The Efficacy of emotional and instructional support (EIS) training and consultation on Head Start teacher-child interactions

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THE EFFICACY OF EMOTIONAL AND INSTRUCTIONAL SUPPORT (EIS) TRAINING AND CONSULTATION ON HEAD START TEACHER-CHILD INTERACTIONS

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ABSTRACT

The Efficacy of Emotional and Instructional Support (EIS) Training and Consultation on Head Start Teacher-Child Interactions

by

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There is an increased need for quality care in the field of early care and education and, teachers interactions with his or her students are the catalyst for providing and ensuring quality within early childhood environments (La Paro, Pianta, & Hamre, 2008). The study examined the effect of training and consultation on Head Start teacher and child interactions as measured by the Classroom Assessment Scoring System, also known as the CLASS.

Twenty-one Head Start teachers located in Southern Nevada served as participants in the study where non-threatening and evidence based training and consultation was provided over six weeks. Trainings were provided to participants once a week where they received specific training to improve the emotional and instructional support provided to their students through teacher-child interactions. As one of the procedures of this study, participant’s interactions with their students were video recorded to measure implementation of what they had been taught during trainings.

Consultation sessions were provided at the end of each week after training had been provided. During the consultation sessions, there were discussions regarding the participant’s perspective of the video recorded interaction, acknowledgment of strengths,
and opportunities for support that included what the student investigator would do during subsequent weeks to assist the participant’s performance while working with their students. At the conclusion of training and consultation and after pre and post assessment data were collected, an additional two weeks were provided as a maintenance phase to provide additional support and measure performance. The results of this study proved promising for increasing teacher-child interactions through emotional and instructional training and consultation. With an alpha level set at .05, there were significant differences among several of the dimensions from the CLASS instrument.
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CHAPTER 1
INTRODUCTION

There has been great debate among politicians, administrators, and parents regarding the provisions of services for young children who are in need of early care and education as well as the level of quality of such services when provided (Lewis, 2009; Christie, 2009; Ceglowski, 2004; Epstein, 1999). For years, concerns regarding early care and education for young children have been presented and unfortunately, provisions for services have been fragmented instead of being provided in a holistic approach (Lewis, 2009). Over time, provisions and support for young children have improved as a result of several factors including labor laws and health issues (e.g. Children’s Bureau), new priorities for early childhood education (e.g. Nixon Administration), provisions specifically for children with disabilities (e.g. Individuals with Disabilities Education Act IDEA, 2004), and adoption of national educational goals to ensure all children entered into kindergarten prepared (e.g. No Child Left Behind, 2002; Lewis, 2009).

According to Christie (2009), there are ten challenges that either directly or indirectly have the potential to impact the status of the economy. Among these challenges were, “Ensure quality from pre-kindergarten to third grade” (p. 318). Christie also noted that state leaders have continued to support efforts and initiatives to increase quality care and education for young children, however, due to a strained economy, it has been difficult for individuals to pay for preschool services.

Although certain levels of advocacy have existed among parents and professionals for quality care and education for young children, investments in young children at the federal level decreased during the last Bush Administration, and while more and more
states added three and four year olds to their preschool agendas, funding programs at a level where increased quality could be provided proved to be a struggle (Lewis, 2009). However, although funding and support was strained, as different initiatives similar to welfare reform were mandated, society faced an even greater need for early care and education (Ceglowski & Bacigalupa, 2002). Welfare reform placed demands on single mothers that resulted in them being required to re-enter the workforce and their children were left to spend at least part of their days in paid non-parental care (Ceglowski & Bacigalupa, 2002).

More than 55% of mothers who had young children were in the workforce and the fastest growing arrangement for the care of their children was enrollment in childcare programs (Love, Epps & Dauzat, 1996). Approximately 75% of children under the age of five and children between the ages of five and twelve were in childcare (Love, Epps, & Dauzat, 1996). There were more than one million children enrolled in pre-kindergarten programs across the United States, many of them funded by federal programs such as IDEA, Title I, and Head Start (Saluja, Early, and Clifford, 2001). As numbers and hours increased for children who required early care and education, so did the demand for the level of quality provided within early care and education settings (Love, Epps, & Dauzat, 1996). Also included in the provision to ensure quality care and education for young children was the demand to secure highly qualified teachers to provide empirically sound practices (No Child Left Behind Act, 2002). With the statistics presented, the notion of early childhood programs increasing was not questionable. Additionally, the demand for quality care increased as programs developed.
Statement of the Problem

Variables ranging from strains on the economy, to welfare reform, and other administrative decisions and initiatives have been considered influential variables on the need for more high quality early care and education programs (Christie, 2009; No Child Left Behind, 2002; Personal Responsibility and Work Opportunity Act PRWORA, 1996). However, based on current literature, conceptualizations of what constitutes quality within early care and education is quite limited. According to Ceglowski (2004), there has been great variation among the definitions and structure of quality within early childhood programs. Specifically, definitions of quality have ranged from static to dynamic depending upon whose perspective is considered (Ceglowski, 2004).

According to various resources, quality programming within early care and education has been defined based on the perspective of parents, educators, and administrators (Ceglowski & Bacigalupa, 2002). Eliason and Jenkins (2003) defined quality within early care and education as programs that were child centered and needs driven. Findings from work of these researchers reveal administrators believed quality was established in a “top-down” fashion where structural variables such as the setting of the facility, equipment within the facility, and qualifications of the staff who provided services at the facilities were the true influences of quality programming (Ceglowski & Bacigalupa, Eliason & Jenkins).

When the perspectives of children were measured, they viewed quality within early childhood programs in a, “bottom-up” perspective where their experiences and interactions were more valuable than administrative features (e.g. facilities, staff qualifications)(Ceglowski & Bacigalupa, 2002). However, parents had a more, “inside-
outside” perspective where they believed programs were of quality when the environment was responsive to their needs and respectful of them as parents (Ceglowski & Bacigalupa, 2002). Further, similar to the perspectives listed, in various other sources, quality within programs was primarily associated with structural factors such as class size, equipment, resources, and staff qualifications (Love, Epps, & Dauzat, 1996; Gallagher & Lambert, 2006; Ceglowski & Bacigalupa, 2002).

Within the literature reviewed, there were minimal discussions regarding how teacher-child interactions influenced quality programming. According to Munro (2008) and Pianta (2007), structural aspects of early childhood programs were not critical factors when determining quality within early care and education programs. Robert Pianta, director of the National Center for Research on Early Childhood Education and professor of psychology at the University of Virginia indentified teacher-child interactions as the key to learning, thus constituting quality within early care and education programs (Munro, 2008). Further, there were at least two studies where teachers’ verbal interactions and physical engagement influenced positive outcomes for children (Hamilton & Gordon, 1978; NICHD Early Child Care Research Network, 2005).

There was limited research on how teacher-child interactions influenced quality within early care and education programs, and even less information and data on how training and technical assistance (e.g. consultation) increased teachers ability to engage more effectively; especially among teachers with minimal experience and those with lower levels of education (e.g. undergraduate degrees). Within the literature quality has been associated primarily with structural variables (e.g. buildings, room arrangement, and material) and with the educational levels of caregivers. This view of quality is quite
limited. Also, missing from the literature is empirical data related to the effects of providing training with a consultation component to assist teachers in federally funded (e.g. Head Start) programs. Research is needed to determine whether such training will increase teacher’s abilities to engage more effectively with young children, thus improving the level of quality within their programs.

The purpose of this study is to examine the efficacy of Emotional and Instructional Support (EIS) training and consultation on Head Start teacher and child interactions. In implementing this study, the following research questions will be answered:

1. Does in-service training with follow-up consultation improve teacher’s abilities to provide emotional support to young children?
2. Does in-service training with follow-up consultation improve teacher’s abilities to provide instructional support to young children?
3. What were Head Start teachers attitudes regarding Emotional and Instructional Support training and consultation after participating in the study and did they prefer training over consultation or were there no differences in attitudes?

Significance of the Study

Due to changes in policies and family dynamics, there has been a demand to increase the number of early childhood programs for families who were in need of childcare. There has been an even greater demand to ensure that when the programs were developed, the programs were established with a high level of quality (Lewis, 2009; Christie, 2009; Ceglowski, 2004; Epstein, 1999).
Unfortunately, there has been a disparity between the level of education and preparation between teachers within public school districts when compared to teachers employed by programs such as Head Start (Epstein, 1999). Public school teachers have been noted for their formal college educations; whereas Head Start teachers have been noted for their early childhood credentials (e.g. Child Development Associate CDA Epstein, 1999). Researchers have investigated levels of quality within both public schools and federally funded preschools, and noted differences in program quality and child development in favor of public schools where teachers held degrees (Esptein, 1999). Several researchers noted that Head Start teachers did not feel fully prepared to work with young children who engaged in challenging behaviors (Stormont, Covington-Smith, & Lewis, 2007; Benedict, Horner, & Squires, 2007).

To increase Head Start teachers’ abilities to work with children in early care and education settings and to increase quality through teacher-child interactions, this dissertation study was designed to investigate a training and consultation intervention. The intervention focused on training topics that were identified as essential indicators of quality within programs when present (Pianta, La Paro, & Hamre, 2008) and also included a component of consultation with a group of Head Start teachers who were degreed and/or credentialed. The training and consultation was provided to teachers to increase the level and effectiveness of their engagement and interaction with their respective students. The teacher-child interactions within groups were measured from pre to post training and consultation, and one final observation completed during a maintenance phase which occurred two weeks after the post-assessment data were collected.
The results from this study have the potential to improve the skills of Head Start teachers and subsequently improve the experiences of the children they teach. Additionally, the study will contribute new knowledge to the current literature related to quality measures within early childhood settings.

Definition of Terms

In completing the literature review, conducting the research, and in presenting the results of the study, some terms were used in an unusual manner. The words or terms will be presented and defined in the order in which they appeared within each section of the manuscript.

**Bush Administration** referred to the executive branch of government under the leadership President George H. W. Bush.

According to Pianta, La Paro, and Hamre (2008), **Emotional Support** referred to the connection between the teacher and students and among students and the warmth, respect, and enjoyment communicated by verbal and nonverbal interactions, and teachers’ ability to reduce negative climates while being sensitive to and having regard for students’ perspectives.

**Instructional Support** referred to the teacher’s use of instructional discussions and activities to promote students’ higher-order thinking skills and cognition and the teacher’s focus on understanding rather than on rote instruction (Pianta, La Paro & Hamre, 2008). In addition, instructional support referred to the quality of feedback provided by teachers to students and how effectively they also modeled language (Pianta, La Paro & Hamre, 2008).
According to Horner (2000), **Positive Behavior Support** (PBS) involves the assessment and reengineering of environments so people with problem behaviors experience reductions in problem behaviors and an increase in the social, personal, and professional quality of their lives. PBS was based on the principles of Applied Behavior Analysis (ABA) that was first defined by Baer, Wolf, and Risely (1968) where interventions were provided in the environment where support was needed; teaching appropriate behaviors rendering inappropriate behavior ineffective, inefficient, and irrelevant (Crone & Horner, 2003).

The term **feedback loops** referred to the back and forth exchanges between teacher and his or her student, the persistence of the teacher to engage students and the effectiveness of follow-up questions presented to students during discussions (Pianta, La Paro, & Hamre, 2008).

**Welfare Reform** referred to an initiative through the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 where single mothers received support from Temporary Assistance for Needy Families (TANF) and welfare was reconstructed to: (a) end welfare as an entitlement, (b) require recipients to begin working after two years of receiving benefits, (c) place a lifetime limit of five years on benefits paid by federal funds, (d) encourage two parent families, and (e) discourage out-of-wedlock births (Personal Responsibility and Work Opportunity Act of 1996).

**Head Start** as amended now reads and is referred to as the Improving Head Start for School Readiness Act of 2007. Head Start was originated in 1964 as an
act and as a support for the war on poverty. Head Start is a national program for low income children that promote school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social and other services to enrolled children and families (Improving Head Start for School Readiness Act, 2007).

Individuals with Disabilities Education Act (IDEA) referred to a federal policy that provided guidance on the provision of special education and related services in least restrictive environments and guidance on the protection of individuals with disabilities (IDEA, 2004).

Title I also referred to as the Improving the Academic Achievement of the Disadvantaged of the Elementary and Secondary Education Act of 1965. The purpose of this section within the act was to ensure all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments (No Child Left Behind Act, 2001).

Classroom Assessment Scoring System (CLASS) referred to an observational instrument developed at the University of Virginia to assess quality in pre-school classrooms. CLASS assesses interactions between children and teachers in three broad domain areas of classroom quality: Emotional Support, Classroom Organization, and Instructional Support. The tool has been validated in over 2,000 pre-school classrooms and has been used to reliably assess important dimensions of classroom quality in Head Start and other pre-school programs (La Paro, Pianta, & Hamre, 2008).
National Association for the Education of Young Children (NAEYC) referred to an organization founded in 1926 that since has been dedicated to improving the well-being of young children, with particular focus on the quality of educational and developmental services for all children from birth through age eight.

