PERCEIVED KNOWLEDGE AND INTEREST OF CHILD CARE PROFESSIONALS IN CHILD CARE TRAINING

by

AMY DIANE HOUGH SIMMON

Under the Direction of Charlotte Wallinga

ABSTRACT

As the number of children in child care increases, there is a demand for higher quality of child care including a well-qualified and trained workforce. As the importance of high quality child care becomes more important, it seems vital that the training of child care professionals be examined in more depth. Research regarding factors related to the current levels of knowledge and interest in child care training topics is important in developing and implementing a training system that will ultimately influence the outcomes of children. The purpose of this study was to examine how demographic information of child care professionals impacts perceived knowledge of and interest in attending child care training topics. The findings from this study indicate that education, years of experience, and satisfaction are related to knowledge about child care training. In addition, previous ratings of training and type of center are related to interest in attending child care training.

INDEX WORDS: Child care, Child care professionals, Training, Professional development, Job satisfaction,

PERCEIVED KNOWLEDGE AND INTEREST OF CHILD CARE PROFESSIONALS IN CHILD CARE TRAINING

by

AMY DIANE HOUGH SIMMON

B.S.Ed., The University of Georgia, 1991

M.Ed., Valdosta State University, 1995

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2004

PERCEIVED KNOWLEDGE AND INTEREST OF

CHILD CARE PROFESSIONALS IN CHILD CARE TRAINING

by

AMY DIANE HOUGH SIMMON

Major Professor:	Charlotte Wallinga
Committee:	Mick Coleman
	Cindy Vail

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
December 2004

ACKNOWLEDGEMENTS

What a long journey…. But along the journey I found comfort. I would like to dedicate this dissertation to Charlotte Wallinga, better known as "Charlie." I have tried on numerous occasions to think of how I could compensate her for her unyielding support in this process. I realize that the reason this has finally come to fruition is because of her efforts. I have found in her a world of strength, both personally and professionally, to accomplish and survive life's trials and tribulations. Her unending words of wisdom that "Hope Springs Eternal" provided the needed impetus for continuing. Charlie has given, and continues to give, unselfishly of herself and her family, Bill and William. Words cannot express my gratitude in finding this lifelong friend and colleague. Love and kisses to you, Charlie. I would like to thank my committee, Mick Coleman, and Cindy Vail for providing a nurturing, supportive environment in which I could grow. I would also like to thank Diane Bales for her collaboration in this research project.

And then, there were friends. How could I have ever made it without you? To Emily, thanks for your encouragement, affirmation, and initiation into the world of graduate school, and for your calming, soothing responses to life in turmoil. I will never ask you to explain the meaning of ANOVA again! To Brian and Meredith, thanks for introducing me to the world again… the world of the celebration of life, the world of thought, but most especially, thanks for introducing me to the world of me. To Pam, thanks for providing me the best of foundations… everything I know about children began with you. To Brandy and Holly, thanks for always seeming to laugh at me and help me to get through it all. And to Laurel, thanks for steadfast friendship and for the ultimate introduction.

And then there was family, always supportive, nurturing, and loving. It is only with great beginnings that I could have made it this far. Thanking first my dad for holding education in

high regard and for the words of encouragement that even put the thought of school in my mind, "If I were you, I would get my Ph.D." To my mom, thanks for teaching me the joy of simple things and just for being you. To my brother and his family, you can no longer say, "My sister/aunt has been in school as long as my children have been alive." To Clousseaux for the wags that assured me that life couldn't be *that* bad and that there was always someone who cared. And finally to Greg, what a way to end a journey….with a new beginning full of love, laughter, respect, and adoration. Thanks for everything, but most importantly, for giving me hope for a wonderful future.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

There are an estimated 2.3 million child care professionals in the United States at any one point in time and, because of turnover, 2.5 million child care professionals employed over the course of one year. The number of child care professionals include those in child care centers, family child homes, relative care, and non-relative care. The child care workforce has continued to increase over the past ten years. The U.S. Bureau of Labor Statistics has recognized the early care and education field as one of the fastest growing occupations in the years 1998 – 2008. It is estimated that the field will grow by 26% over the next decade. Of those providing care, 29% of child care professionals care for infants, 49% care for toddlers, and 22% care for preschoolers (Center for the Child Care Workforce, 2002b).

The increase in the child care workforce is due to a variety of factors including the increase of children in child care, the expansion of preschool programs, and the reduction of class size (Blau, 2002; Center for the Child Care Workforce, 2002a). One factor related to the increase of child care professionals is the number of children in child care. In 1997, there were approximately 69.5 million children under the age of 18 years. Of these 69.5 million children, 23 million children were between the ages of 0 – 5 years (Blau, 2002). Approximately 11.9 million children ages 0 - 5 years attended some type of child care (Quality Counts, 2002). One reason for the large number of children in child care is the increase in mothers in the workforce (Blau, 2002; Eberts & Gisler, 2001). Currently, approximately 70% of all mothers are employed outside of the home, which is in contrast to only 33% of mothers in 1975 (Eberts & Gisler, 2001).

Another significant factor related to the increase of child care professionals is the awareness of teacher/child ratios. Researchers have found that interactions between teachers and

children are more responsive and sensitive to children's needs when there are fewer children per adult (Howes, 1997). This research has led accrediting agencies such as the National Association for the Education of Young Children (NAEYC) to advocate for lower teacher/child ratios. As more programs seek accreditation, class sizes are being reduced; therefore, more child care professionals are needed in the early care and education field.

Still another factor related to the increase of child care professionals is the expansion of preschool services. Currently, at least 40 states provide state-financed, pre-kindergarten programs for some of their 3- to 5-year-old children. This number is in contrast to only 10 states that provided these state-financed programs in 1980. Three states, Georgia, New York, and Oklahoma provide care for 4-year-olds. In addition, Head Start programs continue to grow in 31 states with programs for infants and toddlers (Center for Child Care Workforce, 2004; Quality Counts, 2002).

As the field of early care and education continues to grow, awareness, both public and scientific, of the quality of child care has become a prevalent issue (Blasé & Fixsen, 1981; Center for Child Care Workforce, 2004; Shonkoff & Phillips, 2001). There is a demand for higher quality child care including more competent child care professionals (Blasé & Fixsen, 1981; Center for the Child Care Workforce, 2002a; Kagan, Scott-Little, Stebbins Frelow, 2003; Peters, 1981). Researchers continue to examine the relation between well-trained child care professionals and quality, including the quality of interactions, found in child care settings (Center for Child Care Workforce, 2004). Kontos and Wilcox-Herzog (1997) found that teachers with more education interact more sensitively and responsively to children's needs than those teachers with less education. Similarly, Howes (1997) revealed that changes in licensure regulations requiring higher levels of training improved interactions between child care professionals and children.

Training child care professionals is important to the field of early care and education to ensure awareness of the knowledge and skills necessary to provide high quality care (Center for Child Care Workforce, 2004; Queeney, 2002). According to Queeney (2002), the training provided should be related to the needs and interests of child care professionals and based on an assessment of current levels of knowledge, strengths, and weaknesses. Many factors are relevant to current levels of knowledge and interest in child care training topics. Some of these factors include the education and experience of child care professionals, the type of child care center in which they work, job satisfaction, and previous attendance at high quality training.

Researchers have examined the relation between knowledge of and interest in child care training topics and the above factors such as education and experience, type of center, job satisfaction, and previous attendance at high quality training. Scholars found that child care professionals with more education are likely to report more knowledge of education and interest in child care training topics (Powell & Stremmel, 1989; Rhodes & Hennessy, 2001; Todd & Deery-Schmitt, 1996). Other researchers report that those child care professionals working at higher-quality child care settings are more knowledgeable about and interested in child care training topics (Cohen, 1992; Cohen & Modigliani, 1990; Debord & Sawyers, 1996; Kontos, Howes, & Galinsky, 1996). Previous attendance at high quality training has also been linked to an increase in knowledge of and interest in child care training topics (Eheart & Leavitt, 1986; Kontos, 1992; Mueller & Orimoto, 1995). In addition, child care professionals who are more satisfied in their current positions are more interested in child care training topics because of their increased commitment (Mueller & Orimoto, 1995; Todd & Deery-Schmitt, 1996).

It seems that the importance of training to ensure child care quality would necessitate a training system with appropriate funding that meets the needs of child care providers and has been evaluated for effectiveness. This assumption, however, is not the case. In fact, training requirements in most states such as Alabama and Georgia, are minimal (National Child Care

Information Center, 2004). The limitations of the child care training system as well as the lack of increased licensure standards impair the advancement of effective training. A variety of limitations such as cost and the lack of evaluation of training make the implementation of effective child care training systems difficult, if not impossible.

As public and political awareness of the importance of high quality care continues to increase, it seems vital that the training of child care professionals be examined in more depth. Research regarding factors related to the current levels of knowledge and interest in child care training topics is important in developing and implementing a training system that will ultimately influence the outcomes of children. Bordin, Marchida, and Varnell (2000) believe that determining knowledge of child care professionals is important to provide guidance for training and future technical assistance.

Purpose of Study

The purpose of this study was to examine how demographic variables of child care professionals relate to knowledge about and interest in child care training topics. The hypotheses listed below were tested.

1. There will be a difference between education and knowledge and interest in child care training topics such that teachers with higher education would report more knowledge and interest in child care training topics than those with lower education.
2. There will be a difference in perceived knowledge and interest in child care training topics between those child care centers that are accredited versus non-accredited and the different types of child care centers (Privately Owned, Chain or Franchise, College/Technical Sponsored, Other 1, and Other 2).
3. There will be a difference between teachers who rated the child care training they have attended in the past 12 months as higher quality than those teachers who rated the training they have attended in the past 12 months as lower quality.

4. Those teachers who have more years of experience (in current position and with children with special needs) will report more knowledge and interest in child-care training than those teachers who have less years experience with children (in current position and with children with special needs).
5. Those teachers who are more satisfied in their current positions will report higher perceived knowledge of and interest in child care training than those teachers who report being less satisfied in their current positions.
6. Those teachers who report less obstacles in attending child care training will report higher knowledge and interest in child care training topics than teachers who report more obstacles.

CHAPTER 2

REVIEW OF LITERATURE

Research on child care training is diverse in that the studies are conducted on various types of training methods and participants and have mainly focused on training related to quality outcomes for children. In addition, the research conducted on needs assessments of child care training is limited. The literature review is presented under the major headings: (a) theoretical perspective, (b) terms and definitions, (c) high quality child care and child outcomes, (d) training and education related to high quality child care, (e) demographic variables related to knowledge and interest, (f) training content related to high quality child care, (g) licensure standards for training and educational requirements, (h) limitations of the training system, (i) research related to needs assessment, and (j) summary.

Theoretical Perspective

Systems Framework is the theoretical perspective used for this study. The term "systems framework" will be applied; however, a variety of terms such as "general systems theory" and "family process theory" have been used in the literature to refer to a similar perspective. Systems framework is one of the most recent family theories and began with influences from the sciences of biology, robotics, and mathematics. Many scholars such as Mead, Bateson, Kantor, and Lehr were involved in the evolution of the systems framework as a family theory in the 1960s and 1970s (Klein & White, 1996). The systems framework is a theoretical way in which the structure of child care training can be intellectually analyzed. Assumptions of the systems framework are discussed and their relation to this study are explained.

While there are many assumptions of the systems framework, two of the assumptions are very relevant to this study. One assumption is that "all parts of the system are interconnected" (Klein & White, 1996, p. 155). This assumption is pertinent to the current study in that all parts

of the system of early care and education are connected, affect one another, and are also connected to larger systems such as other professions and society. For instance, the behavioral outcomes of children are affected by the quality of care provided by child care professionals which is affected by the training and education received by those professionals. Training received by child care professionals is determined by many variables such as the licensure regulations, funding, and training opportunities available. In fact, looking beyond early care and education, one must consider the societal changes and values that may influence the field such as an increase of mothers in the workforce.

The second assumption of the systems framework, relevant to this study, is that an entire system must be considered rather than specific parts (Klein & White, 1996). Developing an understanding of the system of early care and education as a whole is necessary in understanding its parts. Moving beyond the specific issue of training, other issues such as licensure regulations and funding must be considered as a part of the system of training. Although this study considers one piece of the topic of child care training needs, this piece must be examined as a part of a larger system. The systems framework is a useful theory to examine the interconnectedness of the field of early care and education and the variables such as quality child care, child outcomes, and training and education of child care professionals.

Terms and Definitions

The following terms and definitions are defined and clarified in this section of the literature review: (a) child care professionals, (b) education and training, (c) credit versus non-credit training, (d) knowledge and interest, and (e) needs assessment.

Child Care Professionals

There are many terms used for those who work in the field of early care and education; however, for the purposes of this study the term *child care professionals* will be used. The

definition of child care professionals by Vander Ven, Mattingtly, and Morris (1982) is most relevant to this study. These scholars defined child care professionals as

> Those adults who either (a) directly care for children in a variety of group settings, including early childhood day care, child development programs, day treatment programs, community youth and recreation programs, group homes, residential treatment centers, schools, hospitals, and institutions; (b) work with families in the home or through expanded family networks as in foster care or preventive community mental health programs; or (c) provide support to the child care field, such as administrators, supervisors, educators, and researchers. (p. 223)

Education and Training

There are many definitions of education, training, and continuing education in the field of early care and education. First, the definition of training, education, and continuing education is given. The categorizations by Morgan et al. (1993) are used. Second, the definition of training used for this study is explained.

The terms "education" and "training" and their definitions are sometimes confused by professionals in the field of early care and education (Peters, 1981). Education is broad in scope providing a foundation of knowledge that allows an individual to respond to a situation in a variety of ways (Morgan et al., 1993; Peters, 1981; Queeney, 2000). Education refers to the level of secondary or college education attained by child care professionals (Morgan et al., 1993). Training, on the other hand, is narrower in scope, is specialized, and is job or task-related (Morgan et al., 1993; Peters, 1981). Training provides an individual with the necessary skills to perform a task in a limited number of ways (Duffy, 2001; Peters, 1981; Queeney, 2000).

Training can be categorized as either preservice or inservice. Preservice training is training that is provided to individuals with no prior experience to the child care setting. Preservice training can be further categorized into training that is specific to a job (orientation) or

training within a formal educational tract that is not job-specific (college course work, certification, or degree completion) (Blasé & Fixsen, 1981; Morgan et al., 1993). Preservice training that is job-specific orients the child care provider to the work environment and may include reviewing program literature, policies, and procedures (Blasé & Fixsen, 1981; Duffy, 2001; Morgan et al., 1993).

Inservice training is designed to improve or provide task-related skills to those individuals who have some level of experience in the child care setting (Duffy, 2001; Morgan et al., 1993; Peters, 1981; Queeney, 2002). This training may include a wide variety of job-related tasks and may be offered through the work environment or in conjunction with colleges and universities (Blasé & Fixsen, 1981; Morgan et al., 1993). Inservice training comes in a variety of formats including, but not limited to, meetings, conferences, supervision of child care professionals, the use of consultants, and training sessions (Queeney, 2002). It is unusual for inservice programs to be coordinated with preservice programs or to be systematic or evaluative to determine if effects on behavior within the child care setting have been made (Blasé & Fixsen, 1981; Duffy, 2001; Queeney, 2000).

In addition to the definitions of training and education used in the field, it is important to clarify the term continuing education. Queeney (1996) defines continuing education as

> …the education of professional practitioners, regardless of their practice setting, that follows their preparatory curriculum and extends their learning…throughout their careers. Ideally this education enables practitioners to keep abreast of new knowledge, maintain and enhance their competence, progress from beginning to mature practitioners, advance their careers through promotion and other job changes, and even move into different fields. (p. 168)

Continuing education has become prominent over the past three decades due to an increase in technological advances, the rapid expanse of knowledge, and the public demands for more

competent professionals (Queeney, 1996). As educational levels continue to rise and individuals make life transitions, further educational opportunities are sought.

The definition of training used for this study is limited to those child care trainings that are led by a trainer with specialized education or experience, are 1 to 6 hours in length, and are part of the 10 hours of training required by the Georgia Department of Human Resources. Child care training in this study does not refer to programs that are long-term such as the Child Development Associate (CDA), educational courses offered at a college or university, or computer or correspondence courses. The needs of child care professionals related to the required annual training will be examined in this study; therefore, it was necessary to limit the definition of training.

Credit Versus Non-Credit Training

Training delivered to child care providers is either credit or non-credit training. Credit training refers to those courses that are accepted by or are a part of college course work or a credentialing program. These courses are offered primarily through colleges, universities, and technical institutes (Morgan et al., 1993). Non-credit training is not accepted for college credit or recognized as a part of any credentialing system. Non-credit training usually consists of workshops, conferences, and training sessions. The child care training required by the Georgia Department of Human Resources is non-credit training (M. A. Gates, personal communication, January 28, 2004).

Knowledge and Interest

For this study, the terms "know," "interest," and "need" will be used. These terms were decided upon after an extensive review of the literature on needs assessment. Definitions according to the literature will be described first. Second, an explanation for the terms used will be given.

According to Queeney (2000) the terms "need" and "want" are frequently used in the training literature. It is necessary to establish a definition of a need and to make a distinction between "needs" and "wants." A need is defined as a "discrepancy between an actual condition or state and a desired standard" (Queeney, 2000, p. 3). Needs may vary depending on the individual, the circumstances, and those defining the needs. Needs differ from wants in that wants are related to the interests and motivations of an individual, but do not necessarily indicate discrepancies. Both needs and wants are important in developing educational activities for professionals (Queeney, 2000).

The term "know" will be used in this study to mean to gain information about perceived knowledge about child care training topics. The term "need" will be used to gather more general information about the topics child care professionals believe they need. The term "interest" will be used to describe a desire to attend training on a specific child care training topic.

Needs Assessment

According to Queeney (2000) a needs assessment is a "decision-making tool for continuing educators' use in the educational activities or programs they should offer to best meet their clients' – and society's – educational needs" (p. 2). The needs assessment can serve several purposes. One purpose is to determine the difference between existing and desired knowledge, skills, and performance abilities. A second purpose is to determine the content of the educational activities and the programs that should be included. A third purpose is to provide information regarding the marketing of programs to a specific audience. The fourth purpose is to gain data about the mode of delivery, scheduling of activities, and audience needs. Finally, another purpose is to heighten an individual's awareness of his/her strengths and weaknesses.

Based on the purpose of the needs assessment, a variety of formats from simple to complex can be used. The variety of formats include, but are not limited to, questionnaires,

interviews, and observations. The results of a needs assessment can then be used to develop educational activities that address specific desired knowledge and skills (Queeney, 2000).

High Quality Child Care and Child Outcomes

Research related to the science of child development has grown dramatically over the past several decades and has gained increasing recognition due to findings that children's general experiences early in life can influence their ability to function in school and later in life (Bredekamp & Copple, 1997; Shonkoff & Phillips, 2001). Research has been conducted in relation to the neurobiological, behavioral, and social sciences in an effort to determine what conditions will assist in the successful development of young children (Shonkoff & Phillips, 2001). High quality child care is found to be important for children's social development, cognitive development, and future success in school and work (Barnett, 1995; Bredekamp & Copple, 1997; Morgan et al., 1993). In fact, researchers report that those at-risk children who attended high quality programs were less likely to be assigned to special education classes in school or retained a grade (Bredekamp & Copple, 1997).

