to the Learning Standards ERS

	Checklist	assessment Written improvement plan	Assessment used for planning Curriculum implemented ERS assessment of sampled classrooms. Average facility score of 4.25; individual classrooms score at least 3.5	assessment of sampled classrooms. Average facility score of 5.25 and individual classrooms score at least 4.25
Partnerships with Family/Community	Information about community services provided to newly enrolled families Program collects relevant information about child at time of enrollment General information about kindergarten transitioning available	Information on health and human services distributed to families Program requests children's IEPs. Information shared daily with families Parent board One parent/ teacher conference per year Child records transferred to new programs List of community/school stakeholders regarding child transition	Written plan for how to refer families to needed services One group parent meeting annually Two parent/teacher conferences per year Group meeting offered to discuss transition within or to a new program Program partners with community/school stakeholders Program participates in transition activities within community	Implements activities to support child's IEP. Policy development regarding parent involvement Individual meetings with families regarding transitions Written plan for transitioning made publically available

		Activities for kindergarten transition		
Leadership/Management	Parent Handbook Annual professional development plan completed Illness and injury tracking Staff meeting every 6 months Information shared about Keystone STARS	Annual budget Financial record-keeping system Organizational structure and job descriptions Annual Facility development plan System of site safety review Monthly staff meeting Staff directory Two benefits to staff	Policy manual Financial system in place Mission statement Continuous quality improvement plan Two hours monthly paid planning time Two staff evaluations annually Salary scale Three benefits to staff	Business plan Code of conduct Annual financial review Risk management plan Strategic plan Four hours monthly paid planning time Regular breaks Four benefits to staff

Note. Adapted from "Keystone STARS: Continuous Quality Improvement for Learning Programs: Center Performance Standards for FY 2011-2012," by Pennsylvania Early Learning Keys to Quality, 2010.

the programmatic level, but for individual teachers meeting specific educational requirements as well (Pennsylvania Early Learning Keys to Quality, 2010a).

The Office of Child Development and Early Learning reported that in 2008 over 5,000 Pennsylvania child care programs participated in Keystone STARS serving more than 170,000 children from birth to age 12, accounting for approximately 70% of all child care centers in the state (Sirinides, 2010; Zellman & Perlman, 2008b). Thus, Pennsylvania's criteria used to improve the quality of care its children receive have become an accepted standard for child care programs.

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

The *ECERS-R* (Harms et al., 1998) is a program assessment tool developed at the University of North Carolina's Franklin Porter Graham Child Development Institute. The original ECERS was published in 1980 and the revised edition was introduced in 1998. The revisions to the *ECERS-R* occurred in response to the growing body of research in the early childhood field and incorporated findings regarding family needs, children with disabilities, and cultural diversity (Clifford, Reszka & Guenther-Rossbach, 2010). Moreover, raters using the new version have less freedom in determining scores because of the stricter descriptions of how to assign scores in the revised version; although, Clifford (2005) compared ratings from both versions of the ECERS and found that mean scores were not significantly different between the revised and original versions.

The purpose of the *ECERS-R* is to provide programs with research-based criteria so that quality improvements that will ultimately increase positive overall outcomes for children can be achieved. The *ECERS-R* is specifically designed for use with preschool classrooms serving children ages 2-5 years and contains 43 quality indicators divided into seven subscales that measure

1. space and furnishings;
2. personal care routines;
3. language-reasoning;
4. activities;
5. interactions;
6. program structure; and,
7. parents and staff (Harms et al., 1998).

Scales on the *ECERS-R* are intended to assess the *process* quality of the preschool classroom although a content analysis of the *ECERS-R* indicators conducted by Cassidy et al. (2005) revealed that while approximately 44% of the indicators measured *process* quality, the remaining 56% actually assessed *structural* components of quality. Consequently, it can be argued that the *ECERS-R* is a tool that can provide a snapshot of the overall quality of a preschool classroom.

The *ECERS-R* is used by Pennsylvania Keystone STARS assessors to rate early childhood programs, due to its high reliability, high validity, and research indicating that quality as it is measured by the *ECERS-R* has predictive validity (Warash et al., 2008). At the STARS 2 level individual programs are not subject to outside assessor observations, but rather are required to show evidence of having conducted a self-assessment using the

ECERS-R tool. The purpose of this practice is to help child care program directors and staff become more familiar with the rating scale prior to being formally observed and to provide information based on what they have observed to develop quality improvement plans that will aide them in yielding successful results as they prepare for a STARS 3 assessment. The primary reason self-assessment scores are not used to determine STARS ratings at any tier is due to the emotional connections directors and staff has to their own programs and classrooms. It would be very difficult if not practically impossible for them to provide an objective, accurate assessment of their own classrooms (Harms, 2009). At the STARS 3 and 4 levels, outside assessors conduct live formal assessments on randomly selected classrooms to determine whether those classrooms demonstrate the higher levels of quality expected at upper STARS ratings.

ECERS-R assessors receive extensive training in using this measure and follow-up reliability checks are required so that an 85% agreement level can be achieved between raters. The authors of this measure offer 3 and 5 day workshops and video training materials that provide in-depth information about each item and each scale. These informative alternatives are available to state assessors, teachers, or administrators at Keystone STARS facilities. A certification is not available but the authors stress the important of assessors having a thorough understanding of the scoring system and the meaning of the indicators included in the scoring system (Clifford & Reszka, 2010).

The psychometric properties of the *ECERS-R* are in line with recommended levels. Harms et al. (1998) reported inter-rater reliability across all 470 indicators at 86.1% and at 71% at the item level. Internal consistency was also good revealing .71 to .88 at the subscale level and .92 for the total scale. Thus, the *ECERS-R* has become the

"gold standard" for assessing and informing quality improvement processes due to its well-established reliability and validity.

One goal of states implementing quality rating improvement systems has been to create a statewide culture of quality improvement in its child care programs (Zellman & Perlman, 2008a; 2008b). Use of the *ECERS-R* has been one way Pennsylvania has attempted to change the mindset of child care practitioners because the organization and comprehensive inclusion of quality indicators in this measure engages child care professionals in the process of continuous improvement of their current practices. Transitioning child care professionals' views on quality improvement is important, but can be difficult. The diverse backgrounds, levels of education, and years of experience among preschool teachers employed in child care can make the process of acculturating them challenging and complex (Handelsman et al., 2005; Raban et al., 2003).

Summary

A large body of research indicates that teachers are the key to building high-quality child care programs (Cohen et al., 2007; McCormick & Brennan, 2001). However, some preschool teachers employed in child care centers may experience difficulties in socializing to quality "norms" such as the Keystone STARS standards (Matsudaira, 2006; Schwartz et al., 2010). Several authors have used the theory of acculturation (Berry, 1980) as a way to explain the socialization process of individuals into their respective professions (Baruth & Manning, 2003; Gottlieb et al., 2002, 2008; Handelsman et al., 2005; Ivey et al., 2002; Knapp & VandeCreek, 2006). An investigation into the beliefs of preschool teachers employed in child care centers who

work in participating Keystone STARS programs is hypothesized to reveal differences in the understanding of practices constituting quality child care. Moreover, such differences may signal variations in child care preschool teachers' professional acculturation.

The significance of high-quality care for young children is undeniable. Research suggests that high-quality standards are the key to making child care programs' effects long-lasting (National Institute of Early Education Research, 2009), and can strengthen children's school readiness skills (Fontaine et al., 2006). Others have suggested that high-quality child care programs may serve to narrow the achievement gap, reduce crime rates, and produce adults with higher earning potential, thereby offering an excellent return on the investment in child care programs (Berrueta-Clement, Schweinhart, Barnett, Epstein & Weikart, 1984; Harrison, 2008; Schweinhart, 1993). Furthermore, high-quality child care has the capacity to positively impact all stakeholders involved: children, families, staff, and communities (Ceglowski, 2004).

Many states have implemented quality rating improvements systems intended to expand the availability of high-quality child care for all families to improve child outcomes (Child Trends, 2010). Pennsylvania's development of the Keystone STARS programs is the system that has been created to fill the gap that the federal government has left through the lack of a nationalized system for child care. Preschool teachers employed in child care centers play an important role in the success of their program's attainment of a higher STARS rating. Their ability to implement quality practices in their classrooms as captured by *ECERS-R* assessments can make or break the progression to a STARS 3 rating (Pennsylvania Early Learning Keys to Quality, 2010a). Quality rating improvement systems are a relatively new development in many states, and the process of educating teachers so that they become integrated into the system can

be tedious and overwhelming for teachers who lack experience and/or education (Handelsman et al., 2005; Zaslow, 2009).

This study seeks to investigate teachers' perceptions within the context of the Pennsylvania Keystone STARS initiative. A comparison of *ECERS-R* scores from self-assessments and outside assessors' ratings and interviews of preschool teachers' employed in those centers perceptions of quality in their classrooms will be conducted and analyzed. These methods will be detailed in the next chapter of this study.

CHAPTER 3

METHODOLOGY

The purpose of this study was to determine how preschool teachers employed in child care centers and *ECERS-R* assessors perceive the quality of STARS 3 classrooms. Furthermore, the personal beliefs of preschool teachers employed in STARS 3 child care centers regarding the quality of care provided in their classrooms was investigated. It was theorized that preschool teachers employed in STARS 3 child care facilities may not have ample opportunities to become acculturated to the norms of quality set forth through the Keystone STARS standards. This chapter will describe the methods, tools, and procedures used to study teachers' and assessors' perceptions of quality practices in child care preschool classrooms. Additionally, methods used to collect information from teachers about their personal experiences with quality improvements as they worked toward the attainment of a STARS 3 rating in the Pennsylvania Keystone STARS initiative are described in this chapter.

Problem and Purposes Overview

The absence of a nationalized system of child care delivery has resulted in child care services that range from poor to mediocre quality in the care provided to young children across the United States (Helburn, 1995; Peisner-Feinberg et al., 2000; Zigler et al., 2009). Several U.S. states have attempted to fill this gap by developing quality rating improvement systems aimed at improving and standardizing the quality of child care for young children (Child Trends, 2010). This current study examined one of these state-designed programs; namely, the Pennsylvania Keystone STARS program. The focus of the research was an analysis of the processes used to achieve a STARS 3 quality rating

for child care facilities located in the Northwest region of Pennsylvania. Thus, perceptions of both preschool teachers employed in child care centers and those of the Pennsylvania assessors who rated their classrooms when they are seeking to acquire a STARS 3 designation were compared and reported in this study.

Research Questions

In this study, four research questions were explored:

1. What beliefs do preschool teachers employed in child care centers with a STARS 3 rating hold about the quality of care they provide to the children in their classrooms?
2. What are the Keystone STARS assessors' perceptions of the quality of care provided in the assessed classrooms as reflected in scores on the *ECERS-R*?
3. How do preschool teachers' perceptions of the quality of their child care center classrooms compare/contrast with state assessors' perspectives on the same classrooms?
4. What underlying reasons do preschool teachers employed in child care centers with a STARS 3 rating provide for their appraisals of the quality of their classrooms?

Research Design

A mixed-methods design was used for this research study. According to Creswell (2008), a mixed-methods approach is a process of collecting both quantitative and qualitative data in order to better understand a research problem. Studies that lend

themselves to investigating phenomena more fully and personally often call for the use of a mixed-methods approach where both quantitative and qualitative data are collected to copiously understand a research question (Gay, Mills, & Airasian, 2006). Education research requires researchers to draw from a variety of disciplines and bodies of evidence in order to make assertions that serve to better inform the field of education; therefore, mixed-methods studies have become a more commonly used approach to research educational practices (Phillips & Burbules, 2000).

This study sought to discover not only what differences exist in the perceptions of quality among preschool teachers and assessors, but also to explore why the perceptual differences exist. Johnson and Omwuegbuzie (2004) assert that research methodology must follow research questions "in a way that offers the best chance to obtain useful answers" (p. 18). Gay, Mills, and Airasian (2006) stated that quantitative research in education exists to reveal predictable laws that govern the world through scientific means. In this way, quantitative research also typically demands little personal interaction with the participants to avoid skewing data results, is procedurally conventional, and aims to be free from personal bias or values. Qualitative research, on the other hand, tends to have more of an emergent nature, is flexible, and allows the researcher to obtain a wide range of data intended to enhance or clarify a research question (Creswell, 2008).

Definitions of quantitative and qualitative research suggest contrasting approaches to conducting a study. This is one explanation for the controversy and debate that has existed through the years concerning which approach is most desirable. In recent years, however, the combination of the two approaches has proven to yield interesting results,

rich with information that has served to inform the field of education. In fact, quantitative and qualitative research actually shares several similarities. According to Creswell (2008), both quantitative and qualitative research approaches are similar in that they:

- Follow a similar research process;
- Report a problem, address where the literature lacks, and justify the need to study the problem further, and;
- Collect data through interview, observational, and documentation procedures.

There are several benefits to using a mixed-methods approach. According to Johnson and Omwuegbuzie (2004), mixed-methods approaches are an "expansive and creative form of research" (p. 17), and they challenge the researcher to utilize eclectic approaches that will most appropriately and fully answer their research questions. Salehi and Golafshani (2010) added that mixed-methods approaches can also effectively serve to study more complex phenomena, giving more depth and opportunities for further study. This suggests that when mixed-methods approaches are applied appropriately, the end product will be superior to mono-method procedures (Johnson & Turner, 2003).

Studies utilizing a mixed-methods approach are not without challenges. According to Salehi and Golafshani (2010), there are those who believe that quantitative and qualitative methodologies are best kept separate because of their varying assumptions about a particular phenomena being studied. Proponents of qualitative research believe this method connects the researcher more closely to the phenomena through the use of interviews and other qualitative means. Conversely, supporters of quantitative methods argue that it is more important to remain emotionally detached to avoid bias in the

research outcomes (Johnson & Omwuegbuzie, 2004). During the late 1980's, a debate emerged over the worldviews articulated through these different research methodologies. Supporters of quantitative research were labeled as seeing the world as a series of scientific phenomena and therefore, research that needed to be objective, detached, and most importantly, easily measureable, while qualitative advocates were accused of sifting gathered information through subjective filters. Others proposed that mixed methodology subscribed to a more pragmatic world view that would serve to inspire research design procedures more appropriate for studying specific phenomena (Creswell, 2008). The phenomena being analyzed in this mixed-methods study was the perception of quality between trained assessors and preschool teachers employed in child care centers. Furthermore, this study sought to determine why such perceptual differences exist and suggest ways in which teachers can become better acclimated to the culture of quality that exists within the Keystone STARS program. In order to conduct this study in a way that could assess perceptions and beliefs, a mixed-methods design was determined to be the most pragmatic yet comprehensive manner in which to conduct this study.

Types of Mixed-Methods Designs

In this study, an explanatory mixed-methods (or two-phase model) design was employed. This study first collected quantitative scores from the *ECERS-R* (Harms et al., 1998) from STARS 3 child care facilities who had signed consent forms agreeing to participate in this study (Appendix A). Quantitative analyses of the *ECERS-R* scores provided by child care programs participating in the Keystone STARS program were used to determine if preschool teachers employed in child care centers and *ECERS-R*

evaluators differed in their perceptions of quality practices in child care. Self-assessment scores and state assessors' scores were obtained from participating child care programs and used in this analysis. Quantitative results provided a numerical confirmation of perceptual differences between preschool teachers employed in child care centers and STARS assessors on the seven subscales measured with the *ECERS-R*. Qualitative data were collected through individual interviews with three (n = 3) preschool teachers employed in participating child care centers to provide a clearer picture of teachers' beliefs regarding quality practices. Interviewees were selected from a subset of preschool teachers who had signed a consent form that described the study and the specifics of participation in the interview portion of this research (Appendix B).

Population and Sample

In an effort to achieve as large a sample as is feasible (Creswell, 2008), all 44 STARS 3 child care facilities in the Northwest region of Pennsylvania were contacted by phone, and invited to participate in the study. A total of 15 facilities returned signed informed consents; however, only ten (n = 10) child care centers ultimately were able to locate and submit *ECERS-R* self-assessment and STARS assessors' ratings. Qualitative data were collected from personal interviews with preschool teachers from the participating child care centers. All participating center directors gave permission for their preschool teachers to be contacted by the principal investigator when centers' *ECERS-R* scores were collected. Informed consent letters were given to 10 preschool teachers along with a stamped envelope for consent return to the principal investigator if they were willing to be interviewed, and had employed in contributing child care centers

at the time the centers received a STARS 3 designation. Of the six consent letters that were returned to the principal investigator, three (n = 3) teachers were interviewed.