Concept Development referred to teachers’ processes and use of instructional discussions and activities to promote students’ higher-order thinking skills in contrast to a focus on rote instruction (La Paro, Pianta, & Hamre, 2008).

Quality of Feedback referred to teachers’ processes of extending students’ learning through their responses to students’ ideas, comments, and work (La Paro, Pianta, & Hamre, 2008).

Language Modeling referred to the extent in which teachers facilitated and encouraged students’ language by demonstrating expressive, receptive, and advanced language through daily authentic conversations.

Training referred to one component of the intervention model received by the participants within this study. Training included evidence based content provided to Head Start students within a training room. The training was presented in an interactive presentation of PowerPoint slides and was provided once per week over six weeks.

Consultation referred to one component of the intervention model received by the participants within this study. Consultation sessions involved meeting individually with each participant to discuss video recorded teacher-child interactions. Discussions were made during each session regarding the teacher’s
perspective of the teacher-child interaction, strengths identified through the
interactions, opportunities for support, and development of an action plan for
improvements in teacher-child interactions.

Summary

As policies changed requiring educational opportunities for young children and as
mandates were enforced requiring more and more families to enter into the workforce,
the demand for quality early care and education increased (Lewis, 2009; Christie, 2009;
Head Start Act, 2007; Ceglowski, 2004; Epstein, 1999). Dating back to 1965 when the
Department of Health and Human Services introduced and implemented the Head Start
program as one of its many efforts to assist in the war on poverty, comprehensive
services were developed for young low income children and their families. The services
included a large educational component, health and nutrition, family services, and
disabilities and mental health services (Head Start, 2007).

As time progressed, the Individuals with Disabilities Education Act (IDEA)
made revisions in 1986 to its 1975 amendment to include provisions for younger children
from birth to three years of age who were diagnosed with disabilities and as a result of his
or her disability required special education and related services. The IDEA required
individuals to receive a free and appropriate public education (FAPE) within a least
restrictive environment (LRE). Further, in 2001, the No Child Left Behind Act (NCLB)
required states to provide more quality services and increased programs by employing
highly qualified staff and by focusing its educational efforts and experiences on
empirically sound practices.
As state and federal mandates were enforced for educational institutions (e.g. school districts, federally funded programs), there were other mandates being enforced that directly impacted single mothers. Mothers who were receiving Temporary Assistance for Needy Families (TANF) were required by the Personal Responsibility and Work Opportunity Act (PRWORA) to enter into the workforce after two years of receiving benefits, there was a lifetime limit of five years on benefits paid by federal funds, and there was an aim to encourage two-parent families and discourage out-of-wedlock births. Through this act, single mothers were forced to enter into the workforce, further increasing the need for additional childcare options (PRWORA, 1996). Not only was there a demand for more programs, there was an increased demand on high quality programs when developed (Head Start Act, 2007; NCLB, 2001).

There have been discussions regarding what constituted quality programs for young children. Some have correlated facilities and material with quality programming where others have attributed staff qualifications (e.g. higher level of learning) with the development and provision of quality services.

Further it has been noted early childhood programs in which teachers held advanced educational degrees were higher quality than Head Start programs in which teachers held credentials or undergraduate degrees. However, there were at least two studies with results that demonstrated a correlation between teachers’ engagement with children and an increase in student’s cognition and development. Further, Pianta, La Paro, and Hamre (2008) noted that quality in early care and education programs was attributed to teacher-child interactions.
There has been concern about degreed teachers and those with credentials entering into the early care and education field with theory and knowledge, yet not with the support needed to implement practices associated with learned content. Pianta, La Paro and Hamre (2008) authors of the Classroom Assessment Scoring System (CLASS) a tool designed to measure the level and quality of teacher child interactions in three domain areas of support: Emotional Support Classroom Organization, and Instructional Support considered the content areas essential to ensure quality within pre-kindergarten and third grade programs.

When looking at Emotional Support and Classroom Organization, the content between the two areas of support for children are parallel to the components of Positive Behavior Support Systems (Horner, 2000; Pianta, La Paro, & Hamre, 2008). All three content areas represent classroom management in a proactive, respectful, and collaborative way.

The study described in this dissertation was designed to examine the effects of Emotional and Instructional Support (EIS) training and consultation on Head Start teacher and child interactions. The CLASS was used for data collection on teacher-child interactions and the results among pre, post and maintenance assessment were hypothesized to yield results that demonstrated a difference in effect within subjects (e.g. repeated measures). If training and consultation reveals positive outcomes, then administrators should seek ways to ensure that their respective teachers receive this support.
CHAPTER 2
REVIEW OF LITERATURE

There were several purposes for this chapter. First, the author reviewed and summarized the literature regarding structural factors that constituted quality within early childhood programs and environments. Secondly, the author reviewed and summarized research and literature regarding how teacher and child interactions influenced quality within early childhood programs and was considered process quality oppose to structural (Pianta, 2008).

The author also reviewed literature and summarized to what extent teachers within early care and education programs; especially those within Head Start programs were prepared to engage appropriately with their students, thus improving quality within early childhood environments. The chapter continued with information regarding specific training for Head Start teachers to improve their interactions with their students. Training that included Emotional Support with an element of Positive Behavioral Support Systems (PBS) and Instructional Support to increase probabilities of positive climates, to reduce negative climates, to increase teacher sensitivity and regard for student perspectives, to improve behavior management techniques and increase levels of productivity, to increase instructional learning formats, to increase concept development, and to increase quality of feedback and language modeling. Finally, the chapter concluded with information regarding one research based assessment tool used to measure the level, quality and appropriateness of teacher and child interactions. The tool reviewed was the Classroom Assessment Scoring System or the CLASS.

The author used several methods and data bases for searching the literature. A systematic search through five computerized databases (i.e. Professional Development
Collection, Education Full Text, Education: A Sage Collection, JSTOR, and Emerald Library) and from at least three edited resources were used in conducting searches within the literature. The following descriptors were used: quality programming and early care and education, teacher-child interactions and engagement, preschool and quality, teachers, quality and early childhood education, concept development, problem solving, creativity, instructional support, language modeling, scaffolding, quality of feedback, feedback loops, and open-ended questions and children.

In selecting literature and research findings for this study, the following criteria were followed: (a) selected research with findings that demonstrated positive effects on child outcomes through teacher-child interactions, (b) selected research that outlined what constituted quality among early childhood programs, (c) selected research that outlined the impact staff training and consultation had on improving quality and teachers’ capacities in early childhood education, (d) selected research that outlined the impact staff training had on improving the interactions between teachers and their students, (e) selected research studies and reviewed literature where infants, toddlers and preschoolers where the subjects, (f) selected research studies and reviewed literature regarding staff qualifications and training where early childhood professionals, including Head Start teachers were the subjects and (g) there were no restrictions on the years research was conducted and findings were published.

Particularly, there were several studies reviewed and analyzed regarding teacher-child interactions and relationships and how the interactions and engagement impacted child outcomes. However, only a few were used as references within the study. Although the author provided information on the effects of training combined with
consultation, it was decided to emphasize the findings of one study in particular where the effects of training and consultation on teachers’ abilities to engage more effectively with young children proved promising (Benedict, Horner, and Squires, 2007).

One study conducted by V. Jane Hamilton and Donald A. Gordon (1978) was designed to investigate specific aspects of preschool teacher-child interactions regarding task persistence in classroom verses laboratory settings. The subjects included in the study were 28 children that included 7 males and 21 females who were assigned to four Montessori classrooms.

The procedures involved in the study were observations of teacher and antecedent child behavior in four Montessori classrooms for eight days; timed observations of percent of time each child spent on task in the classroom; and an experimental task given individually outside the classroom (Hamilton & Gordon, 1978). Results revealed children who received more criticism had lower in-class on task scores, while those who received more suggestions had higher in-class on task scores. The significant variables for the experimental task persistence analysis were criticism, direction, and suggestion. Children who received more criticism and directing statements in the classroom had lower scores on experimental task persistence, while those who received more suggestions had higher scores (Hamilton & Gordon, 1978).

The results of the study confirmed those conducted in a previous study (i.e. Fagot, 1973) that revealed less task behavior occurred among preschool children in classrooms where the teacher criticized less frequently (Hamilton & Gordon, 1978). The findings also suggested, highly controlling adults who provided information but was not
responsive to children’s questions were less effective in encouraging children to work on tasks independently (Hamilton & Gordon, 1978).

In another research project conducted by the Cost, Quality, and Outcomes Study where interactions and engagement between teachers and their students were an attributing variable for increasing outcomes among young children, revealed promising results. The study included as it subjects, four year old students who attended child care centers of varying quality across four states (NICHD Early Child Care Research Network, 2005). Data were collected and quality measured through observations of classroom practices and through teacher reports of the closeness of teacher-child relationships. Child outcomes were then measured at ages five, six, and eight (NICHD Early Child Care Research Network, 2005).

Results revealed closer teacher-child relationships predicted higher standardized test scores in language and math and higher ratings by teachers (NICHD Early Child Care Research Network, 2005). Further, closer teacher-child relationships in preschool predicted fewer behavior problems and higher sociability levels in schools (NICHD Early Child Care Research Network, 2005). As mentioned previously, results of one study would be mentioned where researchers measured the efficacy of consultation on preschool and Head Start teacher’s abilities to implement elements of Positive Behavior Support Systems (PBS) that would also reduce problem behaviors while increasing teacher-child interactions (Benedict, Horner, Squires, 2007).

Benedict, Horner, and Squires (2007) conducted a study where they assessed the impact of PBS consultation on teachers’ use of universal PBS practices and children’s behaviors were evaluated in a multiple baseline design across four classrooms. A
functional relationship was established between PBS consultation and teachers’ implementation of universal PBS practices. Low levels of problem behavior prevented assessment of the impact of these changes on child problem behaviors (Benedict, Horner, & Squires, 2007).

The authors expressed to prevent challenging behaviors in preschool-based consultation, consultants worked with teachers to strengthen the use of environmental arrangements and teaching strategies that were associated with children’s improved social and emotional functioning (Benedict, Horner, and Squires, 2007). They continued by explaining, in a comprehensive, systems-level approach, a consultant may also work with administrators and other related service personnel to address systems level policies and procedures that would support the identification, assessment, and prevention of and intervention for challenging behavior (Benedict, Horner, and Squires, 2007). Classrooms used in this study were eligible to participate if they were located in the targeted community, if the lead teacher attended a workshop in PBS in the last academic year, and if the classroom was receiving support from a behavior consultant employed by the community’s early intervention and early childhood special education agency (Benedict, Horner, & Squires, 2007).

The classrooms were integrated settings serving early childhood special education eligible and Head Start preschoolers. Head Start funded and operated 6 of the 15 classrooms, 6 were community preschools, and 3 were special education classrooms (Benedict, Horner, & Squires, 2007). The results of this study revealed changes in the presence of features of PBS at the classroom level increased from pre to post-consultation for each of the four preschool classrooms. In implementation of PBS practices, one
classroom increased from 39.63% to 52.22%, another classroom increased from 14.26% implementation to 50% on post assessments, and the last two classrooms mean scores were 35% and 38% prior to consultation and increased to 64% and 63% on post assessments (Benedict, Horner, & Squires, 2007).

In summary of limited research related to teacher-child interactions and research regarding the impact of training and consultation on teachers performance, it was noted in the studies previously mentioned, teacher-child interactions and relationships between teachers and students had positive effects on child outcomes (Hamilton & Gordon, 1978; NICHD Early Child Care Research Network, 2005). Although the variables were not identical within the two studies, the studies both involved and analyzed the efficacy of teachers’ interactions and engagement on the functioning of young children (Hamilton & Gordon, 1978; NICHD Early Child Care Research Network, 2005). One study measured how teachers’ engagement through verbal responses and feedback impacted the level of students’ persistence on work assignments between two settings (Hamilton & Gordon, 1978). The other study measured how teacher-student relationships and engagement predicted higher level of functioning and performance in language, math, and social capacities (NICHD Early Child Care Research Network, 2005). Research regarding the efficacy of consultation on early childhood and Head Start teachers abilities to implement elements of PBS revealed there were significant increases in their abilities after receiving onsite consultation (Benedict, Horner, & Squires, 2007).

From the results presented, there were implications that teacher-child interactions and consultation for teachers to increase their learning capacities had direct and positive effects on child outcomes and teachers abilities. However, how did teacher-child
Early Childhood Programs and Quality

*Structural Factors*

Studies have been conducted and there has been great concern regarding quality within early childhood programs (Cegłowski, 2004; Epstein, 1999). Much concern of quality programming within early childhood has come as a result of more families requiring quality care for their children (Cegłowski & Bacigalupa, 2002) and as a result of increasing numbers of early childhood programs evolving for children and their families within public schools and within federally funded agencies (Head Start Act, 2007; NCLB, 2001, IDEA, 1986). With more mothers being required to enter into the workforce, with increasing numbers of children spending at least part of their days in paid non-parental care, and with parents using preschool and childcare even when they were not employed, the demand for quality care has increased (Cegłowski & Bacigalupa, 2002, Personal Responsibility and Work Opportunity Reconciliation Act, 1996).