Components of high quality child care that are related to positive child outcomes include structural and dynamic features of quality. Structural features are the specific program features that may have an effect on child development such as adult-child ratio, group size, parent-staff relationships, and child care professional training and experience (Phillips & Howes, 1987). The dynamic features of child care quality focus on the actual experiences of children that occur in the child care setting such as frequency and quality of teacher-child interactions (Kontos & Wilcox-Herzog, 1997).

The overall development of children is enhanced by the positive interactions between their environment and child care professionals. Researchers are in consensus that child care providers are the single most important determinant of the quality of care provided (Blau, 2002; Bredekamp & Copple, 1997; Peters, 1981). Positive interactions by adults such as

communicating, asking questions, and encouraging expression in children lead to the positive development of young children (Morgan et al., 1993).

Researchers indicate that early experiences and the quality of children's environments effect brain development and cognition (Bredekamp & Copple, 1997; Greenough, Gunnar, Emde, Massinga, & Shonkoff, 2001; Kagan, Scott-Little, & Stebbins Frelow, 2003). Attendance in high quality programs seems to lead to positive cognitive development in language, problem-solving, and reasoning (Morgan et al., 1993). Cognitively, children who attend high quality child care centers are more likely to have higher level language skills. Complex play and higher scores on measures of thinking ability are characteristics of children attending high quality child care settings (Bredekamp & Copple, 1997).

Researchers have found that high quality child care has positive effects on children's social-emotional development. Children attending higher quality child care centers have higher level social skills compared to those children who attended child care centers with lower quality. Higher levels of self-esteem, compliancy, and cooperativeness have been found in children attending high quality child care settings (Greenough et al., 2001; Morgan et al., 1993).

The research that has been conducted indicates that children who attend high quality child care settings are more likely to have positive social-emotional and cognitive development (Rhodes & Hennessy, 2001). Following is a summary of research regarding the link between child care training and education and high quality child care.

Training and Education Related to High Quality Child Care

While there are many structural factors such as teacher-child ratios and group size related to high quality child care, one important factor is the training and education received by child care professionals (Kontos & Wilcox-Herzog, 1997; Phillips & Howes, 1987; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2001). The findings of the research indicate that well-trained professionals provide high quality care to young children because more specialized training leads

to higher quality interactions including sensitivity to children, increased job satisfaction, and increase knowledge for professionals working with children with diagnosed disabilities (Galinsky, Howes, Kontos, & Shinn, 1994; Morgan et al., 1993; Rhodes & Hennessy, 2001; Weaver, 2002).

Since program quality affects child outcomes and training of child care professionals affects quality, then the logic follows that child care training affects children (Morgan et al., 1993). Specialized training in early childhood education received by child care professionals has been directly linked to quality care (Arnett, 1989; Morgan et al., 1993; Ruopp, Travers, Glantz, & Coelen, 1979; Whitebrook, Howes, & Phillips, 1997). Family child care professionals with more specialized training provide higher quality care than those with more generalized training (Pence & Goelman, 1991). In addition, more educated and well-trained child care providers are more sensitive to children and have more positive attitudes about their work (Whitebrook et al., 1997).

Child care professionals who have had more years of formal education and have had more training are more sensitive to children and are more appropriate caregivers than those child care professionals with less years of formal education (Franyo & Hyson, 1999; Rhodes & Hennessy, 2001; Whitebrook et al., 1997). Child care professionals with some child care training are more likely to comfort children and provide more language/information and music/dramatic play activities than child care professionals with no training (Rhodes & Hennessy, 2001). Even 20 hours of training "can stimulate caregivers to improve their child care setting and …increase their involvement with children in their care" (Kaplan & Conn, 1984, p. 89). Clarke-Stewart, Gruber, and Fitzgerald (1994) suggest that child care training is positively associated with the social interaction of child care professionals and children.

Training and education of child care professionals not only leads to more positive interactions between child care professionals and children, but to a more satisfied and stable

workforce. More highly trained teachers were more likely to leave their jobs if they earned lower wages, or did not belong to a professional organization (Center for Child Care Workforce, 2002a). In addition, the Center for Child Care Workforce (2001b) report that teachers were more likely to stay in a job if their colleagues were consistent and highly trained. Job satisfaction leads to less turnover which, in turn, provides stable, quality environments for young children (Morgan et al., 1993). Researchers have found that when child care professionals have a higher degree of education, have the opportunity to engage in on-going training related to their jobs, and receive higher wages, they are more satisfied. The education and training of child care professionals has been shown to reduce burnout, stress, and turnover and to increase job satisfaction (Todd & Deery-Schmitt, 1996; Whitebrook et al., 1997; Whitebrook & Eichberg, 2002).

Manlove (1993) reports that those child care professionals with more education/training reported higher levels of personal accomplishment in their work with young children. Moreover, Mueller and Orimoto (1995) state that family child care providers with more child care training are more likely to remain in the field and have higher levels of commitment, interest, and confidence than those family child care providers with less training. Family child care providers were more likely to be intentional in their work with young children and to view their position as a career (Kontos et al., 1996). Child care professionals who are more satisfied with their jobs and have a stronger sense of psychological well-being provide higher quality care for young children (Weaver, 2002).

Training is important for all caregivers, especially those who work with children with diagnosed disabilities. Child care professionals are increasingly confronted with a more diverse population including those children with special needs. In 1997, 559,000 preschoolers were served under Part B of the Individuals with Disabilities Act (IDEA). The trend indicates that these numbers will steadily increase. As society continues to change its views about people with

special needs, it is inevitable that this population will encourage the inclusion of children in child care environments.

Child care professionals will be faced with the challenge of including children with special needs in a developmentally appropriate manner (Gargiulo & Kilgo, 2000). It seems imperative that those child care professionals who work with young children be knowledgeable about and interested in child care training topics to ensure that they are prepared to care for all children. Child care professionals who work with children with diagnosed disabilities often feel anxious, frustrated, and incompetent in meeting the individual needs of the young children they serve (Davis, Kilgo, & Gamel-McCormick, 1998). Through child care training related to children with diagnosed disabilities, child care professionals can obtain the appropriate knowledge and skills necessary to provide high quality care. Teachers who work with children with diagnosed disabilities are continuously seeking new knowledge and information related to a variety of topics in the field of special education (Davis, Kilgo, & Gamel-McCormick, 1998; Johnson, LaMontagne, Elgas, & Bauer, 1998). Although training is beneficial for those who work with children with special needs, very few states have developed standards that address how those children are to be included in regular classrooms (Kagan, Scott-Little, & Stebbins Frelow, 2003).

The research related to the effects of training on the quality of child care is quite substantial (Whitebrook et al., 1997); however, much of the research varies in scope and findings (Blau, 2002). Much of the variation is due to a lack of a consistent definition of training, the length and types of training programs examined, and the wide range of early care and education training systems in the United States. Other issues may include the comparison between the types of child care providers, the experience level, and the previous training received. Demographic variables may also be an issue as those child care professionals who seek out training may be different from those who do not (Kontos et al., 1996).

The research mentioned in this section indicates that well-trained child care professionals may provide higher quality care to young children. Training may increase the quality of activities provided to young children and may lead to an increase in more sensitive caregivers who are more satisfied in their current positions.

Demographic Variables Related to Knowledge and Interest

If training is, indeed, related to high quality care, it seems necessary to determine the types of demographic variables that may lead to more knowledgeable and interested child care professionals. In fact, researchers have begun to examine a variety of demographic variables such as education and experience, type of child care center, and previous attendance at child care training and their relation to knowledge and interest in child care training topics. This research is described below.

Experience and Education Related to Knowledge and Interest

Research that examines the relation between specialized training and education and the amount of job experience with child care professionals' knowledge of and interest in child care training topics is limited. Much of the research that has been conducted has investigated the relation between child care professionals' training and their behavior in the classroom (Rhodes & Hennessy, 2001). Although the amount of research is limited, there is some evidence that education and experience may be related to child care professionals' knowledge of and interest in child care training topics.

Researchers assert that more experienced child care professionals are more likely to be interested in participating in a variety of professional development activities than those child care professionals with less experience. In a study conducted by Eheart and Leavitt (1986), child care professionals with more experience were more interested in attending child care training. Child care professionals with four or more years experience are two times more likely to want training than those with four or less years experience. In fact, the researchers indicate that those

inexperienced child care professionals who were younger stated that no training, other than being a parent, was necessary to care for children. Others have found that less experienced child care professionals are less likely to participate in training events and report that more experienced child care professionals attend more conferences and read more professional development information than those inexperienced child care professionals (Powell & Stremmel, 1989). Kontos et al. (1996) state that more experienced child care professionals are more likely to complete training and less likely to drop out of training programs.

In addition to previous experience in child care, researchers suggested that education is related to the amount of interest in child care training topics. Powell and Stremmel (1989) conclude that just like those child care professionals with more experience, child care professionals that have more training and education read more professional literature and are more likely to participate in professional conferences. Eheart and Leavitt (1986) found that more educated providers are more interested in attending child care training. In contrast to the above research, Todd and Deery-Schmitt (1996) report that more educated family child care professionals were less likely to be interested in training. The researchers suggest that one reason may be that training for those higher educated child care professionals may lead to a decrease in satisfaction when they realize that the position of family child care professional is limited in both prestige and monetary reward. Limited information on the experience of child care professionals related to knowledge of child care training topics was identified; however, Snider and Fu (1990) did find that experience is related to knowledge only when this experience is joined by specialized training. Much of the research seems to indicate, however, that more education and training lead to more interest and participation in child care training.

Education and training are also indicative of the amount of knowledge that child care professionals possess. Those child care professionals who have more education and specialized training have more knowledge of child care training topics (Cassidy, Hicks, Hall, Farran, &

Gray, 1998; Rhodes & Hennessy, 2001; Snider & Fu, 1990). Rhodes and Hennessy (2001) found that training has been associated with child care professionals' attitudes towards and knowledge of developmentally appropriate practice. Cassidy et al. (1998) stated that those child care professionals who participated in a 4-week training program had increased knowledge of child development. Similarly, Snider and Fu (1990) reported that child care professionals with degrees in child development or early childhood education scored higher on a measure of knowledge of developmentally appropriate practice than those with degrees in other academic fields. Similarly, in a study conducted by Jorde-Bloom (1988), child care administrators who had no prior training reported being the least prepared for supervision. The research seems to indicate that education and training increases child development knowledge of child care professionals (Howes, Galinsky, & Kontos, 1998; Mueller & Orimoto, 1995).

It is important to note that the studies conducted on education and training vary. Some of the studies focus on formal education while other studies focus on specialized training in child care. Regardless of the variations, it seems that researchers have determined that education and years of child care experience are related to the knowledge of and interest in child care training topics. Another important demographic variable is the type of child care center in which the child care professional works.

Type of Child Care Center and Knowledge and Interest

Few researchers have examined the relation between child care professionals' knowledge and type of child care center where they work. The majority of research focuses on the relation of child care professionals' interest and the type of child care center. Researchers assert that child care professionals working in child care settings that are associated with professional organizations are more interested in attending child care training (Cohen, 1992; Cohen & Modigliani, 1990; Debord & Sawyers, 1996; Kontos et al., 1996). Cohen (1992) found that child care professionals in professional organizations are more likely to be drawn into education

programs. Debord and Sawyers (1996) imply that training should target child care professionals in professional organizations and they also suggest recruiting child care professionals into professional organizations.

In addition, standards for training and education of child care professionals in accredited child care settings are often higher than regulatory standards, thus child care professionals from unaccredited centers may be less likely to seek training that exceeds the regulatory standard (Bredekamp & Copple, 1997). In another study, Cohen and Modigliani (1990) explained that child care professionals from accredited child care settings are more intrinsically motivated which might lead to the increase in interest in attending child care training. One reason that child care professionals from accredited organizations are more interested in training might be that participation in a professional organization is related to higher levels of training and experience (Powell & Stremmel, 1989); thus, as described above, education, training, and experience are related to knowledge of and interest in child care training topics.

Previous Training Attendance and Knowledge and Interest

After a review of the literature, little research was identified related to the *quality* of previous child care training and the knowledge of and interest in child care training. Some researchers, however, suggested that child care professionals who have previously attended child care training have more knowledge of and interest in child care training topics (Eheart & Leavitt, 1986; Kontos, 1992; Mueller & Orimoto, 1995). Kontos (1992) reported that training programs for family child care professionals produced moderate increases in knowledge. In a study conducted by Mueller and Orimoto (1995), the researchers concluded that participants who attended a training for family child care professionals had gains in knowledge in 4 out of 7 knowledge categories. In addition, the participants expressed a desire for more training in specific topics. Other researchers believe that child care professionals who attend training are more likely to be interested in additional training (Eheart & Leavitt, 1986). Typically, those

child care professionals who attend training are more committed (Kontos et al., 1996). Therefore, it would seem that those who are more committed would be more likely to be interested in child care training. Although the research on the quality of previous training as related to knowledge and interest in child care training topics is limited, it seems likely that those child care professionals who have attended higher quality training report more knowledge of and interest in child care training topics.

Training Content Related to High Quality Child Care

Researchers have linked child care training to quality child care (Blau, 2002; Bredekamp & Copple, 1997); hence, it seems important to identify the types of training content most successful in producing positive outcomes for child care professionals and, thus, children. Many professions have a common core of knowledge and skills that provide a guide for professional development and competence in that particular profession (Queeney, 2002). In 1992, Bredekamp and Willer identified basic competencies of knowledge and skills necessary for child care professionals to be competent in the field of early care and education. These competencies are: (a) to demonstrate a broad, basic understanding of child development, birth through age eight, (b) to establish and maintain a safe, healthy learning environment, (c) to advance physical and intellectual competence, (d) to support social and emotional development and provide positive guidance, (e) to establish positive and productive relationships with families, (f) to ensure a well-run, purposeful program that is responsive to participant needs, and (g) to maintain a commitment to professionalism (Bredekamp & Willer, 1992; Morgan et al., 1993). Although there is little research relating training content to quality child care, experts are in agreement that the competencies listed above are representative of the knowledge, skills, and abilities needed to provide quality child care to young children (Morgan et al., 1993).

These basic competencies can also be used when determining standard requirements for programs resulting in associate, bachelor's, or advanced degrees in early care and education.

The competencies provide general guidelines for the profession of early care and education and can be further divided into training curricula specific to the needs of child care professionals. For example, the competencies related to the advancement of physical and intellectual competence could be subdivided into categories related to reading and mathematical readiness or fine motor skills of children (Bredekamp & Willer, 1992). The content of training and education programs should reflect the general competencies of the early care and education field and provide further instruction as child care professionals elect to specialize in such areas as administration or family child care (Mandelson, 1994).

The content of child care training required for licensure varies by state. Many states require child care training without the content of the training being specified (Morgan et al., 1993). This would mean that child care professionals could take any child care training courses that are or are not related to their current position. Other states specify content by requiring specialized topics in early childhood content, such as infant/toddler, school-age, children with special needs, and first aid. Still other states, less than one-half of those that require training, have distribution requirements that ensure that child care providers take a wide variety of training rather than repeating the same content (Morgan et al., 1993). For instance, if 12 hours of training are required annually, distribution requirements specify that the child care professional take training in a variety of topics rather than all health and safety trainings.

The content of training in the child care training system in Georgia is specified by the Georgia Professional Development Competencies. With the exception of the first 6 months of employment, child care professionals are not provided distribution requirements; however, child care training must be related to the Georgia Professional Development Competencies. These competencies, developed by experts in the early care and education field in Georgia, coincide with those competencies developed by Bredekamp and Willer (1992).

Licensure Standards for Training and Educational Requirements

Licensure standards are a way of ensuring quality of child care through child-to-staff ratios, professional qualifications, physical space, and other regulations (Groginsky, Robison, & Smith, 1999). States are the regulatory agencies of child care licensure with the exception of those programs that are federally funded.

Licensure Standards for Child Care Training

State regulatory agencies requirements for training of child care professionals vary with some having only minimal or no requirements and others having no guidelines for professional development activities (Powell & Stremmel, 1989). Standards are at the forefront of discussions regarding early childhood care and education with strong advocates as well as those who see standards having a negative impact on the field (Kagan, Scott-Little, & Stebbins Frelow, 2003). Many professional organizations such as the National Association for the Education of Young Children actively encourage the acceptance of higher standards for the regulation of training for child care professionals (Kagan, Scott-Little, & Stebbins Frelow, 2003; Powell & Stremmel, 1989). The lack of attention to child care training was demonstrated by Morgan et al. (1993) who revealed startling statistics for states that require no pre-service training. For directors, teachers, and assistant teachers, respectively 20, 36, and 44 states require no pre-service training. Additionally, 21 states require no training for child care lead teachers, and 16 states require no training for child care assistants. For those states requiring child care training, the requirement is minimal and is often not content-specific. Twenty-one states require as little as 1 to 12 hours of unspecified training for child care professionals (Morgan et al., 1993, National Child Care Information Center, 2004).

A variety of reasons as to why some states require no training requirements for child care providers have been recognized. The first reason is that some states have qualifications such as age, experience, and completion of a high school diploma for child care professionals, but have

not made training a priority and, thus, have not set requirements for specialized preparation for child care providers. A second reason is that in some states, the child care facilities are not regulated by the state regulatory agency. In these cases, the definitions of child care facilities vary from state to state and the regulatory agencies vary from departments of human resources to departments of education. Private and part-day facilities in some states are not regulated. A final reason is that some states have given a waiver for regulatory requirements to child care facilities (Morgan et al., 1993). Waivers may be granted because child care centers cannot find child care professionals with the appropriate qualifications (Morgan et al., 1993).

Other state legislatures, however, are moving toward higher standards for child care professionals through training, education, and career development (Groginsky et al., 1999). State and federal funding supporting training and education of child care professionals is being provided (Groginsky et al., 1999). Professionals that specialize in certain areas such as infant/toddlers or children with special needs are given priority for funding streams in some states.

Currently, Georgia has several organizations with initiatives related to higher standards for training of child care professionals. These organizations include the Georgia Association for the Education of Young Children (GAYC) and Smart Start Georgia. GAYC is an affiliate of the National Association for Young Children and is concerned with the professional development of child care professionals in the state of Georgia. Smart Start Georgia is a public/private partnership of state agencies and corporations designed to enhance the quality of child care in Georgia. The Infant/Toddler Initiative, supported by Child Development Block Grant funds, includes specialized training and technical assistance to child care professionals working with infants and toddlers in the state at low cost (T. Buckner, personal communication, January, 2004). Additionally, Smart Start Georgia sponsors the Early Childhood Education (ECE)

Incentive$ Program, a program based on education level, which provides wage supplements to child care professionals twice each year (Smart Start Georgia, 2004).