Data Collection

Quantitative analyses of *ECERS-R* (Harms et al., 1998) scores provided by child care programs participating in the Keystone STARS programs were used to evaluate the hypotheses that teachers and STARS assessors would significantly differ in their perceptions of quality child care preschool programming based on the seven subscales on the *ECERS-R* measure. Participating centers were asked to share the *ECERS-R* self-assessments completed by their preschool teachers previous to their STARS 3 observations by STARS assessors, and the *ECERS-R* scores they received from the assessors conducting their STARS 3 designation observations. Appendix C provides an example of a facility summary report provided to child care centers after an assessment has been conducted. The *ECERS-R* scores were retrieved by the principal investigator via personal visits to each of the participating centers. These visits were scheduled with the program administrators, and both self-assessment and state assessor's scores were given to the principal investigator via hard copy at that time. Data from both self-assessment and assessor scores were aggregated and compared to determine if significant differences were present on the seven *ECERS-R* subscales through independent samples t-tests. Although t-tests can accurately illustrate if two means are statistically significantly different, especially with a smaller sample size, a t-test alone cannot provide detail as to why these differences are present (Zhang, 2009). Therefore, qualitative data were collected through semi-structured, individual interviews with three preschool

teachers employed in participating child care centers as a means to detail their perspective of quality child care and the STARS 3 designation process. Participants were provided with a list of the questions that would be used to guide the interviews (Appendix D). All participating programs and interviewees were assured of the confidentiality of their responses and advised that their scores and responses would be reported only in aggregate form to protect the identity of individual evaluators, specific child care programs for preschoolers, and child care preschool teacher participants.

Instrumentation

Scores on the Early Childhood Environment Rating Scale-Revised (*ECERS-R*) (Harms et al., 1998) were used to measure perceived levels of quality in preschool classrooms. The *ECERS-R* is comprised of 43 items that are grouped into seven subscales that include

1. space/furnishings;
2. personal care routines;
3. language/reasoning;
4. activities;
5. interactions;
6. program structure; and
7. parents/staff (Harms et al., 1998).

The instrument uses a rating scale containing quality indicators that range from unacceptable (1), to minimal (3), good (5), and excellent (7). The measure is intended to assess the seven subscales related to quality practices in preschool classrooms, and is the

tool used to evaluate process quality by Keystone STARS programs seeking STARS 3 and 4 designations. Table 5 provides an overview of the seven subscales and 43 quality items contained in the subscales.

The psychometric properties of the *ECERS-R* are at recommended levels. Harms et al. (1998) report interrater reliability across all 470 indicators at 86.1 and at 71 at the item level. Internal consistency was also good, revealing .71 to .88 at the subscale level and .92 for the total scale. Thus, the *ECERS-R* has become the "gold standard" for assessing and informing quality improvement processes due to its well-established reliability and validity.

To further explore teachers' ratings on the *ECERS-R*, personal interviews with a random sample of preschool teachers from child care programs participating in this study were conducted. This information was used to explore participants' views on quality practices as a means to detect prevalent themes among teachers' perspectives of quality, and their experiences with the STARS 3 designation process. A series of open-ended questions were developed by the investigator to help guide the interview sessions and are outlined in Table 6.

Data Analysis Procedures

When comparing the mean scores of two groups on a given variable, independent sample t-tests can efficiently and accurately illustrate existing significant differences (Gay et al., 2006). The null hypothesis assumed that no significant differences between teacher and assessor scores existed. In this study, the Statistical Package for the Social

Table 5

Overview of Early Childhood Environment Rating Scale – Revised Subscales and Quality Items

Subscale	Quality Items	Example of Quality Indicator
Space & Furnishings	Indoor space Furniture for routine care, play, and learning Furnishings for relaxation and comfort Room arrangement for play Space for privacy Child-related display Space for gross motor play Gross motor equipment	To score a "7" on indoor space: 7.1 Natural light can be controlled (ex. adjustable blind or curtain) 7.2 Ventilation can be controlled (ex. windows can open; ventilation fan used by staff)
Personal Care Routines	Greeting/departing Meals/snacks Nap/rest Toileting/Diapering Health practices Safety practices	To score a "7" on toileting/diapering: 7.1 Child-sized toilets and low sinks provided 7.2 Self-help skills promoted as children are ready
Language-Reasoning	Books & pictures Encouraging children to communicate Using language to develop reasoning skills Informal use of language	To score a "7" on books & pictures: 7.1 Books and language materials are rotated to maintain interest. 7.2 Some books relate to current classroom activities or themes.
Activities	Fine motor Art Music/movement Blocks Sand/water Dramatic play Nature/Science Math/number Use of TV, video, and/or computers	To score a "7" on sand/water: 7.1 Provision for sand *and* water play, *both* indoors *and* outdoors (weather permitting). 7.2 Different activities done with sand and water (ex. bubbles added to water,

	Promoting acceptance of diversity	material in sand table changed).
Interactions	Supervision of gross motor activities General supervision of children Discipline Staff-child interactions Interaction among children	To score a "7" on staff-child interactions: 7.1 Staff seem to enjoy being with the children. 7.2 Staff encourage the development of mutual respect between children and adults (ex. staff wait until children finish asking questions before answering).
Program Structure	Schedule Free play Group time Provisions for children with disabilities	To score a "7" on provisions for children with disabilities: 7.1 Most of the professional intervention is carried out within the regular activities of the classroom. 7.2 Children with disabilities are integrated into the group and participate in most activities. 7.3 Staff contributes to individual assessments and intervention plans.
Parents & Staff	Provisions for parents Provisions for personal needs of staff Provisions for professional needs of staff Staff interaction & cooperation Supervision and evaluation of staff Opportunities for professional growth	To score a "7" on supervision and evaluation of staff: 7.1 Staff participates in self-evaluation. 7.2 Frequent observations and feedback given to staff in addition to annual observation. 7.3 Feedback from supervision is given in a helpful, supportive manner.

Note: Adapted from Harms, T., Clifford, R. M., & Cryer, D. (1998). *The early childhood environment rating scale – revised.* New York, NY: Teachers College Press.

Sciences (SPSS) were used to analyze the sets of *ECERS-R* scores collected from the ten (n = 10) participating child care preschool classrooms.

Assumptions of normality and homogeneity of variances was determined for five of the seven *ECERS-R* subscales. T-tests for independent samples were used to test for significant differences on all seven subscales with significance levels set at $p < .05$.

Teachers' responses from personal interviews were entered into the investigator's computer by the investigator and were password protected to maintain confidentiality of participant responses. The verbatim responses of teachers gleaned from personal interviews were examined for thematic content. These findings across responses as well as samples of individual teacher experiences of the STARS 3 process illustrative of each theme are reported in the results section of this study. Table 7 displays each of the research questions, and the type of data analysis used to address each question.

Inductive Analysis

Inductive analysis is a process commonly used in qualitative studies. Hatch (2002) defined inductive data analysis as "a search for patterns of meaning in data so that general statements about phenomena under investigation can be made" (p. 161). Research question number four was addressed using both inductive and interpretive analyses of the open-ended responses given by teachers during personal interviews. Teachers' perceptions of their personal roles and perceived quality of care and instruction in their classrooms, and their feelings about the STARS process in their classrooms were

Table 6

Interview Questions

Number	Question	Subset of Questions
1	Please tell me about a typical day in your classroom.	a. Do the activities you plan vary on particular days of the week? b. Are there activities or order of activities you would like to change, but are unable to do?
2	How comfortable are you with the routines and activities offered in your classroom?	a. Who specifies the routines and activities in your classroom? b. How do you see them as meeting best practices for preschoolers? c. What would you change to achieve best practices?
3	Is there was anything you would like to do differently in your classroom, but do not because current practices or center policy prevents it?	a. If so, what differences would you like to see? b. What happens if you want to change or if you do change practices?
4	In what ways have the *ECERS-R* criterion influenced the routines and activities in your classroom?	a. Who initiates changes and how do you view the changes? b. If so, what are the changes? c. If not, why not?
5	Tell me about any professional development opportunities you have attended to learn more about best practices in preschool classroom and the *ECERS-R*.	a. How helpful were these? b. Why or why not?
6	How involved in the STARS process were you prior to STARS 3 preparations?	a. Would you like to have been more or less involved? b. Why or why not?

7	What problems, if any, do you believe exist in the use of the *ECERS-R* in determining STARS ratings?	a. What changes in the *ECERS-R* criterion do you believe are necessary? b. Which criteria do you think are most important? Least important?
8	What else do you think I should know about the current standards set by the Keystone STARS program?	

Note: These questions were developed by the principal investigator.

Table 7

Data Collection and Analysis Organized by Research Question

Research Question	Data Collected	Data Analysis Method
What beliefs do preschool teachers employed in child care centers with a STARS 3 rating hold about the quality of care they provide to the children in their classrooms?	Preschool teachers' *ECERS-R* self-assessment scores	Independent samples t-test
What are the Keystone STARS assessors' perceptions of the quality of care provided in the assessed classrooms as reflected in scores on the *ECERS-R*?	Keystone STARS assessors' *ECERS-R* assessment scores	Independent samples t-test
How do the perceptions of preschool teachers employed in child care centers and assessors compare with respect to the level of quality present in the assessed classrooms?	*ECERS-R* scores from both preschool teacher self-assessment and STARS assessors	Independent samples t-test
What underlying reasons do preschool teachers employed in child care centers provide for their appraisals of the quality of their classrooms?	Semi-structured, personal interviews with volunteer sample of preschool teachers	Inductive Analysis Interpretive Analysis

analyzed for commonalities. Teacher interviews were transcribed and emerging themes were derived from these transcripts.

Interpretive Analysis

Interpretive analysis provides meaning that goes beyond the mere description of data (Thomas, 2003). Interpretive analysis was used in this study to give enhanced meaning to the quantitative statistics. According to Hatch (2002), "the logic of the interpretive model parallels that of the inductive model in that pieces are put together in meaningful relation in order to construct explanations that help readers make sense of what is being examined" (p. 181). In other words, examining teachers' perceptions of the quality practices present in their classrooms will allow quantitative findings from this study to be further studied, and enable a better interpretation of data. The themes that emerged from the interviews were further examined for similarity in language used.

Ethical Considerations

Randomly developed codes were assigned to participating child care centers and interviewed teacher to protect their identity. Each program was given an identification number and each interviewee was assigned a pseudonym known only by the principal investigator. Program and teacher codes were used on all written transcripts. All data were retained in a locked file cabinet located in the principal investigator's home office, and will remain there for three years as required by federal regulations.

Limitations of the Study

ECERS-R scores from Keystone STARS participating programs in the Northwest region of Pennsylvania was the source of data in this study primarily due to the convenience of this sample. The investigator's relationship with child care center personnel in Pennsylvania's Northwest region facilitated the cooperation received from participating centers for this study. Thus, the findings from this study may not be generalized to similar programs implemented in other U. S. states or regions of Pennsylvania. That said, the results of this study fill a gap in the current research literature and contribute to the dialogue regarding how child care practitioners are socialized into the profession, a process currently termed acculturation (Berry, 1980; Ivey et al., 2002; Schwartz et al., 2010).

A second limitation is that data used for analyses in this study were restricted to those child care programs who had actually achieved STARS 3 status so that *ECERS-R* data may be skewed toward more positive evaluations. Facilities that did not satisfy requirements for STARS 3 designation may have produced more discrepant scores between self-assessment and STARS assessor ratings, and greater levels of significance in quantitative tests. Therefore, the current results may be an underrepresentation of the research problem.

Summary

This chapter outlines the methodological rationale and procedures of this study. A mixed-methods approach was employed with a convenience sample of child care preschool classrooms to investigate areas of agreement or disagreement between teachers' self-assessments of quality care in their preschool classrooms and STARS

assessors' ratings of the same programs. *ECERS-R* scores from teachers' self-assessments, and STARS assessors were compared utilizing t-tests for independent means (self-assessments and STARS assessors) across the seven subscales of the *ECERS-R*. Three (n = 3) preschool teachers participated in semi-structured interviews with the investigator about their perceptions of quality child care, and their perceptions of the STARS 3 designation process. Several limitations to interpretation of these results were discussed as well as ethical considerations for participating child care facilities, their teachers, and STARS assessors.

In Chapter Four, the detailed analyses of collected data are discussed, with emphasis on those subscales within the *ECERS-R* revealing significant differences between teachers' and assessors' perceptions of quality. Moreover, emergent themes gleaned from the personal interviews using inductive and interpretative analysis processes will be thoroughly described. The data results of all analyses pertaining to each of the four research questions will be individually addressed in Chapter Four.

CHAPTER 4

DATA ANALYSIS

The purpose of this study was to determine if there were differences between the perceptions of child care preschool teachers' and outside evaluators' ratings of classroom quality. It was hypothesized that statistically significant differences on several of the seven subscales composing the *ECERS-R* measure used to assess classroom quality would show that preschool teachers and *ECERS-R* assessors differentially perceive the levels of quality present in observed classrooms. A second purpose of this study was to identify the beliefs about the quality of care provided by child care preschool teachers that may be contributing to these differences. This chapter reports the results of both the quantitative and qualitative analyses and addresses the following research questions:

1. What beliefs do preschool teachers employed in child care centers with a STARS 3 rating hold about the quality of care they provide to the children in their classrooms?
2. What are the Keystone STARS assessors' perceptions of the quality of care provided in the assessed classrooms as reflected in scores on the *ECERS-R*?
3. How do preschool teachers' perceptions of the quality of their child care center classrooms compare/contrast with the state assessors' perspectives on the same classrooms?
4. What underlying reasons do preschool teachers employed in child care centers provide for their appraisals of the quality of their classrooms?

The first section of this chapter describes the demographics of the sample contributing *ECERS-R* scores and from the personal interviews with selected preschool teachers at these centers. Following this section, the results of the quantitative analysis are presented. A t-test for independent samples was selected as the most appropriate type of analysis to determine whether differences existed between the teachers' and assessors' quality ratings, and if so, the levels of significance among those differences. Descriptive statistics, including the means, standard deviations, and standard error of means are reported for the participating sample. The final section of this chapter is an analysis of the qualitative data gleaned from personal interviews with three child care preschool teachers. This analysis includes presentation of emerging themes regarding these teachers' perceptions and experiences with STARS assessments in their respective classrooms.

Demographics of Participants

This mixed-methods study included participation from ten child care centers in the Northwest region of Pennsylvania. From the ten centers that submitted their *ECERS-R* data, three (n = 3) preschool teachers agreed to participate in personal interviews as a follow-up to the results of the quantitative data.

Analysis of the *ECERS-R* data revealed differences among the seven subscales, as hypothesized. Personal interview sessions with the preschool teachers revealed more detail about how quality practices are implemented, explained, and influenced by the *ECERS-R* assessments and the Keystone STARS program.

Participating Child Care Centers

In Northwest Pennsylvania, there are 44 child care centers with a STARS 3 rating; all were contacted by phone and invited to participate in the study. The Northwest region of Pennsylvania consists of the following counties: Armstrong, Beaver, Butler, Cameron, Clarion, Clearfield, Crawford, Elk, Erie, Forest, Indiana, Jefferson, Lawrence, McKean, Mercer, Potter, Venango, and Warren. Of the centers contacted, 15 sent consent letters verifying their willingness to participate in the study. Ultimately, ten (n = 10) centers granted permission to submit their STARS 2 *ECERS-R* self-assessment scores and STARS 3 *ECERS-R* assessor scores. Out of the fifteen centers, four child care directors reported that they were unable to find their STARS 2 self-assessment scores and one director, who was preparing for upcoming STARS assessments, withdrew from the study due to time constraints. All participating centers at the time of data collection in the spring of 2011 held a STARS 3 rating.

Center settings were evenly represented with five (50%) of participating preschool classrooms located in urban communities, and five (50%) located in rural communities. The number of preschool age (3 years-beginning kindergarten) children enrolled in the preschool classrooms of the participating programs ranged from 9 to 27 children per classroom with a median of 15 children across centers.

Child Care Preschool Teacher Interview Participants

Three (n = 3) preschool teachers employed in the sample child care centers consented to participate in personal interviews with the investigator. All participating center directors gave permission for their preschool teachers to be contacted by the

principal investigator when centers' *ECERS-R* scores were collected. Informed consent letters were given to seven preschool teachers along with a stamped envelope for consent to be returned to the principal investigator if they were willing to be interviewed; six teachers returned signed consents. The reason only seven preschool teachers were given consent letters instead of all ten teachers from each participating center was because three of the participating centers' teachers who had been employed at the time the program earned a STARS 3 designation were no longer employed at those centers. Because new teachers were not involved in the evaluation process when the facility moved to STARS 3, they were not eligible to participate in this study since they would not be able to discuss the process of moving to a STARS 3 designation. Of the seven letters that were given to teachers, six teachers returned voluntary consent forms agreeing to be interviewed if selected.