More than 55% of mothers who had young children were in the workforce and the fastest growing arrangement for the care of their children was enrollment in childcare centers (Love, Epps, & Dauzat, 1996). As numbers and hours increased for children who needed early childhood programs, so did the demand for quality care (Love, Epps, & Dauzat, 1996, Head Start Act, 2007, NCLB, 2001). There were more than a million children enrolled in pre-kindergarten programs across the United States, many of them funded by federal programs such as the Individuals with Disabilities Education Act (IDEA), Title I, and Head Start (Saluja, Early, & Clifford, 2001).
There were 42 states that provided funding for pre-kindergarten education with much of its funding allocated to public schools (Saluja, Early, & Clifford, 2001). There was approximately 75% of children under the age of five and between the ages of five and twelve who were in childcare (Love, Epps, & Dauzat, 1996). With the statistics presented, there was no question the demand for early childhood programs increased over the years and also the demand for quality within programs as they were established.

However, the question posed here was, “What constituted quality within early childhood programs and environments?” With increased concern regarding the need for early childhood programs, there have also been discussions regarding the definition and structure of quality within early childhood programs and environments. There has been great variation among the definitions and structure of quality within early childhood programs (Ceglowski, 2004). She implied definitions could be static or dynamic depending upon individuals who were required to define quality (Ceglowski, 2004). As a result of different demands and different needs and desires among individuals, there were different perspectives of what quality programming was and how its structure was identified (Ceglowski, 2004).

Consistently, according to the National Association for the Education of Young Children (NAEYC) quality care and education for young children has been characterized as what is good for the child (Ceglowski and Bacigalupa, 2002). Quality programs have been defined as programs that were child centered and that kept the needs of children at the center of the teaching and learning process (Eliason and Jenkins, 2003). Among several references, there have been consistent details regarding the structure of quality programs within early childhood environments; most of the information has been
supported by and based on the perspectives of Liliam Katz, former president of the National Association for the Education of Young Children (NAEYC) (Ceglowski, 2004; Eliason & Jenkins, 2003; Ceglowski & Bacigalupa, 2002; Phi Delta Kappan, 1994).

Five perspectives were noted regarding quality early care and education (Ceglowski, 2004; Eliason & Jenkins, 2003; Ceglowski & Bacigalupa, 2002; Phi Delta Kappan, 1994). Most of the literature available on the topic of quality among early childhood programs suggested the quality of early childhood programs could be assessed by examining selected features of the program from different perspectives depending upon the individual or individuals who were assessing the quality (Ceglowski & Bacigalupa, 2002). There was the perspective of the researcher or professional, the perspective of the children, the perspective of the families, the perspective of the staff and the perspective of the community and larger society (Eliason & Jenkins, 2003).

The perspective of the researcher or professional took an approach called an assessment of quality from a top-down perspective (Ceglowski & Bacigalupa, 2002; Eliason & Jenkins, 2003). Within this approach, the administrator associated quality programming with variables such as setting, equipment, and staff qualifications. However, the perspectives of children were viewed as the bottom-up approach where true experiences and interactions between students and their teachers were considered (Ceglowski & Bacigalupa, 2002). The third approach and perspective was the families who were receiving services within the early care and education programs.

Parents or families took a more inside-outside perspective where they associated quality with how they felt they were being received, responded to and respected by staff within the early childhood program (Ceglowski & Bacigalupa, 2002). The fourth
perspective was an approach to identifying quality as viewed by staff from the inside where they associated quality programming with how their experiences were as employees. The final and ultimate perspective considered how the community and the larger society believed the program was servicing the surrounding community. The results of the perspective typically were the determining variable of quality from the community’s perspective (Ceglowski & Bacigalupa, 2002; Eliason & Jenkins, 2003).

Although comprehensive in scope, there were other components and variables viewed by others that constituted quality programming within early care and education environments. Discussions of quality within childcare settings focused on variables such as: classroom composition, curriculum and program philosophy, physical environment, staff characteristics, adult-child interactions and parent-staff communication (Ceglowski and Bacigalupa, 2002). Love, Epps, and Dauzat (1996) attributed small group sizes, favorable staff-child ratios, well trained staff, curriculum and strong parent participation with quality programming within early care and education settings. Further, Gallagher and Lambert (2006) discussed there were five dimensions used to determine quality within early childhood settings.

The dimensions included: classroom dynamics, classroom structure, classroom staff characteristics, administration and support services and parental involvement. It was evident that consistently, quality within early care and education environments were focused primarily on people and their education, classroom size and its materials, parental involvement, and the number of staff to each group of children, but if all of these variables prevailed would quality exist within early care and education programs? Were there correlations between how teachers and their students interacted with one another
and levels of quality that existed within early childhood programs? Within the next section, there was discussion of quality and how teacher and child interactions influenced or impacted the level of quality within early care and education settings.

*Teacher-Child Interactions*

Most state regulations for early childhood programs focused on structural aspects of classrooms when considering quality (Munro, 2008). The structural aspects considered were class size, teacher-child ratio, teachers’ professional degrees, and curriculum (Munro, 2008). Structural indicators such as the curriculum used, teacher credentials, and other program factors were only proxies for the instructional and social interactions children had with teachers in classrooms. In many states and localities, program quality was measured only in terms of proxies (Pianta, 2007).

According to Munro (2008) and Pianta (2007), structural aspects of early childhood programs were not the critical factors to consider when determining quality within early care and education programs. Research showed the connection between structural factors and child outcomes were not significant (Munro, 2008). Robert Pianta, director of the National Center for Research on Early Childhood Education and professor of psychology at the University of Virginia identified teacher-child interactions as the key to learning, thus constituting quality among early care and education programs (Munro, 2008).

It was noted that teachers’ implementation of instruction through their interactions with children was a critical and typically underemphasized aspect of early childhood program quality (Pianta, 2007). Although atypical, the greatest opportunity for learning existed in moments of teacher and child interactions when the teacher crafted learning
experiences that stretched children just beyond their current skill levels (Munro, 2008). Munro (2008) expressed that more important dynamics of classroom quality to consider were those directly associated with teacher-child interactions and how the interactions impacted learning. Several studies researched the impact and importance of teacher-child interactions on learning and how the interactions influenced perspectives of quality among early childhood programs (Hamilton & Gordon, 1978; NICHD Early Child Care Research Network, 2005).

Hamilton and Gordon (1978), examined teacher-child interactions in preschool settings and persistence. The authors hypothesized that task behavior in the classroom and on an experimental task would be correlated, children who received more frequent criticism and interference would show less on task classroom behavior, children who received more frequent criticism and interference would be less persistent on the experimental task, children who received more frequent praise would show greater in class involvement and children who received more frequent praise would be more persistent on the experimental task (Hamilton & Gordon, 1978). The results revealed that teacher interactions with their students had a positive and significant impact on student abilities. It was noted that children who received more criticism from their teachers had lower in class on task scores, while those who received more suggestions had higher in class on task scores (Hamilton and Gordon, 978).

The significant variables for the experimental task persistence analysis were criticism, direction, and suggestion. Children who received more criticism and directing statements in the classroom had lower scores on experimental task persistence, while those who received more suggestions had higher scores (Hamilton & Gordon, 1978).
Another study that measured the closeness of teacher-child relationships with academic achievement and functioning revealed closer teacher-child relationships predicted higher standardized test scores in language and math and higher ratings by teachers of cognitive and attention skills in kindergarten and second grade (NICHD Early Child Care Research Network, 2005).

The study revealed closer teacher-child relationships in preschool also predicted less behavior problems and higher sociability levels in school (NICHD Early Child Care Research Network, 2005). Although the level of quality among early care and education programs have focused primarily on structural aspects from class size, location, and teacher qualification and credentialing, quality among programs have also focused on achievement and outcomes through teacher-child interactions (Pianta & LaParo, 2003; Pianta, 2007). It was noted the relationships children have with adults and other children within families, child care, and school programs provided the foundation for their success in school (Pianta & LaParo, 2003).

Considering child outcomes as an ultimate goal of quality care for young children, there have been implications of increased child outcomes with the level and appropriateness of teacher and child interactions (La Paro, Pianta, & Stuhlman, 2004; Meehan, Hughes, Cavell, 2003; Leder, 1987). However, were teachers trained in their abilities to engage and interact with children appropriately and developmentally or did they enter the field of early childhood education without all of the prerequisites to interact effectively thus improving quality care and education?
Early Childhood Programs, Quality and Teachers

Teacher Training and Preparation

Consistently across studies and from reviews of the literature, quality within early care and education programs have been associated and identified by more than just structural factors that included class size, teacher credentialing, and communication between staff and parents (Munro, 2008; Pianta, 2007; NICHD Early Childhood Care Research Network, 2005; Hamilton & Gordon, 1978). The National Association for the Education of Young Children (NAEYC) recommended seven structural, cognitive, and social factors that policymakers should consider when achieving high-quality and developmentally appropriate programs. At the top of the list among the seven factors was comprehensive professional preparation (Epstein, 1999).

Love, Epps and Dauzat (1996) also included well trained staff among their list of essential elements of quality early childhood programs. Although programs and states made progress as they attempted to achieve quality programs through ensuring structural attributes such as equipment, child-staff ratios, and safety existed, they consistently fell short in the areas of staff qualifications and training (Epstein, 1999). Quality proved to exist and had direct association with the level of teacher and child interactions displayed within early care and education environments (Munro, 2008; Pianta, 2007; NICHD Early Childhood Care Research Network, 2005; Hamilton & Gordon, 1978). If teacher and child interactions were considered the catalyst for quality programming and since structural factors were not, how was it assured teachers within the field of early childhood education including Head Start were well prepared to increase the level of interactions thus increasing the effects of achievement and child
outcomes among young children? There has been great debate and concern regarding teacher training and preparation especially within the field of early childhood education. The increase in early childhood programs has led to a shortage of qualified teachers who were prepared to work with young children (Love, Epps, & Dauzat, 1996).

The demand for early childhood education has grown faster than the system’s capacity to staff expanding programs (Pianta, 2007). Pianta noted universal pre-kindergarten programs for four year olds required at least 200,000 teachers with an estimated 50,000 additional teachers needed by the year 2020. If high quality services and programs will be provided, more early childhood educators must be attracted into the profession and trained appropriately (Pianta, 2007).

According to Phi Delta Kappan (1994), the National Child Care Staffing Study surveyed 1,309 classroom personnel at 227 child care centers in four major cities. The researchers found that 12% of respondents held bachelor’s or graduate degrees in fields related to early childhood education, 24% had at least one high school course in early childhood education, 7% had vocational training related to early childhood education, 19% had some college education related to early childhood education and 38% had no education related to early childhood education at all. Data and others similar to what has been provided proved huge variations in the training backgrounds of child care personnel (Phi Delta Kappan, 1994). The average educational level of child care teachers ranged from minimal college experience to vocational or technical training. Head Start teacher’s ranged primarily between some college experiences to associate degrees (Landry, 2009). Levels of staff education and training increased in the last two decades, but there was still much room for improvement (Landry, 2009).
The number of center-based teachers with a four year college degree increased from 29% to nearly 50% and nearly all have received child related training (Epstein, 1999). However, although the numbers increased, it was noted there still were not substantial number of colleges and universities with programs designed specially to prepare early childhood educators (Love, Epps, & Dauzat, 1996). As a result, teachers with little or no training or those trained and experienced in working with children in upper grades were hired to work with younger children (Love, Epps, & Dauzat, 1996). The disparity, the inconsistency, and the variation among early childhood professional’s education and training existed across public and private early care and education programs and also among Head Start staff (Epstein, 1999).

**Head Start Teachers, Credentialing, and Training**

High quality early childhood programs depended in part on well trained personnel using coherent and developmentally based educational approaches. Staff characteristics and the resources available for training must be considered in the design and implementation of any quality enhancement (Epstein, 1999). Studies have noted the higher the level of teacher education and early childhood training, the better the quality of care and developmentally appropriate practices delivered to young children (Epstein, 1999).

According to Epstein (1999), teachers in public school and nonprofit programs had more formal education when compared with Head Start teachers early childhood credentials. Teachers in public school and nonprofit programs had more formal education, while those in Head Start more often had early childhood credentials (Epstein, 1999). Teachers within public schools formal education was positively related to
program quality, while Head Start teachers in-service training was related to quality programming within early care and education settings (Epstein, 1999).