These professional organizations in Georgia have a variety of initiatives related to the training of child care professionals. The funding for these programs, which is dependent upon legislative support, ranges from Federal Child Development Block Grant Funds and state funding sources to public/private partnerships such as the Smart Start Georgia. One state initiative that was initiated in October, 2001 was the ACT Project, which provided high-quality, low-cost training to child care professionals throughout the state. This training was provided by a diverse group of training and professional development organizations. The training consisted of a variety of child care training topics in child development, inclusion, and administration. In addition, the ACT Project provided on-line, distance education available to child care professionals free of charge (T. Buckner, personal communication, January, 2004). The ACT Project was discontinued in 2003 due to change in state leadership. Smart Start Georgia identified 5 initial counties (which has since increased to 14 counties) that have been targeted for child care technical assistance and training (Smart Start Georgia, 2004).

Although there are many initiatives in the state of Georgia to increase the quality of training for child care professionals, the licensure standards in Georgia for child care training required are minimal. Child care professionals are required to obtain 10 hours of child care training annually. The training must be task-focused, related to the child care professionals' current position, and based on the Georgia Professional Development Competencies. Within the first 6 months of employment in the early care and education field, child care professionals in licensed child care facilities are required to receive 6 hours in health and safety courses (Georgia Department of Human Resources, 2004). Other than the initial child care training requirements, additional hours are not distributed over content areas. In other words, a child care professional may take the total 10 hours of training in the content area of infectious disease prevention and

never attend a training about general child development. In addition, food service personnel and directors are required to attend a 4 hour course on food planning and preparation. The Georgia Fire Marshall's Office requires that child care professionals receive a mandatory 5-hour, fire safety course every 2 years (Georgia Department of Human Resources, 2004).

Licensure Standards for Educational Requirements

Researchers conclude that many child care professionals have little or no education, especially in family child care and relative care. Only 18 percent of infant child care professionals have specialized training in child development. Some federal and state funded programs such as Head Start and the Georgia Prekindergarten program, however, do require minimum educational requirements for child care professionals (Groginsky et al., 1999).

Because of the minimal educational requirements of licensure standards for child care centers, it seems reasonable that few child care centers would strive to hire those child care professionals with higher education. The exception to this might be the few centers seeking accreditation since higher qualifications are an accreditation criterion. Results of the 1997 National Child Care Staffing Study support this assumption. Directors of child care centers surveyed reported that experience, not higher education, was the most common requirement for all child care positions. A bachelor's degree was required by only 25 percent of all child care centers for teacher positions and only 19 percent of child care centers required some college level work for assistants (Whitebrook et al., 1997).

Limitations of the Training System

Researchers have found clear links to training and quality in child care (Bredekamp & Copple, 1997; Shonkoff & Phillips, 2001; Weaver, 2002). Even though research findings indicate the importance of child care training, the implementation of training is difficult due to a variety of limitations to the current national and state training systems for child care professionals. Some of the limitations include training that does not evaluate the increase in

knowledge, skills, or job performance, society's views of training versus credentialing and lack of increased compensation, and the cost and access to child care training (Adams, 1990; Blasé & Fixsen, 1981; Morgan et al., 1993; Whitebrook, Howes, & Phillips, 1989).

One limitation of the current training system is that training is not based on an assessment of child care professionals' needs and does not address knowledge, skills, or job performance. Much of the training that is currently being conducted with child care professionals is presented to meet state or federal licensure/training requirements. Typically, this training does not include an evaluation component (Morgan et al., 1993). In other words, child care professionals may attend a variety of training programs; however, no evaluation is conducted after the training to determine if positive outcomes result for the child care professional or the children in care. The training, therefore, becomes more of staff enrichment and may not improve the knowledge, skills, and or performance abilities of the child care professional (Blasé & Fixsen, 1981).

Another limitation of most current training systems is the lack of credentialing programs or increased compensation for child care professionals. Credentials are a way in which society can be assured that a professional is reliable in providing a service of higher quality. The current system of training, both nationally and locally, has few credentialing programs. Instead, training is sporadic and lacks continuity of content and individual development (Blasé & Fixsen, 1981). In addition, child care providers are typically not compensated for child care training. Because child care professionals are not rewarded socially or monetarily for attaining training, there is little incentive to be trained (Whitebrook et al., 1989). Providing training without increasing compensation will lead to turnover and, thus, maintain lower levels of quality child care (Morgan et al., 1993).

Training, as beneficial as research has shown, has a cost-factor involved that has not been addressed by states. Few states have funded or planned for the professional training of child care professionals (Adams, 1990). The cost of training is considered high for child care centers as

well as child care professionals who have low wages (Blau, 2002). For instance, the average cost of a 2 hour child care training in Georgia is $15-25 (Child Care Solutions, 2004). For a child care center with a staff of 30 child care professionals who need 10 hours of child care training per year, the cost of annual training could range from $2250 – 3750. The cost of hiring high-quality trainers may be expensive for centers and individuals (Blasé & Fixsen, 1981). If child care centers do not pay for the cost of training, the child care professional must pay for the training. This financial burden becomes an obstacle in child care professionals' attendance at training (Whitebrook et al., 1997). The cost of training leads to lack of access by those low-income child care providers.

Many child care professionals lack access to child care training (Whitebrook et al., 1997). In addition, many trainings are offered outside of the regularly scheduled work time and require child care professionals to juggle full-time jobs and families (Copple, 1991). Queeney (2002) found that the inability of fitting continuing education activities into daily routines is one of the major deterrents of attendance at child care training. A variety of organizations offer non-credit training to child care providers which help meet the required annual 10 hours of child care training including resource and referral agencies, independent consultants, extension agencies, and professional organizations (Morgan et al., 1993; T. Buckner, personal communication, January 27, 2004). Much of the non-credit training is based on entry-level skills, is repetitive, and does not meet the wide range of child care roles such as providing care for infant, toddler, or school-age children (T. Buckner, personal communication, January 27, 2004).

Still other limitations are related to the ability of child care training to be transformed as credit towards a degree or credential. For instance, a child care professional may take 10 hours of child care training each year, however, this training may not lead to credit in a associate or bachelor's degree program. There are few links between programs offering non-credit and credit training which would increase the potential for a child care professional's training to be

transformed into a degree or credential. Private training organizations and college and universities often work independently with no connection of a common core curriculum or standards. In addition, there are very few transformation and articulation agreements between institutions of higher education and child care training systems (Morgan et al., 1993).

Research Related to Needs Assessment

Given the evidence of the importance of a well-trained staff, it seems necessary for consideration to be given to planning effective and meaningful training experiences for child care professionals (Mandelson, 1994). Schinke (1980) proposed a needs assessment model indicating the importance of systematic needs assessments in planning and implementing effective child care training systems. This needs assessment model is the ideal for what might happen in a needs assessment process and would involve much funding, time, and personnel to implement.

The needs assessment model proposed by Schinke (1980) consists of the collection of data and the judging of the significance of the information to determine program priorities. After the use of a variety of needs assessment tools discussed in the definition section of this paper, the researchers propose training based on the information gained from the needs assessments. The model proposed by Schinke (1980) is composed of 6 steps.

The first step in the needs assessment model is the collection of data. Data is collected through a variety of methods and sources. The data collection process should be thorough and be representative of all information as not to bias the data. After the data are collected, an analysis and presentation of the data is necessary to inform staff training design. The staff training design is a format that assists in the identification process of priorities needs as well as short and long-term goals. After a design has been planned, the actual training takes place. The training is based on the objective and subjective information received in the needs assessment.

The conclusion of the training leads to the evaluation of the training as well as a needs re-assessment to determine successes and future goals (Schinke, 1980).

Other experts are in consensus with the value of a comprehensive needs assessment process for determining child care training needs. Mandelson (1994) suggests that the first step in planning training is to determine the needs of child care professionals. Abbott-Shim (1990) suggest using a variety of methods for determining the needs of child care professionals including observations, needs assessment surveys, and program evaluations. It is also suggested that needs assessments continue over time to ensure that training is meaningful as needs of child care professionals change over time.

The model proposed by Schinke (1980) and suggestions of other experts in the field seem to be key in providing successful child care training programs. Given the current status and limitations of the national and state child care systems, it seems unlikely that this type of comprehensive, detailed model exists or will be implemented. This assumption is supported by the literature. Researchers have found that much of the training provided to child care professionals does not meet their needs. Training content was not designed to address child care providers' skill and knowledge level and was not designed to meet the level of experience of the child care professional (Brown, Costley, & Morgan, 1990; Whitebrook et al., 1997).

Although the structure of the current system of child care training in the state of Georgia has limitations, it seems necessary to begin to determine child care professionals' level of knowledge and interest in child care training topics. Other than the model by Shinke (1980), there seems to be little literature regarding child care professionals and needs assessment. Much of the literature concerns variables related to the quality of child care rather than child care professionals' knowledge of or interest in child care training topics. This study will begin to examine a small piece of the training needs of child care professionals in the state of Georgia.

Summary

Researchers have determined that high quality child care is linked to positive outcomes in young children in the cognitive and social-emotional developmental domains (Bredekamp & Copple, 1997). Children who attend high quality child care have more positive language development, problem-solving, reasoning skills, levels of self-esteem and cooperativeness (Greenough et al., 2001; Morgan et al., 1993). In addition, scholars have found that well-trained child care professionals provide higher quality care to young children. These child care professionals are more sensitive to children and have more positive attitudes about their work (Whitebrook et al., 1997).

As more children are placed in child care settings due to increased attention given to teacher-child ratios and the implementation of more preschool programs, the numbers of child care professionals will continue to grow (Blau, 2002). It seems necessary to develop a training system that is meaningful to child care professionals to increase the quality of child care and, thus, positive child outcomes. Variables such as education and years of experience of child care professionals, the type of center in which child care professionals work, job satisfaction, and attendance at previous training have been linked to an increase in the knowledge of and interest in child care training topics. Further examining how these variables are related to the current knowledge of and interest in child care training topics is one step in the direction of planning and implementing a meaningful training system that will benefit child care professionals, children, and society.

CHAPTER 3

METHOD

The following chapter contains the descriptive information about the participants and the development and psychometric analyses of the measures used in the study. Procedures implemented for the collection of the data along with the data analyses are described. For more information, Tables are located in Appendix D.

Participants

Participants in this study were child care professionals who attended one of three Early Childhood Institutes (ECEI's) sponsored by the University of Georgia Cooperative Extension Office over a 6 week period between August and October, 2002. The conference is sponsored by the University of Georgia Extension Agency and consists of a variety of speakers at a one-day conference that is held throughout the state of Georgia. The target audience for the ECEI's includes Department of Human Resources licensed child care centers and family child care homes. In addition, previous attendees of ECEI's also receive registration brochures. Extension agents in the target areas are given brochures to distribute to interested child care professionals. Finally, public service announcements are made in those areas with that capability.

A total of 462 surveys were collected at the Early Childhood Institutes. Of these 462, 433 met the criteria for inclusion. The inclusion criteria for this sample were those surveys that had at least 80% of all the major independent and dependent variables of the study included. The number of participants who failed to have at least 8 of the 12 variables was 29. The remaining 433 surveys were used for the purposes of data analyses.

The participants included child care professionals from the Tifton Institute (37%, n = 160), the Macon Institute (34%, n = 146), and the Atlanta Institute (29%, n = 127). Please see Table 1 for demographic variables of participants.

Years of Experience in child care was measured using response sets indicating Entry Level (0-2 years), Novice (3-5 years), Advanced (6-9 years), and Expert (10 years plus). Thirty percent identified their level of experience as Experts (*n*=130), followed by Entry (27%, *n* = 115), Novice (23%, *n*= 98), and Advanced (11%, *n* = 48). Ten percent of the participants chose not to indicate their years of experience in child care. Definitions for experience level were created by the researcher based on previous experience in the field of early childhood care and education.

Years of Experience in Current Position was measured using response sets indicating Entry Level (0-2 years), Novice (3-5 years), Advanced (6-9 years), and Expert (10 years plus). The modal response was for those who identified themselves as Entry Level participants (41%, *n* = 176), followed by Novice (17%, *n* = 74), Expert (14%, *n* = 61), and Advanced (10%, *n* = 43). Eighteen percent of the participants chose not to indicate their years of experience in current position (*n* = 79).

Years of Experience with Children with Special Needs was measured using response sets indicating Entry Level (0-2 years), Novice (3-5 years), Advanced (6-9 years, and Expert (10 years plus). The modal response was for those who identified themselves as Entry Level participants (35%, *n* = 150), followed by Expert (8%, *n* = 35), followed by Novice (5%, *n* = 21), and Advanced (4%, *n* = 16). Nearly 50% of the participants (*n* = 211) chose not to indicate the number of Years Experience with Children with Special Needs.

The majority of the participants indicated that they had obtained either a High School diploma or G.E.D. (58%, *n* = 251). An additional 19% of the participants indicated they had obtained either an Associate degree or Technical diploma (*n* = 80). Twelve percent stated they had obtained a Bachelors degree (*n* = 50), while an additional 2% stated that they had obtained a Masters degree (*n* = 10). Six percent of the people identified their Educational level obtained as Other (*n* = 27), while an additional 4% chose not to indicate level of Education (*n* = 15).

Ninety percent of the sample identified their gender as Female. None identified themselves as Male and 10% chose not to identify their gender.

The modal response for Age was for those participants between the ages of 31 and 40 (29%, *n* = 126), followed by those between the ages of 21 and 30 (24%, *n* = 105), those between the ages of 41 and 50 (20%, *n* = 86), those over the age of 50 (17%, *n* = 72), and those under the age of 20 (8%, *n* = 35). Two percent of the participants chose not to indicate their age group.

Forty-four percent of the participants identified their ethnic group as Black (non-hispanic, *n* = 192) and an equal percentage of participants identified ethnic group as White (non-hispanic, *n* = 192). Three percent of the participants identified ethnic group as Hispanic/Latino, while less than one percent identified ethnic group as Native American (*n* = 1) or Asian/Pacific Islander (*n* = 3). Three percent identified themselves as Multi-racial (*n* = 13) and 5% chose not to identify ethnic group.

Measure

Measure Development

The measure, entitled "Early Care and Education Training Needs" (ECETN; Appendix A) was used to examine the perceived knowledge and interest of child care professionals on designated child care training topics. This measure was developed by the author because, after a review of the literature, no training needs assessments specific to the purpose of this study were found. Development of the ECETN occurred through a variety of stages. These stages included a review of the literature, focus groups with child care professionals, interviews with and critiques of the measure from experts in the field of early care and education, and multiple measure revisions.

A review of the literature was conducted to determine if needs assessments related to the field of early care and education were available. In addition, the literature was searched to gather information that might be relevant to child care training needs. After reviewing the

literature, child care training topics and other areas related to training such as job satisfaction and obstacles were identified. An additional literature review provided information on the process of conducting a needs assessment.

The child care training topics used for the knowledge and interest scales were selected from the Georgia Early Care and Education (ECE) Professional Development Competencies (Child Care Solutions, 2004). Early care and education professionals in Georgia created the ECE Professional Development Competencies in accordance with current research and standards and are used as guidelines for competence in the field. These competencies provide information regarding child care training topics needed to create competent child care professionals. Using the ECE Professional Development Competencies as a guide, additional topics (i.e., guidance, curriculum development, music and art activities) related to the early care and education field were then selected to provide more specific rather than general information regarding child care training topics.

After the review of the literature, focus groups with child care professionals were conducted to determine if the scope and information gathered from the sources related to child care training needs were covered. These focus groups provided valuable information and insight into the measure development including terminology to be used and additional topics of interest. In addition to the focus groups, interviews with experts in the field of early care and education were conducted. These interviews provided information about the child care training system in Georgia and what type of information would be valuable to the field. These experts also supported information related to job satisfaction, obstacles, and child care training topics found in the literature review.

After the focus groups and interviews were conducted, many drafts of the measure were completed. Next, the measure was given to approximately 20 child care professionals and experts in the field to review. These experts critically reviewed the measure and provided

valuable information regarding the face validity of the measure and such issues as terminology used, clarity of the items in the measure, length of the measure, and survey components. After receiving feedback from these child care professionals and early childhood experts, multiple revisions were made to increase clarity of items, reduce the length of the survey, and clarify and hone the definitions used.

A pilot test of the measure was conducted with approximately 30 child care professionals in Georgia. This pilot test provided information about the process and the survey. Information was gathered regarding the quality of the questions included, the wording of the questions, vague items, and suggestions for clarity. The ECETN was thus refined to 92 main items including several likert-type scales and open-ended questions. The measure was divided into the following 7 sections: (a) current position; (b) job satisfaction; (c) employer information; (d) child care training attended in the past 12 months; (e) perceived knowledge and interest in child care training topics; (f) importance of child care training, and; (g) participant demographics. The following three sections of the measure were primarily used for the results in this study: (a) job satisfaction; (b) obstacles, which was a sub-section of child care training attended in the past 12 months; and (c) perceived knowledge and interest.

Measure Description

The following section describes the ECETN, the psychometric properties of the four, various components, or sections, as well as the means and standard deviations for said components. For a list of items in each component, see Appendix B.

Job satisfaction. The Job Satisfaction portion of the ECETN consisted of 10 items. Each item in this section was scored on a likert-type response set with values ranging from 1 = "Definitely Not Satisfied" to 4 = "Definitely Satisfied." Principal Axis Factor analyses, with a Promax rotation method, conducted on these ten items clearly indicated the best solution as being a two factor solution as 55% of the overall variance was accounted for in the 2 factors with

eigenvalues greater than 1. (It was assumed that if two or more factors were identified, they would be correlated, hence a Promax rotation method was most appropriate). The interfactor correlation of these two subscales was .59. All items had intra-factor loadings greater than .35 and none of the items exhibited cross loadings above .35 (see Table 2). Examination of the items comprising the two factors led to the following labels: Relationships and Duty (6 items); and Salary/Benefits (4 items). Cronbach alpha reliability coefficients were then calculated for each subscale to estimate reliability. Reliability estimate for the Relationship and Duty subscale was .76 and .73 for the Salary/Benefits subscale. Subscales scores were calculated by summing the items in each factor. Subscale scores ranged from 11 to 24 for the Relationship and Duty subscale and 4 to 16 for the Salary/Benefits subscale with respective means of 21.24 and 11.62. Standard deviations were 2.53 for the Relationship and Duty subscale and 2.63 for the Salary/Benefits subscale. Kurtosis and skewness for each of the subscales were less than an absolute value of 1 for both subscales. The statistics for each subscale thus indicated sound psychometric properties for each subscale and distributions that could be categorized as normal.

Obstacles. The Obstacle portion of the ECETN consisted of 8 items. Each item in this section was scored using a dichotomous response set with values ranging from 0 = "No" to 1 = "Yes." Several methods for data reduction were attempted for the Obstacle portion of the ECETN, without success (See Table 3). Principal Axis Factor models and Cronbach alpha estimates for reliability with dichotomous data often result in ambiguous or conflicting results. Thus, a simple calculation score was derived by summing all eight items. Subscale scores ranged from 0 to 7 with mean of 1.10, a standard deviation of 1.40. While the modal response for Obstacle was 0 (zero) indicating no obstacles for 49% (n = 212) of the participants, the second most frequent response was for those participants who indicated they experienced only one obstacle (19%, n = 80). Participants experiencing two obstacles comprised an additional 17% (n

= 72). Thus indicating that 84% of the participants experienced two or fewer obstacles to training.