Quantitative Data Analysis

Research questions one, two, and three were investigated through parametric analyses. The Statistical Package for the Social Sciences (SSPS) was used to analyze the sets of ECERS-S scores gathered from ten ($n = 10$) participating child care preschool classrooms. Assumptions of normality and homogeneity of variances was determined for five of the seven ECERS-S indicators. Because the participant totals in each group were equal, it was determined that between group means were also equal. Thus, t-tests for independent samples were used to test for significant differences for all seven indicators. Significance levels were set at $p < .05$. Table 8 shows the group means, standard

Table 8

Group Means, Standard Deviation (SD) and Standard Error Means (SEM) Across the Seven ECERS-S Subscales

Indicator	N	Mean	SD	SEM
Space/Furnish				
Teacher Self-Assessment	10	6.013	.669	.211
External Evaluator	10	5.152	.661	.209
Personal Care Routines				
Teacher Self-Assessment	10	6.032	.496	.157
External Evaluator	10	3.851	.726	.230
Language/Reasoning				
Teacher Self-Assessment	10	6.500	.624	.197
External Evaluator	10	5.725	.478	.151
Activities				
Teacher Self-Assessment	10	5.730	.492	.156
External Evaluator	10	5.433	1.040	.329
Interaction				
Teacher Self-Assessment	10	6.600	.706	.223
External Evaluator	10	6.315	.787	.249
Program/Structure				
Teacher Self-Assessment	10	6.400	.758	.240
External Evaluator	10	5.001	1.548	.490
Parents/Staff				
Teacher Self-Assessment	10	5.922	.585	.185
External Evaluator	10	5.610	.378	.120

deviations, and standard error means for both the self-assessment and assessor ratings for each of the seven *ECERS-R* subscales.

Research Question One

The first research question investigated preschool teachers' beliefs about the quality of care present in their classrooms. Self-assessment scores on the *ECERS-R* completed prior to a STARS 3 assessor observation were analyzed. Table 8 indicates that mean scores for teachers across all seven subscales ranged between "good" (mean= 5.73) to "excellent" (mean=6.60). Small standard deviation (SD) and standard error of measurement (SEM) numbers indicate little variation across teachers' self-assessment ratings, and show that teachers' self-assessment ratings were consistently higher than those of *ECERS-R* assessors in this study.

Research Question Two

The second research question this study pursued sought to reveal the Keystone STARS assessors' perceptions of the quality of care provided in the participating classrooms as reflected in assessors' ratings on the *ECERS-R* during the STARS 3 designation evaluations. Table 9 indicates that mean scores for STARS assessors across all seven indicators ranged between "minimal" (mean=3.82) to "good" (mean=6.32). Small standard deviation (SD) and standard error of measurement (SEM) numbers indicate little variation across assessors' ratings and show that assessors' ratings were consistently lower than those of preschool teachers in this study.

Research Question Three

Research question three asked how the perceptions of preschool teachers employed in child care centers and those of Keystone STARS assessors compared with respect to the level of quality in the assessed classrooms. Figures 3 through 12 illustrate the comparisons among each participating programs' *ECERS-R* self-assessment scores and those of the outside assessors who observed the same classrooms. Additionally, t-tests were conducted to compare teachers' and assessors' ratings for each of the seven *ECERS-R* subscales. Table 9 displays the t-test results for the seven *ECERS-R* subscales. It was hypothesized that significant differences in these scores would occur.

As illustrated in Table 9, statistically significant differences between teachers' and assessors' scores were present on four of the seven subscales: Space/Furnishings ($t(18)=2.89$, $p < .05$, Personal Care Routines, $t(18)=7.84$, $p < .05$ Language/Reasoning $t(12.84)=3.412$, $p < .05$, and Program Structure $t(13.08)=2.57$, $p < .05$. Figures 3 through 12 illustrate the individual programs' self-assessments compared to outside assessors' scores and serve to provide a more detailed portrait of the differences between self-assessment and assessor ratings.

In addition to the submission of scores on *ECERS-R* summary reports and self-assessments, narrative descriptions of what was observed are often included. Table 10 provides an example of the narrative statements contained on both self-assessment and assessor reports for the four subscales in which significant differences were discovered.

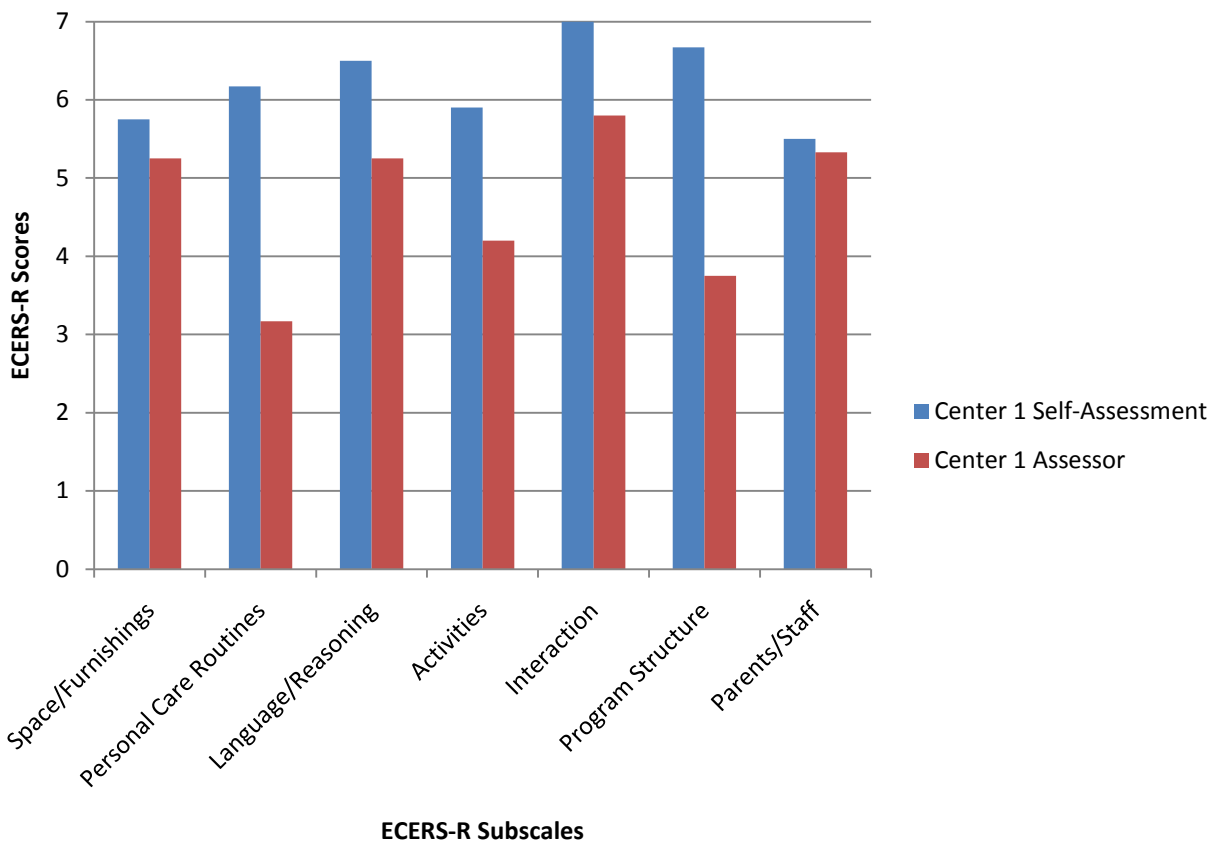

Figure 3. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 1 for each subscale.

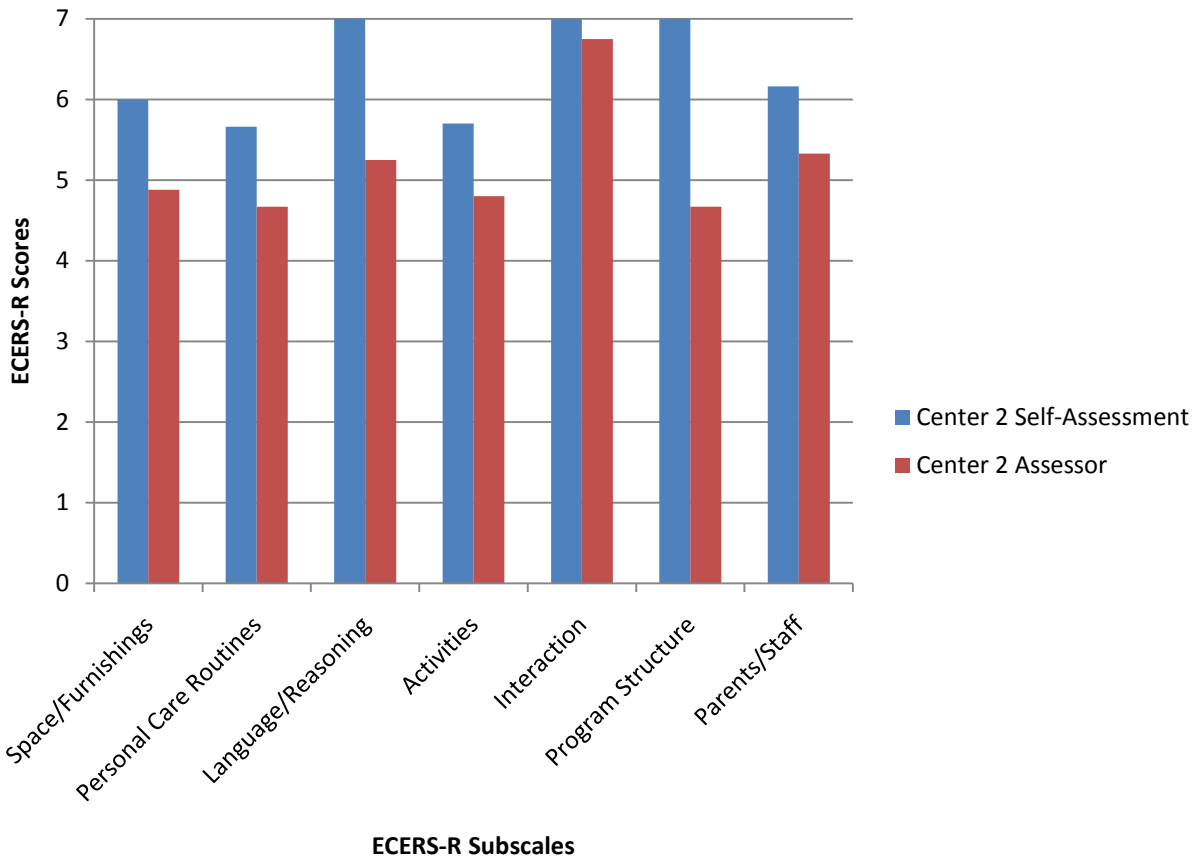

Figure 4. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 2 for each subscale.

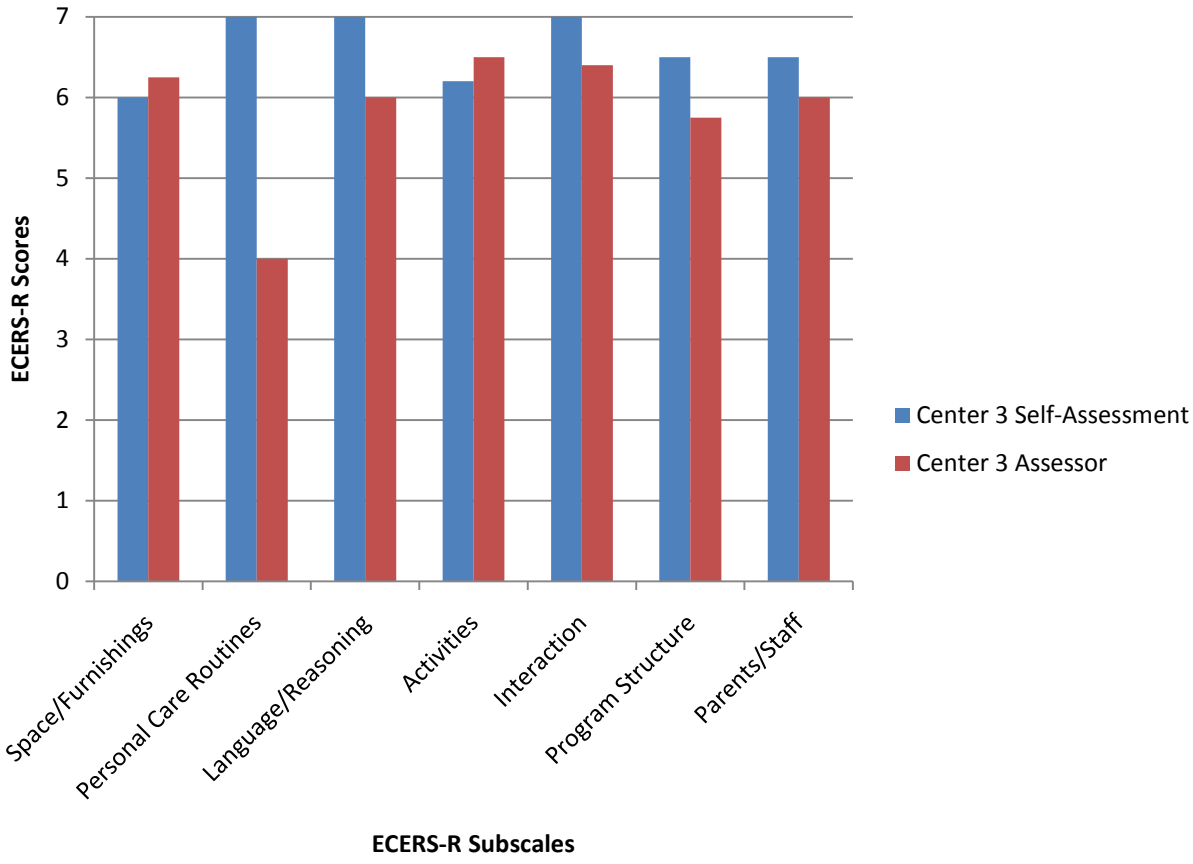

Figure 5. Comparison of self-assessment and assessor STAR 3 *ECERS-R* scores for Center 3 for each subscale.

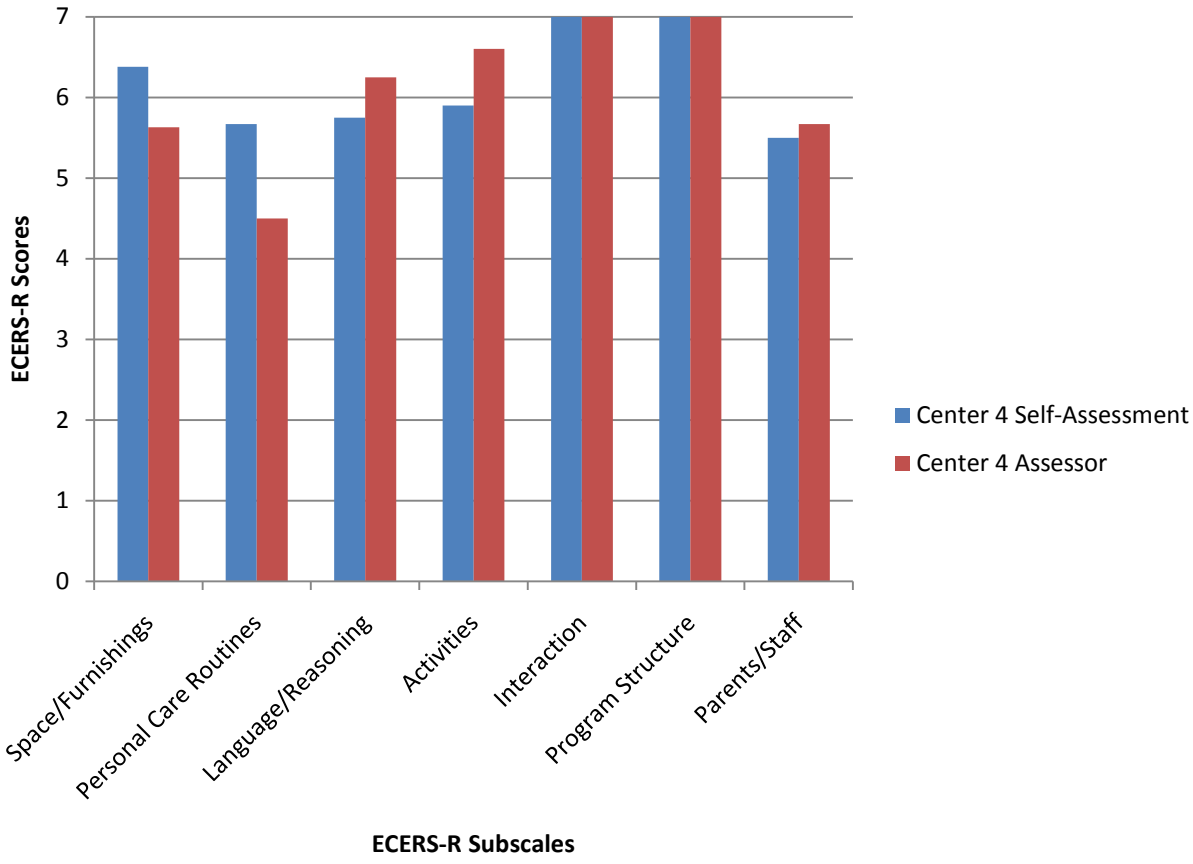

Figure 6. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 4 for each subscale.