In-service training was better in Head Start than in other settings (Epstein, 1999). Head Start embodied a strong tradition of in-service training in child care (Epstein, 1999). In addition to Head Start’s emphasis on delivering services that improved the lives of low-income children and families was an emphasis on employment training that improved the lives of staff members (Phi Delta Kappan, 1994). Together these dual missions fostered staff development that produced high quality program and simultaneously empowered employees (Phi Delta Kappan, 1994).

Observed differences in program quality and children’s development generally favored public schools. Developmental differences may be attributable to children planning and reviewing activities more in public schools and having less access to diverse materials in nonprofit settings (Epstein, 1999). Based on information gathered as a secondary analysis of data from a larger national study (e.g. Training for Quality) that measured the correlation between staff qualifications, in-service training, program quality, and children’s development, it was discovered that in-service training, over and above teachers’ education and experiences was significantly related to program quality (Epstein, 1999).

Although Head Start teachers’ level of education were not as significant or advanced as teachers within public school settings, there was opportunity for them to improve in their abilities to engage more effectively with young children through consistent levels of in-service training (Epstein, 1999) and there were opportunities for them to increase in their level of education through changes in federal mandates (Head
Start Act, 2007). According to the United States Department of Health and Human Services (2008), $175,214,000 was allocated during fiscal year 2007 and $174,949,400 appropriated for fiscal year 2008 for training and technical assistance. In addition, the Head Start Act (2007) supported and required each Head Start teacher to attend annually no less than fifteen clock hours of high quality professional development that would ultimately have positive and lasting impacts on classroom instruction and teachers’ performance within their classrooms.

There were professional and degree requirements for Head Start teachers that mandated by September 30, 2013, at least 50 percent of Head Start teachers nationally in center based options would secure a baccalaureate or advanced degree in early childhood or related field (Head Start Act, 2007). During the 2005 program year, thirty-two percent of Head Start teachers had a least a 2 year college degree, thirty-one percent had a baccalaureate degree, 4 percent had a graduate degree and twenty-two had a state certificate or Child Development Associate (CDA) credential (U.S. Department of Health and Human Services, 2008). Although there were provisions made for Head Start teachers to receive training and technical assistance and mandates to secure more advanced degrees in early childhood education, what approaches to learning proved most beneficial to increase capacities for early childhood providers including those in Head Start programs?
Training, Mentoring and Consultation

Past experiences as children and developing adults have influenced teaching practice for even the most educated and experienced teachers (Moore, 2001). According to Moore (2001), mentoring teachers offered promising reform for education. Mentoring counteracted the old memories or practices of engaging with children and assisted teachers with providing instruction in a more relaxed, innovative, and developmentally appropriate way (Moore, 2001).

Research that focused on the practice of mentoring suggested training programs benefited the early childhood profession by reducing the dropout rate by 35%. The research documented teachers who received the least mentoring left the field more quickly than other teachers (Moore, 2001). It was documented mentoring helped new teachers evaluate their own experiences and grappled with the emotional side of teaching (Moore, 2001). Mentoring also supported teachers by providing clear, specific advice about how to do something better or differently the next time. It was suggested to use mentoring in areas such as setting standards, best practices across the curriculum, during interactions with parents, and for implementing curriculum planning, room arrangement, and positive guidance and discipline (Moore, 2001).

There were several resources and research studies that emphasized the importance of training and staff development on improving capacities of teachers, but the studies further explained that significant improvements for teachers and students came when training was combined with levels of consultation, mentoring, and feedback (Landry, 2009; Benedict, Horner, & Squires, 2007; Campbell & Milbourne, 2005). Onsite mentoring, consultation, frequent supervision, or work-setting activities and assignments
were examples of training strategies used to promote application in childcare settings (Campbell & Milbourne, 2005). Although the number of studies using mentoring and onsite consultation training was small, findings suggested strategies that included numerous onsite consultation visits, and development of technical assistance plans and assistance with implementation activities to improve practices had potential of improving program quality (Campbell & Milbourne, 2005).

The Children’s Learning Center Institute at the University of Texas conducted a four year study where they measured a blended training program that consisted of intensive professional development, mentoring and regular analysis of student assessments (Landry, 2009). The subjects were preschool teachers from at risk preschool programs. An identified outcome was to determine what interventions or variables to consider as they tried to make unlicensed teachers as effective as licensed educators (Landry, 2009). From the four year study, results proved through intensive professional development, mentoring, and regular analysis of student assessments, even non-credentialed teachers offered quality instruction on an ongoing basis while using data to make decisions to improve quality for children (Landry, 2009). Additional findings suggested training for teachers of at risk pre-kindergarten children were most effective when comprehensive and well integrated into the school program (Landry, 2009).

The most essential elements and most effective on significant gains in the quality of instruction and amount of children’s learning were yearlong course work, hands on practices in classrooms, communication between teachers and assigned mentors, and the combination of professional development with weekly mentoring and detailed monitoring of student progress over time (Landry, 2009). When compared with teachers who did not
complete the training program, teachers who participated showed significant improvements in their instruction in the areas of writing, shared reading, phonological awareness and letter knowledge. In addition, they conducted more frequent and better quality center-based instruction and maintained more detailed and useful portfolios on children. Ultimately, teachers who participated in the training program graduated preschoolers who had significantly larger vocabulary, more highly developed phonological awareness, and more knowledge of letters and print concepts than the control group (Landry, 2009).

More significant outcomes were documented when mentoring, consultation, and training activities were provided to teachers with specific outcomes in mind (Campbell & Milbourne, 2005). Improvements in quality of child care for infants, toddlers, and preschoolers were insignificant when mentoring and onsite consultation visits were provided twice a month for an average of 12 months but were not linked to specific short-term expectations (Campbell & Milbourne, 2005). However, when four months of intensive mentoring directed toward program quality improvement with 22 infant-toddler caregivers resulted in positive differences on Infant and Toddler Environment Rating Scale (ITERS) total scores when compared with a control group of 16 caregivers who did not receive mentoring (Campbell & Milbourne, 2005). Within the study, the control group’s scores on the ITERS reduced from 137 to 132, where the treatment group scores increased from 134 to 141 (Campbell & Milbourne, 2005).

A study conducted by Benedict, Horner, and Squires (2007) where they assessed the impact of Positive Behavior Support consultation on teachers’ use of universal PBS practices and children’s behaviors was evaluated in a multiple baseline design across four
classrooms. A functional relationship was established between PBS consultation and teachers’ implementation of universal PBS practices. However, low levels of problem behavior prevented assessment of the impact of these changes on child problem behaviors.

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and the last two classrooms mean scores were 35% and 38% prior to consultation and increased to 64% and 63% on post assessments.

It was evident teacher-child interactions and the way teachers were trained proved essential in early care and education programs for early childhood and Head Start teachers. Research studies documented effects of teacher-child interaction on quality within early childhood programs and significant results of professional development and training when combined with mentoring and consultation (Benedict, Horner, & Squires, 2007; Landry, 2009; Pianta, 2007). Although, training and consultation enhanced learning for teachers, what was beneficial content for early childhood professionals including Head Start teachers to improve their abilities to not only interact more effectively, but to also increase in the level of emotional and instructional support provided to children?

Emotional and Instructional Support to Enhance Teacher-Child Interactions

Emotional Support

There were gaps between research and practice, and strategies to support students emotionally in classroom environments (Sawka, McCurdy, & Mannella, 2002). They further noted due to the lack of training, teachers failed to implement empirically sound practices that supported students emotionally in classrooms (Sawka, McCurdy, & Mannella, 2002). It was noted only 5% of teachers credited their college coursework as a source of their instructional and behavioral management strategies (Sawka, McCurdy, & Mannella, 2002).

Training teachers in effective intervention strategies was a necessary step in improving the outcomes of students emotionally, however, not sufficient (Sawka,
Researchers delivered an intensive in-service program designed to teach effective interventions for increasing the inclusion of students with Emotional Behavior Disorders (EBD). They found in the absence of follow-up consultative support, teams of educators failed to put self-selected strategies in place in their home schools (Sawka, McCurdy, & Mannella, 2002). The same team was successful at implementing the interventions and maintained targeted students in more inclusive settings when on-site consultation was provided (Sawka, McCurdy, & Mannella, 2002).

Strengthening Emotional Support Services (SESS) was a combined active training and consultation project designed to build capacity for serving students with behavior disorders in special education classrooms (Sawka, McCurdy, & Mannella, 2002). Focusing on environmental and individual support, curriculum based assessment, and empirically supported instructional practice, teachers were prepared to maximize academic engagement, minimize disruption, and help students gain greater access to inclusive environments (Sawka, McCurdy, & Mannella, 2002). Participation in the project was broadly associated with increased staff knowledge of effective behavior management and instructional strategies, successful implementation of skills at the classroom level when follow-up consultative support was provided, increased student academic engagement, and a high level of teacher satisfaction with the project (Sawka, McCurdy, & Mannella, 2002).

In providing content for staff to understand how to provide emotional support for students, it was beneficial to provide information regarding emotional support and its effects. In early care and education programs, it was not unusual for younger children to
engage in inappropriate behaviors; behaviors that included biting, hitting and tantrums (Benedict, Horner, & Squires, 2007). It was noted antisocial students came from chaotic and unpredictable environments and needed exposure to caring adults who valued them (Johns, 2000). Some students engaged in inappropriate behaviors to gain power and control (Johns, 2000). However, over time, inappropriate behaviors displayed by younger children between the ages of two to five decreased as positive interactions from teachers increased and when language, social and emotional regulation and problem solving skills also increased (Benedict, Horner, & Squires, 2007).

Children’s social and emotional functioning in the classroom was increasingly recognized as an indicator of school readiness, a potential target for intervention, and as a student outcome that could be governed by a set of standards similar to the ones for academic achievement (La Paro, Pianta, and Hamre, 2008). Establishing a caring relationship created a possibility of actually influencing the behavior of students in more positive ways (Johns, 2000). A study at the University of North Carolina at Chapel Hill, young African American students were very clear that a major factor in determining teacher effectiveness was the teacher able to establish a positive, caring relationship with them (Johns, 2000).

According to Johns, teachers assisted in making classrooms peaceful environments where children felt safe and aggressive behaviors were minimal or absent through modeling, direct instruction, experiences and continual practice. Teachers supported students emotionally be creating caring environments, empowering students to succeed, and by helping them learn ways to cope with emotional difficulties.
Not only was it beneficial for teachers to express the importance of engaging in appropriate behaviors, it was even more important for them to model appropriate behaviors for their students (Johns, 2000). In addition, when children engaged in inappropriate behaviors, teachers were recommended to warn children of engaging appropriately and of the logical consequences of misbehavior (Johns, 2000). Teachers were recommended to give students opportunities to enjoy a feeling of autonomy, while not tolerating their attempts to control others (John, 2000).

Teachers were also recommended to teach students they were in control of their own behavior by giving them choices and reinforcing them for choosing appropriately (John, 2000). Research indicated high levels of emotional support or parental warmth is positively related to many child and adolescent outcomes, including high academic achievement, lower rates of behavior problems, and more positive self-concept (Christie-Mizell, Pryor, & Grossman, 2008). Emotional support included physical affection, affirming attention, and the communication of encouragement (Christie-Mizell, Pryor, & Grossman, 2008).

Threats, ridicule in the presence of peers, and sarcasm were all examples of behaviors that contributed to environments of hostility and impeded the development of positive relationships between teachers and students (Johns, 2000). The information provided on the elements that improved appropriate behaviors and increased positive climates would prove beneficial content for teachers to increase their capacities to provide emotional support to students (Johns, 2000; Christie-Mizell, Pryor, & Grossman, 2008). There was one innovative intervention that was proven most effective in establishing proactive methods of increasing appropriate behaviors through redesigning
environments while making inappropriate behaviors irrelevant, ineffective, and inefficient (Benedict, Horner, & Squires, 2007).

Positive Behavior Support Systems (PBS)

Many early care and education professionals reported they were not adequately prepared to address the needs of children who engaged in challenging behaviors and they were frustrated in their attempts to develop safe and nurturing classroom environments (Fox, et al., 2003). It was noted they spent significantly large number of hours addressing behaviors of some children while leaving smaller number of hours to support the development and learning of other children (Fox, et al., 2003). Over the years there has been increasing evidence that suggested effective approaches for addressing problem behavior included the adoption of models that focused on promoting social-emotional development, models that provided support for children’s appropriate behaviors and preventing challenging behavior (Fox, et al., 2003).

Positive Behavior Support (PBS) has been recognized as a highly effective intervention approach for addressing severe and persistent challenging behavior while providing emotional support and respect for individual needs (Fox, et al., 2003; Marshall & Mirenda, 2002; Horner, 2000; Dunlap, et al., 2000; Carr et al., 2002). Positive Behavior Support emerged from the applied sciences where validated behavior change procedures were guided by a person-centered philosophy (Dunlap, et al., 2000; Carr et al., 2002). Positive Behavior Supports involved the assessment and reengineering of environments (Carr, et al., 2002; Horner, 2000) that allowed individuals with problem behaviors experienced reductions in problem behaviors and an increase in the social, personal, and professional quality of their lives (Horner, 2000).
Positive Behavior Supports were the application of behavior analysis to the social problems created by behaviors such as: (a) self injury, (b) aggression, (c) property destruction, (d) and (e) defiance (Horner, 2003). Although the implementation of PBS has primarily been noted in situations involving individuals with disabilities who engaged in aggressive behaviors, PBS has been implemented and proven effective with other populations (Horner, 2003). A number of states passed legislation or enacted educational policies that required positive behavior support practices to be implemented in school programs (Dunlap et al., 2000).