Perceived knowledge. The Perceived Knowledge portion of the ECETN consisted of 21 items. Each item in this section was scored on a likert-type response set with values ranging from 1 = "Definitely Do Not Know" to 4 = "Definitely Know." Principal Axis Factor analyses, with a Promax rotation method, conducted on these 21 items clearly indicated the best solution as being a three factor solution as 59% of the overall variance was accounted for in the 3 factors with eigenvalues greater than 1. (It was assumed that if two or more factors were identified, they would be correlated, hence a Promax rotation method was most appropriate). The interfactor correlation among these three subscales ranged from .47 to .73. All items had intra-factor loadings greater than .35 and none of the items exhibited cross loadings above .35 (see Table 4). Examination of the items comprising the three factors led to the following labels: Basic Knowledge (7 items), Program Management Knowledge (11 items), and Special Needs Knowledge (3 items). See Appendix B for a description of the items that made up each factor. Cronbach alpha reliability coefficients were then calculated for each subscale to estimate reliability. Reliability estimate for the Basic Knowledge subscale was .85, .91 for the Program Management Knowledge subscale, and .90 for the Special Needs Knowledge subscale. Subscales scores were calculated by summing the items in each factor. Subscale scores ranged from 7 to 28 for the Basic Knowledge subscale, 11 to 44 for the Program Management Knowledge subscale and 3 to 12 for the Special Needs Knowledge subscale with respective means of 23.12, 34.75, and 8.02. Standard deviations were 3.70 for the Basic Knowledge subscale, 6.06 for the Program Management Knowledge, and 2.62 for the Special Needs Knowledge subscale. Kurtosis and skewness for each of the subscales were less than an absolute value of 1 for both subscales. The statistics for each subscale thus indicated sound psychometric properties for each subscale and distributions that could be categorized as normal.

Perceived interest. The Perceived Interest portion of the ECETN consisted of 21 items. Each item in this section was scored on a likert-type response set with values ranging from 1 = "Definitely Not Interested" to 4 = "Definitely Interested." Principal Axis Factor analyses, with a Promax rotation method, conducted on these 21 items clearly indicated the best solution as being a three factor solution as 68% of the overall variance was accounted for in the 3 factors with eigenvalues greater than 1. (It was assumed that if two or more factors were identified, they would be correlated, hence, a Promax rotation method was most appropriate.) The interfactor correlation among these three subscales ranged from .62 to .74 (See Table 5). Two of the derived subscales shared the same items noticed in the Perceived Knowledge subscale, albeit some items from one subscale crossed to another. To maintain measurement equivalence across the Perceived Knowledge and Perceived Interest scales, the factors found for Perceived Knowledge were used for Perceived Interest, especially when the psychometric properties of the Perceived Knowledge subscales were so sound and that two of the factors shared the exact same items. Nearly ninety percent of the Interest scale was replicated in the Knowledge scale. In addition, two whole factors were replicated across both models. Items comprising the three factors received the following labels: Basic Interest (7 items), Program Management Interest (11 items), and Special Needs Interest (3 items). See Appendix B for a description of the items that made up each factor. Cronbach alpha reliability coefficients were then calculated for each subscale to estimate reliability. Reliability estimates for the Basic Interest subscale was .91, .93 for the Program Management Interest subscale, and .94 for the Special Needs Interest subscale. Subscales scores were calculated by summing the items in each factor. Subscale scores ranged from 7 to 28 for the Basic Interest subscale, 11 to 44 for the Program Management Interest subscale and 3 to 12 for the Special Needs Interest subscale with respective means of 22.13, 35.47, and 9.80. Standard deviations were 4.15 for the Basic Interest subscale, 6.10 for the Program Management Interest, and 2.10 for the Special Needs Interest

subscale. Kurtosis and skewness for each of the subscales were less than an absolute value of 1 for both subscales. The statistics for each subscale thus indicated sound psychometric properties for each subscale and distributions that could be categorized as normal.

Demographics. There were 8 items that were used for this study pertaining to demographic issues. These items were indicators of demographics including, but not limited to, type of position, years of experience in child care, years of experience in current position, years of experience with children with special needs, education, gender, age, and ethnic group. Further demographic information was gathered, however, this information was not used as variables in the current study.

Procedure

The survey was administered to child care professionals at three Early Childhood Institutes (ECI) sponsored by the University of Georgia's Cooperative Extension Service. The three ECI's were held in Tifton, Macon, and Atlanta, Georgia.

Each participant was given the survey in a packet of conference information. Included with the survey was a copy of the implied consent letter approved by the Institutional Review Board for Human Subjects concerning the purpose of the study (Appendix C) and a door prize registration form. At the opening session of the conference, the purpose and procedures for the completion of the survey were explained and any questions answered. This introduction was consistent at each conference. The researcher was located at the registration table throughout the day to answer any questions participants had.

After participants completed the survey and the door prize registration form, they returned it to the registration table where the researcher was located. The participants returned the survey to a designated box. The door prize registration form was placed in a box separate from the designated survey box to ensure confidentiality. At the end of the day, one door prize registration form was chosen and the participant notified.

Data Analysis

Since no measures were found in the literature related to this study, factor analysis was conducted to evaluate the measure used. A series of Multivariate analyses of variance were conducted for examination of demographic variables across the following child care training topics: a) Basic Knowledge of Child Care training topics and Basic Interest in Child Care training topics, b) Program Management Knowledge in Child Care training topics and Program Management Interest in Child Care training topics, and c) Special Needs Knowledge in Child Care training topics and Special Needs Interest in Child Care training topics. These analyses were conducted to determine if knowledge of and interest in child care training topics were related across variables. Univariate analyses were conducted to assess the differences between group means. Post-hoc comparisons were conducted to further determine specifics of the differences.

CHAPTER 4

RESULTS

The purpose of this study was to examine how certain demographic variables of child care professionals impacts perceived knowledge about child care training topics and interest in attending child care training. For each hypothesis, the results related to the knowledge of child care training topics are reported followed by the results related to the interest in child care training topics. For each section, the results presented will be related to the three factors that emerged during the factor analysis: (a) Basic Child Care, (b) Program Management Child Care, and (c) Special Needs Child Care. The results will be presented with the significant findings reported first followed by the non-significant findings.

Hypothesis 1: Education Related to Perceived Knowledge and Interest in Child Care Training Topics

The first hypothesis of the study stated that there would be a difference between education and knowledge and interest in child care training topics such that teachers with higher education would report more knowledge and interest in child care training topics than those with lower education.

A series of three multivariate analyses of variance were conducted for examination of the effects of Education ("High School," "Associate Degree/Technical Diploma," "Bachelor's or Master's") across the following child care training topics: (a) Basic Knowledge of Child Care training topics and Basic Interest in Child Care training topics, (b) Program Management Knowledge in Child Care training topics and Program Management Interest in Child Care training topics, and (c) Special Needs Knowledge in Child Care training topics and Special Needs Interest in Child Care training topics. Significant main effects were noted for level of Education across Special Needs in Child Care training topics $F(4, 708) = 2.88$, $p = .02$, *adjusted*

r^2 = 0.01, but not for Basic Child Care training topics $F(4, 724) = 0.81$, $p = .52$, *adjusted* r^2 = 0.00 or Program Management training topics $F(4, 716) = 2.27$, $p = .06$, *adjusted* r^2 = 0.00.

Special Needs Knowledge and Interest in Child Care Training Topics

Examination of univariate analyses for Special Needs in Child Care training topics revealed that significant differences for level of Education were noted for Special Needs Knowledge in Child Care training topics $F(2, 356) = 2.95$, $p = .05$, but not for Special Needs Interest in Child Care training topics $F(2, 356) = 1.88$, $p = .15$ (See Table 6). The pattern evidenced by the data indicated that those in the Bachelor's/Master's group had the highest mean scores, while the Associate Degree group had the lowest mean scores (See Table 7). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for level of Education. Significant differences were only noted between the High School and Associate/Technical College groups.

Given these results, there is marginal support for not rejecting the first hypothesis that level of Education would determine differences in Knowledge and Interest in child care training topics. Specifically, the amount of variance accounted for (less than 1%) indicates that the effect for level of Education may not be meaningful even though alpha was less than .02.

Hypothesis 2: Child Care Center Characteristics and Perceived Knowledge and Interest in Child Care Training Topics

The second hypothesis stated that there would be a difference in knowledge and interest in child-care training topics between those child care centers that are accredited versus non-accredited and the different types of child care centers.

Accreditation Status of Child Care Center

A series of three Multivariate analyses of variance were conducted for examination of the effects of Accreditation Status ("Accredited," "Not Accredited") across the following child-care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care, (b) Program Management Knowledge in Child Care and Program Management Interest in Child

Care, and (c) Knowledge of Special Needs Knowledge in Child Care and Special Needs Interest in Child Care (See Table 8). Significant main effects were noted for Accreditation Status across Program Management in Child Care training topics $F(2, 246) = 3.21$, $p = .04$, *adjusted* $r^2 = 0.02$, but not for Special Needs in Child Care training topics $F(2, 243) = 0.54$, $p = .58$, *adjusted* $r^2 = 0.00$, or Basic Child Care training topics $F(2, 249) = 1.92$, $p = .15$, *adjusted* $r^2 = 0.01$.

Program management knowledge and interest in child care training topics. Examination of univariate analyses for Program Management in Child Care training topics revealed that significant differences for Accreditation Status were noted for Knowledge of Program Management in Child Care training topics $F(1, 247) = 4.55$, $p = .03$, but not for Interest in Program Management in Child Care training topics $F(1, 247) = 2.13$, $p = .14$ (See Table 8). Those centers that were not accredited had the highest mean scores, while those centers that were accredited had the lowest mean scores (See Table 9).

Type of Child Care Center

A series of three Multivariate analyses of variance were conducted for examination of the effects of Type of Child Care Center ("Privately Owned," "Chain or Franchise," "College/Technical Sponsored," "Other 1," "Other 2") across the following child-care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care, (b) Program Management Knowledge in Child Care and Program Management Interest in Child Care, and (c) Special Needs Knowledge in Child Care and Special Needs Interest in Child Care (See Table 8). "Other 1" are those child care professionals who work in church, community, or organization sponsored child care facilities. "Other 2" are those child care professionals who work in government sponsored early childhood care and education settings such as boards of education or Head Start facilities. Significant main effects were noted for Type of Child Care Center across Special Needs in Child Care training topics $F(8, 748) = 2.39$, $p = .02$, *adjusted* $r^2 = 0.03$,

but not for Basic Child Care training topics $F(8, 762) = 1.58$, $p = .13$, *adjusted* $r^2 = 0.01$, or Program Management in Child Care training topics $F(8, 756) = 1.04$, $p = .40$, *adjusted* $r^2 = 0.00$.

Special needs knowledge and interest in child care training topics.

Examination of univariate analyses for Special Needs in Child Care training topics revealed that significant differences for Type of Child Care Center were noted for Special Needs Interest in Child Care training topics $F(4, 376) = 3.89$, $p = .004$, but not for Special Needs Knowledge in Child Care training topics $F(4, 376) = 1.22$, $p = .30$ (See Table 8). The pattern evidenced by the data indicated that those in the Privately Owned Centers had the lowest mean scores, while those in the Chain or Franchised centers had the highest mean scores (See Table 9). A post-hoc Duncan comparison of means ($\alpha = 0.05$) was conducted for Type of Child Care Center. Significant differences were only noted between the Privately Owned centers and Other 2 centers.

Given these results, there is only marginal support for not rejecting the second hypothesis that Accreditation Status and Type of Child Care Center would determine differences in Knowledge and Interest in child-care training topics. The amount of variance accounted for (less than 2% for Accreditation and less than 3% for Type of Child Care Center) indicates that the effect of these variables may not be meaningful even though alpha is less than .02.

Hypothesis 3: Previous Rating of Training and Perceived Knowledge and Interest in Child Care Training Topics

The third hypothesis stated that there would be a difference between teachers who rated the child care training they have attended in the past 12 months as higher quality than those teachers who rated the training they have attended in the past 12 months as lower quality.

A series of three Multivariate analyses of variance were conducted for examination of the effects of Previous Training Ratings ("Not Good," "Good," "Really Good") across the following child-care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care,

(b) Program Management Knowledge in Child Care and Program Management Interest in Child Care, and (c) Special Needs Knowledge in Child Care and Special Needs Interest in Child Care (See Table 10). Significant main effects were noted for Previous Training Ratings across Basic Child Care training topics $F(4, 708) = 2.97$, $p = .02$, *adjusted* $r^2 = 0.03$, Program Management in Child Care training topics $F(4, 706) = 2.52$, $p = .04$, *adjusted* $r^2 = 0.03$, and Special Needs in Child Care training topics $F(4, 696) = 2.72$, $p = .03$, *adjusted* $r^2 = 0.02$.

Basic Knowledge and Interest in Child Care Training Topics

Examination of univariate analyses for Basic Child Care training topics revealed that significant differences for Previous Training Ratings were noted for Basic Interest Child Care training topics $F(2, 356) = 5.60$, $p = .004$, but not for Basic Knowledge Child Care training topics $F(2, 356) = 0.34$, $p = .71$ (See Table 10). The pattern evidenced by the data indicated that those who rated the child care training they previously attended in the last 12 months as "Not Good" had the lowest mean scores, while those who rated the child-care training they previously attended in the last 12 months as “Really Good” had the highest mean scores (See Table 11). A post-hoc Duncan comparison of means ($\alpha = 0.05$) was conducted for Previous Training Ratings. Significant differences were only noted between those who rated the child-care training they previously attended in the last 12 months as “Not Good” and those who rated the child care training they previously attended in the last 12 months as either “Good” or “Really Good.”

Program Management Knowledge and Interest in Child Care Training Topics

Examination of univariate analyses for Basic Child Care training topics revealed that significant differences for Previous Training Ratings were noted for Program Management Interest in Child Care training topics $F(2, 355) = 4.76$, $p = .009$, but not for Program Management Knowledge in Child Care training topics $F(2, 355) = 0.73$, $p = .32$ (See Table 10). The pattern evidenced by the data indicated that those who rated the child-care training they previously attended in the last 12 months as “Not Good” had the lowest mean scores, while those

who rated the child care training they previously attended in the last 12 months as "Really Good" had the highest mean scores (See Table 11). Post-hoc Duncan comparison of means (α = 0.05) were conducted for Previous Training ratings. Significant differences were only noted between those who rated the child-care training they previously attended in the last 12 months as "Not Good" and those who rated the child-care training they previously attended in the last 12 months as "Really Good."

Special Needs Knowledge and Interest in Child Care Training Topics

Examination of univariate analyses for Special Needs in Child Care training topics revealed that significant differences for Previous Training Ratings were noted for Special Needs Interest in Child Care training topics $F(2, 350) = 4.50$, $p = .012$, but not for Special Needs Knowledge in Child Care training topics $F(2, 350) = 1.60$, $p = .20$ (See Table 10). The pattern evidenced by the data indicated that those who rated the childcare training they previously attended in the last 12 months as "Not Good" had the lowest mean scores, while those who rated the child care training they previously attended in the last 12 months as "Really Good" had the highest mean scores (See Table 11). Post-hoc Duncan comparison of means (α = 0.05) were conducted for Previous Training Ratings. Significant differences were only noted between those who rated the child care training they previously attended in the last 12 months as "Not Good" and those who rated the child-care training they previously attended in the last 12 months as either "Good" or "Really Good."

Given these results, there is marginal support for not rejecting the third hypothesis that Previous Training Ratings would predict Knowledge and Interest in child-care training topics. Specifically, the amount of variance accounted for (less than 3%) indicates that the effect for Previous Training Ratings may not be meaningful even though alpha is less than .02.

Hypothesis 4: Years Experience and Perceived Knowledge and Interest in Child Care Training Topics

The fourth hypothesis stated that those teachers who have more years of experience (in current position and with children with special needs) would report more Knowledge and Interest in child-care training than those teachers who have less years experience with children (in current position and with children with special needs).

Previous Experience in Child Care

A series of three Multivariate analyses of variance were conducted for examination of the effects of Previous Experience in Child Care ("Entry," "Novice," "Advanced," "Expert") across the following child-care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care, (b) Program Management Knowledge in Child Care and Program Management Interest in Child Care, and (c) Special Needs Knowledge in Child Care and Special Needs Knowledge in Child Care (See Table 12). Significant main effects were noted for Previous Experience in Child Care on Basic Child Care training topics $F(6,652) = 2.16$, $p = .05$, *adjusted* $r^2 = 0.03$ and Program Management in Child Care training topics $F(6,648) = 2.17$, $p = .04$, *adjusted* $r^2 = 0.03$, but not on Special Needs in Child Care training topics $F(6,644) = 0.84$, $p = .53$, *adjusted* $r^2 = 0.00$].

Basic knowledge and interest child care training topics. Examination of univariate analyses for Basic Child Care training topics revealed that significant differences for Previous Experience in Child Care were noted for Knowledge of Basic Child Care training topics $F(3, 328) = 4.05$, $p = .008$, but not for Interest in Basic Child Care training topics $F(3, 328) = 0.29$, $p = .84$ (See Table 12). The pattern evidenced by the data indicated that those entry level child care professionals had the lowest mean scores, while those expert child care professionals had the highest mean scores (See Table 13). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were

conducted for Previous Experience in Child Care. Significant differences were only noted between those who were in the Expert group and the remaining groups.

Program management knowledge and interest in child care training topics. Examination of univariate analyses for Program Management in Child Care training topics revealed that significant differences for Previous Experience in Child Care were noted for Program Management Knowledge in Child Care training topics $F(3, 326) = 4.14$, $p = .007$, but not for Program Management Interest in Child Care training topics $F(3, 326) = 0.22$, $p = .89$ (See Table 12). The pattern evidenced by the data indicated that those entry level child care professionals had the lowest mean scores, while those expert child care professionals had the highest mean scores (See Table 13). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Previous Experience in Child Care. Significant differences were only noted between those who were in the Expert group and the remaining groups.

Previous Experience in Child Care with Special Needs

A series of three Multivariate analyses of variance were conducted for examination of the effects of Previous Experience in Child Care with Special Needs ("Entry," "Novice," "Advanced," "Expert") across the following child-care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care, (b) Program Management Knowledge in Child Care and Program Management Interest in Child Care, and (c) Special Needs Knowledge in Child Care and Special Needs Interest in Child Care (See Table 12). Significant main effects were noted for Previous Experience in Child Care with Special Needs on Basic Child Care training topics $F(6,402) = 2.67$, $p = .02$, *adjusted* $r^2 = 0.07$, Program Management in Child Care training topics $F(6,402) = 3.57$, $p = .002$, *adjusted* $r^2 = 0.08$, and Special Needs in Child Care training topics $F(6,400) = 4.25$, $p < .001$, *adjusted* $r^2 = 0.10$.