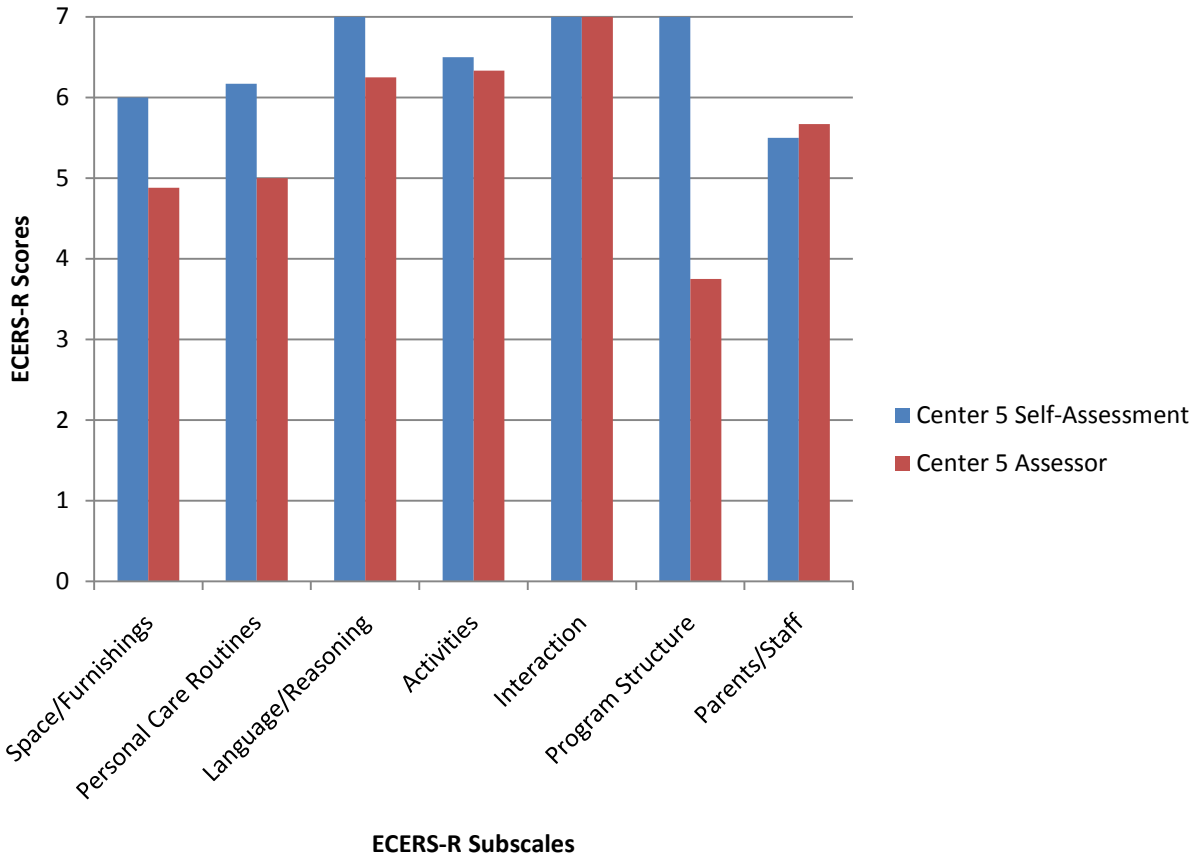

Figure 7. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 5 for each subscale.

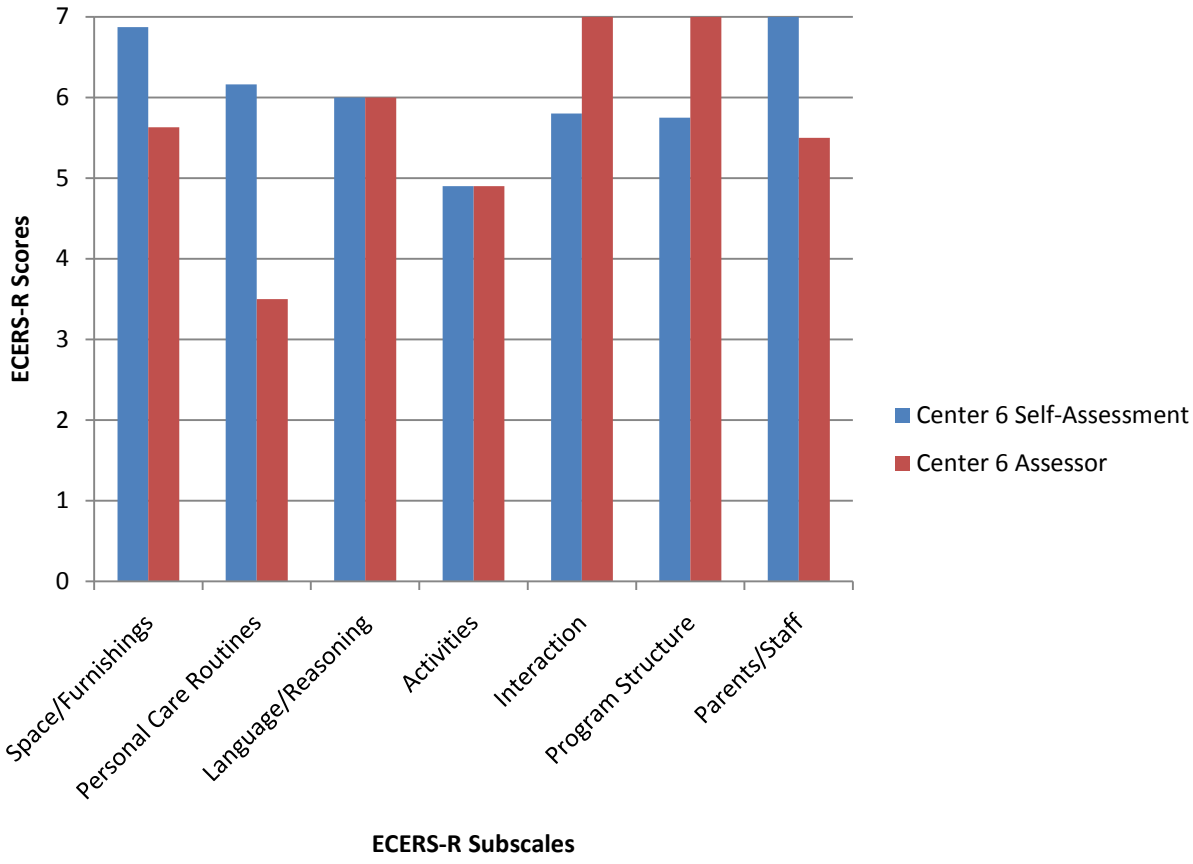

Figure 8. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 6 for each subscale.

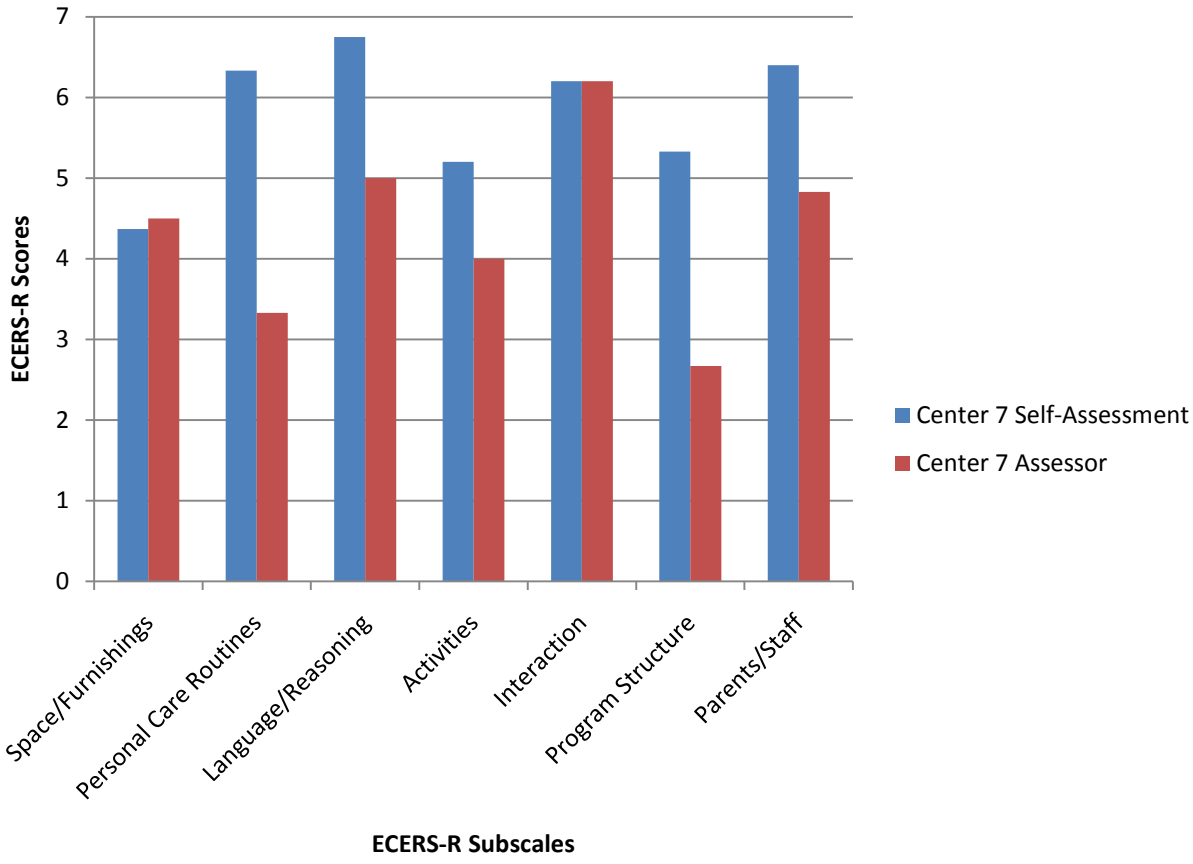

Figure 9. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 7 for each subscale.

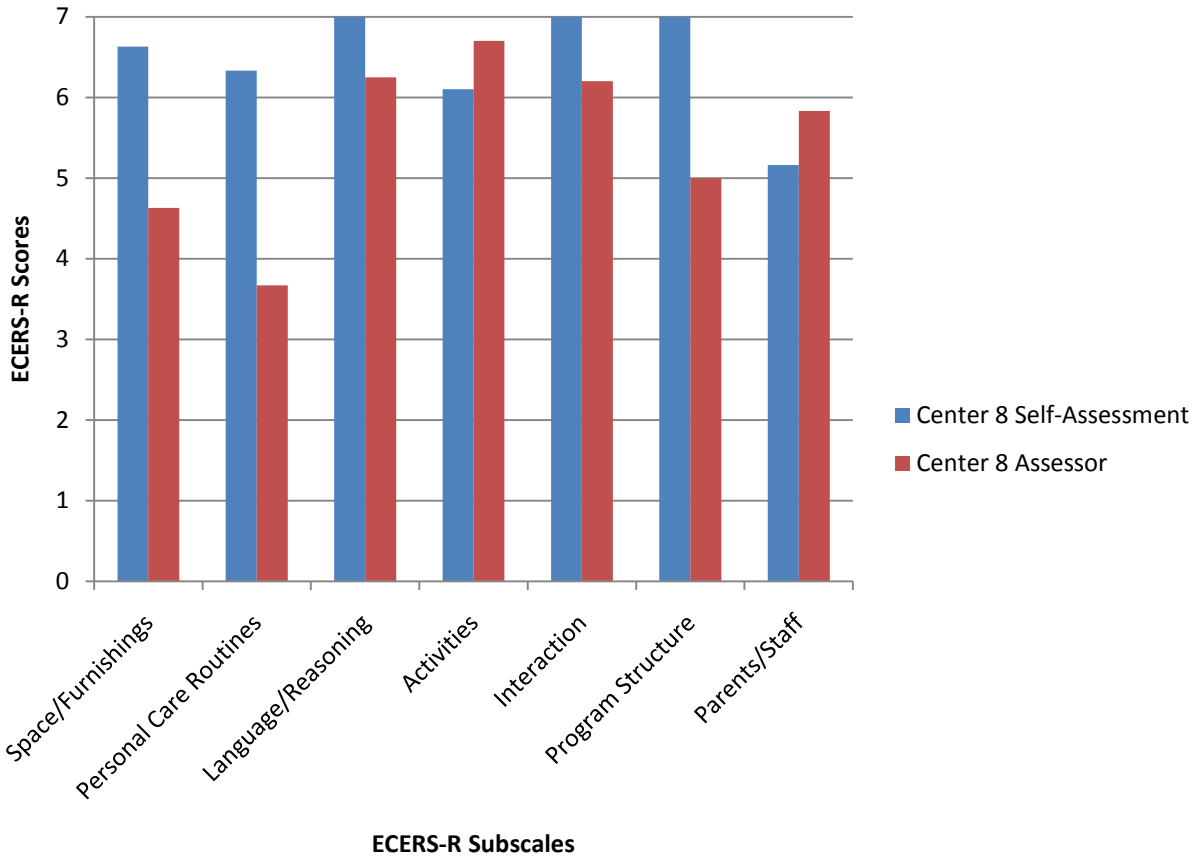

Figure 10. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 8 for each subscale.

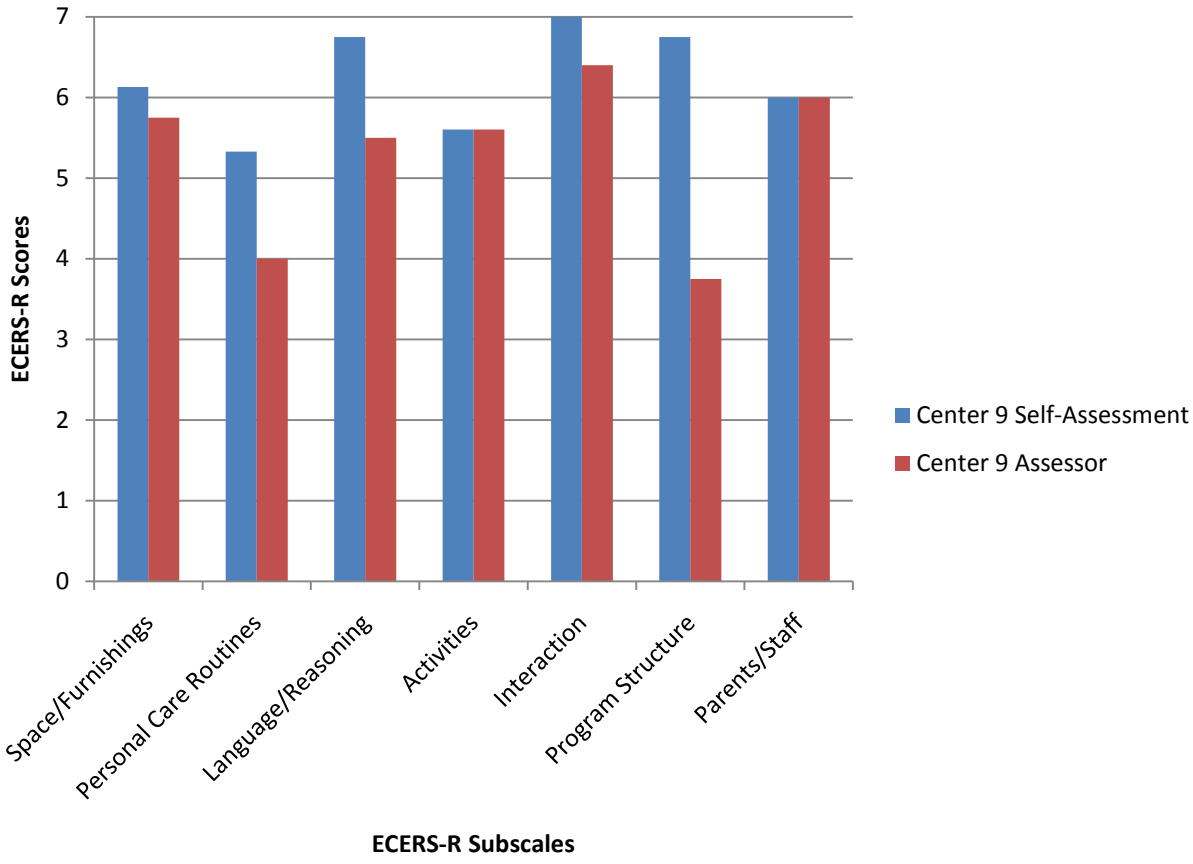

Figure 11. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 9 for each subscale.