The amendments to the Individuals with Disabilities Education Act (IDEA, 2004) mandated that methods of positive behavior supports be implemented and functional behavioral assessments be conducted when children with disabilities who engaged in behaviors that impeded learning and put the child at risk for school suspension or failure (IDEA, 2004). It was noted in order to carry out the mandates of IDEA and other educational policies regarding PBS, concerted efforts were needed to provide training and build capacities among educators, community support providers, and collaborative teams (Dunlap et al., 2000; Carr et al., 2002). It was identified within Carr et al. (2002) training provided to individuals implementing the PBS model, should move from traditional lecture into more integrated and collaborative training models to establish understanding and implementation of PBS.

Resources provided various components of PBS, within this literature review only information regarding essential elements of PBS at different levels will be discussed. PBS was a system wide model within schools and programs that reduced challenging behaviors by implementing various proactive interventions at different levels along the
PBS continuum depending upon the engagement and severity of problem behaviors (Benedict, Horner, & Squires (2007).

Benedict, Horner, and Squires (2007) described the levels of PBS as primary, secondary, and tertiary levels of intervention. At the primary level of prevention, the ultimate goal was to ensure all children were provided safe and predictable environments with a focus on building positive relationships (Benedict, Horner & Squires, 2007). The task of developing safe and predictable environments was accomplished by focusing on the physical classroom design (e.g. well-defined learning centers), organization (e.g. consistent routines and schedules), and verbal interactions with children, families and other professionals (Benedict, Horner, & Squires, 2007).

Further within the primary level, to be proactive in preventing problem behaviors while increasing appropriate behaviors, children were provided clear expectations through classroom rules (e.g. no more than five simple expectations Benedict, Horner, & Squires, 2007). In addition, teachers provided children with examples of following and not following classroom rules and provided feedback throughout the day when they engaged in socially appropriate behaviors (Benedict, Horner & Squires, 2007).

The secondary level of PBS, according to Benedict, Horner, and Squires (2007) involved targeted interventions for small groups of children who exhibited some deficits in social skills and presented challenging behaviors. In addition to individualized strategies, the use of supplemental curricula was recommended (e.g. Peace Begins in Preschool Benedict, Horner & Squires, 2007). Primarily when intensity levels were low among behaviors displayed by children who required secondary levels of intervention,
the strategies and interventions were recommended to be implemented efficiently when at all possible (e.g. with groups of children Benedict, Horner, & Squires, 2007).

The tertiary level was the third and last level of prevention and intervention within PBS system (Benedict, Horner, & Squires, 2007). The tertiary level was considered successful for increasing appropriate behaviors (Benedict, Horner, & Squires, 2007) through understanding the function of the behavior and through redesigning environments where inappropriate behaviors were irrelevant, inefficient, and ineffective (Horner, 2000). There were three specific processes for which teachers would become to know when determining specifics about why inappropriate behaviors occur, when they occur, and why they occur.

The section concluded with recommendations for conducting Functional Behavioral Assessments, Designing Behavior Support Plans, and for Implementing Intervention Strategies that assisted in providing individualized emotional support. In providing specific, effective and individualized emotional support and behavior modification, one of the most essential processes were to implement an information gathering process described as a Functional Behavior Assessment (FBA Dunlap, et al., 2000; Crone & Horner, 2003, Horner, 2000).

The importance of this process was to identify the context, the functions, and more specifically variables that directly influenced an individual’s behavior (Dunlap, et al., 2000; Crone & Horner, 2003; Horner, 2000). Full FBAs added an additional component where the environment or variables there in would be manipulated to affirm hypothesis of what triggered and maintained the inappropriate or problem behavior (Dunlap, et al., 2000; Crone & Horner, 2003). For example, collecting information
during the process of a Simple FBA could be completed through simple conversations or interviews with the parent (s) of the individual who engaged in inappropriate behavior (Crone & Horner, 2003). Upon conclusion of either functional assessment, a hypothesis statement was developed explaining details of the inappropriate behavior (Dunlap, et al., 2000; Crone & Horner, 2003).

After requisite information was gathered regarding antecedents that triggered inappropriate behavior, consequences that maintained behavior and regarding the context in which the behavior occurred, the next process was the development and designing of Behavior Support Plans (Dunlap, et al., 2000; Crone & Horner, 2003). The first step in designing Behavior Support Plans was to generate strategies for reducing problem behaviors and increasing appropriate replacement behaviors (Crone & Horner, 2003).

Individuals who developed Behavior Support Plans were instructed to link specific strategies and interventions to the hypothesis based on FBA information (Dunlap, et al., 2000; Crone & Horner, 2003). The Behavior Support Plans were developed to be proactive, educative, and functional in nature (Dunlap, et al., 2000). In implementing the individualized interventions children were supported as environments were redesigned and appropriate behaviors taught making problem behaviors irrelevant, inefficient, and ineffective (Dunlap, et al., 2000).

In implementing the interventions and strategies within the plan, individuals responsible for implementation were advised to understand and learn competencies associated with manipulating aspects of the physical or social environments (e.g. routines, schedules, physical setting Dunlap, et al., 2000).
Implementation also involved teaching children alternative skills to replace problem behaviors and improved general competencies while delivering effective reinforcers (Dunlap, et al., 2000). In developing and implementing interventions to improve inappropriate behaviors, interventions were effective for some children but not for others or may only be effective for certain children in certain settings (Crone & Horner, 2003). However, to ensure interventions were function-based, it was recommended Behavior Support Plans incorporate FBA data (Dunlap, et al., 2000; Crone & Horner, 2003; Horner, 2000).

In providing content to increase teacher-child interactions through increasing emotional support, references regarding implementing proactive methods of Positive Behavior Support systems have proven beneficial (Dunlap, et al., 2000; Crone & Horner, 2003). However, would skills that increased emotional support be the only content necessary to increase teacher’s abilities to engage more effectively with their students? Students in classrooms where instructional support was minimal or deficient had lower academic achievement scores compared to their peers in classrooms where instructional support was moderate to high (Pianta, La Paro, & Hamre, 2008).

*Instructional Support*

Considering instructional support for students, it should extend beyond presenting static and concrete content for individuals to learn, instructional support focused more on how concepts were developed, how children were engaged by their teachers to foster higher-order thinking, and the quality of the feedback provided after student’s responses were made (Pianta, La Paro & Hamre, 2008). In the following sections, information will be provided in more detail regarding specific skills and processes regarding instructional
support. Information will be provided on concept development (e.g. the degree in which teachers promote higher-order thinking and problem solving La Paro, Pianta & Stuhlman, 2004), quality of feedback (e.g. teachers’ ability to extend students’ learning through their responses to students’ ideas La Paro, Pianta, & Hamre, 2008), and language modeling (e.g. the extent to which teachers facilitate and encourage students’ language La Paro, Pianta, & Hamre, 2008).

**Concept Development**

Thinking or thinking skills were referred to as an individual’s ability to cognitively and consciously process information to achieve certain purposes: (a) remembering, (b) questioning, (c) forming concepts, (d) planning, and (e) problem solving (Fisher, 2007). They continued by stating thinking was how children made sense of learning, and developing their capacities to think only assisted them in learning and getting more out of life (Fisher, 2007). It was noted the challenge was to develop educational programs that enabled learners to become effective thinkers (Fisher, 2007).

Fles (2008) noted the focus for assisting young individuals to learn was not by overwhelming them with significant amounts of information, yet it was the process of providing them substantial time to gain insight, develop higher-order thinking, and foster creativity. He explained additional time to process information was and could be accomplished through allowing students’ opportunities to problem solve oppose to teachers intervening and to also allow additional time during natural home activities (e.g. dinner time) for discussions regarding what occurred during daily activities (Fles, 2008).

Individuals developed in their abilities to think when teachers provided opportunities that allowed them to follow along Benjamin Bloom’s Taxonomy (e.g. 
American educational psychologist) of thinking (Fisher, 2007). Bloom considered his taxonomy of thinking as the cognitive goals of education (Fisher, 2007). Fisher (2007) noted the categories of Bloom’s Taxonomy included: (a) Knowledge (e.g. what happened?), (b) Comprehension (e.g. why did it happen?), (c) Application (e.g. what would you have done?), (d) Analysis (e.g. which part did you like best?), (e) Synthesis (e.g. what else could have happened?), and (f) Evaluation (e.g. what did you think about the story or situation and why?).

In assisting children with experiences that challenged their thinking and that allowed them opportunities to develop in some of the levels of Blooms Taxonomy, it was noted problem solving activities, time to be creative, and the actual learning environments were the catalysts to success (Casey & Tucker, 1994; Shure, 2006; Morgenthaler, 2001). Developing life-long learners in young children and to enhance their abilities to think, educators should systematically develop environments and embed activities within the general education curriculum where academic content and problem solving experiences were coupled together (Casey & Tucker, 1994). It was noted by Shure (2006), regardless of IQ, children between the ages of 4 and 12 who were considered good problem solvers were less physically and verbally aggressive, were better able to wait and cope with frustration, and were less socially withdrawn.

According to Morgenthaler (2001), it was also teachers’ responsibilities to ensure they supported and nurtured the creativity within each child. Although music, art, drawing and painting were listed as activities that fostered creativity among young children, it was emphasized creativity was fostered most when children were provided open-ended activities where correct responses or solutions were less important than the
process of discovering and of working toward a solution (Morgenthaler, 2001). It was noted creativity required space and time; physical space where creativity was supported through visual, auditory, and kinesthetic artistry (e.g. art, music, movement or drama (Morgenthaler, 2001).

Children should be provided with larger blocks of time to develop in their creative abilities (Morgenthaler, 2001). In addition to providing instructional support by providing experiences for children to develop and learn new concepts that included first learning how to think (Fisher, 2007), then problem solve (Shure, 2006), and work creatively (Morgenthaler, 2001), research showed teachers should increase in their abilities to verbally engage more often with their students to improve the students’ cognition (Tu & Hsiao, 2008).

Quality of Feedback and Language Modeling

Individuals within the field of early care and education increased in their efforts to provide opportunities and experiences for children to improve in his or her communication and language abilities (Hertzog, 1998; Massey, 2004; Perry, 2003; Honig, 2001). Active and engaged adults were listed as a primary variable in the success of language acquisition among young children within early childhood environments (Perry, 2003; Massey, 2004). Children who experienced rich conversations with adults, conversations where timely and quality feedback was provided and appropriate language was modeled during preschool experiences achieved greater academic success in later years (Massey, 2004; Honig, 2001). Children learned how conversations worked by observing and interacting with adults, who were accomplished speakers of language (Massey, 2004). Through interactions with teachers and their peers, children learned the
social aspects of conversation, such as taking turns and attending to the conversational partner, but they also learned grammar and vocabulary (Massey, 2004).

Verbal communications were opportunities for learning that he recommended occur throughout the day; especially during conversations between children and between children and their teachers (Perry, 2003). Various activities within varying context provided opportunities for teachers to evoke responses, respond to comments made by children and to increase the quality of the feedback and interactions between children and teachers (Massey, 2004; Honig, 2001; Perry, 2003; Hertzog, 1998).

He noted language acquisition was a product of active, repetitive, and complex learning. Some of the learning experiences included, but was not limited to open-ended questions presented by teachers (e.g. where students had to elaborate on responses without the fear of a right or wrong answer), interactions during meal and playtimes (e.g. active discussions an engagement between child and caregiver and child to child), and cognitively challenging conversations where children were challenged by their caregivers to engage in conversations and to extend their vocabulary by matching items, analyzing information, reordering and referring information, and by adding reasoning to predictions (Massey, 2004; Honig, 2001).

In providing quality feedback and modeling appropriate use of words and word phrases, it was a recommendation of Miller (2003) to provide consistent attention and support to what children are saying, be patient and allow adequate time for children to verbally respond, listen carefully and offer thoughtful responses that validate the communication abilities of children, and to ask open-ended questions that allow children to express their ideas without having the fear of a right or wrong response. It was
recommended by Honig (2001) in providing quality feedback and through modeling language, teachers were to use generous and encouraging words with children upon completion of specific task (e.g. “You did a great job!”). Teachers were to use parallel talk where teachers use words to accompany the gestures and actions of children (e.g. “You really like swinging high don’t you?”), and teachers were to use self-talk where they were to communicate verbally what they were doing for children or a particular child (e.g. “I am setting the table now for art). Whether modeling language or providing quality feedback, after children have responded receptively or expressively, the ultimate goal was to provide experiences and opportunities that fostered the development of language and experiences and opportunities to increase verbal teacher-child interactions.