Basic knowledge and interest child care training topics. Examination of univariate analyses for Basic Child Care training topics revealed that significant differences for Previous

Experience in Child Care with Special Needs were noted for Basic Knowledge in Child Care training topics $F(3, 203) = 5.16$, $p = .002$, but not for Basic Interest in Child Care training topics $F(3, 203) = 0.40$, $p = .75$ (See Table 12). The pattern evidenced by the data indicated that those with less Previous Experience in Child Care with Special Needs had the lowest mean scores, while those with more Previous Experience in Child Care with Special Needs had the highest mean scores (See Table 13). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Previous Experience in Child Care with Special Needs. Significant differences were only noted between those who were in the Expert group and the remaining groups.

Program management knowledge and interest in child care training topics. Examination of univariate analyses for Program Management in Child Care training topics revealed that significant differences for Previous Experience in Child Care with Special Needs were noted for Program Management Knowledge in Child Care training topics $F(3, 203) = 6.66$, $p < .001$, but not for Program Management Interest in Child Care training topics $F(3, 203) = 0.71$, $p = .55$ (See Table 12). The pattern evidenced by the data indicated that those with less Previous Experience in Child Care with Special Needs had the lowest mean scores, while those with more Previous Experience in Child Care with Special Needs had the highest mean scores (See Table 13). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Previous Experience in Child Care with Special Needs. Significant differences were only noted between those who were in the Expert group and the Entry and Novice groups.

Special needs knowledge and interest in child care training topics. Examination of univariate analyses for Special Needs in Child Care training topics revealed that significant differences for Previous Experience in Child Care with Special Needs were noted for Special Needs Knowledge in Child Care training topics $F(3, 202) = 7.56$, $p < .001$, but not for Special Needs Interest in Child Care training topics $F(3, 202) = 1.51$, $p = .21$ (See Table 12). The pattern evidenced by the data indicated that those with less Previous Experience in Child Care

with Special Needs had the lowest mean scores, while those with more Previous Experience in Child Care with Special Needs had the highest mean scores (See Table 13). A post-hoc Duncan comparison of means ($\alpha = 0.05$) was conducted for Previous Experience in Child Care with Special Needs. Significant differences were only noted between those who were in the Entry group and the Advanced and Expert groups.

Given these results, there is marginal support for not rejecting the hypothesis that Previous Experience and Previous Experience in Child Care with Special Needs would predict Knowledge and Interest in child-care training topics. While the amount of variance accounted for by Previous Experience in Child Care (less than 3%) indicates that the effect may not be meaningful even though alpha is less than .02, the amount of variance accounted for Previous Experience in Child Care with Special Needs may be meaningful as the amount of variance was close to ten percent.

Hypothesis 5: Job Satisfaction and Perceived Knowledge and Interest in Child Care Training Topics

The fifth hypothesis stated that those teachers who were more satisfied in their current positions would report higher perceived Knowledge of and Interest in Child Care training than those teachers who reported being less satisfied in their current positions. The results in this section will be discussed related to the two factors that emerged during the factor analysis: (a) Relationships and Duty Satisfaction, and (b) Salary Satisfaction.

Relationships and Duty Satisfaction

A series of three Multivariate analyses of variance were conducted for examination of the effects of Relationships and Duty Satisfaction ("Low," "Medium," "High,") across the following child-care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care, (b) Program Management Knowledge in Child Care and Program Management Interest in Child Care, and (c) Special Needs Knowledge in Child Care and Interest in Special Needs Interest in

Child Care (See Table 14). Significant main effects were noted for Relationships and Duty Satisfaction on Program Management in Child Care training topics $F(4,792) = 2.28$, $p = .06$, *adjusted* $r^2 = 0.01$, but not for Basic Child Care training topics $F(4,798) = 2.23$, $p = .06$, *adjusted* $r^2 = 0.01$, and Special Needs in Child Care training topics $F(4,782) = 0.78$, $p = .54$, *adjusted* $r^2 = 0.00$ (See Table 14).

Program management knowledge and interest in child care training topics. Examination of univariate analyses for Program Management in Child Care training topics revealed that significant differences for Relationships and Duty Satisfaction were noted for Program Management Knowledge in Child Care training topics $F(2, 398) = 3.37$, $p = .036$, but not for Program Management Interest in Child Care training topics $F(2, 398) = 1.27$, $p = .28$ (See Table 14). The pattern evidenced by the data indicated that those with less Relationships and Duty Satisfaction had the lowest mean scores, while those with more Relationships and Duty Satisfaction had the highest mean scores (See Table 15). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Relationships and Duty Satisfaction. Significant differences were only noted between those who were in the Low to Medium satisfaction group and the Real High satisfaction groups for the Knowledge of Child Care training topics.

Salary Satisfaction

A series of three Multivariate analyses of variance were conducted for examination of the effects of Salary Satisfaction ("Low," "Medium," "High,") across the following child-care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care, (b) Program Management Knowledge in Child Care and Program Management Interest in Child Care, and (c) Special Needs Knowledge in Child Care and Special Needs Interest in Child Care (See Table 14). Significant main effects were noted for Salary Satisfaction on Basic Child Care training topics $F(4,798) = 5.29$, $p < .001$, *adjusted* $r^2 = 0.04$, Program Management in Child Care

training topics $F(4,792) = 5.00$, $p = .001$, *adjusted* $r^2 = 0.04$, and Special Needs in Child Care training topics $F(4,782) = 5.27$, $p < .001$, *adjusted* $r^2 = 0.04$.

Basic knowledge and interest in child care training topics. Examination of univariate analyses for Basic Child Care training topics revealed that significant differences for Salary Satisfaction were noted for Basic Knowledge of Child Care training topics $F(2, 401) = 6.76$, $p < .001$, but not for Basic Interest in Child Care training topics $F(2, 401) = 3.49$, $p = .032$ (See Table 14). The pattern evidenced by the data indicated that those with less Salary Satisfaction had the lowest mean scores, while those with more Salary Satisfaction had the highest mean scores (See Table 15). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Salary Satisfaction. Significant differences were only noted between those who were in the High satisfaction group from the Low and Medium satisfaction groups for both the Knowledge of and Interest in Child Care training topics.

Program management knowledge and interest in child care training topics. Examination of univariate analyses for Program Management in Child Care training topics revealed that significant differences for Salary Satisfaction were noted for Program Management Knowledge in Child Care training topics $F(2, 398) = 7.61$, $p < .001$, but not for Program Management Interest in Child Care training topics $F(2, 398) = 2.46$, $p = .09$ (See Table 14). The pattern evidenced by the data indicated that those with less Salary Satisfaction had the lowest mean scores, while those with more Salary Satisfaction had the highest mean scores (See Table 15). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Salary Satisfaction. Significant differences were only noted between those who were in the High satisfaction group from the Low and Medium satisfaction groups.

Special needs knowledge and interest in child care training topics. Examination of univariate analyses for Special Needs in Child Care training topics revealed that significant differences for Salary Satisfaction were noted for Special Needs Knowledge in Child Care

training topics $F(3, 393) = 9.63$, $p < .001$, but not for Special Needs Interest in Child Care training topics $F(3, 393) = 1.61$, $p = .20$ (See Table 14). The pattern evidenced by the data indicated that those with less Salary Satisfaction had the lowest mean scores, while those with more Salary job satisfaction had the highest mean scores (See Table 15). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Salary Satisfaction. Significant differences were only noted between all three groups (Low, Medium, High) for Knowledge of Child Care training topics.

Given these results, there is marginal support for not rejecting the hypothesis that Relationships and Duty Satisfaction and Salary Satisfaction would predict Knowledge and Interest in Child Care training topics. While the amount of variance accounted for by Relationships and Duty Satisfaction (less than 1%) indicates that the effect may not be meaningful even though alpha is less than .02, the amount of variance accounted for Salary Satisfaction may be meaningful as the amount of variance was over four percent.

Hypothesis 6: Obstacles and Perceived Knowledge and Interest

The sixth hypothesis stated that those teachers who reported less obstacles in attending child-care training would report higher knowledge and interest in child care training topics than teachers who reported more obstacles.

A series of three Multivariate analyses of variance were conducted for examination of the effects of Obstacles ("None," "One or Two," "Three or More,") across the following child care training topics: (a) Basic Knowledge of Child Care and Basic Interest in Child Care, (b) Program Management Knowledge in Child Care and Program Management Interest in Child Care, and (c) Special Needs Knowledge in Child Care and Special Needs Interest in Child Care (See Table 16). Significant main effects were noted for Obstacles on Basic Child Care training topics $F(4,798) = 3.46$, $p = .008$, *adjusted* $r^2 = 0.03$, and Special Needs in Child Care training

topics $F(4,782) = 3.17$, $p = .013$, *adjusted* $r^2 = 0.02$, but not for Program Management in Child Care training topics $F(4,792) = 2.19$, $p = .07$, *adjusted* $r^2 = 0.01$.

Basic Knowledge and Interest Child Care Training Topics

Examination of univariate analyses for Basic Child Care training topics revealed that significant differences for Obstacles were noted for Basic Interest in Child Care training topics $F(2, 401) = 6.19$, $p = .002$, but not for Basic Knowledge of Child Care training topics $F(2, 401) = 0.78$, $p = .46$ (See Table 16). The pattern evidenced by the data indicated that those with less Obstacles had the highest mean scores, while those with more Obstacles had the lowest mean scores (See Table 17). A post-hoc Duncan comparison of means ($\alpha = 0.05$) was conducted for Obstacles. Significant differences were only noted between those who indicated no Obstacles from the two groups indicating that they had Obstacles for both Knowledge and Interest in Child Care training topics.

Special Needs Knowledge and Interest in Child Care Training Topics

Examination of univariate analyses for Special Needs in Child Care training topics revealed that significant differences for Obstacles were noted for Special Needs Knowledge in Child Care training topics $F(3, 393) = 3.30$, $p = .038$, but not for Special Needs Interest in Child Care training topics $F(3, 393) = 3.26$, $p = .039$ (See Table 16). The pattern evidenced by the data indicated that those with fewer Obstacles had the highest mean scores, while those with more Obstacles had the lowest mean scores (See Table 17). Post-hoc Duncan comparison of means ($\alpha = 0.05$) were conducted for Obstacles. Significant differences were only noted between those with one or two Obstacles from the other two groups (None, Three or More) for Knowledge of Child Care training topics. Significant differences were only noted between those with Three or More Obstacles from the other two groups (None, One or Two) for Interest in Child Care training topics.

Given these results, there is marginal support for not rejecting the hypothesis that Obstacles would predict Knowledge and Interest in Child Care training topics. While the amount of variance accounted for by Obstacles (between 1 and 3%) indicates that the effect may not be meaningful even though alpha is less than .02.

CHAPTER 5

DISCUSSION

The present study is an examination of how demographic information of child care professionals impacts perceived knowledge of and interest in child care training topics. A discussion of the results of this study will be presented as follows: (a) education, (b) type of child care center, (c) previous training, (d) experience, (e) job satisfaction, (f) obstacles, (g) limitations, (h) implications, and (i) recommendations for future research.

Education and Knowledge and Interest

Although the research directly relating education to knowledge of and interest in attending child care training is limited, there are some conclusions related to the current study.

In the current study, there were significant differences in special needs knowledge between those child care professionals who graduated with a high school diploma and those who graduated with an Associate Degree. Those child care professionals who were high school graduates reported more special needs knowledge than those with an Associate Degree/Technical Diploma. This finding is in contrast to the literature that suggests that more educated child care professionals would report more knowledge (Cassidy et al., 1998; Rhodes & Hennessy, 2001; Snider & Fu, 1990). This discrepancy may be due to the fact that the current study was based on child care professionals' *perceived* knowledge rather than actual knowledge. Child care professionals who are less educated may perceive that they have more child development knowledge than those who are more educated. As education increases, child care professionals may be more likely to realize their own gaps in knowledge.

There was no significant difference in education level on basic knowledge. This finding may be the result of licensure standards that require all child care professionals, regardless of education, to acquire 10 hours of basic training within the first year of employment. Because

this requirement increases the chances that child care professionals have had exposure to basic training, all child care professionals may report more knowledge in these basic training areas. A change in licensure regulations that would include not only basic training but also program management and special needs training might increase knowledge levels in these training areas. Those child care professionals with a high school degree reported more basic knowledge than those with Associate Degrees or Bachelor's Degrees. This finding may be due to the fact that the more education that is received, the more child care professionals realize they do not know.

In addition, no significant differences were found for education in interest in attending child care trainings. A study by Todd and Deery-Schmitt (1996) with child care professionals found similar results. Todd and Deery-Schmitt(1996)reported that family child care professionals might have a decrease in satisfaction with the realization that their professional position is neither rewarded monetarily or with prestige. This lack of decreased satisfaction and monetary reward might decrease the interest in attending child care training.

The finding of the current study is in contrast to the literature which suggests that more educated child care professionals are more interested in professional development including reading professional literature and attending child care conferences and trainings (Eheart & Leavitt, 1986; Powell & Stremmel, 1989). Although there were no significant differences found in education level and interest in attending child care trainings, the literature supports patterns found in the means in the current study in the areas of program management interest and special needs interest. For instance, those child care professionals with a Bachelor's Degree or higher reported more interest in attending trainings than those with high school diplomas.

Still another reason why no significant differences were found for interest in attending trainings by education level may be due to the need for child care professionals to respond with a socially acceptable response. Many child care professionals may have reported higher interest levels because they perceived that reporting less interest would make them seem less committed.

The difference might be because only when the child care professional knows exactly what types of training to which we are referring in the survey. Not all training is equally valued, despite attempts to monitor the credentials of the trainer and quality of the training.

Type of Child Care Center and Knowledge and Interest

Accreditation Status

There were significant differences in program management knowledge between child care professionals who work at accredited and non-accredited child care centers. Specifically, those child care professionals who work at accredited child care centers reported less program management knowledge than those who work at non-accredited child care centers. While the literature is very limited on the area of accreditation status and knowledge of child care training topics, the findings of this study may be due to the fact that those child care professionals who work at accredited centers have experienced a rigorous, self-study process and have received additional training which may make them more aware of the information they do not know. The Center for Child Care Workforce (2001) found that centers that achieved accreditation showed measurable improvements in quality as compared to those centers that attempted accreditation and failed. In the same study, the Center for Child Care Workforce found that those centers that were accredited had more sensitive and less harsh teacher/child interactions. This finding may indicate that those teachers were more knowledgeable about program management topics including guidance of young children. According to the National Association for the Education of Young Children, the accreditation process examines the total child care program with a focus on the interactions of children and staff and the developmentally appropriateness of the curriculum (NAEYC, 2003). This examination may make child care professionals more aware of their needs in the area of program management. In addition, Whitebrook et al. (1997) found that accredited centers demonstrate significantly higher quality, paid their staff higher wages, and were more likely to have less turnover than non-accredited centers.

No significant differences in accreditation status and basic knowledge of child care professionals were found; however, those child care professionals from accredited centers reported less knowledge than those from non-accredited centers. The lack of significant differences may be a result of the child care licensure requirements in the State of Georgia which require all child care professionals, regardless of accreditation status, to have 10 hours of basic training upon entering the child care field. These trainings include information on basic child development and health, safety, and nutrition topics. In addition, based on the Georgia Child Care Training Calendar (Child Care Solutions, 2004), the majority of child care trainings available are basic child care trainings.

The availability of basic child care trainings may explain the lack of significant difference in special needs knowledge. There are few trainings related to children with special needs, in the Georgia Child Care Training Calendar; therefore, even those child care professionals at accredited centers may not receive training on children with special needs hindering their level of knowledge in this area. A pattern similar to basic knowledge was found for special needs knowledge. Those child care professionals from accredited centers reported less knowledge than those from non-accredited centers.

No significant differences were found for accreditation status and interest in attending child care training. With the exception of special needs interest, similar reporting patterns to the accreditation status and knowledge were found. Those from accredited centers reported less interest in attending child care trainings in the areas of basic and program management. This lack of interest may be due to the fact that the majority of child care trainings offered are geared toward basic or entry level child care professionals and do not meet the higher level professional development needs of child care professionals who have been through an accreditation process. These child care professionals may need a different type or more advanced training than what is actually being offered.

Type of Child Care Center

The results revealed significant differences in special needs interest between child care professionals who work at Privately Owned Child Care Centers and Other 2 settings. Specifically, those child care professionals labeled as Other 2 work in government sponsored early childhood care and education settings such as boards of education or Head Start facilities. These child care professionals are more interested in training related to children with special needs than those child care professionals who work in privately owned child care centers. These findings might indicate that those child care professionals who work in government sponsored settings are more likely to be exposed to children with special needs or have more stringent requirements for dealing with children with special needs, thus, increasing interest in attending special needs trainings. In addition, government sponsored early childhood care and education settings may have higher educational qualifications for child care professionals who work in their settings. Those child care professionals with a higher education level may be more interested in those trainings that will be beneficial to them in their current positions or the government offers more opportunities for professional advancement and higher pay to more specialized training involving populations like children with special needs.

Previous Training and Knowledge and Interest

No significant differences were found for child care professionals' previous ratings of training and their report knowledge of child care training topics. Although there is some literature that suggests that child care professionals who attend training are more knowledgeable of child care training topics, it does not address ratings of the trainings attended (Eheart & Leavitt, 1986; Kontos, 1992; Mueller & Orimoto, 1995).

There were significant differences, however, in interest in basic, program management, and special needs trainings in child care professionals who attended trainings they reported as "not good" and child care professionals who attended trainings they reported as "really good."

Those child care professionals who attended trainings they reported as "really good" reported more interest in attending basic, program management, and special needs trainings. This finding is supported by several research studies (Eheart & Leavitt, 1986; Kontos, 1992; Mueller & Orimoto, 1995). Participants in a study by Mueller and Orimoto (1995) requested training in specific topics after attending a training. Eheart and Leavitt (1986) suggested that the more trainings child care professionals attended, the more likely they were to express interest in attending additional training.

The patterns found in the means indicate, for both knowledge of and interest in child care training topics, that as the ratings of previous trainings increased so did child care providers reported knowledge and interest. The present findings indicate that level of quality is an important factor in increasing the interest in attending child care training. The standards used for the evaluation process of trainings may lead to higher quality training.

Experience and Knowledge and Interest

Experience in Child Care

There were significant differences in basic knowledge and program management knowledge between those child care professionals who had been in the field for 0-2 years (entry) and those who had been in the field for 10 or more years (expert). No significant differences were found in the area of special needs. The terms "expert" and "entry" will be used to provide consistency with the terms used in the results and tables. Entry level child care professionals reported less basic knowledge and program management knowledge than their expert colleagues. Much of the literature addresses education level and knowledge rather than experience, however, Snider and Fu (1990) did find that experience is related to knowledge only when this experience is joined by specialized training. It seems logical that those child care professionals with less experience would report less knowledge in child care training topics. Expert child care professionals, who have been in the field for many years, would likely have attended more

trainings, therefore, acquiring more basic knowledge and program management knowledge. Although no significant differences were found for experience level in the area of special needs, those entry level child care professionals reported less knowledge than those expert level child care professionals.