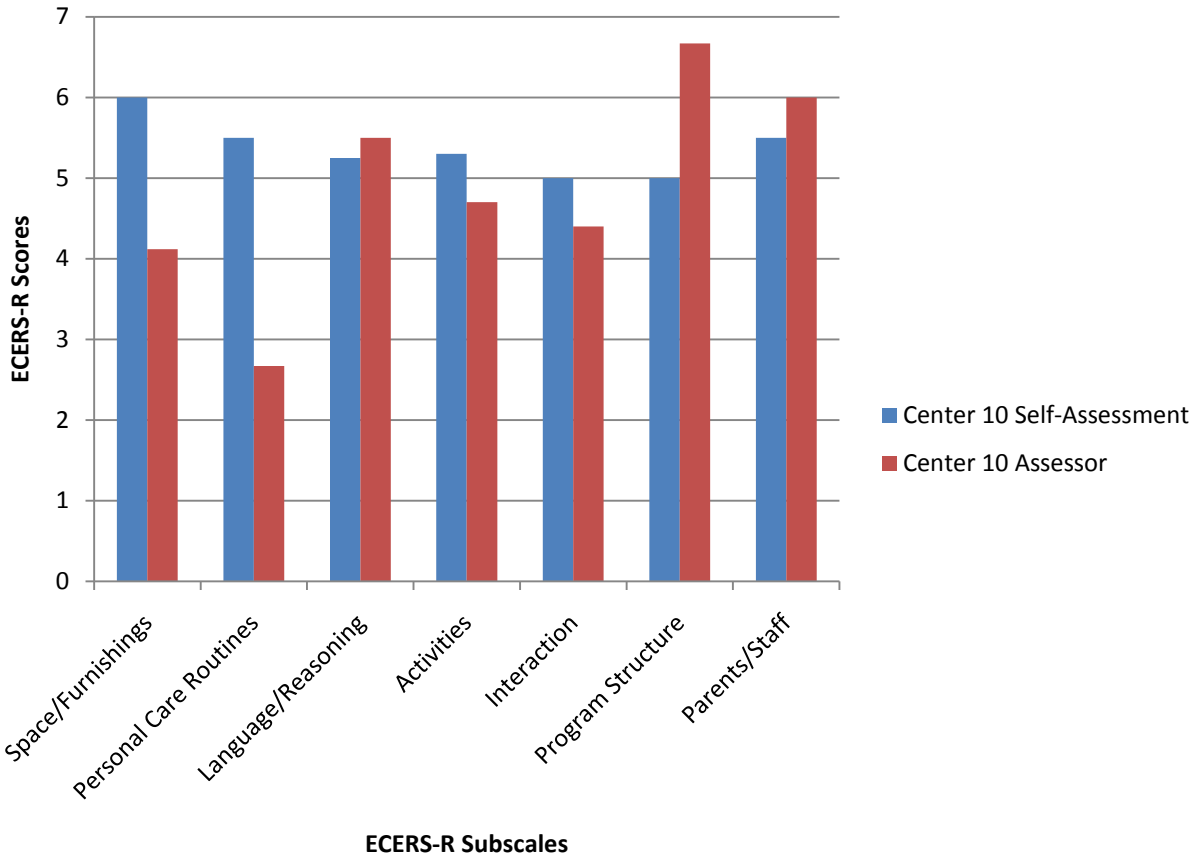

Figure 12. Comparison of self-assessment and assessor STARS 3 *ECERS-R* scores for Center 10 for each subscale.

Table 9

T-Test Results for the Seven ECERS-R Subscales

Indicator	t	df	MD	SD	p
Space/Furnishings	2.89*	18	.86	.298	.01
Personal Care Routines	7.84*	18	2.18	.278	.00
Language/Reasoning	3.12*	12.84	.78	.248	.01
Activities	.82	18	.30	.364	.43
Interaction	.85	18	.29	.334	.41
Program Structure	2.57*	13.08	1.40	.545	.02
Parents/Staff	1.39	18	.31	.220	.18

Note. *$p < .05$

Table 10

Comparison of Narrative Comments among Program Self-Assessments and ECERS-R Assessors

ECERS-R Subscale	Self-Assessment Narrative	*ECERS-R* Assessor Narrative
Space/Furnishings	Language, science/discovery, blocks, sand/water, library, music/movement, dramatic play, Legos, manipulatives (referring to centers present in the classroom).	The arrangement of the spaces used by children in a classroom affects how well the teacher can supervise the children to protect their health and safety. It was observed that a book case and an easel obstructed the view of the cozy area. It was observed that the u-shape of the classroom as well as placement of shelves and furniture made it difficult for teachers to see children playing in these areas from many points in the classroom.
	Room arrangement is always an issue because we have quiet areas too close to busy/active areas.	The intent of this indicator is to provide clear physical barriers and a sufficient distance separating quiet centers and active centers so that children engaged in quiet play are not disrupted by noise and the activities of children in other areas. It was observed that manipulative toys and puzzles were kept in the block area, and dramatic play was located next to art.
Personal Care Routines	Only area of deficiency is due to the fact that we have no low (child-sized) toilets which, due to financial	The children used the bathroom sink to wash their hands prior to meals. If the same sink is used for

	issues, will remain.	both toileting and food related routines, the sink basin, handles, and faucets must be sanitized between these routines. The teacher reported that the sinks are sanitized once a day.
	For the safety of children, shaving cream will not be kept in the center.	Soap bearing the label "keep out of reach of children" was observed in the bathroom. Additionally, it was noted that a large container of marbles was used by the children. During their play these marbles were scattered across a large portion of the floor. Although there were no observed incidences with the marbles, the large number of them on the floor increased the risk for slip and fall injuries. Additionally, although marbles may be appropriate for older 4 and 5 year olds, the group included younger 3 year old children who may not be as capable of keeping these small items out of their mouths.
Language/Reasoning	Children explained the difference between a school day and stay at home day. Children explained the difference between fruits and vegetables.	Teachers were not observed encouraging children to talk about their reasoning behind solutions to problems when using classroom materials. At this quality level, teachers are expected to help think through why they used materials in a particular way, how they solved a

		puzzle, or why things are the same or different.
	No examples of informal use of language given	Although the teachers had conversations with the children, they used language more frequently to manage routines and control behavior than to exchange information and interact socially.
Program Structure	The children do not have enough opportunity for small group activities.	The expectation of this indicator is that whole group gatherings are structured to maximize success for all children participating in order to support all children in remaining interested and involved. Additional expectations are for teachers to be responsive to the day- to-day interest level and needs of the group and adjust planned group times accordingly. The observed circle time lasted 45 minutes, during which children were reminded many times to sit still and listen.
	No comments, but self-assessment indicated a score of seven on all items.	The teacher reported that children do not go outdoors if the temperature is below 38 degrees. Please see the PA Position Statement for definition of weather permitting.

Qualitative Data Analysis

Question four asked: What underlying reasons do preschool teachers employed in child care centers provide for their appraisals of the quality of their classrooms? Personal semi-structured interviews were conducted with three (n = 3) preschool teachers who were employed in the participating child care centers. To be eligible for an interview, teachers had to have been employed at the child care center during the time the facility earned a STARS 3 designation. This requirement was explained in the informed consent letter given to all preschool teachers. All personal interviews were conducted by the study's primary investigator, transcribed, and stored in a password protected computer file. The investigator then analyzed the transcripts to identify common themes among participants' responses. The interview questions are addressed individually followed by a discussion of the responses provided by the interview participants. Finally, a section which addresses the emergent themes found in the analysis of these transcripts is included.

Interview Questions

Preliminary questions posed to all interviewees were intended to collect demographic information about each child care preschool teacher such as their age, years employed and current position at their facility and level of education they had attained. All teachers were female. Table 11 displays the results of these initial inquiries and shows that all teachers held the same positions within their respective programs, but varied in their levels of educational attainment.

Table 11

Demographic Information of Interviewees

Interviewee	Age Category	Time Employed at Facility	Current Position	Highest Level of Education Attained
T1	18-25	2 years	Lead preschool teacher	Bachelor's Degree Early Childhood/Elementary Education
T2	18-25	4.6 years	Lead preschool teacher	High School Diploma
T3	26-35	11 years	Lead preschool teacher	Child Development Associate Credential (CDA)

The first interview question asked participants to describe a typical day in their classrooms. All of the teachers described the beginning of their days similarly. That is, their day began with limited free choice until all children arrived, they then brought the whole group together to conduct "circle time" which typically consisted of discussion of the calendar, weather, stories, themes for the day, songs, and finger plays. Additionally, all teachers indicated that different activities are planned for specific days; for example, T1 reported that her class does an art project on Mondays, while T2 stated that her class works on computers on Thursdays. When asked if there was anything they did not like about the activities currently offered, responses included: "The schedule is changed often because of the STARS requirements," and "Having an activity where children are required to sit for long periods of time right after lunch does not work well." T2,

however, responded to this question by stating, “No, my director lets me do things the way I want. If I don’t want to do circle time until 10:00, that’s okay.”

Question two asked teachers to describe their comfort with the routines and activities currently offered in their classrooms. All three participants agreed that they were satisfied with the routines and activities in their classrooms. However, when asked about who chose the classroom activities and routines they used, T1 stated that lesson plans and activities were her responsibility, but classroom schedules and shared spaces were worked on collaboratively with the program administrator. The other two teachers indicated that they had complete autonomy when it came to determining their classroom schedule and routines. In response to a follow-up question concerning how teachers regarded the current routines and activities in their ability to exemplify best practices for preschoolers, two teachers mentioned that their activities were designed to be developmentally appropriate. T3 indicated that the *ECERS-R* was her guide, stating, “I do go a lot by *ECERS-R*. Whatever our *ECERS-R* says I do, I abide by it.” T2 added that she believed best practices were reflected in her students’ ability to write their names and count to 30 when they registered for kindergarten.

When asked if there was anything they would do differently in their classrooms to feel that they were incorporating best practices, all three teachers had opinions about what they would do differently. Table 12 details their responses.

The third question posed to the teachers asked for their thoughts about what they would prefer to do differently in their classrooms, but felt constrained from doing, based upon current practices or program policies. All three teachers indicated that they would

Table 12

Responses to How Teachers Would Change Their Classrooms to Further Incorporate Best Practices

Teacher	Response
T1	This teacher indicated that she would like a new building that had more indoor space. T1 recommended smaller group sizes so that adults could have more one-on-one interactions with the children.
T2	T2 indicated that a bigger indoor space was needed. This teacher also believed that more financial supports could enable enrichment activities like field trips.
T3	This teacher believed that less emphasis on paperwork would enable more creativity and interaction with the children.

Table 13

Teacher Responses to Things They Would Change in Their Classrooms

Teacher	Response
T1	This teacher indicated that she would like to only have to conduct one formal lesson daily instead of three.
T2	This teacher stated that being able to take field trips and having access to transportation to take the children places are things that should change.
T3	T3 stated that adding computers to the classroom is a desired change she would like to see in their classroom.

like to see some things change in their classrooms. Table 13 details the individual teacher responses.

When the teachers were asked to describe the process they followed when wanting to make changes, T2 and T3 indicated that they were authorized to make any changes not requiring purchases. T1, however, indicated that most changes in the classroom had to be approved, and sometimes a rationale as to why a change was being made had to be explained before approval would be given to initiate such changes.

Question four asked teachers to describe the ways that the *ECERS-R* criterion had influenced the routines and activities in their classrooms. All three teachers stated that the *ECERS-R* criterion had greatly influenced their classroom practices. Table 14 provides an overview of all participant responses. When asked who initiated the changes that were needed to meet *ECERS-R* criterion, all teachers indicated that they worked with their directors and other staff to make the necessary changes.

Question five asked teachers to share their experiences with professional development opportunities they encountered. All three teachers noted that they had participated in a training to learn about the *ECERS-R*. However, T1 stated that she participated in trainings that focused on content within the *ECERS-R*, such as curriculum, environment, and working with families. T2 reported that she attends anything that is required by the STARS standards, or anything that she or her director think might be helpful *and* is offered locally. T3 focused on some of the opportunities she has had to participate in regional and statewide events. She stated, "I probably go to four to five professional development trainings a year. The networking has been great because I get to meet a lot of people." When further asked to elaborate on how helpful training

Table 14

Teacher Responses to How ECERS-R Criterion Influenced Their Classrooms

Teacher	Responses
T1	"It's the biggest influence we have. We plan around the *ECERS-R* and STARS in my classroom."
T2	"A lot. I know like when I went to the first *ECERS-R* training, and we learned how to assess ourselves. It gave me some good ideas on how to change the room or do lesson plans."
T3	"Everything. It has changed everything…doing the *ECERS-R* has really, really helped me out, and the kids out, and has made our program much better."

Table 15

Teacher Appraisals of the Helpfulness of Training Sessions Attended

Teacher	Responses
T1	"I really enjoy going to trainings. I find that I learn a lot and it's nice to see things from another perspective." "I just wish there were more trainings in the Northwest: not in Pittsburgh, or Erie, or even Butler.
T2	"Some (trainings) are helpful. Some annual trainings are long. *ECERS-R* training was helpful. It was the first one I went to. It was a small class, so it got us talking." "Any time Penn State has anything and my director thinks it's a good idea, she signs us up for it."
T3	"They've all been good." "I probably go to four or five professional development trainings a year."

opportunities had been for them, all teachers indicated that training can be helpful and that some of the trainings they attended had been beneficial. Table 15 provides an overview of all participants' responses to this question.

Question six asked teachers to discuss the nature of their involvement in the process of earning a STARS 3 rating. T1 and T3 indicated that they assumed most of the responsibility for preparing their classrooms. T2 reported that because she was fairly new to teaching at her center, she was not involved much, and was comfortable leaving the task of preparing the classroom to the more experienced teachers.
However, she continued by stating that she hoped to be more involved in the future so that she can feel more accountable for anything receiving a low score in her classroom. T3 described how the initial move the center made to STARS 3 was a positive experience, but noted that their re-designation of STARS 3 was difficult because the center director was simultaneously working with another center as they prepared for STARS 3, and because of that, her center received less support and information to help her adequately prepare for the process.

Question seven asked teachers to identify problems that they believe exist in the use of the *ECERS-R* to determine STARS ratings. T2 said that while she didn't see using the *ECERS-R* as a problem, she didn't feel she understood it well enough to respond accurately to this question. T3 said the amount of paperwork she had to complete to prepare for each STARS designation visit was overwhelming and stressful. She also thought that some elements of the *ECERS-R*, such as how the amount of time children were required to have play materials available from which to choose (in the *ECERS-R* called "substantial portion of the day") was determined, needed to be evaluated

differently. T1 clarified that while she believes personal hygiene is important, she feels the handwashing requirements are unrealistic, especially in a classroom with only two adults. She stated:

> "Our bathroom is in the classroom, and if I'm in the middle of circle time, I can't get up to make sure a child has washed their hands or flushed the toilet. I need to get on with circle time. I think it is…the way it's projected, it is very nerve-wracking."

Teachers' responses varied when they were asked about changes they would like to see in the *ECERS-R* criterion. T2 said that she didn't know the criterion well enough to suggest changes. T1 said:

> "One thing I would love is if they changed the person who does it [so] isn't so scary…is able to interact a bit…it would be nice. That way you don't feel so intimidated, almost."

T1 also indicated that she believed the health practices items should be relaxed a little because of the difficulties she had experienced in scoring well on that item. She clarified by stating, "I don't want you to think the children shouldn't wash their hands, they need good hygiene, but it is very, very hard to get a seven (the highest score on the *ECERS-R* measure for this item) in that aspect." T3 said she would like to be able to determine her classroom schedule without having to be concerned that assessors would conclude that her preschoolers aren't getting enough play time or outside time. She mentioned that sometimes they "just want something different, like let's just go outside." When teachers were asked which criteria of the *ECERS-R* they believed were the most and least important, both similar and diverse responses were given. Table 16 describes

Table 16

Teachers' Opinions of Most and Least Important ECERS-R Subscales

Teacher	Most Important *ECERS-R* Subscale	Least Important *ECERS-R* Subscale	Quotes
T1	Activities, Interactions	Parents and Staff	"I think that the activities from fine motor through diversity are very important." "Parents are very important, but when it comes down to it, staff has to take a back seat because it is about children and families and about helping them more than us."
T2	Personal Care Routines	Don't Know	"I would say, like, the personal wellness, learning to take care of yourself is most important." I don't know. They're all important."
T3	Personal Care Routines, Space and Furnishings	Parents and Staff	"If they don't have standards for space and furnishings, a lot of owners wouldn't bring things into their buildings." The handwashing is huge. It makes a lot of sense." "They're all important, but I can't control parents."

the subscales deemed most and least important by the teachers interviewed, and provides examples of their responses.

Each teacher interview ended with an opportunity for each interviewee to share any final thoughts they had about the Keystone STARS program. T2 suggested that more public awareness efforts were needed so that parents could be better educated about quality and about how Keystone STARS can help to indicate and improve child care quality. T3 said that more presence from technical assistance staff to help with program improvements were needed. T1 concluded her statements by saying, "I think my biggest thing is that it's very intimidating to do the *ECERS-R* process."

Emergent Themes

Inductive and interpretive analyses were completed on the interview transcripts. The results of these analyses revealed four emergent themes among teacher responses during the personal interview sessions.

Best Practices

All teachers interviewed for this study expressed their beliefs that the activities and routines they offered in their classrooms were consistent with research-based practices that demonstrate high-quality programming. T1 pointed to the goal of her program to provide developmentally appropriate activities that met children's individual needs as an example of best practices in her center. T3 emphasized the importance of providing children with many options from which to choose on a daily basis that were available for as long as the children wanted to play with the materials as an example of

best practices in her classroom. T2 talked about the importance of being flexible with themes and schedules; explaining that if children showed interest in continuing with a particular activity or lesson, she permitted them to continue to explore it until the children were ready to move on to another topic.