Within the previous sections, information was provided on how teachers could provide emotional and instructional support in preschool classrooms where teacher-child interactions could be strengthened. However, what tool could be used to measure the teacher-child interactions within early care and education programs?

*Classroom Assessment Scoring System (CLASS)*

Research on teacher-child relationships, classroom environments, and teaching practices provided the rationale for constructing a system for observing and assessing emotional and instructional elements of quality in early childhood educational environments (La Paro, Pianta, & Stuhlman, 2004). To assist in measuring quality through teacher-child interactions within early care and education programs, researchers Robert Pianta, Karen La Paro, and Bridget Hamre invented a measurement tool entitled the Classroom Assessment Scoring System (CLASS) to measure primarily the interactions between teacher and child as the teacher provided emotional and
instructional support to his or her students (Pianta, La Paro, Hamre, 2008; Pianta et al., 2008).

The tool measures quality across three primary domains (e.g. emotional support, classroom organization, and instructional support) and ten dimensions (e.g. positive climate, negative climate, teacher sensitivity, regard for student perspective, behavior management, productivity, concept development, instructional learning formats, quality of feedback, and language modeling; La Paro, Pianta, & Hamre, 2008).

Each dimension is rated on a scale from one to seven, with seven representing high levels of interaction for all dimensions except the negative climate dimension (La Paro, Pianta, & Hamre, 2008). Although the same scale from one to seven is used to rate negative climate, seven represents significant presence of negativity from the teacher to his or her students (e.g. sarcasms, harsh tone, punitive consequences) where one represents the lack of negativity within the classroom environment (La Paro, Pianta, & Hamre, 2008).

Quality in early care and education programs and settings was viewed both as structural and process quality, the CLASS only measured the implementation and presence of process quality (Pianta, La Paro, Hamre, 2008; Pianta et al., 2008; La Paro, Pianta, Stuhlman, 2004); process quality that consisted of how teachers engaged with their students as they provided instructional and emotional support (Pianta, La Paro, & Hamre, 2008). The CLASS was developed at the University of Virginia by its inventors and the founding principles and formation of the CLASS has been supported by extensive review of the literature on observational measures, considerations of dimensions of
quality from various sources, and on aspects of teacher education and training as it relates
to providing quality experiences for young children (La Paro, Pianta, & Stuhlman, 2004).

Further, in developing the class and establishing its reliability, the tool has been
field tested as it has been used as an instrument to measure the implementation and
presence of quality across several studies (Mashburn et al., 2008; La Paro, Pianta, &
Hamre, 2008; Hamre, Pianta, Downer, & Mashburn, 2007). The tool has been validated
in over 2,000 pre-school classrooms and has been recommended by several pre-school
programs such as the Head Start program as a reliable measurement tool. The CLASS
and its dimensions were based on developmental theory and research suggesting
interactions between students and adults are the primary mechanism of student
development and learning (Pianta, La Paro, & Hamre, 2008).

The CLASS was used to measure the effectiveness of teacher-child interactions
where data were used as correlations between academic, language, and social skill
attainment (Mashburn et al., 2008). The CLASS was also utilized in a multistate research
study where eleven states and over 600 classrooms and over 2,000 student participants
were involved (La Paro, Pianta, & Hamre, 2008). The CLASS was also utilized in a
study where teachers’ perceptions of conflict with young children were measured beyond
simply considering problem behavior (Hamre et al. 2007). The tool was designed to
measure three domains of interactions and support (e.g. Emotional Support, Classroom
Organization, and Instructional Support), the authors of this particular study only used the
CLASS to measure emotional support provided (Hamre et al., 2007).

Across the large scale studies included the National Center for Early
Development and Learning Multi-State Study of Prekindergarten (NCEDL) and State-
Wide Early Education Programs Study (SWEEP). On average across each study mean scores ranged from 4.44 to 5.28 on positive climate dimension, from 1.17 to 2.22 on negative climate, from 4.34 to 5.52 on teacher sensitivity, from 4.28 to 4.77 on regard for student perspectives, from 4.94 to 5.90 on behavior management, from 4.50 to 5.96 on productivity, from 3.90 to 5.22 on instructional learning formats, from 2.09 to 4.22 on concept development, and from 1.84 to 4.77 on quality of feedback (Pianta, La Paro, & Hamre, 2008).
CHAPTER 3

METHODOLOGY

The purpose of this study was to examine the efficacy of Emotional and Instructional Support (EIS) training and consultation on Head Start teacher and child interactions. The study was conducted with Head Start teachers from the Southwestern United States.

The chapter contains detailed descriptions of study procedures. First, the research questions are presented and participants and setting are described. Next, the data collection procedures and instruments are explained. Then discussions related to the research design and information regarding dependent measures are provided. Procedures for recording, collecting baseline data and implementation of the independent variable are explained, followed by discussions of inter-observer agreement (IOA) and treatment integrity data. The chapter concludes with a description of how each research question was analyzed, how social validity data was documented, and limitation of the study.

Research Questions

1. Does in-service training with follow-up consultation improve teacher’s abilities to provide emotional support to young children?

2. Does in-service training with follow-up consultation improve teacher’s abilities to provide instructional support to young children?

3. What were Head Start teachers attitudes regarding Emotional and Instructional Support training and consultation after participating in the study and did they prefer training over consultation or were their no differences in attitudes?
Participants

The participants for this study were selected using a three-fold process. The sample population was identified as teachers who were employed by the local Head Start program located in Southern Nevada within Clark County. There were a total of 64 Head Start teachers employed at the time of the study. The teachers’ ages ranged from 22 to 62 years old. The ethnicity of the sample population included Caucasians (43%), African Americans (43%), and Hispanic/Latino (14%). The teachers’ educational backgrounds ranged from Child Development Associate credentials (CDA) (19%) to associate degrees in education and early childhood education (57%) and bachelor degrees in education and early childhood education (24%). There were no teachers enrolled who have graduate level degrees or credentials conferred.

Some of the teachers within the sample population were employed with Head Start for several years whereas others were hired within one year. The years of experience in early care and education ranged from 1 year to 35 years. Although the ages, years of experience, and credentials were varied, all of the participants in the study were female. In identifying participants for the study, certain exclusion and inclusion criteria were developed and a convenience sampling was employed.

The inclusion criteria included: (a) Head Start teachers, (b) No evidence of specific training in Positive Behavior Supports (PBS), Classroom Assessment Scoring Systems (CLASS), or specific training on Instructional Support, (c) There were no degree or credential requirements; however, participants had to be employed as lead teachers of an individually assigned classroom and (d) Employed with Head Start by the beginning of the study (September 2009). However, individuals were considered excluded from
participating in the study if they were: (a) Employed with Head Start for less than one year, (b) If they were in any other position other than a teaching position, and (c) If there was clear evidence they had received training within the last two years on PBS, CLASS, or Instructional Support.

To maintain a significant number of subjects to participate and to ensure the results could be generalized, a convenience sampling was used. There were only a total of 64 teachers within the population and only 24 were willing participants.

Further, in using a nonrandom sample, the probability of each member being selected was not specified; all subjects were included in the treatment group and a repeated measures design was used. In using the repeated measures statistical design, the unit of analysis was to measure the effect within subjects from pre-assessment to post-assessment and again between pre-assessment, post-assessment and maintenance after receiving the intervention (Gay & Airasian, 2000).

After defining the population, a recruitment letter was generated and distributed to all teachers who were employed by the local Head Start program. Although some teachers based on certain factors would be excluded from the study, letters were distributed to them anyway. In addition to the letters, a flyer was developed and it was also distributed to every employee within the Head Start program regardless of his or her job title or position. The letter and flyer were distributed to all employees for informational and support purposes.

Both the letter and the flyer provided specific information regarding the study. The following information was included: (a) Introduction Statement, (b) Research Problem, (c) Purpose of the Study, (d) The Setting, (e) Inclusion and Exclusion Criteria,
(f) Benefits of Participation, (g) Disadvantages of Participation, (h) Duration of the Study, and (i) Guidelines for Signing Up. The flyer was a more concise version of the letter that also informed the general Head Start population about the research project.

All interested participants were instructed to contact the primary investigator (e.g. committee chairman for the doctoral candidate who was the student investigator) or the student investigator (e.g. doctoral student) on the project to receive additional information regarding the research project and on details for signing up. Once all interested individuals were identified, they were all informed by e-mail and in writing of the initial meeting date. The initial meeting was conducted for several reasons: (a) To inform prospective subjects in more detail about the research project and how their involvement in the study would be a part of history while improving practice within the field of early care and education, and (b) a convenience sampling was administered where each subject was considered a willing and voluntary participant of the research project.

Only twenty four participants agreed to be considered for the study and a part of the convenience sample. Once all subjects were identified, they were given written consent forms to read and sign agreeing to the terms and conditions of the research study. It was important to mention that three weeks into the research study, three subjects were removed from the study (e.g. one subject terminated and two others resigned).

Setting

The study was conducted between two different settings (e.g. classrooms, training rooms) potentially across thirteen different facilities within the Head Start program located in Southern Nevada within Clark County. Head Start is a federally funded
program that provides comprehensive services to children between the ages of three to five who are at or below the poverty guidelines established by the federal government (Head Start Act, 2007). The Head Start program referenced in this section had federal funding to provide services to 1,804 children. At least 90% of the funding was for children living below or within poverty and the remaining 10% could be used for families who were potentially over the federal poverty guidelines (Head Start Act, 2007). In addition, within the total number of children enrolled, no less than 10% had diagnosed disabilities (Head Start Act, 2007).

At the time of the study, there were a total of thirteen facilities where children received services through the Head Start program located in Southern Nevada. Although some of the facilities were developed within metropolitan areas, all of the classrooms within each facility had assigned at least one degreed (e.g. Associates, Bachelors in early childhood education) or credentialed (e.g. Child Development Credential CDA) teacher, adequate resources, materials, and equipment to provide quality services. Not only were all facilities licensed through either the State of Nevada or through Clark County Childcare Licensing, all sixty-four classrooms were inspected by licensing and Southern Nevada Health District. Primarily, the classrooms had a licensing capacity from 11 children up to 20 depending upon the classroom size (e.g. 35 square feet of usable space per classroom and 75 square feet of usable space for outdoor playground areas).

Each classroom was designed where specific areas within the classroom environment were divided into interest areas that included: (a) House Corner, (b) Block Area, (c) Large Group, (d) Music, (e) Art, (f) Writing, and (g) Library. Regarding
training space within the local Head Start program, there were at least three of the facilities that provided a multi-purpose room where the capacity for each room was approximately fifty persons. The trainings were conducted consistently at one of the three facilities. Each room was a well lit and controlled environment appropriate for training and conducive to learning. Training was provided in a traditional workshop format where participants were provided evidence-based content through open discussion, a Power Point presentation, and interactive sessions where participants were encouraged to implement and practice skills learned.

Instrumentation

To collect data on teacher-child interactions within Head Start classrooms, the Classroom Assessment Scoring System (CLASS) was used (Pianta, La Paro, and Hamre, 2008). The CLASS observation instrument was developed at the University of Virginia to assess quality in preschool through third-grade classrooms. The CLASS dimensions were based solely on interactions between teachers and students in preschool to third grade classrooms (Pianta, La Paro, and Hamre, 2008). The system did not evaluate the presence of materials, the physical environment or safety, or the adoption of a specific curriculum (Pianta, La Paro, and Hamre, 2008). The CLASS was developed based on an extensive literature review as well as on scales used in large-scale classroom observation studies in the National Institute of Child Health and Human Development (NICHD) Study of Early Care (NICHD Early Child Care Research Network (ECCRN) and the National Center for the Early Development and Learning (NCEDL) Multistate Pre-K Study (Pianta, La Paro, and Hamre, 2008). The CLASS has been validated in over 2,000
classrooms and provided a tool to help new and experienced teachers become more effective.

The dimensions assessed by the CLASS were derived from a review of constructs assessed in classroom observation instruments used in child care and elementary school research, literature on effective teaching practices, focus groups, and extensive piloting (Pianta, La Paro, and Hamre, 2008). The CLASS instrument measures teacher-child interactions across three domains consisting of ten dimensions. The domains include: Emotional Support, Classroom Organization, and Instructional Support. The dimensions within Emotional Support includes: Positive Climate, Negative Climate, Teacher Sensitivity, and Regard for Student Perspective. Classroom Organization includes: Behavior Management, Productivity, and Instructional Learning Formats. Instructional Support includes: Concept Development, Quality of Feedback, and Language Modeling.