According to the present study, there were no significant differences for experience level in child care and interest in attending child care trainings, although patterns were identified. With the exception of basic interest, entry level child care professionals reported less interest in attending program management and special needs trainings than their novice and advanced colleagues. At the expert level of child care professionals, interest in child care trainings lowered. This lack of interest may be due to the fact that most of the trainings offered to meet the Georgia DHR requirements are offered at a basic level of training (H. Higgins, personal communication, February 10, 2004). Expert child care professionals may be in need of higher level, more in-depth training. In the current study, novice level (3-5 years experience) child care professionals were more interested in basic training than their entry, advanced (6-9 years), and expert counterparts. These results lend support to the reports by Eheart and Leavitt (1986) and Powell and Stremmel (1989) suggesting that more experienced child care professionals are more interested in attending child care trainings.

Experience with Children with Special Needs

Significant differences were found in basic, program management, and special needs knowledge between those child care professionals who had worked with children with special needs for 0-2 years (entry) and those who had worked with children with special needs for 10 or more years (expert). Entry level child care professionals reported less knowledge in all training topic areas than their expert colleagues. Similar to the findings for experience in child care, this may be due to the fact that those child care professionals with more experience in child care or

with children with special needs have attended more child care trainings and received more information about all training topic areas.

With regard to special needs knowledge, the results were different when compared to child care professionals experience in child care. With the exception of entry level child care professionals, the pattern of the means indicated that any child care professional with experience with children with special needs reported more knowledge than those with just child care experience. The reporting of more knowledge may be due to the fact that any amount of time spent with children with special needs increases a child care professional's knowledge. The more experience with children with special needs leads to a significant increase in perceived knowledge of special needs training topics.

Similar to the findings for experience in child care, there were no significant differences for experience with children with special needs and interest in attending child care trainings. Although no significant differences were found, the pattern of the means indicates that as child care professionals gain more experience with children with special needs, their interest in attending child care trainings in all topics decreases. Possible reasons for these patterns are similar to those described in the previous section such as the trainings are not advanced enough for the child care professional's level of expertise or the trainings do not meet the current needs of the child care professional.

Job Satisfaction and Knowledge and Interest

Relationships and Duty Satisfaction

The results revealed that those child care professionals who were more satisfied with relationships and duties in their current positions reported greater levels of perceived program management knowledge than those child care professionals who were less satisfied. Also, those child care professionals who reported more relationship and duty satisfaction reported more knowledge than those child care professionals who were reported less relationship and duty

satisfaction. Much of the research conducted on job satisfaction focuses on education level and training related to job satisfaction rather than levels of knowledge or interest. Morgan et al. (1993) established that job satisfaction leads to less turnover in child care. Todd and Deery-Schmitt (1996) reported that increases in education and training reduced burnout and stress among child care professionals and increased job satisfaction. In studies of job satisfaction in child care, relationships with supervisors, parents, and children have been reported as one of the reasons to continue in the profession (Whitebrook, Howes, & Phillips, 1990). Additionally, the researchers found that child care professionals reported that the relationships with children, parents, and co-workers provided them with a sense of reward. The Center for Child Care Workforce (2001b) reported that child care professionals were more likely to stay in a job if their co-workers were more highly trained.

The author found no literature related to the impact of job satisfaction on perceived knowledge. It may be that those child care professionals who are comfortable with the relationships in their work environment and with their job duties feel better about their competence and report more knowledge of program management. In addition, those child care professionals who are satisfied with their relationships at work may be more likely to share information with their colleagues related to program management topics. Similar to other findings in this study, differences in basic child care training topics might not have been significant because entry-level requirements of basic training in Georgia may prepare child care professionals in the basic training areas. Regardless of satisfaction, most child care professionals have attended basic child care training topics.

It would seem that child care professionals who are more satisfied with relationships and duties in their current positions would be more likely to be interested in attending child care trainings. This increase in interest due to satisfaction, however, is not the case according to the current study. Regardless of relationship and duty satisfaction, there are no significant

differences in interest in attending child care training in all topic areas. This may be reflective of the current professional development system in which many of the trainings are basic child development trainings and are not geared towards differing levels of expertise and interest of child care professionals.

Salary Satisfaction

The results of the current study revealed significant differences in knowledge and interest in all child care training topic areas between those child care professionals who were more satisfied with their salary in their current positions and those child care professionals who were less satisfied. Those child care professionals who were more satisfied with their salary reported more knowledge than those child care professionals who were less satisfied with their salary. One possible reason for this difference is that child care centers that fund higher salaries for their employees are likely to value training and professional development of their employees. Higher salaries may result in a decrease in turnover and an increase in the amount of attended trainings and perceived knowledge. In addition, child care centers that fund higher salaries may seek those child care professionals with higher levels of education. The Center for the Child Care Workforce (2001a) found that centers that pay higher wages are able to retain a more qualified staff.

There were no significant differences in salary satisfaction and interest in child care training topic areas. This finding indicates that an increase in salary does not increase interest in attending child care training and may be due to the fact that child care professionals' salaries are generally very low. According to the Center for Child Care Workforce (2002), the child care profession "suffers a higher concentration of poverty-level jobs than almost any other occupation in the United States" (p. 3). The average child care worker makes $7.43 per hour with those in Georgia with an average of $6.69 per hour. It is important to note that these means are skewed due to higher reported salaries (Center for Child Care Workforce, 2002a).

The state of Georgia currently has a wage-supplement initiative that supplies providers with a monetary reward bi-annually for higher levels of education such as CDA or a diploma in early childhood care and education. Although there are some incentives in the state of Georgia to monetarily reward child care professionals for furthering their education and training, these incentives are limited to only those long-term, credentialing, diploma, or degree programs rather than two-hour required trainings. The incentives currently being offered do not include short-term, sporadic training that is typically provided for child care professionals in the state. The lack of incentives in addition to low salaries might deter child care professionals from being interested in attending child care trainings. In addition, those child care professionals working at a child care center with higher salaries may receive training from their jobs and may not be interested in attending outside training that is not specific to their professional development needs.

Obstacles and Knowledge and Interest

There were significant differences in special needs knowledge between those child care professionals who reported one or two obstacles in attending child care training and the those child care professionals who report none or those child care professionals who reported three or more. These findings were not expected since the literature suggests that there are many limitations to current training systems that might be an obstacle to child care providers attending training. Some of these limitations include lack of access and cost of training (Morgan et al., 1993).

There were significant differences in basic child care training interest. Specifically, those child care professionals who reported that they had more obstacles are less interested in attending basic child care trainings. This may indicate that those child care professionals who have no obstacles in their life are more likely to be interested in attending basic child care training. This may also be due to the fact that the basic child care training is required of all child care

professionals in Georgia. As obstacles in attending child care training increase, the lack of interest in attending those training may decrease. Given the paradoxical nature of the above findings, further research clearly is needed to clarify barriers that mediate special needs knowledge and obstacles to training.

Limitations

Since no measures were found in the literature that focused on knowledge of and interest in attending child care training, an instrument was designed for this study. The instrument used had some limitations. One limitation of the instrument is that *perceived* knowledge rather than *actual* knowledge was measured. Perceived knowledge is based on individual perceptions and may not accurately reflect the knowledge level of the child care professional. In future studies, actual knowledge could be measured in order to provide a more realistic and accurate portrayal of the level of knowledge.

A second limitation of the instrument is that it needs additional refining. Although there was much effort in creating a reliable and valid measure, continued use over time with a variety of participants would allow the items to be examined more closely and revised as necessary. More studies need to be done with larger numbers so all sub-samples have appropriate factor scores. Sections of the survey, such as the previous ratings of trainings or obstacles, may need new questions to allow for further development of instrumentation.

Another limitation is that response rate of participants to the question regarding years of experience with children with special needs. The lack of response might be due to several reasons. Some of the child care professionals might have thought that since they had never worked with children with special needs that a response was not necessary. Another reason for the lack of response might have been due to the format of the survey. The survey format might have been unclear and participants might have not realized that a response was needed for *each* of the sections under that particular item. Still another reason might be the ambiguity in the term

"special needs." Many child care professionals might not have a clear understanding of how the term is defined in relation to their jobs and experience. A clearer definition of the phrase might be needed for future studies.

The sample generalizability is also a possible limitation. The sample included child care professionals attending a particular type of child care conference (local state conferences). This sample may be different from other child care professionals who attend larger state conferences or have in-house training. In addition, those who actually complete the survey may be more interested than the group who did not complete the survey. Similarly, the sample for this study was those child care professionals in the state of Georgia. This group of child care professionals has distinct child care training requirements based on the licensure regulations in the state. These different regulations may make generalizibility to other states difficult.

Still another limitation to the study is the amount of variance for which was accounted. Although significance was found in the study, the variance accounted for was small and may indicate that there are many other factors affecting the results of the study, some of which were discussed in this chapter. Significance might have been found due to the large sample size.

Implications

Research that examines the knowledge of and interest in attending child care training is important to the early childhood education field in Georgia. The information from this study can provide leaders in the field with valuable information regarding the professional development system as well as providing support for other research studies. The implications of this study regarding the education level of child care professionals, the quality of child care training provided, type of child care center and accreditation status, number of years experience in the field, and job satisfaction will be presented.

Education

The current study revealed higher educated child care professionals report less knowledge. This finding may be due to the fact that the study was based on perceived versus actual knowledge. Continued advocacy and implementation of programs or incentives to increase the level of education of child care professionals needs to be a priority. The move toward a higher educated child care workforce is a national trend that finds states struggling with issues such as how to fund salaries for the increase in child care professional credentials and how colleges and training organizations can respond to the demand of producing college-educated candidates (Whitebrook, 2003). This study, along with others, suggests that higher levels of education might encourage child care professionals to increase their level of knowledge as well as provide higher quality care for young children (Cassidy et al, 1998; Rhodes & Hennessy, 2001; Snider & Fu, 1990). Whitebrook (2003) makes a strong recommendation that at least one child care professional in each classroom be a bachelor's level teacher. Howes (1997) also suggests that long-term training such as the CDA is more beneficial than non-specific college level courses or informal workshops.

The previously mentioned literature is currently being considered in the state of Georgia. Efforts to increase the level of education and training for child care professionals are currently underway with increases in funding for long-term training and wage supplement programs (Smart Start Georgia, 2004). These well-intentioned efforts, however, are at the mercy of politicians and the child care field that struggles with issues of compensation and profit margins.

Quality of Child Care Training

This study indicates that high quality training is a significant factor in increasing the interest in attending child care training. Although the state of Georgia has a training approval system that attempts to determine base-line quality of child care trainers and training, there is a wide variety of quality of training that is available to child care professionals. One implication of this study may be to increase the level of quality of child care training by implementing a

mandatory training of trainers to ensure that child care trainers are qualified to implement high-quality training. Another implication may be the addition of a state-wide trainer and training evaluation system that is required by all trainers. This evaluation system might provide information about the level of quality of trainers and trainings around the state and allow for an improvement plan for those trainers who have poor evaluations. Currently, all DHR approved trainings in Georgia are evaluated and approved by the Georgia Department of Human Resources Training Approval System (H. Higgins, personal communication, February 10, 2004).

Type of Child Care Center and Accreditation Status

Accreditation status, according to this study, has implications for the amount of program management knowledge of child care professionals. It seems that the accreditation process might be an important self-evaluation tool that provides child care professionals with an insight into their level of child care knowledge. Programs and funding to increase accreditation status of child care centers in the state might be valuable in increasing the level of quality of child care, but may also provide child care professionals with evaluative information about their strengths and weaknesses.

Experience of Child Care Professionals

More experienced child care professionals report more knowledge of child care topics. It seems that an implication of this study might be to enhance the pre-service training of those child care professionals who are entering the field. This pre-service training may include training hours in a formal setting that includes hands-on experience working with young children. This preparation might ensure that child care professionals come into the field with a higher level of child care knowledge, thus increasing their ability to provide quality care to young children.

Job Satisfaction

Another implication from this study is the increase in child care job satisfaction including relationship and duty satisfaction and salary satisfaction. One recommendation to encourage the

interest in attending child care training is to provide higher salaries and benefits packages for child care professionals and to increase the positive work environment. Research has shown that child care programs are more successful at maintaining a skilled workforce when the salaries and benefits they provide are similar to those in other professional occupations (Center for Child Care Workforce, 2002a). The increase in a stability of child care professionals may provide a more knowledgeable child care workforce in the state of Georgia. In addition, more attention must be given to the working conditions of child care professionals. Specifically, training for administrators might be necessary to ensure that they are providing a nurturing environment that promotes professional growth.

Finally, a pattern has emerged in this study that there are few, if any, factors that affect interest in attending child care training. As stated previously, it might be important to examine the professional development system in the state of Georgia to determine the types of training that are currently being offered. There are many possibilities that might affect interest. Some of these factors might be that child care professionals are inundated with the same trainers and trainings again and again. A review of the Georgia Child Care and Education Training Calendar shows that many of the same trainings are being offered repeatedly and that child care professionals have little opportunity for variety. In addition, many of the trainings are based at a level for less experienced child care professionals. The professional development system needs to be examined for quality and variety of child care training that meets the needs of the child care professionals.

Recommendations for Future Research

Research in the field of early child care and education is increasing substantially, however, there is much more that needs to be examined in order to make significant strides forward. Some of the recommendations for future research include but are not limited to determining specific levels of child care training quality, an increase in the amount of consistent

child care research, exploring funding sources needed for increases in higher training standards, and investigating other teacher characteristics in relation to knowledge of and interest in attending child care training.

Quality of Child Care Training

In regard to child care training and trainer quality, more research needs to be conducted. Future studies could be done to determine quality indicators that child care professionals rated as "not good" or "really good." Evaluations of trainings that take into account if child care professionals were satisfied with the trainer, the training content, the training methods, and the location and amenities could be conducted. More specific details about training quality could lead to events that create more interest in attendance. A more in-depth examination of adult learning in the child care training environment might be considered. In addition, little is known about the impact of training on the behaviors of child care professionals at different points in their careers and the effectiveness of different types of training programs (Whitebrook, 2003). Determining the types of training that lead teachers to adapt their knowledge and their practices in the classroom is important.

Increase in Consistent Child Care Research

The child care environment is very different from state to state, district to district, and program to program. There are currently a number of studies that examine the issue of training and education of child care professionals; however, these studies range in variables that make them difficult to generalize to the entire field of early childhood care and education. In addition, some of the studies provide a contradictory view of how education and training impact child care professionals' behaviors in the classroom. Moreover, there are a variety of inconsistencies in the field in the definition of the terms training and education. More in-depth studies need to be conducted that better distinguish the differences between different types of training and education programs (Whitebrook, 2003). For example, what is the difference in training and

education experiences for child care professionals versus family child care professionals, and how does the child care field in Georgia compare to the professional development system in other states?

Funding

As leaders in the early childhood care and education field continue to advocate for higher education and training requirements, it seems imperative to find a sensible, economic method for funding the higher standards. Feasibility studies must be conducted to determine what is the most economical way to implement higher standards while continuing to allow child care to function in an economically stable way. Researchers must also examine the variety of sources to fund the cost of higher education and training for those currently in the child care field. Also, the feasibility studies should take into consideration the way in which institutes of higher education will meet the demand for higher education and training requirements. These studies should include not only the demand for instructors, space, and funding, but also for seamless methods of articulating credit among institutions for those child care professionals who might start at various levels of the education system.

Teacher Characteristics

Above and beyond education and experience, a clearer understanding of how other characteristics impact teacher knowledge and behavior in the classroom should be examined (Whitebrook, 2003). Future studies might examine such characteristics as personality and work ethic in relation to knowledge levels and interest in attending child care training. The child care field is expanding and diversity in the workforce is inevitable. It is important to consider many child care professional characteristics when conducting research.

Future research regarding the effects of training on the knowledge of and interest in child care training is imperative to increasing the quality of child care for children. Investigations of quality of child care training will possibly lead states to increase standards of high quality

training. As the investigation of quality of child care training is implemented, it is also necessary to explore funding sources and other factors related to training such as child care professionals characteristics to provide a Systems approach to examining child care training.

Conclusion

The numbers of children in child care is continually increasing. In addition, the new findings regarding the research on brain development continue to demonstrate the need for quality child care environments for young children to ensure success in later years. Even as researchers continue to unveil evidence that supports high quality environments, policy-makers and society in general still seem to be reluctant to provide the necessary means for making the changes happen. It is imperative that the child care professional development system prepares child care professionals with the necessary knowledge to care for our children in order to ensure success. More research is needed to determine the demographic factors that impact the knowledge of child care professionals and the various training systems and programs that are beneficial to the field of early childhood care and education.

REFERENCES

Abbott-Shim, M. (1990). In-service training: A means to quality care. *Young Children, 45(2), 14-18.*

Adams, G. (1990). *Who knows how safe? The status of state efforts to ensure quality child care*. Washington, DC: Children's Defense Fund.

Arnett, J. (1989). Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology, 10(4), 541-552.*

Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children, 5(3), 25-50.*

Blasé, K. A., & Fixsen, D. L. (1981). Structure of child care education: Issues and implications for educators and practitioners. *Child Care Quarterly, 10(3), 210-225.*

Blau, D. M. (2002). The production of quality in child care centers: Another look [Special issue]. *Applied Development Science, 4(3), 136-148.*

Bordin, J., Marchida, S., & Varnell, H. (2000). The relation of quality indicators to provider knowledge of child development in family child care homes. *Child and Youth Care Forum, 29(5), 323-341.*

Bredekamp, S., & Copple, C. (1997). *Developmentally appropriate practice in early childhood programs (Rev. ed.)*. Washington, DC: National Association for the Education of Young Children.

Bredekamp, S., & Willer, B. (1992). Of ladders and lattices, cores and cones: Conceptualizing an early childhood professional development system. *Young Children, 47(3), 47-50.*

Brown, N., Costley, J., & Morgan, G. (1990). *Delaware first…again: The first*

comprehensive state training plan for child care staff. Boston, MA: The Center for Career Development in Early Care and Education.

Cassidy, D. J., Hicks, S. A., Hall, A. H., Farran, D. D., & Gray, J. (1998). The North Carolina Child Care Corps: The role of National Service in child care. *Early Childhood Research Quarterly, 13, 589-602.*

Center for the Child Care Workforce. (2001a). *Current data on the salaries and benefits of the US early childhood education workforce.* Washington, DC: Center for the Child Care Workforce.

Center for the Child Care Workforce. (2001b). *Then and now: Changes in the child care setting, 1994-2000.* Washington, DC: Center for the Child Care Workforce.

Center for the Child Care Workforce. (2002a). *Estimating the six components of the U.S. child care workforce and caregiving population.* Washington, DC: Center for the Child Care Workforce.

Center for the Child Care Workforce. (2002b). *Current data on child care salaries and benefits in the United States.* Washington, DC: Center for the Child Care Workforce.

Center for the Child Care Workforce. (2004). *Current data on the salaries and benefits of the U.S. early childhood education workforce.* Washington, DC: Center for the Child Care Workforce.

Child Care Solutions. (2004, January). *Georgia child care training calendar*. Atlanta, GA: Child Care Solutions, 33.