Influence of the *ECERS-R* Criterion

The second theme to emerge from teacher interviews was identified by the unanimous agreement among the teachers that the *ECERS-R* criterion had a profound impact on their classrooms as is detailed in Table 13. One teacher represented the overall influence of the *ECERS-R* criterion had for all of the teachers when she said:

> "It has changed everything. When I started there were toys, but now everything has a purpose. Everything is set in the classroom for them to intentionally get something from. So doing the *ECERS-R* has really, really helped me out and the kids out, and has made our program much better."

Moving to a STARS 3 Rating

Although all teachers had achieved success in earning a STARS 3 rating, they had mixed feelings about this program, and concerns were expressed about the process of attaining a STARS 3 designation. One teacher felt that being subjected to an *ECERS-R* assessment for the first time at this level was "intimidating," especially because the assessors are unable to interact with the staff or children while they are conducting observations. She believed it made the process feel too high-stakes and stressful.

Another teacher stated that her program's initial move to STARS 3 went pretty smoothly, but when it was time to be renewed for STARS 3, the process was more difficult because of lack of attention from administrators in the program. Conversely, one teacher didn't see the process as stressful, but admitted that her involvement was minimal, and emphasized that she liked it that way because she didn't understand the standards well enough to make sure they were being met in her classroom.

Professional Development

Training and professional growth were common to all teachers interviewed. Two teachers stated that they attended trainings, but tried to find events that were offered locally even if the topic wasn't something they felt would be beneficial for them. In fact, one teacher cited the value of attending events that enable her to network with other preschool teachers as more valuable to her than the content of the attended sessions:

> "They [professional development opportunities] network, and I've gotten different ideas from different centers. Outside of my job it has given me a support system. Outside the classroom like paperwork, easier ways to do lesson plans. It's helped me a lot."

Collectively, these themes suggest that the interviewed teachers saw the STARS system as valuable to providing them with structure for organizing and planning their curriculum and classroom environment, but a stressful process. Despite the enhanced attention to quality child care initiatives, they had not fully committed to the professional development processes that would better inform them about the research evidence for development of the STARS criteria. At least for these teachers, professional

development opportunities appeared to be chosen for location rather than topic, and to satisfy a requirement rather than for personal knowledge.

Summary

Chapter Four reported the results of the data analyzed in this mixed-methods study. First, quantitative data were collected from *ECERS-R* scores of STARS 3 preschool classrooms in participating child care centers, and showed that significant differences in the evaluative perceptions of quality in each center between teachers and STARS evaluators were present in four of the seven *ECERS-R* quality indicators. This finding supports the research questions investigating how teachers and assessors perceive quality child care in preschool classrooms and that those teachers are unaware of how the *ECERS-R* criterion are defined. Qualitative data were collected through personal interviews and presented through a summary of teacher responses for each question, and organized by emergent themes that were identified in the transcripts of these interviews. These findings indicate that teachers' self-reported data supports the practice of applying various quality indicators to an assessment of their respective classrooms. However, teachers also perceive that they do not always receive appropriate opportunities to grow professionally in the quality improvement processes occurring in their programs. In Chapter Five, this study will be summarized, conclusions will be made based on the findings, and recommendations for further research will be suggested.

CHAPTER 5

DISCUSSION, RECOMMENDATIONS, AND CONCLUSIONS

Research has clearly indicated that young children benefit from high-quality child care (Harrison, 2008; Love et al., 2003; NIEER, 2009). The United States, however, is one of the few industrialized countries that continue to provide child care services described as randomly pieced together through various private and public entities with little to no universal coordination or standards from which to operate (Steinfels, 1973; Zigler et al., 2009). The result of this lack of a nationalized child care delivery system has been care that is of predominantly low to mediocre quality (Helburn, 1995; Peisner-Feinberg, 2000; NICHD, 2008). Research indicates that high-quality standards are one of the keys to making the effects of child care programs long-lasting (NIEER, 2009), and may strengthen children's school readiness skills (Fontaine et al., 2006). Other studies have similarly suggested that high-quality child care programs may even serve to narrow the achievement gap, reduce crime rates, and produce adults with higher earning potential, thereby offering an excellent return on investments in quality child care programs (Berrueta-Clement et al., 1984; Harrison, 2008; Schweinhart, 1993).

Many states have implemented statewide initiatives, commonly referred to as quality rating improvement systems, which are intended to address issues of affordability, accessibility, and quality in child care (Child Trends, 2010; Zellman & Perlman, 2008a; 2008b). Pennsylvania is one of several states in which a quality rating improvement system, titled Keystone STARS, has been implemented. The STARS program was designed to enable child care programs to achieve quality ratings ranging from a STARS

1 (lowest) to a STARS 4 (highest) designation through meeting increasingly rigorous standards. The STARS system requires centers, as they prepare to move to a STARS 3 rating, to first conduct self-assessments, and then be assessed by outside *ECERS-R* assessors for the first time. This *ECERS-R* assessment places the classroom teachers under greater scrutiny and, for the first time in the STARS process, holds them personally accountable for the quality of their classroom environments. Important to recognize in the evaluation process is that the perspectives of the classroom preschool teachers and the observations of external evaluators of program quality can be discrepant (Manlove, 2001; Raban et al., 2003). Thus, preschool teachers in the child care centers and the evaluators who observe them as teachers and centers strive to attain a STARS 3 designation are not always in agreement with regard to which practices are deemed high-quality. This perceptual difference makes assessing quality a complex issue that is inextricably bound with the professional development and acculturation of preschool teachers employed in child care centers into the process of quality improvement.

The purpose of the current study was twofold. First, this study sought to determine if child care preschool teachers' and outside evaluators' ratings of classroom quality were discrepant, as has been reported in some of the research literature (Manlove, 2001; Raban et al., 2003). Second, this study was designed to identify why such differences in beliefs about child care quality might exist by conducting personal interviews with child care preschool teachers. Such information collected from this study may help to describe and further delineate the process by which preschool teachers employed in child care centers become involved in improving the quality of their

programs and ultimately suggest ways of better acculturating them to the standards of the early childhood profession.

This study was based on the following four research questions:

1. What beliefs do preschool teachers employed in child care centers with a STARS 3 rating hold about the quality of care they provide to the children in their classrooms?
2. What are the Keystone STARS assessors' perceptions of the quality of care provided in the assessed classrooms as reflected in scores on the *ECERS-R*?
3. How do the preschool teachers' perceptions of the quality of care provided in the assessed classrooms compare/contrast with the state assessors' perspectives on the same classrooms?
4. What underlying reasons do preschool teachers employed in child care centers provide for their appraisals of the quality of their classrooms?

The first section of this chapter will explain and summarize the results of this study. Quantitative analyses of the perceptions of quality of both preschool teachers and *ECERS-R* assessors indicated that such perceptual differences do, in fact, exist. A collection of qualitative information provides detail about what teachers believe and how their beliefs about the quality of their classrooms are formed, use of the *ECERS-R* for improving classroom quality, and the Keystone STARS process as they become acculturated to the "norms of quality" set in Pennsylvania through the Keystone STARS initiative. The second section of this chapter will discuss the implications of the research findings as they apply to professional development and acculturation of preschool

teachers into the Keystone STARS process, and to the Keystone STARS initiative in general. The third section of this chapter will make recommendations for future research.

Research Findings Summary

This study sought to investigate the perceptual differences between preschool teachers employed in child care centers and *ECERS-R* assessors, and if such differences existed, to elucidate these differences as child care programs sought a STARS 3 rating in the Keystone STARS quality rating improvement system. One hypothesis of this study was that teachers may need increased opportunities to become acculturated to the "norms of quality" established in Pennsylvania through the STARS initiative.

Data for this study were collected in the spring of 2011 from ten (n = 10) child care centers in the Northwest region of Pennsylvania. All programs at the time of data collection were at a STARS 3 level. A comparison between the *ECERS-R* teachers' and assessors' scores revealed significant differences. The two groups viewed the quality of the assessed classrooms very differently on four of the seven subscales of the *ECERS-R* measure used to assess quality programming in child care preschool facilities. These four areas of discrepant beliefs concerning indicators of program quality were; (1) space and furnishings, (2) personal care routines, (3) language and reasoning, and (4) program structure.

Personal interviews were subsequently conducted with three (n = 3) preschool teachers who had volunteered to participate at the outset of the data collection phase of the study. Results of the interview data, analyzed through inductive and interpretive analyses, exposed the common themes among participants' beliefs about quality child

care and about how the *ECERS-R* and STARS program both positively and negatively influenced the quality of their preschool classrooms.

Research Question One

The first research question addressed in this study intended to determine the beliefs preschool teachers employed in child care centers with a STARS 3 rating held about the quality of care they provide to the children in their classrooms. To appraise these beliefs, the self-assessment scores on the *ECERS-R* completed prior to a STARS 3 assessor observation were analyzed. The mean scores for all teachers across the seven *ECERS-R* subscales showed that scores ranged from the "good" (mean = 5.73) to "excellent" (mean = 6.60) range. Small standard deviation (SD) and standard error of measurement (SEM) numbers indicated small intervals and error for all teachers' self-assessment ratings, and showed that the self-assessment scores were consistently higher than the mean scores of the *ECERS-R* assessors for all seven indicators on this measure.

Teachers' self-assessed higher scores on the *ECERS-R*, when compared to the trained *ECERS-R* assessors' mean scores, may be interpreted in several ways. First, teachers in STARS classrooms are *not required* to attend any formalized *ECERS-R* training that instructs this instrument and could help them better understand its construction and use. In fact, only center directors are actually required to attend these instructional sessions. Classroom teachers may choose to attend an *ECERS-R* training if approved by their program, but training is not required and teachers do not always have the opportunity to attend (Pennsylvania Early Learning Keys to Quality, 2010a). Thus, teacher exposure to the *ECERS-R* and subsequent ability to fully understand how to use

the assessment tool with accuracy may be compromised. Secondly, both directors and teaching staff have emotional and philosophical connections to their programs; therefore, they may be less likely to objectively assess their programs (Harms, 2009). Third, even for those teachers who do attend an *ECERS-R* training, time is needed for staff to absorb and apply the information learned. Thelma Harms (2009), one of the *ECERS-R* developers, recommended that training be conducted over a longer period of time, in smaller increments to enable teachers to work with the *ECERS-R* with sustained support if they are to be successful at conducting more objective self-assessments.

Research Question Two

Research question two sought to elucidate the Keystone STARS assessors' perceptions of the quality of care provided in the assessed classrooms as reflected in their scores on the *ECERS-R*. To accomplish this, *ECERS-R* scores from STARS 3 assessor observations of the participating child care centers were collected from each participating center. The mean scores for STARS assessors across all seven indicators ranged between "minimal" (mean = 3.82) to "good" (mean – 6.32). As with the teacher assessments, small standard deviation (SD) and standard error of measurement (SEM) numbers were found across assessors' ratings and consistently lower ratings than those of preschool teachers' self-assessment scores were revealed.

In contrast to center preschool teachers, Keystone STARS assessors receive extensive and on-going training to be able to fulfill their roles. Assessors are required to have a minimum of a Bachelor's degree in early childhood education or a closely related field; such as, elementary education, special education, or child development, and to have

professional experience in early childhood education. Furthermore, accountability measures exist for providing reliable assessment data through participation in ongoing inter-rater reliability checks to assure at least 86% inter-rater reliability on *ECERS-R* items. This initial and on-going professional development is consistent with what Harms (2009) referred to when she wrote about the need for those working with the *ECERS-R* scale to learn through initial training, but then to have long-term opportunities to work with others to ensure appropriate application of the scale. This is a process that is well-established for outside assessors, but not available to preschool teachers and other child care center staff.

Research Question Three

The research regarding how the perceptions of preschool teachers employed in child care centers and assessors compared with respect to the level of quality present in the assessed classrooms was the third topic of inquiry in the current study. Results of t-tests supported the hypothesis that teacher and assessor *ECERS-R* scores were discrepant. However, only four of the seven indicators were significantly different: (1) space/furnishings, (2) personal care routines, (3) language/reasoning, and (4) program structure. To further understand the implication of these results, each subscale in which significant differences existed will be discussed individually.

Space and furnishings. The items contained in the space and furnishings subscale of the *ECERS-R* include

- indoor space;
- furniture for routine care, play, and learning;

- furnishings for relaxation and comfort;
- room arrangement for play;
- space for privacy;
- child-related display;
- space for gross motor play; and
- gross motor equipment (Harms et al., 1998).

As this subscale reflects through its title, the physical spaces and equipment present in a classroom are of primary importance. However, limitations to the physical space such as the presence of natural lighting through windows or skylights are not generally controlled by preschool teachers. Conversely, other items such as space for privacy or child-related display are items in which the teacher has the ability to create and oversee. Teachers who have had little to no *ECERS-R* training depend on directors to meet the *ECERS-R* standards for structural requirements for the classroom. Furthermore, their emotional investment in their contribution to aspects they control may prevent them from objectively judging their centers on privacy and child-related display standards (Harms, 2009; Warash et al., 2005).

Personal care routines. The items that comprise the personal care routines subscale on the *ECERS-R* include

- greeting/departing;
- meals/snacks;
- nap/rest;
- toileting/diapering;
- health practices; and

- safety practices (Harms et al., 1998).

Similar to the space and furnishings subscale, structural items in the classroom (child-sized toilets being present in the restrooms), cannot be controlled by the preschool teacher. However most of the items on this scale involve establishing healthful routines such as appropriate handwashing, sanitizing tables, and using greeting and departing times as opportunities to share information with families. Teachers may be more likely to view their work in these areas as more exceptional than others because of the effort they put into designing and implementing them.

Language and reasoning. The language/reasoning subscale contains four items:

- books and pictures;
- encouraging children to communicate;
- using language to develop reasoning skills, and;
- informal use of language (Harms et al., 1998).

This subscale evaluates how the classroom staff communicates directly with the children, and how children are encouraged to communicate with each other. The only item that requires an assessment of materials present in the room is books and pictures. At good levels, there is a wide selection of books from which to choose that represent a variety of topics, interests, and cultures. Provision of these materials may or may not be the responsibility of the classroom preschool teachers; depending on the financial well-being of the center. Other scale items such as using language to develop reasoning skills requires observation of how staff encourage children to develop reasoning skills by using events and experiences in the classroom and by responding to children's interests throughout the day. For teachers to admit that they do not engage in these interchanges

with children in their classroom on a high-level would suggest they are not doing their jobs. Furthermore, it takes a high level of emotional intelligence, and metacognitive skill for teachers to be able to accurately self-assess their own behaviors (Imel, 2002).

Program structure. The program structure subscale consists of four items:

- schedule;
- free play;
- group time, and;
- provisions for children with disabilities (Harms et al., 1998).

Program structure at high-quality levels according to the *ECERS-R* includes smooth transitions between daily events, meeting individual needs, and a balance of flexibility and structure that allows children to engage in free choice activities for a substantial portion of the day or a third of the time a center is open. Also, essential to scoring well on this indicator, is that children who have a variety of physical and cognitive disabilities can share in all aspects of the classroom schedule in a meaningful way. Thus, teachers have more to contribute to how this subscale item is implemented; and more to lose if their work is deemed to be unacceptable by *ECERS-R* assessors.

Research Question Four

The fourth and final study question focused on the underlying reasons that preschool teachers employed in child care centers provided for their appraisals of the quality of their classrooms. This question was addressed through personal interviews with three (n = 3) preschool teachers from the participating child care centers. Inductive

and interpretive analyses of the interviewees' responses yielded four common themes, and are discussed in this section of this chapter.

Best practices. All teachers believed that the routines and activities they offered in their classrooms were consistent with research-based best practices for preschool children. Personal perspectives on how best practices were demonstrated, however, varied. The teacher who had the highest level of education spoke about developmentally appropriate practices and the importance of individualizing curriculum as much as possible so that all children could enjoy success in learning. Similarly, the teacher with the most years of teaching experience at the same facility emphasized the importance of giving children choices, providing daily experiences that are interesting to the children, and remaining flexible. Although she did not have a college degree, she credited her years of experience and many opportunities to participate in professional development as her source of growth. Conversely, the teacher having the lowest level of education stated that she knew she utilized best practices because the children in her group knew how to write their names and count to 30 at kindergarten registration. Teacher responses were consistent with research citing the relationship between higher levels of education and more skilled, higher-quality care for children (Arnett, 1989; Barnett, 2003; Darling-Hammond et al., 2005; Whitebrook et al., 1990). Thus, greater exposure to the child care preschool culture, either through education or experience, appeared to enrich teachers' ideas about how quality is injected into preschool classrooms.

***ECERS-R* criterion.** All teachers interviewed expressed the significance of the *ECERS-R* in determining classroom routines and activities. Furthermore, they all agreed that implementation of *ECERS-R* criterion had both positive and negative aspects in that

it helped them improve the quality of their classrooms by providing specific standards to follow. However, it also contributed to their anxiety when *ECERS-R* assessors observed their classrooms. While they all indicated that the process served a valuable purpose, they also expressed their concern about meeting all of the standards in the *ECERS-R* as both a source of frustration while also an opportunity that encouraged them to think about their personal philosophies of quality and prioritization. All of the teachers stated that, although the *ECERS-R* played a significant role in their ability to improve the quality of their classrooms, the rating scale neither affirmed nor changed their views on how to deliver quality programming to preschool children. All concurred that they would like to see some changes in how ratings were determined so as to better represent child care in a realistic manner. These responses support the theory that teachers need ample opportunities to become adequately acculturated to the norms of their profession so that they are able to fully integrate their personal beliefs with professional expectations (Berry et al., 1986; Berry & Kim, 1988; Gottlieb et al., 2002; Handelsman et al., 2005; Manlove, 2001).