For this study, and for reporting on the results, data were collected on all ten dimensions within each domain, however, the results of two dimensions from Classroom Organization (i.e. Behavior Management and Productivity) were statistically analyzed and reported in the Emotional Support domain. The remaining dimension (i.e. Instructional Learning Format) from Classroom Organization was statistically analyzed and results reported within the Instructional Support domain. The actual CLASS instrument was not altered. The adjustments were only made to allow data to be collected on two domains (e.g. Emotional and Instructional Support), yet data still were collected and reported on all ten dimensions. The rating scale within the CLASS tool ranged from 1 (e.g. rarely implemented or absent) to 7 (e.g. frequently implemented).
Design

A group design was used in this study where subjects were included in a convenience sample in which their participation was voluntary. A repeated measures design was used as the statistical analysis in which significance and differences in mean scores were measured within subjects from pre-assessment to post-assessment and again at a maintenance phase. An alpha level was established at .05.

The ultimate goal was to identify an effect from pre-test to post-test and then again at maintenance after the independent variable had been applied.

Dependent Measures

*Teacher-Child Interactions*

The dependent measure of the study was the significance of teacher-child interactions as measured by the CLASS instrument after receiving the intervention (e.g. Emotional and Instructional Support Training and Consultation). Teacher-child interactions were observed over a 20 minute interval and actual ratings were made using the CLASS instrument over a 10 minute interval with the total interval for observation and rating being 30 minutes. Finally, social validity among the subjects were measured using the Efficacy of Emotional and Instructional Support on Head Start Teacher and Child Interactions survey (see Appendix A). Subjects were encouraged to complete the survey that involved using a Likert scale to rate the training and consultant services as well as the likelihood of participating in similar studies in the future.

Recording Procedures and Inter-Observer Agreement (IOA)

Presented in this section are clear and concise details related to ensuring fidelity of implementation, ensuring inter-observer agreement between raters of the CLASS
instrument, collecting pre-assessment data from the convenience sample, and collecting data on teacher-child interactions to measure significance within subjects after implementation of the independent variable. The student investigator and a team of eleven professionals observed, recorded and rated teacher-child interactions during pre and post-assessments.

To ensure fidelity of the independent variable (e.g. training sessions and consultation) prior to implementation of the intervention, the student investigator presented the independent variable to an audience of professionals (e.g. teachers and administrators) who were not included in the research study. Implementation was critiqued and suggestions for improvement of training content and practice were made using the Fidelity Checklist (see Appendix C). Utilizing the formula Agreements ÷ (Agreements + Disagreements) x 100, it was the goal of the student investigator to establish at least 80% fidelity in the validity of the intervention. A percentage of 80% fidelity was established.

Further, it was a requirement by the authors of the CLASS instrument (La Paro, Pianta, Hamre, 2008) that all persons utilizing the CLASS instrument as a tool for collecting data on teacher-child interactions, must complete in-depth training on the tool and become reliable observers using the tool. The student investigator and two of his research team members received in-depth training on the CLASS tool one year prior to data collection and prior to training the remaining research team members. They all became reliable raters of the CLASS with individual scores ranging from 87%-97% reliability. Anyone scoring less than 80% was required to re-test. In addition, there were nine additional research team members who would be collecting data for this study. The
student investigator provided training on how to administer the CLASS tool for the nine remaining research team members prior to establishing IOA among them all and prior to them collecting data.

Although the three investigators were reliable compared to what was identified as a master rater by the University of Virginia, for this study, the three investigators wanted to document their reliability through the establishment of acceptable standards for inter-observer agreement (IOA). As recommended by Pianta, La Paro, and Hamre (2008) the investigators of this study established IOA by conducting double coding sessions whereby at least two observers coded the same classroom video observation and checked their codes for consistency.

In addition, the research team members had discussions after each video recording whereby they shared ratings across all domains and dimensions and discussed rationales for each rating and discussed overall mean scores for each video recording session. Thirty minute interval sessions were used to observe and rate each video recording observation. Teacher-child interactions were observed and recorded for twenty minutes and ten minutes were allotted for rating each video. In establishing IOA, and agreement above 70% has been considered acceptable (McMillian & Shumacher, 2001). Among the research team members, a score above 70% agreement among their scores would indicate acceptable reliability.

With the guidance of the student investigator and with the willing cooperation of each research team member, inter-observer agreement (IOA) was established at 80%. Initially, all research team members received specific training on the Classroom Assessment Scoring System (CLASS) a week prior to completing other required
exercises towards establishing IOA (e.g. watching pre-recorded video clips, rating using the actual tool). The training provided each team member with background information on the CLASS and its origin. These trainings were in addition to the other trainings provided on the CLASS.

During the training sessions, it was noted the CLASS was an observation tool developed out of the University of Virginia by Robert Pianta, Karen La Paro, and Bridget Hamre (2008). It was explained the CLASS was developed to assess quality within preschool through third grade classrooms (Pianta, La Paro, & Hamre, 2008). The CLASS was validated in over 2,000 preschool classrooms in which classroom quality was assessed across three domains and ten dimensions. It was also noted during the training session the CLASS tool was not developed to evaluate the presence of materials, the physical environment, safety, or the adoption of a specific curriculum, yet it was developed to measure process quality through teacher-child interactions.

Each participant was taught the difference between process quality and structural quality and it was explained that structural quality is mediated through process quality. Participants were told that structural quality involves the who, what and where of quality related to chosen curriculums, teacher-child ratios, geographical location of facilities and teacher qualifications whereby process quality involves the how aspects within early childhood settings (i.e. how curricula are implemented, how relationships are established, and supported and how students develop academically and socially). Each participant was provided the definitions of the three domain and the ten dimension and was taught how to rate each utilizing the actual data sheet from the CLASS manual.
In addition, each participant was taught the process of establishing IOA where using the formula Agreements ÷ (Agreements + Disagreements) × 100 with hopes of establishing at least 70% IOA. To support this process, the student investigator contacted the University of Virginia and was granted a two week trial period to the video library on the CLASS official website (e.g. classobservations.com) whereby the student investigator and the research team members had access to several pre-recorded videos within each domain across all dimensions. Each research team member was reminded of how to score his or her responses and questions were answered prior to making individual ratings on each video recording.

While sitting around a desk with direct access to video recordings played on a desktop computer, the research team watched ten short video recordings on each dimension beginning with Positive Climate. Each member watched the video recording, made notes about each observation, and then made individual ratings. Under the leadership and guidance of the student investigator, all researchers gathered in a multipurpose/training room adjacent the room where the videos were reviewed. For example, the student investigator asked in an open discussion, “Who scored less than a five on dimension one, raise your hand and state your score.” He continued with this process until he was able to determine who scored reliably with him and who did not. The first and second attempts at IOA were unsuccessful with IOA scores of 50% and 69%. The final attempt at IOA was successful with an IOA score of 80%.

After all practice data had been collected and inter-observer agreement established, the researchers began collecting baseline data on Head Start teacher-child interactions. Collecting baseline data consisted of the research team members (e.g. 12)
completing pre-assessments on the convenience sample (e.g. \(N=21\)) utilizing the CLASS instrument. Each team member was assigned classrooms among the twenty-four subjects to video record at any time during the day for at least fifteen to twenty minutes. The research team members used thirty minute interval recordings for each classroom recording session.

Twenty minutes was allocated to video recording/observing and ten minutes was used for rating the teacher-child interactions. During both pre and post-assessments subjects were rated across two domains and across all ten dimensions. Within each domain, each dimension had a scoring range from 1 to 7 with 1, 2 representing a low range, 3, 4, 5 representing middle range and 6, 7 representing high ranges. For example, within the Emotional Support domain if there were few, if any indications teachers and students enjoyed warm, supportive relationships with one another, the scoring would be rated as 1 which is equivalent to a low range of positive climate.

The final data collection phase consisted of post-assessments whereby the subjects’ behaviors were measured as the unit of analysis. After the intervention was implemented with the subjects, the research team utilized the CLASS measurement tool to collect data on teacher-child interactions again on the convenience sample where only twenty-one classroom teacher’s behaviors were measured as the unit of analysis (e.g. three subjects dropped from the study). Data were analyzed to measure significance levels (>.05) within the sample population during pre and post assessments.

Further, within two weeks after collecting post assessment data, the student investigator visited 8 of the Head Start facilities where the remaining 17 participants were assigned to classrooms. A total of four of the original participants were not available for
maintenance data to be collected. Utilizing the same data collection procedures from both pre and post assessment data collection phases, data were collected on participants to measure teacher-child interactions as measured by the CLASS measurement tool.

Description of Preparation and Baseline Procedures

During the pre-assessment phase the selected convenience sample was pre-assessed utilizing the CLASS instrument. There were a total of 21 subjects (e.g. \( N = 21 \)) who received a pre-assessment prior to implementation of the intervention phase.

Prior to actually collecting data on baseline measures, the research team members completed an in-depth training on how to accurately and efficiently collect and measure data using the CLASS instrument. In addition, inter-observer agreements among the research team members were established. Once inter-observer agreement was established, baseline data were collected.

Baseline data were collected by measuring teacher-child interactions across the two domains and across the ten dimensions prior to any training or consultancy sessions. Consistently across all subjects within the sample, data were collected at various times throughout the day during a variety of activities excluding naptimes. The research team rated in thirty minute intervals where they observed for twenty minutes and rated for the remaining ten minutes.

Intervention Procedures

Provided in this section is information regarding the philosophical principles and prescriptive processes and implementation of the independent variable that included a nonthreatening, evidenced based training model where additional support was provided through consultation (Horner, 2000, Crone & Horner, 2003; Bumen, 2007; Benedict,
Horner, & Squires, 2007; Lipscomb, 2001; Tincani, 2007; Campbell & Millbourne, 2005). The intervention implemented in this study, the Emotional and Instructional Support (EIS) Approach was developed by the student investigator to increase the level of emotional and instructional support provided to Head Start teachers, teaching them how to employ the same principles and practices within their classroom to provide similar support to their students in emotional and instructional domains.

The EIS Approach, a nonthreatening and evidence based approach implemented in a prescriptive way principles of Abraham Maslow. The principles were implemented to increase emotional support and to motivate teachers to learn and teach and to motivate children to think and learn. The principles of Benjamin Bloom’s Taxonomy were implemented to develop prescriptive processes for introducing content and for increasing cognition for participants and children. Following this prescriptive method influenced by Blooms Taxonomy, information and content was presented in its most simplistic form, gradually increasing to more complex content and information, thus supporting the process of thinking and learning; one level of the taxonomy building and contingent upon the next (e.g. knowledge, comprehension, and application).

Principles of Positive Behavior Support (PBS) Systems was also employed to further increase emotional support for students. Teachers were taught how to rearrange environments in a proactive, team-based approach to support appropriate behavior, rendering inappropriate behavior irrelevant, inefficient, and ineffective.

Although data on Maslow and Blooms Taxonomy have not been collected, the educational principles have been implemented in classrooms for years (Lipscomb, 2001; Bumen; 2007). Information and data have been provided however on PBS and some of
its effects (Benedict, Horner, & Squires, 2007). The student investigator and inventor of the EIS Approach proposed increasing emotional support through implementation of Maslow and PBS to reduce inappropriate behavior while supporting appropriate behavior and increasing productivity and then implementing information and content from simple to complex following prescriptive methods influenced by Benjamin Bloom’s educational objectives.

Actual implementation involved intervention and maintenance phases that extended over eight weeks. There were a total of six weeks between training and consultation and post assessments and an additional two weeks between post assessment and maintenance. Intervention phase consisted of in-class training sessions, on-site (e.g. Head Start classrooms) recording sessions, and bi-weekly scheduled consultancy sessions and additional consultancy sessions as needed (e.g. telephone conversations and support, emails, in-person support).

The intervention involved weekly interactive training sessions that covered the following topics: (a) Emotional Support, (b) Emotional Support (PBS), and (c) Instructional Support. Training sessions were provided bi-weekly for a period of six weeks whereby a total of three training sessions were provided. Trainings were provided on Mondays from 5:30 p.m. until 7:30 p.m. During the first training session on Emotional Support, subjects were provided with content that supported them with increasing in their knowledge, skills and abilities to understand and strengthen emotional support in early care and education settings. They received specific training on how to ensure a positive climate, how to remove elements of a negative climate while being sensitive and having regard for student perspectives.
Training sessions also involved a continuation of Emotional Support with components of PBS that focused more specifically on behavior management techniques, teachers’ productivity, and redesigning environments to support and increase appropriate behaviors. Content on PBS was presented to inform and demonstrate to participants how to increase appropriate behaviors by providing students with clear behavior expectations, consistent routines, and predictable schedules where at least 80% of the children could benefit.

Further, information was provided where teachers learned how to support students emotionally when they did not respond to clear behavior expectations, consistent routines and schedules. In addition, through the training sessions on this particular content, the participants learned to assess the function of the challenging behaviors and redesign environments to support smaller groups of children who failed to respond appropriately to previous emotional support (e.g. clear behavior expectations, predictable routines, and consistent schedules) and learned to provide more intense interventions for an even smaller group of children who challenging behaviors persisted and even began to impede learning of others (Crone & Horner, 2003; Horner, 2000).