Clarke-Stewart, A., Gruber, C., & Fitzgerald, L**.** (1994). *Children at home and in day care.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, N. E. (1992). Increasing the quality of family child care homes: Strategies for the 1990s. *Child and Youth Care Forum, 21(5), 347-359.*

Cohen, N., & Modigliani, K. (1990). *The family to family evaluation report.* New York:

Families and Work Institute.

Copple, C. (1991). *Quality matters: Improving the professional development of the early childhood workforce.* Washington, DC: U. S. Government Printing Office.

Davis, M. D., Kilgo, J. L., & Gamel-McCormick, M. (1998). *Young children with special needs.* Boston, MA: Allyn and Bacon.

Debord, K., & Sawyers, J. (1996). The effects of training on the quality of family child care for those associated with and not associated with professional child care organizations. *Child and Youth Care Forum, 25(1), 7-15.*

Duffy, K. (2001). *Guiding career choices in early education.* Kansas City, KS: Heart of American Family Services.

Eberts, M., & Gisler, M. (2001). *Careers in child care* (2nd ed.). Chicago: VGM Career Books.

Eheart, B. K., Leavitt, R. L. (1986). Training day care home providers: Implications for policy and research. *Early Childhood Research Quarterly, 1(2), 119-132.*

Franyo, G., & Hyson, M. C. (1999). Temperament training for early childhood caregivers: A study of the effectiveness of training. *Child and Youth Care Forum, 28(5), 329-349.*

Galinsky, E., Howes, C., Kontos, S., & Shinn, M. (1994). *The study of children in family child care and relative care: Highlights of findings.* New York: Families and Work Institute.

Gargiulo, R. M., & Kilgo, J. (2000). Young children with special needs. Albany, NY: Delmar Publishers.

Georgia Department of Human Resources. (2004). Child care licensure rules and regulations. Retrieved January, 2004, from http://www.ganet.org/rules /index.cgi?base=290/2/2approval reference guide.

Greenough, W., Gunnar, M., Emde, R. N., Massinga, R., & Shonkoff, J. P. (2001, April/May). The impact of the caregiving environment on young children's development: Different ways of knowing. *Zero to Three, 16-23.*

Groginsky, S., Robison, S., & Smith, S. (1999). *Making child care better*. Denver, CO: National Conference of State Legislatures.

Howes, C. (1997). Children's experiences in center-based child care as a function of teacher background and adult-child ratio. *Merrill-Palmer Quarterly, 43(3), 404-425.*

Howes, C., Galinsky, E., & Kontos, S. (1998). Child caregiver sensitivity and attachment. *Social Development, 7(1), 25-36.*

Johnson, L. J., LaMontagne, M. J., Elgas, P. M., & Bauer, A. M. (1998). *Early childhood education: Blending theory, blending practice.* Baltimore, MD: Paul H. Brookes.

Jorde-Bloom, P. (1988). Factors influencing overall job satisfaction and organizational commitment in early childhood work environments. *Journal of Research in Childhood Education, 3, 107-122.*

Kagan, S. L., Scott-Little, C. & Stebbins Frelow, V. (2003). Early learning standards for young children: A survey of the states. *Young Children, September 2003, 58-64.*

Kaplan, M. G., & Conn, J. S. (1984). The effects of caregiver training on classroom setting and caregiver performance in eight community day care centers. *Child Study Journal, 14(2), 79-93.*

Klein, D. M., & White, J. M. (1996). *Family theories: An introduction*. Thousand Oaks: Sage Publications.

Kontos, S. (1992). *Family child care: Out of the shadows and into the limelight.* Washington, DC: National Association for the Education of Young Children.

Kontos, S., Howes, C., & Galinsky, E. (1996). Quality in family child care and relative care. *Early Childhood Research Quarterly, 11(4), 427-445.*

Kontos, S., & Wilcox-Herzog, A. (1997). Teachers' interactions with children: Why are they so important? *Young Children, 52(2), 4-12.*

Mandelson, C. (1994). Trained providers and quality curriculum. In C. A. Baglin & M. Bender (Eds.), *Handbook on quality child care for young children: Settings, standards, and resources* (pp. 125-141). San Diego: Singular Publishing Group, Inc.

Manlove, E. E. (1993). Multiple correlates of burnout in child care workers. *Early Childhood Research Quarterly, 8(4), 499-518.*

Morgan, G., Azer, S., Costley, J., Genser, A., Goodman, I., Lombardi, J., et al. (1993). *Making a career of it: The state of the states report on career development in early care and education.* Boston: Wheelock College.

Mueller, C. W., & Orimoto, L. (1995). Factors related to the recruitment, training, and retention of family child care providers. *Child Welfare, 74(6), 1205-1221.*

National Association for the Education of Young Children. (2003, November). *NAEYC accreditation.* Retrieved January, 2004 from http://www.naeyc.org/ accreditation/naeyc_accred/info_general-faq2.asp

National Child Care Information Center. (2004, January). *Child care licensing requirements: Minimum pre-service qualifications and annual ongoing training hours.* Retrieved January, 2004 from http://www.nccic.org /ccb/issue28/issue28.html#t1.

Pence, A. R., & Goelman, H. (1991). The relationship of regulation, training, and motivation to quality of care in family day care. *Child and Youth Care Forum, 20(2), 83-101.*

Peters, D. L. (1981). New methods for educating and credentialing professions in child care. *Child Care Quarterly, 10(1), 3-8.*

Phillips, D. A., & Howes, C. (1987). Indicators of quality child care: Review of research.

In D. A. Phillips (Ed.), *Quality in child care: What does research tell us?* Washington, DC: National Association for the Education of Young Children.

Phillips, D., Mekos, D., Scarr, S., McCartney, K., & Abbott-Shim, M. (2001). Within and beyond the classroom door: Assessing quality in child care centers. *Early Childhood Research Quarterly, 15(4), 475-496.*

Powell, D. R., & Stremmel, A. J. (1989). The relation of early childhood training and experience to the professional development of child care workers. *Early Childhood Research Quarterly, 4(3), 339-355.*

Quality Counts. (2002). In early-childhood education and care: Quality counts: Building blocks for success. *Education Week, 17, 8-9.*

Queeney, D. S. (1996). Continuing professional education. In R. L. Craig (Ed.), *The ASTD Training and Development Handbook* (4th ed., pp. 53-94). New York: McGraw-Hill.

Queeney, D. S (2000). *Assessing needs in continuing education*. Jossey-Bass Publishers; San Francisco, CA.

Queeney, D. S. (2002). Continuing professional education. In A. L. Wilson & E. R. Hayes (Eds.), *Handbook of adult and continuing education* (pp. 375-391). San Francisco: Jossey-Bass.

Rhodes, S., & Hennessy, E. (2001). The effects of specialized training on caregivers and children in early-years settings: An evaluation of the foundation course in playgroup practice [Special issue]. *Early Childhood Research Quarterly, 15(4), 559-576.*

Ruopp, R., Travers, J., Glantz, F., & Coelen, C. (1979). *Children at the center: Final report of the national day care staffing study*. Cambridge, MA: Abt Associates, Inc.

Schinke, S. P. (1980). Needs assessment and child care staff training. *Child Care Quarterly, 9(2), 73-91.*

Shonkoff, J. P., & Phillips, D. A. (2001, April/May). From neurons to neighborhoods: The science of early childhood development – an introduction. *Zero to Three, 625-626.*

Smart Start Georgia. (2004). The Incentives Project. Retrieved January, 2004 from http://www.smartstartga.org/educators_and_professionals/programs/incentives.ph

Snider, M. H., & Fu, V. R. (1990). The effects of specialized education and job experience on early childhood teachers' knowledge of developmentally appropriate practice. *Early Childhood Research Quarterly, 5, 69-78.*

Todd, C. M., & Deery-Schmitt, D. (1996). Factors affecting turnover among family child care providers: A longitudinal study. *Early Childhood Research Quarterly, 11(3), 351-376.*

Vander Ven, K., Mattingly, M., & Morris, M. (1982). Principles and guidelines for childcare preparation programs. *Child Care Quarterly, 11(3), 221-244.*

Weaver, R. H. (2002). The roots of quality care: Strengths of master providers. *Young Children, 57(1), 18-22.*

Whitebrook, M., & Eichberg, A. (2002). Finding a better way: Defining policies to improve child care workforce compensation. *Young Children, 57(3), 66-72.*

Whitebrook, M., Howes, C., & Phillips, D. (1989). *Who cares? Child care teachers and the quality of care in America: Final report of the national child care Staffing study*. Oakland, CA: Child Care Employee Project.

Whitebrook, M., Howes, C., & Phillips, D. (1990). *The national child care staffing study. Final report: Who cares? Child care teachers and the quality of care in America.* Washington, DC: Center for the Child Care Workforce.

Whitebrook, M., Howes, C., & Phillips, D. (1997). *Worthy work, unlivable wages: The national child care staffing study, 1988-1997.* Washington, DC: Center for the Child Care Workforce.

Whitebrook, M. (2003). *Early education quality: Higher teacher qualifications for better learning environments – A review of the literature.* Berkeley, CA: Institute of Industrial Relations Center for the Study of Child Care Employment.

Appendix A

Early Childhood and Education Training Needs (ECETN) Survey

Please tell us about your current position.

1. **Which job title listed below best describes your current position? (Check one)**

- ☐ Administrator
- ☐ Lead Teacher
- ☐ Assistant Teacher/Floater
- ☐ Inclusion Specialist
- ☐ Other. Please specify _____

2. Please check the number of years of experience you have in each of the following areas:

Child Care	**Your Current Position**	**Children with Special Needs**
☐ 0-2 years	☐ 0-2 years	☐ 0-2 years
☐ 3-5 years	☐ 3-5 years	☐ 3-5 years
☐ 6-8 years	☐ 6-8 years	☐ 6-8 years
☐ 9 + years	☐ 9 + years	☐ 9 + years

3. **How many hours per week do you work in your current position? _____**

4. **What is the age range of the children with which YOU work. If you are an administrator, what is the age range of children at your center? _____**

Please tell us how satisfied you are with your current position.

5. Using the following scale, please indicate how satisfied you are with the following aspects of your current position? (Circle one response for each item)

1 = Definitely Not Satisfied 2 = Not Satisfied 3 = Satisfied 4 = Definitely Satisfied

1	2	3	4	Relationship with co-workers	1	2	3	4	Condition of the building in which you work
1	2	3	4	Relationship with supervisor	1	2	3	4	Areas for staff away from regular work area
1	2	3	4	Relationship with children	1	2	3	4	Salary
1	2	3	4	Supervisor's interactions with me	1	2	3	4	Benefits (i.e., health insurance, time off)
1	2	3	4	Ability to make decisions in my job	1	2	3	4	My job duties

Please continue to Page 2. We would like to know about the child care training you have had in the past 12 months.

Please tell us about your employer.

6. **How would you characterize the center where you work? (Check one)**
   - ☐ Privately owned
   - ☐ Chain or franchise
   - ☐ College or technical school sponsored
   - ☐ Church, community, or organization sponsored
   - ☐ Other. Please specify: _____

7. **How many children can be enrolled at the center where you work? _____**

8. **Is your center accredited (i.e., NAEYC or Montessori)? (Circle one)**

   Yes No Do not know

9. **Does your employer pay for your child care training? (Circle one)**

   Yes No

10. **Do you get paid for your time while you are attending child care training? (Circle one)**

    Yes No

Please tell us about your child care training in the past 12 months.

Remember that the term "child care training" refers to the 10 hours of required training for child care providers.

11. **How many hours of child care training have you attended in the past 12 months? _____**

12. **How would rate the *MAJORITY* of child care training you received during the past 12 months? (Circle one)**

    Definitely not good quality Not good quality Good quality Definitely good quality

13. **Could you apply the information from the child care trainings you have attended in the last 12 months to your current work? (Circle one)**

    Definitely could not apply Could not apply Could apply Definitely could apply

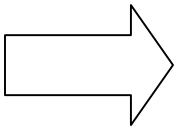
14. **What two (2) child care training topics do you ***NEED*** for you to be perform more effectively in your current position?**

    (1)_____ **(2)** _____

15. **When obtaining child care training over the past 12 months, have any of the following been an obstacle to you? (Circle one response for each item)**

Yes	No	Location was too far away	Yes	No	No substitutes to cover my absence
Yes	No	Time was inconvenient	Yes	No	No child care for my own children
Yes	No	Training was too long	Yes	No	Training was too expensive
Yes	No	Training was too short	Yes	No	Too tired to attend training

You have completed the first ½ of this survey. Please continue to Page 3.



Please tell us how much you know about and are interested in the following topics.

16. On the left side of this page, use the scale given to indicate how much you *KNOW* about each child care training topic. (Circle one response for each item).

    On the right side of this page, use the scale given to indicate how much you are INTERESTED in attending child care training in each child care topic. (Circle one response for each item).

KNOW "To know means I understand or am aware of this topic."					**INTERESTED** "To be interested in means that I want or desire this topic."			
	Definitely					*Definitely*		
Do Not Know	**Do Not Know**	**Know**	**Definitely Know**		**Not Interested**	**Not Interested**	**Interested**	**Definitely Interested**
1	2	3	4	Language Development	1	2	3	4
1	2	3	4	Development of Children ages 0-2	1	2	3	4
1	2	3	4	Development of Children ages 3-5	1	2	3	4
1	2	3	4	Physical Development	1	2	3	4
1	2	3	4	Playground Safety	1	2	3	4
1	2	3	4	Infectious Disease Control	1	2	3	4
1	2	3	4	First Aid and CPR	1	2	3	4
1	2	3	4	Curriculum Planning	1	2	3	4
1	2	3	4	Reading Preparation	1	2	3	4
1	2	3	4	Math Preparation	1	2	3	4
1	2	3	4	Transitions in the Daily Routine	1	2	3	4
1	2	3	4	Challenging Children	1	2	3	4
1	2	3	4	Positive Discipline	1	2	3	4
1	2	3	4	Social Development	1	2	3	4
1	2	3	4	Conflict Resolution with Children	1	2	3	4
1	2	3	4	Diversity	1	2	3	4
1	2	3	4	Career Development	1	2	3	4
1	2	3	4	Supervision of Staff	1	2	3	4
1	2	3	4	Adapting Programs for Children with Special Needs	1	2	3	4
1	2	3	4	Laws Regarding Children with Special Needs	1	2	3	4
1	2	3	4	Identifying Children with Potential Special Needs	1	2	3	4

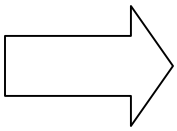
17. From the list above, please choose the 3 child care training topics in which you would be MOST interested.

(1)_____ (2) _____ (3) _____

18. From the list above, please choose the 3 child care training topics in which you would be LEAST interested.

(1)_____ (2) _____ (3) _____

You are almost finished. Please continue to Page 4.



Please tell us how important child care training is to you.

19. Do you believe that the number of required hours of annual child care training should: (Circle one)

Be increased Stay the same Be decreased

20. Is attending child care training related to your current position important in helping you do your job? (Circle one)

Definitely not important Not important Important Definitely important

21. Using the following scale, indicate how willing would you be to: (Circle one response for each item)

1 = Definitely not willing 2 = Not willing 3 = Willing 4 = Definitely willing

Definitely Not Willing	Not Willing	*Definitely* Willing	Willing	
1	2	3	4	Attend more than the 10 hours of required child care training per year.
1	2	3	4	Attend child care training even if my employer did not pay for it.
1	2	3	4	Attend child care training not related to my current position but related to the field.
1	2	3	4	Travel overnight to attend child care training.
1	2	3	4	Travel a distance that was inconvenient to attend child care training.
1	2	3	4	Take my vacation leave time to attend child care training.

Please tell us about yourself.

22. **I am a (Circle one):** Male Female

23. **How old are you?**
- ☐ 20 years or less
- ☐ 20 -- 30 years old
- ☐ 31 -- 40 years old
- ☐ 41 -- 50 years old
- ☐ 51 + years old

24. **I consider myself to be a part of the following racial group. (Check one)**
- ☐ Black (non-Hispanic)
- ☐ White (non-Hispanic)
- ☐ Hispanic/Latino
- ☐ American Indian or Alaskan Native
- ☐ Asian or Pacific Islander
- ☐ Multi-Racial

25. **I *WORK* in the following town or city:**

_____

26. **How much do you make:**
Per hour? $_____
Or
Per year? $_____

27. **What is your relationship status?**
- ☐ Single
- ☐ Married
- ☐ Divorced
- ☐ Widowed

28. **How many children under 12 years of age do you have? _____**

29. **What is the highest education level you have completed? (Check one)**
- ☐ High School Diploma/GED
- ☐ Associate Degree or Technical Diploma
- ☐ Bachelor's Degree in _____
- ☐ Master's Degree or more in_____
- ☐ Other. Please specify _____

30. **Do you have any of the following credentials? (Check all that apply)**
- ☐ National Administrator's Credential (NAC)
- ☐ Child Development Associate (CDA)
- ☐ Child Care Professional (CCP)
- ☐ Technical Certificate of Credit (TCC)
- ☐ None

Thank you for your participation! Please return the survey to the registration table. Don't forget to register for the door prize!!

Appendix B

Measure Component Items

Early Care and Education Training Needs (ECETN)
Items in Each Component

JOB SATISFACTION

There were 2 factors for the Job Satisfaction component including "Relationships and Duty Satisfaction" and "Salary Satisfaction." Following are the items in each factor.

Relationships and Duty Satisfaction Items

Relationship with co-workers

Relationship with supervisor

Relationship with children

Supervisor's interactions with me

Ability to make decisions in my job

My job duties

Salary Satisfaction Items

Condition of the building in which you work

Areas for staff away from regular work area

Salary

Benefits (i.e., health insurance, time off)

OBSTACLES

The Obstacles component was divided into numbers of obstacles including "None," "One or Two," and "Three or More." Following are the list of items for this question.

Obstacle Items
Location was too far away

Time was inconvenient

Training was too long

Training was too short

No substitutes to cover my absence

No child care for my own children

Training was too expensive

Too tired to attend training

PERCEIVED KNOWLEDGE AND INTEREST

There were 3 factors in the Perceived Knowledge and Perceived Interest components including "Basic Knowledge/Interest of Child Care," Program Management Knowledge/Interest in Child Care," and Special Needs Knowledge/Interest in Child Care." Following are the items in each factor.

Basic Knowledge and Interest Items

Language development

Child development ages 0-2

Child development ages 3-5

Physical development

Playground safety

Infectious disease control

First aid and CPR

Program Management Knowledge and Interest Items

Curriculum planning

Reading preparation

Math preparation

Transitions in daily routine

Challenging children

Positive discipline

Social development

Conflict resolution

Diversity

Career development

Supervision of staff

Special Needs Knowledge and Interest Items

Adapting programs for special needs

Laws regarding special needs

Identifying special needs

Appendix C

Human Subjects Consent Letter

Training Needs of Child Care Providers

Early Care and Education Training Needs Survey Implied Consent Form

The following survey entitled "Early Care and Education Training Needs" is part of research being conducted by Amy D. Hough from the Department of Child and Family Development at the University of Georgia under the direction of Diane Bales and Charlotte Wallinga.