Moving to a STARS 3 rating. The value of being involved in Keystone STARS was not questioned by any of the teachers who were interviewed. Overall, they all noted that the program had many good qualities, and had helped with improving the quality of their classrooms. However, all discussed how moving to a STARS 3 rating was a stressful endeavor for them, particularly for the teachers who were not as involved in the STARS process prior to preparing for the STARS 3 observation. The one teacher who had been involved from the beginning of her center's journey through STARS stated that she felt comfortable with the program but thought the amount of paperwork was

excessive. However, her attendance at many diverse professional development sessions and *ECERS-R* workshops helped her become familiar with STARS employees and confident that she could successfully attain a STARS 3 designation. According to Friere (1994) professionals need opportunities to formulate a deeper understanding of their profession's standards by embedding them in the social context of that profession. Ongoing, sustained exposure to the *ECERS-R* scale through targeted professional development opportunities with those who administer the scale prior to the STARS 3 assessment could serve to help teachers self-assess more accurately, and feel less stressed about the process of attaining a STARS 3 rating.

Professional development. Interestingly, the small sample of teachers interviewed had all attended an *ECERS-R* training. Because of STARS requirements, all had attended many workshops, but two of the teachers admitted to choosing which sessions to attend based on where they were located geographically. This limited their training choices and both of these teachers expressed mixed levels of satisfaction with the professional development opportunities in which they had participated. Additionally, the teacher with the lowest level of education (high school diploma) indicated that unless the training was required, she relied on the local professional development organization in her geographic region to dictate which trainings she would attend. Thus, requirements for trainings that might better prepare and educate teachers about the STARS program development, research that supports best practices and the *ECERS-R* measure of these practices may have improved teacher experiences and perceptions of this program. This finding supports the idea of providing child care teachers opportunities to attain higher

levels of education as one means to improving the overall quality of care children receive (Arnett, 1989; Burchinal et al., 2002; Early et al., 2007)

These four themes collectively suggest that teachers agree with many of the tenets of the STARS initiative. This study does suggest, however, that preschool teachers employed in child care centers would benefit from professional development opportunities in which they could interact with other professionals in order to learn more about the research base behind the STARS initiative and the link between the *ECERS-R* and high-quality practices. In addition, these sustained opportunities would provide meaningful opportunities for child care teachers to become better acculturated to the Keystone STARS program and to the expectations of the child care culture.

Recommendations

According to Pianta et al. (2005), quality care has been conceptualized and defined in diverse ways. There are no panaceas to solving the child care quality issues that exist in the United States despite professional organizations such as The National Association for the Education of Young Children (NAEYC) and Association for Childhood Education International (ACEI) that push for quality standards consistent with research-based best practices. Leading professional organizations such as NAEYC and ACEI have helped many states and nations respond to the lack of universal child care standards by developing quality rating improvement systems that focus on implementing standards, providing financial support to participating programs, and overseeing processes that monitor and inform practitioners (Child Trends, 2010). Pennsylvania's Keystone STARS program is an example of how a focus on quality child care improves

care through application of best practices as criteria for securing state recognition and financial supports that will garner parent choice in where to place their preschool child. STARS 3 (high) ratings are contingent upon a successful *ECERS-R* observation conducted by trained assessors, and requires that preschool teachers employed in child care centers be directly involved in the STARS process. Participation in the Keystone STARS program is voluntary for programs but is not voluntary for child care center staff; thus it necessitates that child care center teachers understand the requirements and what their personal roles will be in attaining higher STARS ratings. The first experience with meeting increasingly rigorous standards for many teachers employed in child care centers demands that a process of acculturation must occur that enables them to be socialized into the emerging norms of the profession (Handelsman et al., 2005). Current practices within most child care facilities do not regularly recognize teacher socialization as a priority when becoming involved in quality improvement initiatives despite previous authors and this study who have pointed to training as a key strategy in advancing the field (Darling-Hammond et al., 2005; Handelsman et al., 2005; Ivey et al., 2002).

Albert Bandura's (1977) social learning theory posited that people learn through observation, imitation, and modeling the behaviors of others. His research supports the idea that the cultural norm of best practices in child care would be more effectively learned through social interaction with others who emulate high-quality practices. Relevant to the topic of this research, preschool teachers employed in child care centers can learn the traditions, norms, and values of the profession that enable them to fully integrate high-quality practices into their jobs if they are regularly exposed to trainings and standards consistent with those shown to have best outcomes for preschool children.

Subsequently, recommendations as a result of this study fall into two primary categories: (1) the professional development of preschool teachers employed in child care centers and (2) the continued maturation of the Keystone STARS program as an accepted professional norm for high-quality child care in Pennsylvania.

Professional Development of Teachers

Results of this study indicated that the two teachers who had more experience and education saw the learning process in more complex ways. The professional literature is consistent with this finding in that teacher qualifications and training have shown strong links to the quality of care children receive (Barnett, 2003; NAEYC, 2007). In particular, studies have consistently indicated that teachers with at least a Bachelor's degree in early childhood education provide care that is more sensitive to children, more developmentally appropriate, and less punitive (Arnett, 1989; Burchinal et al., 2002; Whitebrook et al., 1990). Therefore, the first recommendation from this study would be to encourage those who hold lead teacher positions in child care centers to be either Bachelor level teachers or be working toward a Bachelor's degree in Early Childhood Education to advance their early childhood knowledge base. In line with this recommendation is the change in Pennsylvania's teacher certification regulations for teacher education programs. Currently, students enrolled in teacher education programs in Pennsylvania can earn an early childhood certification that is valid for nursery school through third grade and elementary certification authorizes teaching in grades kindergarten through sixth grade. Beginning in 2013, students graduating from teacher preparatory programs will graduate under the new teacher certification guidelines so that

the system of N-3, K-6, and K-12 special education will be changed to new certifications of Pre-K-4, 4-8, 7-12, and a mandated dual certification for special education teachers in Pre-K-8, reading or a content area of secondary education (Pennsylvania Department of Education, 2011). Although it is speculated that a shortage of teachers certified to teach the upper elementary grades such as grades 5 and 6 may occur, it is surmised that, by including Pre-K as part of an early childhood/elementary certification, more college students will be encouraged to seek the certification. Presumably, this would result in an influx of qualified preschool teachers entering Pennsylvania's early childhood teaching workforce. Theoretically, this change is believed to help to increase the overall qualifications of preschool teachers seeking employment in child care centers. One of the greatest challenges, however, that will need to be addressed with this surge of highly-qualified teachers in Pennsylvania, is the low salaries earned by child care professionals. On average, child care workers earn approximately $9.30 per hour (U.S. Bureau of Labor Statistics, 2011), which is not commensurate with a four-year degree when one considers the greater earning potential for a public school teacher with a four-year degree. Another challenge to the successful recruitment and retainment of highly-qualified child care teachers is the lack of benefits that many child care programs offer. Health insurance, disability, and retirement are benefits that many educated professionals who are gainfully employed receive. Certified teachers who choose to work in child care programs typically do not have those benefits available to them. When low salaries and the few benefits are considered along with the general lack of professional recognition and respect child care teachers have historically received compared to teachers in public

school systems, it is apparent that changes in teacher certification regulations alone will not be sufficient to draw teachers to the field of child care permanently.

Earning a Bachelor's degree in early childhood education is just the first step for the professional development of teachers. Becoming a highly competent professional educator and master teacher is a lifelong project, not a four-year one. After the degree is conferred, certification has been attained, and employment has been secured, the journey to proficiency truly begins. According to Handelsman et al. (2005), all professionals need opportunities to be socialized into the norms of their profession to further expand their professional expertise. This study has proposed that Keystone STARS is a quality improvement initiative for child care programs that has served to change the culture of child care as it used to be practiced. A single annual inspection that looked primarily at basic health and safety regulations is no longer the norm of the profession. Child care centers are now learning that accountability paired with higher expectations can lead to a sense of accomplishment and professionalism previously not achieved within the field of child care. This process, however, takes time and preschool teachers in child care centers need opportunities to become socialized, or as Berry (1980) proposed, *acculturated* to their profession. Additionally, teachers bring their personal values and beliefs with them, and it is this complex interplay between personal morals and professional expectations with which many teachers struggle that ultimately determines whether they will marginalize, assimilate, integrate, or separate from the norms of the profession (Berry, 1980; Gottlieb et al., 2002).

Undoubtedly, the *ECERS-R* is a crucial component for Pennsylvania's child care centers in attaining a STARS 3 rating, and the responsibility of classroom quality falls

primarily on the teachers. Therefore, a second recommendation based on this study is to make sure all teachers are adequately trained in the development and use of the *ECERS-R* over an extended period of time to enable competent understanding of quality as defined in the new child care culture and the use of the measure that assesses it (Harms 2009). In addition to learning how to use the *ECERS-R* with some degree of confidence, teachers would also have the opportunity to interact and learn from others who understand, articulate, and model the quality practices encouraged through an *ECERS-R* assessment.

Future Directions of the Keystone STARS Program

Pennsylvania's Keystone STARS program has sought to incorporate research-based standards of high-quality practices into a quality rating improvement initiative that child care professionals can implement systematically into their programs. STARS began as a pilot project in 2002, with a small sample of child care centers, and currently boasts over 70% participation of all child care centers in Pennsylvania (Sirnides, 2010; Zellman & Perlman, 2008a).

The *ECERS-R* has been one of the primary tools used in the Keystone STARS program as a measurement of quality in preschool classrooms and its use is likely to continue to be used in this role. This study has shown that preschool teachers employed in STARS 3 ranked child care centers have been strongly influenced by the use of the *ECERS-R* as a measurement of their classroom quality. These teachers also describe the process of learning, understanding, and agreeing with the items contained in the *ECERS-R* frustrating. In some instances the indicators contained in the *ECERS-R* may even contradict what they believed about quality practices in their own classrooms and further increase their confusion about how classroom quality is determined by the STARS

evaluators. These reported issues with accepting the STARS goals is consistent with research indicating that challenges and complexities exist in acculturating teachers with varying backgrounds, levels of education, and experience into the research-based child care programming currently being encouraged (Handelsman et al., 2005; Raban et al., 2003).

Pennsylvania has made attempts to train teaching professionals in the research-based goals of their initiative by requiring specified hours of mandated training that increase with each higher STARS level. At the STARS 2 level, staff members are required to attend a minimum of 12 hours of training and at the STARS 3 level 18 hours are required (Pennsylvania Early Learning Keys to Quality, 2010a). Training attendance and topics studied are tracked through completion of professional development records. These are positive attempts at enabling staff to receive more training; however, all of the teachers interviewed expressed concern about the amount of travel required to get to the trainings they believe they actually needed to improve their understanding of the STARS goals and *ECERS-R* measure. Thus, results of this study indicate that the Keystone STARS program could greatly enhance the professionalism of teachers if they expanded their offerings of training topics and held workshops in more convenient locations. Undoubtedly, this would increase professional development costs for the program in the short term, but as more programs achieve higher STARS levels and are more autonomous in their abilities to maintain high-quality levels, some merit award funding (see Table 4) could perhaps be transferred to professional development efforts in the long run. Offering training in more convenient locations by highly-qualified facilitators would allow teachers greater opportunities to learn from those with more expertise and

experience by observing, imitating, and hopefully emulating the behaviors of those committed to quality practices in preschool classrooms thereby supporting the goals of Keystone STARS and other similar research supported programming (Bandura, 1977; Handelsman et al., 2005). Economic considerations will likely be of paramount importance, however, to the ability of those who administer the Keystone STARS program to embark on new endeavors. Under Pennsylvania's current political leadership, approximately $40 million in cuts have been proposed to child care program funding which could compromise the funding needed to continue the development of Keystone STARS (Pennsylvania Association of Child Care Agencies, 2011).

Additionally, this investigator recommends that support programs already in place such as, STARS Technical Assistance could potentially broaden the scope of their services by offering work sessions for teaching staff at all child care centers entering the STARS program. Child care administrators are given many opportunities to learn about and utilize supports at the beginning of the STARS process. If the small sample of teachers interviewed in this study is representative of the child care teaching population in Pennsylvania, teaching staff need similar opportunities long before the centers in which they are employed begin working toward a STARS 3 designation. STARS Technical Assistance consultants typically travel to centers that request their services and develop service plans based on the individual needs expressed by the program administrators (Pennsylvania Early Learning Keys to Quality, 2011). Perhaps consultants could travel to locations more central to several child care centers and provide work sessions aimed at helping teaching staff understand the STARS program and assist

teachers in planning their professional development through extended use of the career lattice and knowledge of the options available to them.

Another possibility for providing meaningful professional development opportunities to child care teachers is the expanded use of technology to provide more convenient access to workshops, technical assistance, and coursework. Many colleges and universities offer online learning programs. Some universities, such as Clarion University of Pennsylvania, have developed online courses designed specifically for child care professionals, such as, the Pennsylvania Director Credential course as well as a combination of credit courses that enable child care professionals to earn a Child Development Associate (CDA) renewal credential (Clarion University of Pennsylvania, 2011).

In addition to online coursework, other online resources could be developed to support child care teachers' development; such as, question and answer blogs, message boards, and web sites that contain compilations of success stories from exemplary child care programs. There are endless possibilities for the use of technology to both educate and connect child care teachers to information as well as experienced professionals in the early childhood field.

These experiences support the professional growth of preschool teachers in child care centers and point them in the direction of high-quality practices even before attaining a STARS 3 status becomes a consideration in their respective programs.

Limitations of the Study

Although important to illuminating the impact of the current movement to research based child care practices, this study has several limitations. The sample used in this study were STARS 3 facilities in the Northwestern region of Pennsylvania and these results may not apply to programs in other states who either do not have quality rating improvement programs in place or whose initiatives utilize different methods for implementing and assessing their goals. A second limitation of the study is the small size of the sample. Although 44 centers were initially eligible to participate, only ten of these centers ultimately were able to follow-through in their participation and only three teachers were interviewed. Lastly, one could speculate that those three teachers agreeing to be interviewed could have resulted in a skewed statistical outcome because the participating programs had all successfully achieved a STARS 3 rating and may have had more favorable opinions of the STARS process. However, the expected result showing the hypothesized differences in teachers' and assessors' *ECERS-R* ratings, indicates that at most this discrepancy could have been larger given inclusion of centers who had not successfully achieved STARS 3 designation. Thus, these findings appear to be evidence for what is likely the state of both centers achieving STARS 3 ranking as well as those not successful in this achievement.

Recommendations for Future Research

The obvious restricted sample in terms of sample size and location could be remedied in future research using a larger sample of child care center preschool classrooms and teachers, and by comparing these results with quality improvement

initiatives in states other than Pennsylvania. Such a study might show whether the results of this study are a common pattern or if the Keystone STARS program is unique in its application.

Although beyond the scope of this current study, future studies could include a comprehensive review of the recommendations made by *ECERS-R* assessors through the facility summary reports received by child care centers after they have been assessed. Those recommendations could then be compared to the actual changes implemented in Keystone STARS facilities as a result of those recommendations. Furthermore, this study could compare the results of assessments conducted before and after implementation of assessor recommendations to determine if the changes were made, and how they influenced the overall quality of the assessed program.

Because this study examined preschool classrooms for which the *ECERS-R* measurement is designed and used, future research should expand this methodology to investigate infant and toddler programs for which less information exists. For example, a similar study that examines how infant/toddler teachers perceive quality and how they achieve it would be beneficial to child care programming. Also, a study of how infant/toddler teachers develop professionally could prove interesting, since teacher certification regulations do not include specific professional requirements for working with children from birth to three years of age and far fewer professional development opportunities exist that are relevant to working with younger children.

This study offers an initial foray into investigating how teachers and quality improvement assessors think about and evaluate program quality in child care preschool programs. Even with the limitations of this study, it serves to highlight that

professionalism in teaching likely requires more attention to appropriately acculturating teachers to new initiatives so that they know how to find and use research-based knowledge in their classroom.

Acculturation to a professional role may improve the status of teachers working in child care classrooms. Ultimately, the children who are enrolled in higher quality programs will benefit.

Summary

The purpose of this study was to determine if preschool teachers employed in child care centers and outside assessors perceived levels of classroom quality differently. Furthermore, attention to the underlying reasons as to why preschool teachers typically self-assess their classrooms more favorably than assessors were explored to better understand the bases for these discrepant judgments. It was assumed that understanding the bases of teachers' perceptions of quality practices is a first step to better socializing them as professional teachers. Results of this study indicated that discrepancies did exist between perceptions of teachers and assessors in four areas deemed to be important indicators of quality child care practices. Although some of the *ECERS-R* subscales in which significant perceptual differences were found are not necessarily controlled by teachers' actions, others are either included at teacher discretion or heavily influenced by teacher knowledge. This suggests that teachers all too often do not have the access to information that would better inform them and give them the opportunity to integrate these quality indicators into their professional repertoire.

Because it has been well documented that high-quality child care is beneficial to young children and ultimately to society, well-trained teachers who understand the complexities of providing quality care and receive the supports necessary to perform their roles as educators will be more likely to engage in high-quality practices within their classrooms. This study theorizes that encouraging more frequent training opportunities for child care teachers would be an important component of teacher acculturation and improve the overall quality of child care preschool classrooms to align with the goals of the Pennsylvania Keystone STARS initiative.

For families with young children, the need for child care is a crucial element for ensuring an economically stable home environment. According to the Children's Defense Fund (2010) more than 63% of mothers with young children are in the workforce. Additionally, more than 60% of children who live with both parents are in child care because both parents work outside of the home. Unfortunately, less than 10% of all child care centers are accredited, but as quality rating improvement systems continue to emerge in individual states, there is hope that more young children will have access to high-quality child care (Children's Defense Fund, 2010).

The hope of this study is that the challenges faced by preschool teachers employed in child care centers as they strive to improve the quality of their classrooms has been highlighted and recommendations for embracing quality improvement in these classrooms argued successfully. High-quality preschool in child care centers has a long and difficult journey ahead; however, when young children's well-being and learning are at stake, it is an endeavor that merits a thoughtful and effective response from all stakeholders: teachers, administrators, families, assessors, and policy-makers.

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Appendix A

Child Care Administrator Consent Form

Dear Child Care Administrator:

Congratulations on achieving a STAR 3 designation from the Pennsylvania Keystone STARS Program. Your hard work and dedication to providing high-quality care for children and families is evident through your success in reaching this goal. High-quality care is undoubtedly one of the cornerstones of their future successes. I am contacting you today because I too care about high-quality experiences for young children and would like to conduct a study that will provide information that will contribute to the important work that you do each day.

The purpose of this letter is to invite you to participate in a research study investigating best practices in child care preschool classrooms. You are eligible to participate in this study because your program recently earned a STAR 3 designation and had at least one preschool classroom observed by Environment Rating Scale assessors during your STAR 3 designation visit. The following information is provided to help you to make an informed decision about whether you want to participate in this study. Please know that you should not hesitate to ask any questions before agreeing to participate in this study.

The intent of this study is to examine the process of attaining a STAR 3 rating from the perspective of preschool teachers employed in child care centers and will be conducted in two phases. The first phase will require disclosure of your STAR 3 Early Childhood Environment Rating Scale – Revised (*ECERS-R*) summary report for your preschool classrooms that were chosen to be assessed by the Environment Rating Scale assessors, and a copy of the last *ECERS-R* self-assessment reports completed for those same classrooms prior to your STAR 3 assessment. The second phase will include having the principal investigator contact the preschool teachers employed in child care centers from classrooms that were assessed, and invite them to participate in a personal interview. If you agree to participate, the principal investigator, Michelle Amodei, will work with you to collect your *ECERS-R* information. Your participation is voluntary and will help advance knowledge about the STAR 3 accreditation process from a child care preschool teacher's perspective.

The intention is to construct these phases so that they will be an enjoyable learning experience for your facility and teachers and hope the information will be helpful to you

as you continue your quality improvement efforts. Similarly, the information gained from this study is expected to help develop a better understanding of teachers' beliefs about quality child care practices and professional development strategies.

Your participation in this study is **voluntary.** You are free to decide not to participate in this study or to withdraw at any time. Should you decide not to participate it will not affect your relationship with the investigator or your employer in any way. Your decision will not result in any loss of benefits to which you are otherwise entitled. If you agree to participate and later wish to withdraw, simply notify the principal investigator, Michelle Amodei, at m.l.amodei@iup.edu . Upon your request to withdraw, all information pertaining to your program will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your employment status or Keystone STARS designation. Your response will be considered only in combination with those from other participants so that you or your preschool center cannot be specifically identified. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential.

If you are willing to participate in the study and allow the principal investigator to contact and interview preschool teachers in your program should they be selected, please sign the statement on the following page, and return to Michelle Amodei, the principal investigator, in the enclosed stamped envelope. Please keep the second copy for yourself.

Principal Investigator:
Ms. Michelle Amodei
Doctoral Student, Indiana University of PA
Department of Professional Studies in Education
303 Davis Hall
Indiana, PA 15705
Phone: 724-357-2400
Email: m.l.amodei@iup.edu

Faculty Sponsor
Dr. Mary Renck Jalongo
Faculty Sponsor
Department of Professional Studies in Education
122 Davis Hall
Indiana, PA 15705
Phone: 724-357-2400
Email: mjalongo@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

VOLUNTARY CONSENT FORM:

I have read and understand the information on this form and I consent to volunteer to participate in this study and give permission to the principal investigator to contact preschool teachers in this program should they be selected for an interview. I understand that all information shared will remain completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this Informed Consent Form to keep in my possession.

Name (PLEASE PRINT): _____

Signature: _____ Date: _____

Child Care Program position: _____

Phone number or location where you can be reached: _____

Best Days and Times to Call: _____

Email: _____

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study, have answered any questions that have been raised, and have witnessed the above signature.

_____ _____

Date **Investigator's Signature**

Appendix B

Child Care Preschool Teacher Consent Form

Dear Child Care Preschool Teacher:

Congratulations on achieving a STAR 3 designation from the Pennsylvania Keystone STARS program. Your hard work and dedication to providing high-quality care for children and families is evident through your success in reaching this goal. High-quality care is undoubtedly one of the cornerstones of their future successes. I am contacting you today because I too care about high-quality experiences for young children and would like to conduct a study that will provide information that will contribute to the important work that you do each day.

You are invited to participate in this research study investigating best practices in child care preschool classrooms. You are eligible to participate in this study because you are a preschool teacher who is employed in a STAR 3 child care program that was chosen to be observed by Environment Rating Scale assessors during your STAR 3 designation visit. Your perceptions and experiences during the STAR 3 accreditation process are valuable to us. The following information is provided to help you to make an informed decision about whether you would like to participate in this study. If you have any questions you should not hesitate to ask prior to signing this consent.

The purpose of this study is to examine the process of attaining a STAR 3 rating from the perspective of preschool teachers employed in child care centers. Participation in this study will require approximately 60 minutes of your time and is not affiliated with your employers' job requirements or the Keystone STARS program. Your participation is voluntary and will help advance knowledge about the STAR 3 accreditation process from a preschool teacher's perspective. You will be asked to respond to questions about your experiences as a child care preschool teacher, your personal beliefs about quality in preschool classrooms, and professional development.

The intention is for you to find the learning experience enjoyable and that the information you glean is helpful to you as you continue to engage in quality improvement efforts. Similarly, it is expected that the information gained from this study will help develop a

better understanding of your beliefs about quality child care and professional development strategies.

Your participation in this study is **voluntary.** You are free to decide not to participate in this study or to withdraw at any time by notifying the Principal Investigator, Michelle Amodei, at m.l.amodei@iup.edu without it adversely affecting your relationship with the investigator or your employer. Your decision will not result in any loss of benefits to which you are otherwise entitled.

If you choose to participate, you may withdraw at any time by notifying the principal investigator, Michelle Amodei, at any of the contact information listed below. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your employment status or Keystone STARS designation. Your response will be considered only in combination with those from other participants so that you cannot be specifically identified. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential.

If you are willing to participate in the study, please sign the statement on the following page, and return to Michelle Amodei, the principal investigator. You may return the completed form in the stamped, addressed envelope included. Please keep the second copy for yourself.

Principal Investigator:

Ms. Michelle Amodei
Doctoral Student, Indiana University of PA
Department of Professional Studies in Education
303 Davis Hall
Indiana, PA 15705
Phone: 724-357-2400
Email: m.l.amodei@iup.edu

Faculty Sponsor

Dr. Mary Renck Jalongo
Faculty Sponsor
Department of Professional Studies in Education
122 Davis Hall
Indiana, PA 15705
Phone: 724-357-2400
Email: mjalongo@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

INTERVIEWEE VOLUNTARY CONSENT FORM:

I have read and understand the information on this form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this Informed Consent Form to keep in my possession.

Name (PLEASE PRINT): _____

Signature: _____ Date: _____

Phone number or location where you can be reached: _____

Best days and times to reach you: _____

Email: _____

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study, have answered any questions that have been raised, and have witnessed the above signature.

_____ _____

Date **Investigator's Signature**

Appendix C

Sample *ECERS-R* Summary Report

ECERS-R Summary Report

STAR 3

Facility: My Child Care
Address: 3 Anywhere St.
My Town, PA 04040
Facility Code:
License Number: 00000
County: Adams
Region: Western

Date: 09/21/2009
Assessor: RB - PA KEYS
Classroom: 3-4 year olds
Teacher(s): J D, M J
 # Children Enrolled: 20
 # Children Present: 18
Youngest Birthdate: 08/01/2006
Oldest Birthdate: 11/06/2004

Subscale Score Overview

Overall Score: 5.66

	Raw Score:	# of Items Scored:	Average Score:
1. Space and Furnishings	43	8	5.38
2. Personal Care Routines	26	6	4.33
3. Language-Reasoning	21	4	5.25
4. Activities	55	9	6.11
5. Interaction	32	5	6.40
6. Program Structure	21	3	7.00
7. Parents and Staff	34	6	5.67
TOTAL:	232	41	5.66

Items Marked Not Applicable

Item
Activities
27. Use of TV, video, and/or computers
Program Structure
37. Provisions for children with disabilities

Strengths: Items with Scores of 5 and Above

Items with scores of 5 and above are described in this section. Scores in this range are considered by the Environment Rating Scales to reflect developmentally appropriate practices ranging in quality from "Good" (5 points) to "Excellent" (7 points). These items are considered to be strengths because they promote and support positive child development.

Item	*Score*
Space and Furnishings	
2. Furniture for routine care, play, and learning	6
3. Furnishings for relaxation and comfort	7
4. Room arrangement for play	7

5. Space for privacy	6
6. Child-related display	5
8. Gross motor equipment	6
Personal Care Routines	
9. Greeting/departing	7
12. Toileting/diapering	7
13. Health practices	6
Language-Reasoning	
15. Books and pictures	7
16. Encouraging children to communicate	5
18. Informal use of language	5
Activities	
19. Fine motor	7
20. Art	6
21. Music/movement	7
23. Sand/water	7
24. Dramatic play	5
25. Nature/science	7
26. Math/number	7
28. Promoting acceptance of diversity	5
Interaction	
29. Supervision of gross motor activities	7
30. General supervision of children (other than gross motor)	7
32. Staff-child interactions	7
33. Interactions among children	7
Program Structure	
34. Schedule	7
35. Free play	7
36. Group time	7
Parents and Staff	
38. Provisions for parents	7
39. Provisions for personal needs of staff	5
41. Staff interaction and cooperation	6
42. Supervision and evaluation of staff	6
43. Opportunities for professional growth	6

Areas of Potential Growth: Items with Scores Less Than 5

Items with scores below 5 are considered by the Environment Rating Scales to reflect practices that are less than developmentally appropriate. The "Areas of Potential Growth" section also provides detailed information about the rationale for scoring certain indicators. This detail can help you understand how the assessor arrived at each item score in this section.

Item	Score	Indicator Rationale
Space and Furnishings		
1. Indoor space	4	5.3 **Space is accessible to children and adults with disabilities.** *At this level of quality, the space should be accessible for all children and adults with disabilities that require such provisions, regardless of whether anyone with a disability uses the room or is currently enrolled in the program. It was observed that doors were equipped with round handled knobs which may prevent access to persons with limited use of their hands.*
7. Space for gross motor play	2	3.2 **Gross motor space is generally safe (Ex. sufficient cushioning under climbing equipment; fenced in outdoor area).** *The mulch under the fall zones of slides and swings measured between 4 and 6 inches (ASTM F 1292 standards require 9 inches). Mulch did not extend far enough beyond the fall zones of two slides. Fall zones are the area under and around equipment where impact absorbing materials are required; there must be a minimum of 6 feet between each piece of equipment and all other structures. Please see the playground safety sheet attached to the PA Position Statements.*
Personal Care Routines		
10. Meals/snacks	2	3.3 **Sanitary conditions usually maintained.** *It was observed that attempts were made to sanitize the tables, however the effectiveness was compromised because the bleach and water solution was wiped dry without remaining on the surface for the required two minutes.*
11. Nap/rest	2	3.2 **Sanitary provisions for nap/rest (Ex. area not crowded, clean bedding).** *PA Position Statements require at least 24 inches of separation on three sides of nap/rest equipment. It was observed that furniture and equipment was used as a separation barrier between some of the mats and there was not 24 inches of space on three sides between the mats and the furnishings.*
14. Safety practices	2	3.1 **No major safety hazards indoors or outdoors.** *Room freshener, labeled "Keep Out of the Reach of Children," was observed stored unlocked in the children's restroom. In addition, two electrical outlets were uncovered in the classroom. Outside, the mulch under the fall zones of slides and swings measured between 4 and 6 inches (ASTM F 1292 standards require 9 inches). Mulch did not extend far enough beyond the fall zones of two slides. Fall zones are the area under and around equipment where impact*

		absorbing materials are required; there must be a minimum of 6 feet between each piece of equipment and all other structures. Please see the playground safety sheet attached to the PA Position Statements.
Language-Reasoning		
17. Using language to develop reasoning skills	4	5.2 **Children encouraged to talk through or explain their reasoning when solving problems (Ex. why they sorted objects into different groups; in what way are two pictures the same or different).** *Teachers were not observed encouraging children to talk about their reasoning behind solutions to problems when using classroom materials. At this quality level, teachers are expected to help children think through why they used materials in a particular way, how they solved a puzzle or why things are the same or different. Please see the All About the ECERS-R book for more information on high quality practices that support children using language to develop their reasoning skills.*
Activities		
22. Blocks	4	5.4 **Block area accessible for play for a substantial portion of the day.** *The schedule stated and it was observed that the blocks are accessible for a total of 3 hours a day. The block center is opened during morning free play (7:00-9:15) and afternoon free play (5:15-6:00). Substantial portion of the day* *(SPOD) for this program is 3 hours and 50 minutes.*
Interaction		
31. Discipline	4	5.1 **Staff use non-punitive discipline methods effectively (Ex. giving attention for positive behaviors; redirecting child from unacceptable to acceptable activity).** *Although teachers used non-punitive methods of discipline, it was observed that the chosen methods did not often result in children changing their pattern of behavior. At higher quality levels the expectation is for teachers to be reflective of the results of their methods of discipline and to alter them; using different approaches when current methods are not help children learn to monitor and manage their own behavior.*
Parents and Staff		
40. Provisions for professional needs of staff	4	5.3 **Space for conferences and adult meetings is satisfactory (Ex. dual or shared use does not make scheduling difficult; privacy is assured; adult-sized furniture available).** *The teacher explained that staff meetings are held in a classroom after hours. However, few adult furnishings are available. It was reported that teachers sit on child-sized chairs.*

Appendix D

Guiding Questions for Teacher's Individual Interview

Demographic Information:

Age Range: 18-25 26-35 36-50 over 50

Total time working at child care facility:

Current position:

Highest college degree earned:

I have a series of questions concerning your perceptions and experiences in the classroom in which you teach and your thoughts about the Keystone STARS accreditation program. The first several questions are designed to explore your perceptions of the daily routines in your classroom and their effectiveness in meeting what has been reported to be best practices in preschool education. Subsequent questions are specific to your participation with the Keystone STARS accreditation process. I encourage you to offer your candid responses to these questions and assure you that your responses will not be shared with your employer or the Keystone STARS program administrators.

Questions

1. Please tell me about a typical day in your classroom.
    a. Are there variations of activities specific to particular days of the week?

b. Are there activities or order of activities you would like to change but are unable to do?

2. How comfortable are you with the routines and activities offered in your classroom?
    a. Who specifies the routines and activities in your classroom? (Teacher or administrator)
    b. How do you see them as meeting best practices for preschoolers?
    c. What would you change to achieve best practices?

3. Is there was anything you would like to do differently in your classroom but do not because current practices or center policy prevents it?
    a. If so, what differences would you like to see?
    b. What happens if you want to change or do change practices?

4. In what ways have the *ECERS-R* criterion influenced the routines and activities in your classroom?
    a. Who initiated changes and how do you view these changes?
    b. If so, what are the changes?
    c. If not, why not?

5. Tell me about any professional development opportunities you have attended to learn more about best practices in preschool classroom and the *ECERS-R*.
    a. How helpful were these?

b. Why or why not?

6. How involved in the STARS process were you prior to STAR 3 preparation?

   a. Would you like to have been more/less involved? Why or why not?

7. What problems, if any do you believe exist in the use of the *ECERS-R* in determining STARS ratings?

   a. What changes in the *ECERS-R* criterion do you believe are necessary?

   b. Which criteria do you think are most important? Least important?

8. What else do you think I should know about the current standards set by the Keystone Stars program?