Voluntary Participation
Your participation in this survey is completely voluntary. You do not have to take part in the survey if you do not want to. You can stop taking the survey at any time without giving any reason, and without penalty. You can ask to have all the information about you returned to you, removed from the research records, or destroyed.

Purpose of the Research
The purpose of this study is to examine the training needs and interests of early care and education providers in Georgia. Your participation in this study will allow organizations providing training to develop training that better meets your needs. The information on training needs will be shared with other groups providing training, so that the overall quality of training for child care providers can be improved. Improved training may result in higher job satisfaction and lower turnover among child care providers, as well as higher quality care for young children.

Door Prize Registration
After completing this survey, you can voluntarily enter a drawing for a door prize. To register for the door prize, you must complete and return the survey, complete the "Door Prize Registration Form," and return the registration form to the marked box at the registration table. The door prize will be a gift basket valued at approximately $70.

Procedures
If you volunteer to take this survey, you will be asked to do the following things:

1. Complete the enclosed survey that should take between 15-20 minutes to complete.
2. It should take between 15-20 minutes to complete the survey.
3. Return the survey to the researcher at the registration table.
4. If you would like to enter the drawing for the door prize, return your registration form to the box marked "Door Prize Registration Forms."

Risks and Anonymity
No discomforts, stresses, or risks are expected as a result of completing this survey. The information you provide for the survey is anonymous. The demographic information that will be collected on the survey is general information and can in no way clearly identify you. The information that you provide for the door prize registration will be kept separate from the survey. After the door prize drawing takes place, all personal information about you will be shredded within 2 weeks.

Questions about the Research
The researcher will answer any further questions about the research, now or during the course of the project. Amy Hough can be reached by calling (706) 548-9042 or writing to: Amy Hough, 175 Gwinnett Drive, Ste. 370, Lawrenceville, Georgia 30045-8414. Charlotte Wallinga (706-542-4930) and Diane Bales (706-542-7566) may be reached by calling the numbers providers or by writing to University of Georgia, Department of Child and Family Development, Dawson Hall, Athens, Georgia 30602.

Questions or problems regarding your rights as a participant please call or write: Human Subjects Office; Institutional Review Board; Office of V.P. for Research; The University of Georgia; 606A Graduate Studies Research Center; Athens, Georgia 30602-7411; Telephone 706-542-6514; email address IRB@uga.edu.

Appendix D

Tables

Table 1

Frequencies and Percentages of Demographic Variables for Child Care Professionals

	n	%
Type of Position		
Administrator	74	17.1
Lead Teacher	177	40.9
Assistant Teacher	141	32.6
Other	41	9.5
Years of Experience in Child Care		
Entry (0-2 years)	115	26.6
Novice (3-5 years)	98	22.6
Advanced (6-9 years)	48	11.1
Expert (10+ years)	130	30.0
Missing Data	42	9.7
Years of Experience in Current Position		
Entry (0-2 years)	176	40.6
Novice (3-5 years)	74	17.1
Advanced (6-9 years)	43	9.9
Expert (10+ years)	61	14.1
Missing Data	79	18.2

(Table 1 continues)

(Table 1 continued)

	n	%
Years of Experience with Children with Special Needs		
Entry (0-2 years)	150	34.6
Novice (3-5 years)	21	4.8
Advanced (6-9 years)	16	3.7
Expert (10+ years)	35	8.1
Missing Data	211	48.7
Education		
High School	251	58.0
Associate Degree	80	18.5
Bachelors' Degree or Higher	60	8.5
Missing Data	15	3.5
Gender		
Male	0	0
Female	388	89.6
Missing Data	45	10.4
Age		
Under 20 years	35	8.1
20-30 years	105	24.2
31-40 years	126	29.1

(Table 1 continues)

(Table 1 continued)

	n	%
41-50 years	86	19.9
50+ years	72	16.6
Missing Data	9	2.1
Ethnic Group		
Black Non-Hispanic	192	44.3
White Non-Hispanic	192	44.3
Hispanic Latino	11	2.5
American Indian	1	0.2
Asian Pacific Islander	3	0.7
Mulit-racial	13	3.0
Missing Data	21	4.8

Table 2

Factor Loadings From Principal Axis Factor Analysis with Promax Rotation Method for

Job Satisfaction Factors

	Factor loading	
Item	1	2
Relationship and Duty Satisfaction		
Satisfaction with co-workers		.66
Satisfaction with supervisor		.83
Satisfaction with children	.55	
Satisfaction with supervisor interaction	.73	
Satisfaction with ability to make decisions	.60	
Satisfaction with job duties	.58	
Salary Satisfaction		
Satisfaction with the building		.35
Satisfaction with areas for staff		.43
Satisfaction with salary		.82
Satisfaction with benefits		.77

Table 3

Factor Loadings From Principal Axis Factor Analysis with Promax Rotation Method for

Obstacles Factors

	Factor loading		
Item	1	2	3
Too far away	.62		
Timing inconvenient	.64		
Too long		.52	
Too short			
No substitute		.52	
No child care for own children			.49
Too expensive	.40		
Too tired		.59	

Table 4

Factor Loadings From Principal Axis Factor Analysis With Promax Rotation Method for

Knowledge Factors

	Factor loading		
Item	1	2	3
Basic Knowledge			
Language development		.47	
Child development ages 0-2		.77	
Child development ages 3-5		.82	
Physical development		.69	
Playground safety		.56	
Infectious disease control		.56	
First aid and CPR		.49	
Program Management Knowledge			
Curriculum planning	.59		
Reading preparation	.66		
Math preparation	.57		
Transitions in daily routine	.79		
Challenging children	.63		
Positive discipline	.76		
Social development	.73		

(Table 4 continues)

(Table 4 continued)

Item	Factor loading 1	2	3
Conflict resolution	.72		
Diversity	.59		
Career development	.60		
Supervision of staff	.56		
Special Needs Knowledge			
Adapting programs for special needs			.77
Laws regarding special needs			.94
Identifying special needs			.73

Table 5

Factor Loadings From Principal Axis Factor Analysis With Promax Rotation Method for

Interest Factors

	Factor loading		
Item	1	2	3
Basic Interest			
Language development	.72		
Child development ages 0-2	.81		
Child development ages 3-5	.86		
Physical development	.75		
Playground safety	.74		
Infectious disease control	.85		
First aid and CPR	.71		
Program Management Interest			
Curriculum planning		.79	
Reading preparation		.96	
Math preparation		.92	
Transitions in daily routine		.42	
Challenging children		.44	
Positive discipline	.54		
Social development	.71		

(Table 5 continues)

(Tables 5 continued)

Item	Factor loading 1	2	3
Conflict resolution	.53		
Diversity	.39		
Career development	*		
Supervision of staff	*		
Special Needs Interest			
Adapting programs for special needs			.95
Laws regarding special needs			1.0
Identifying special needs			.84

*Less than .35

Table 6

Multivariate and Univariate Analyses of Variance F Ratios for Type of Training X

Education for Knowledge and Interest Measures

			ANOVA			
	MANOVA		Knowledge		Interest	
Variable	*df*	*F*	*df*	*F*	*df*	*F*
Basic Child Care Training Topics	(4, 724)	.81	(2, 364)	1.42	(2, 364)	.88
Program Management Child Care Training Topics	(4, 716)	2.27	(2, 360)	3.03*	(2, 360)	1.43
Special Needs Child Care Training Topics	(4, 724)	2.88*	(2, 356)	2.95*	(2, 356)	1.88

*p </= .05

Table 7

Mean Scores and Standard Deviations for Measures of Knowledge and Interest as a

Function of Type of Training and Education

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Basic Child Care Training Topics				
High School	23.30	3.85	22.23	4.22
Associates Degree	22.84	3.12	21.88	4.85
Bachelor or Above	22.46	3.66	22.16	3.53
Program Management Child Care Training Topics				
High School	35.20	6.17	35.20	6.24
Associates Degree	33.26	6.14	36.27	6.76
Bachelor or Above	34.71	4.84	36.43	5.36
Special Needs Child Care Training Topics				
High School	8.23	2.58	9.68	2.14
Associates Degree	7.43	2.68	10.17	2.31
Bachelor or Above	8.29	2.39	10.07	1.67

Table 8

Multivariate and Univariate Analyses of Variance F Ratios for Type of Training X

Accreditation Status and Type of Center for Knowledge and Interest Measures

			ANOVA			
	MANOVA		Knowledge		Interest	
Variable	*df*	*F*	*df*	*F*	*df*	*F*
Accreditation						
Basic Child Care Training Topics	(2, 249)	1.92	(1, 250)	2.35	(1, 250)	1.47
Program Management Child Care Training Topics	(2, 246)	3.21*	(1, 247)	4.55*	(1, 247)	2.13
Special Needs Child Care Training Topics	(2, 243)	.54	(1, 244)	.81	(1, 244)	.15
Type of Center						
Basic Child Care Training Topics	(8, 762)	1.58	(4, 388)	2.14	(4, 388)	1.04
Program Management Child Care Training Topics	(8, 756)	1.04	(4, 385)	.88	(4, 385)	1.20

Special Needs Child Care Training Topics	(8, 748)	2.39*	(4, 376)	1.22	(4, 376)	3.89*	

*p </= .05

Table 9

Mean Scores and Standard Deviations for Measures of Knowledge and Interest as a

Function of Accreditation Status and Type of Center

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Accreditation Status				
Basic Child Care Training Topics				
Accredited	22.61	.33	21.42	.40
Not Accredited	23.32	.32	22.09	.39
Program Management Child Care Training Topics				
Accredited	34.06	.52	34.89	.56
Not Accredited	35.61	.51	36.03	.55
Special Needs Child Care Training Topic				
Accredited	8.07	.23	9.95	.19
Not Accredited	8.36	.23	9.85	.18

(Table 9 continues)

(Table 9 continued)

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Type of Center				
Basic Child Care Training Topics				
Privately Owned	23.15	3.91	22.07	4.05
Chain or Franchise	20.72	3.20	22.78	3.86
College Sponsored	23.90	3.57	22.90	5.20
Church/Organization	22.81	3.39	22.73	3.90
Government	23.36	3.56	21.47	4.62
Program Management Child Care Training Topics				
Privately Owned	34.59	6.44	34.93	6.14
Chain or Franchise	33.00	5.54	37.41	5.40
College Sponsored	36.50	3.92	35.80	5.41
Church/Organization	34.48	5.97	36.33	5.94
Government	35.45	5.28	35.63	6.55
Special Needs Child Care Training Topics				
Privately Owned	7.83	.18	9.45	1.40
Chain or Franchise	7.50	.62	10.61	.49
College Sponsored	9.00	.83	10.40	.66
Church/Organization	7.96	.32	9.94	.25
Government	8.41	.30	10.37	.24

Table 10

Multivariate and Univariate Analyses of Variance F Ratios for Type of Training X

Previous Rating of Training for Knowledge and Interest Measures

			ANOVA			
	MANOVA		Knowledge		Interest	
Variable	*df*	*F*	*df*	*F*	*df*	*F*
Basic Child Care Training Topics	(4, 708)	2.97*	(2, 356)	.34	(2, 356)	5.60*
Program Management Child Care Training Topics	(4, 706)	2.52*	(2, 355)	.32	(2, 355)	4.76*
Special Needs Child Care Training Topics	(4, 696)	2.72*	(2, 350)	1.60	(2, 350)	4.50*

*$p < .05$

Table 11

Mean Scores and Standard Deviations for Measures of Knowledge and Interest as a

Function of Type of Training and Previous Rating of Training

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Basic Child Care Training Topics				
Not Good	23.07	3.81	19.50	2.44
Good	23.31	3.52	21.63	4.22
Really Good	23.61	3.54	22.83	4.29
Program Management Child Care Training Topics				
Not Good	34.21	5.83	32.07	4.45
Good	35.01	5.74	34.85	6.15
Really Good	35.40	6.35	36.54	6.45
Special Needs Child Care Training Topics				
Not Good	7.36	2.50	8.29	2.05
Good	8.09	2.44	9.74	2.03
Really Good	8.48	2.84	10.04	2.18

Table 12

Multivariate and Univariate Analyses of Variance F Ratios for Type of Training X Experience for Knowledge and Interest Measures

	MANOVA		ANOVA			
			Knowledge		Interest	
Variable	*df*	*F*	*df*	*F*	*df*	*F*
Years of Child Care Experience						
Basic Child Care Training Topics	(6, 652)	2.16*	(3, 328)	4.05*	(3, 325)	.29
Program Management Child Care Training Topics	(6, 648)	2.17*	(3, 326)	4.14*	(3, 326)	.22
Special Needs Child Care Training Topics	(6, 644)	.84	(3, 324)	.89	(3, 324)	.72
Years of Special Needs Experience						
Basic Child Care Training Topics	(6, 402)	2.67*	(3, 203)	5.16*	(3, 203)	.40
Program Management Child Care	(6, 402)	3.57*	(3, 203)	6.66*	(3, 203)	.71

Training Topics						
Special Needs	(6, 400)	4.25*	(3, 202)	7.56*	(3, 202)	1.51
Child Care Training Topics						

*$p < .05$

Table 13

Mean Scores and Standard Deviations for Measures of Knowledge and Interest as a

Function of Type of Training and Previous Experience in Child Care and Previous Experience in Child Care with Special Needs

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Previous Experience in Child Care				
Basic Child Care Training Topics				
Entry (0-2 years)	22.54	3.83	22.07	3.86
Novice (3-5 years)	23.20	3.46	22.16	4.14
Advanced (6-9 years)	22.97	3.48	21.42	4.89
Expert (10+ years)	24.50	3.24	21.98	4.79
Program Management Child Care Training Topics				
Entry (0-2 years)	33.97	6.07	35.23	5.79
Novice (3-5 years)	34.76	6.06	35.57	6.36
Advanced (6-9 years)	34.55	4.72	36.08	5.21
Expert (10+ years)	37.23	5.49	35.46	7.02
Special Needs Child Care Training Topics				
Entry (0-2 years)	7.93	2.49	9.61	2.16
Novice (3-5 years)	7.94	2.81	9.69	2.32

(Table 13 continues)

(Table 13 continued)

Group	Knowledge		Interest	
	M	*SD*	*M*	*SD*
Advanced (6-9 years)	7.54	2.26	10.14	1.65
Expert (10+ years)	8.42	2.98	9.89	2.03
Previous Experience in Child Care with Special Needs				
Basic Child Care Training Topics				
Entry (0-2 years)	22.36	3.57	22.23	3.92
Novice (3-5 years)	22.78	4.13	22.17	4.95
Advanced (6-9 years)	22.67	3.18	22.60	2.87
Expert (10+ years)	25.03	3.00	21.42	5.37
Program Management Child Care Training Topics				
Entry (0-2 years)	33.70	5.73	35.77	5.81
Novice (3-5 years)	34.33	4.20	36.44	6.33
Advanced (6-9 years)	35.87	4.37	35.80	6.85
Expert (10+ years)	38.30	5.16	34.21	7.16
Special Needs Child Care Training Topics				
Entry (0-2 years)	7.57	2.58	9.69	2.06
Novice (3-5 years)	8.26	2.47	10.53	2.01
Advanced (6-9 years)	9.33	1.72	10.40	1.84
Expert (10+ years)	9.63	2.15	10.13	2.04

Table 14

Multivariate and Univariate Analyses of Variance F Ratios for Type of Training X Job Satisfaction for Knowledge and Interest Measures

	MANOVA		ANOVA			
			Knowledge		Interest	
Variable	*df*	*F*	*df*	*F*	*df*	*F*
Relationships and Duty Satisfaction						
Basic Child Care Training Topics	(4, 798)	2.23	(2, 401)	2.29	(2, 401)	2.14
Program Management Child Care Training Topics	(4, 792)	2.28*	(2, 398)	3.37*	(2, 398)	1.27
Special Needs Child Care Training Topics	(4, 782)	.78	(2, 393)	1.06	(2, 393)	.66
Salary Satisfaction						
Basic Child Care Training Topics	(4, 798)	5.29*	(2, 401)	6.76*	(2, 401)	3.49
Program	(4, 792)	5.00*	(2, 398)	7.61*	(2, 398)	2.46

Management Child Care Training Topics						
Special Needs Child Care Training Topics	(4, 782)	5.27*	(3, 393)	9.63*	(3, 393)	1.61

*$p < .05$

Table 15

Mean Scores and Standard Deviations for Measures of Knowledge and Interest as a

Function of Type of Training and Job Satisfaction

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Relationships and Duty Satisfaction				
Basic Child Care Training Topics				
Low	22.51	3.63	21.96	3.65
Medium	23.04	3.54	21.60	4.30
High	23.48	3.71	22.60	4.38
Program Management Child Care Training Topics				
Low	33.74	6.30	35.26	5.46
Medium	34.42	5.54	34.82	6.55
High	35.59	6.18	35.96	6.23
Special Needs Child Care Training Topics				
Low	7.81	2.57	9.80	1.81
Medium	7.89	2.59	9.61	2.15
High	8.24	2.69	9.90	2.28
Salary Satisfaction				
Basic Child Care Training Topics				
Low	22.44	3.61	21.64	3.80

(Table 15 continues)

(Table 15 continued)

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Medium	22.83	3.73	21.89	4.15
High	24.27	3.54	23.10	4.45
Program Management Child Care Training Topics				
Low	33.24	6.24	35.08	5.57
Medium	34.51	6.14	35.03	6.16
High	36.63	5.24	36.65	6.46
Special Needs Child Care Training Topics				
Low	7.18	2.86	9.75	2.15
Medium	7.98	2.53	9.65	2.14
High	8.87	2.38	10.12	2.00

Table 16

Multivariate and Univariate Analyses of Variance F Ratios for Type of Training X

Obstacles in Attending Training for Knowledge and Interest Measures

			ANOVA			
	MANOVA		Knowledge		Interest	
Variable	*df*	*F*	*df*	*F*	*df*	*F*
Basic Child Care Training Topics	(4, 798)	3.46*	(2, 401)	.78	(2, 401)	6.19*
Program Management Child Care Training Topics	(4, 792)	2.19	(2, 398)	1.46	(2, 398)	2.95
Special Needs Child Care Training Topics	(4, 782)	3.17*	(3, 393)	3.30*	(3, 393)	3.26

*$p < .05$

Table 17

Mean Scores and Standard Deviations for Measures of Knowledge and Interest as a

Function of Type of Training and Obstacles in Attending Child Care

	Knowledge		Interest	
Group	*M*	*SD*	*M*	*SD*
Basic Child Care Training Topics				
None	22.87	4.15	22.84	3.85
One or Two	23.49	3.26	21.55	4.52
Three or More	23.13	3.24	21.33	4.28
Program Management Child Care Training Topics				
None	34.63	6.67	36.14	5.95
One or Two	35.72	5.91	35.16	6.40
Three or More	34.25	5.11	34.49	6.14
Special Needs Child Care Training Topics				
None	7.86	2.69	9.98	2.07
One or Two	8.72	2.55	9.95	2.13
Three or More	7.83	2.54	9.40	2.13