The final week of training provided content on Instructional Support. The training session included content with potential to increase teachers’ skills, knowledge and abilities in the following areas: (a) Concept Development, (b) Quality of Feedback, (c) Language Modeling, and (d) Instructional Learning Formats. The total intervention philosophy included an element of Abraham Maslow’s hierarchy of needs whereby prior to the presentation of content, the facilitator ensured the following: (a) Physiological Needs were met such as refreshments were provided at each training session. A negative
poll was taken to assess the lighting within the training room and to ensure the
temperature was comfortable and conducive to learning, (b) The Safety of the
environment was also assessed and strengthened by informing all participants the training
environment was a safe one where all input and contributions in the learning process
were encouraged and respected, (c) Love and Belonging was established by informing
participants their active participation was instrumental in facilitating learning and the
environment was not one where it was facilitator versus learning. Actually, it was an
environment where it was participants and facilitator working together with a sense of
belonging that produced a total element of learning. The fourth element or stage in the
unique presentation of providing emotional support prior to providing training content
was the establishment and increase in self esteem through successful completion of the
three aforementioned stages and ending successfully with the fifth stage of Self
Actualization where Maslow has written and the facilitator has adopted, participants
strive to reach this level and emotional support was provided to ensure each learner
reached his or her full potential; thus self actualizing.

The second philosophical element that added to the development of the
intervention and that also provided instructional support to teachers was the process of
how information was presented to them in a prescriptive method influenced by Benjamin
Blooms Taxonomy of educational objectives. Blooms educational objectives established
years ago were used to rationalize and follow along a continuum or taxonomy of learning
where each level of cognition and learning was contingent upon the completion of
previous stages along the taxonomy. Stages started at the basic knowledge level,
continuing on to comprehension, to application, to analysis, to synthesis levels, and
ending at the final stage or level of evaluation.

During the beginning of each training session after emotional support had been
provided by employing prescriptive methods and processes of both Maslow and PBS,
information was provided in its basic form by simply encouraging participants to engage
in open discussions and sharing information regarding past and present experiences
related to the current topic (e.g., Describe emotional support or what does that phrase
mean to you as a parent, teacher, etc.). As the session progressed, basic knowledge level
information was then paired with actual referenced information on the topic that
supported participants with comprehension of the subject matter.

After content and interaction was provided to support successful completion of
the first two levels of Blooms Taxonomy through the prescriptive processes and methods
designed by the student investigator, participants were then encouraged through group
and individual interactive activities to apply the information they recently learned
through knowledge and comprehension (e.g., levels one and two). To further increase
Instructional Support, participants were further encouraged to analyze the content and
implementation of the content by measuring what did and did not work. Further,
information was then synthesized at the fifth level to determine other activities and
practices that could be provided that would work as good or better than the practices
recently applied during the application level. Finally, at the conclusion of each training
session, participants were encouraged to evaluate the training session by using response
cards where the participants would be provided true or false questions related to the
content on a projected screen using Power Point presentation.
The participants were provided with small dry erase boards and upon presentation of the questions, they would write their individual responses down on the dry erase board where only the facilitator could see and gage the responses of each. If more than half of the responses were presented incorrectly, the facilitator revisited the content related to the question by returning to the corresponding power point slide and discussing the information further. The facilitator assumed content was presented effectively if at least 80% of the respondents were correct in his or her answer.

The final element to the philosophy of the intervention, the Emotional and Instructional Support Training and Consultation (EIS) Approach, was a component of training content and principles of Positive Behavior Support Systems (PBS). Training topics on PBS were provided to increase levels of Emotional Support for teachers while increasing their abilities to increase emotional support for their students by providing proactive, respectful, and child focused interventions and support where classroom environments were redesigned without trying to redesign children. Information was provided on how to rearrange or adjust environments to increase appropriate behaviors while rendering inappropriate behaviors irrelevant, ineffective, and inefficient (Crone & Horner, 2003; Benedict, Horner, & Squires, 2007).

Training sessions were held on Monday evenings. The principles of EIS were followed and specific content was provided to increase emotional and instructional support. On Wednesdays, the research team recorded teacher-child interactions whereby each teacher’s abilities were observed through teacher-child interactions. On Fridays after training had been provided and interactions had been recorded, each teacher received one on one consultation from a member of the research team. During the
consultancy sessions and documented on the Consultancy Checklist (see Appendix B), a member of the research team worked closely with each individual subject to discuss strengths, best practices, and opportunities for support in a nonthreatening method. For example, as opposed to discussing, “Areas of improvement”, or “Areas of weaknesses”, “Opportunities for support” from consultant to participant were discussed. Discussions surrounding strengths were presented in an affirmative and encouraging dialogue. It was hypothesized overtime, with training and consultation, the abilities of each subject would improve.

After training and consultation were provided and after post-assessment data were collected, during the maintenance phase, the student investigator visited each Head Start facility where research participants were assigned. Although training and consultation were not provided during the maintenance phase, support was provided where the student investigator would offer verbal guidance and feedback upon request to research participants.

Integrity of Independent Variables

Two processes were implemented to control for and measure internal validity of the intervention. First to ensure fidelity of the independent variable (i.e., training sessions) prior to implementation of the intervention, the primary investigator presented the training program to an audience of professionals (i.e., teachers and administrators) who would not be included in the research study. Secondly, a checklist was developed whereby components of the intervention would be rated (see Appendix A).

Two members from the research team used the checklist to give independent ratings regarding whether he or she agreed or disagreed with the other rater’s view of the
presentation content and style. The total number of agreements between the two research team members were divided by the number of agreements plus the number of disagreements and then multiplied by 100. If the percentage of fidelity fell below 80%, the research team members came together to critique and make suggestions for improvement of the training. Intervention fidelity was established at 80%.

Social Validity

At the conclusion of the study, subjects were asked to complete a questionnaire in Likert scale format (see Appendix A). Subjects were asked to rate questions on a scale from one to four; with a rating of 1 being least effective/none and ratings of 4 being most effective/significant. After subjects rated each item on the scale, the research team compiled the data and established percentages for each item and mean scores across all subjects (see Appendix A). Further, the information was reported in the results and discussion sections within the final manuscript. The information in addition to other results from implementation of the intervention was used to develop implications for improvements and modifications for future research studies.

Limitations of the Study

In preparation, design, and implementation of the study, there were several potential and imposed limitations. Although a concerted effort was made to solicit and encourage larger numbers of research participants, do to other obligations (e.g. enrolled in college courses; enrolled in other training programs and family priorities), some qualified participants declined. However, there were a total of 21 research participants who participated in the study.
A potential limitation to note was the study only lasted for a total of eight weeks including two weeks for maintenance. Similar studies including those that used CLASS as a measurement tool lasted for extended durations (e.g. one year) (Benedict, Horner, Squires, 2007; Campbell & Millbourne, 2005; La Paro, Hamre, & Pianta, 2008).

Further, data were collected on teacher-child interactions during actual classroom instruction (e.g. large group or circle time) utilizing the CLASS measurement tool. In educational settings, it is often difficult for teachers to provide instruction while having data collected on their performance. This may have influenced the results obtained. In spite of these limitations, it is important to note that the research team attempted to plan for some typical threats to internal validity. Some of the potential threats included: test and attrition.

In an effort to control for testing threats which simply meant there could have been potential for subjects to become aware they were being observed and their level of reactivity potentially could have been altered (e.g. behavior different than normal), the research team minimized their observation of the subjects to a pre and post assessment model. Further, although the subjects were aware they would be rated on all areas on the measurement tool, they did not know between observations at what point in time each specific area was being rated.

It was impossible to control for lost of subjects for several reasons. First, subjects could withdraw from the research study at anytime and secondly staff could potentially leave the research study facility (e.g. resign from Head Start, termination, reassignment of position or promotion). However, the research team decided to select a greater number of subjects (N=24) to participate in the study in the event subjects decided to withdraw or
leave. It was desired the number not fall below 21 subjects. After inclusion and exclusion criteria information was provided to interested participants, a total number of 24 subjects were identified; however, the number reduced to 21 at the time of post assessment data collection (e.g. termination and resignations).

Although it was recommended by Gay and Airasian (2000) population sizes of at least 65 should have a sample size of no less than 56, a convenience sample of 21 was employed to continue the study. Thus, caution must be used when generalizing the findings from this study beyond the Head Start teachers located in the Southwest region of Nevada. Further, using smaller sample sizes provided opportunity for the study to be replicated with other smaller or larger groups who are similar. As the same or similar results are produced, reliability of results will be strengthened.
CHAPTER 4
RESULTS

The purpose of this study was to strengthen and improve practices and to increase quality within the field of early care and education by enhancing professional development and support through training and consultation for Head Start and preschool teachers ($N=21$). In preparation for this study and after an extensive literature review on similar and supporting topics (e.g. effect of training on early childhood and consultation), three research questions were developed. The questions were developed and the study conducted to empirically measure the efficacy of a non-threatening training model (e.g. The Emotional and Instructional Support (EIS) Approach) with a component of individualized consultation that included elements of PBS and prescriptive processes based on Benjamin Bloom’s Taxonomy and Abraham Maslow’s Hierarchy of Needs.

In addition to collecting empirical data on the effects of the intervention using a repeated measures research design, at the conclusion of the study, the student investigator gained a better understanding the social impact had on the human subjects involved in this study by requesting they complete a survey in Likert scale format. The data from the statistical analysis and information gathered from the Likert scales all will be discussed in the following sections of this chapter. Listed below are the research questions that were answered in this study.

1. Does in-service training with follow-up consultation improve teacher’s abilities to provide emotional support to young children?

2. Does in-service training with follow-up consultation improve teacher’s abilities to provide instructional support to young children?

3. What were Head Start teachers attitudes regarding Emotional and Instructional Support training and consultation after participating in the
study and did they prefer training over consultation or were their no differences in attitudes?

In the following sections, each research question will be restated, information on data analysis procedures for answering each question will be provided, and full discussion on the final results gained for each.

*Question 1: Does in-service training with follow-up consultation improve teacher’s ability to provide emotional support to young children?*

There were several processes involved in answering question one. First, the student investigator utilized the Classroom Assessment Scoring System (CLASS) during the actual study to gather data on teacher-child interactions across two domains and ten dimensions. The two domains measured within this study were Emotional and Instructional Support. Between the two domains, there were five dimensions (e.g. Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspective, and Behavior Management) associated with Emotional Support and five dimensions (e.g. Productivity, Instructional Learning Formats, Concept Development, Quality Feedback, and Language Modeling) associated with the Instructional Support domain. It was explained in earlier sections of this dissertation that the authors of the CLASS originally developed a third domain (e.g. Classroom Organization) associated with the ten dimensions listed in this section, yet for the study presented here, the author focused only on two domains and moved dimensions from Classroom Organization and placed them in Emotional and Instructional Support.

Improvements in teachers’ abilities within the Emotional Support domain were measured by collecting specific data on teacher-child interactions regarding the five
associated dimensions listed above. There were a total of 21 participants for this study \((N=21)\), however only 17 participants were available for data to be collected at all three phases of assessment (i.e. pre, post, and maintenance). The following sections will present data on these findings. Data were collected at three different times, thus, the research design employed for data collection was a repeated measures.

Pairwise comparisons with Sidak’s correction for multiple comparisons was used to follow up a significant \(F\) statistic. The alpha level was set at .05. Analyses were generated for each dimension within question one. The descriptive statistics for the first dimension Positive Climate (i.e. PC) is listed in Table 1.

| Table 1 |
|---|---|---|
| **Descriptive Statistics for Positive Climate (PC)** | | |
| | Mean | Standard Deviation | N |
| Pre | 4.94 | 1.144 | 17 |
| Post | 5.06 | 1.249 | 17 |
| Maintenance | 5.41 | .939 | 17 |

Regarding Positive Climate (PC), and when determining significance and improvements in emotional support as a result of the independent variable being implemented, results proved there was not a significant difference among the means for Pre, Post, and Maintenance scores in Positive Climate \((F=0.924, p=.407)\). In reviewing the statistical results and analysis of Negative Climate (NC) which was also among the dimensions associated with Emotional Support, the descriptive statistics are listed in
Table 2. There was not a significant difference among the means for pre, post, and maintenance scores ($F=2.889, p=.070$).

Table 2

*Descriptive Statistics for Negative Climate (NC)*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>1.29</td>
<td>.470</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>1.12</td>
<td>.332</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>1.06</td>
<td>.243</td>
<td>17</td>
</tr>
</tbody>
</table>

Data regarding teacher-child interactions in Emotional Support was analyzed and reported on Teacher Sensitivity (TS) (e.g. dimension within Emotional Support domain). The descriptive statistics are shown in Table 3.

Table 3

*Descriptive Statistics for Teacher Sensitivity (TS)*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>4.65</td>
<td>.862</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>4.59</td>
<td>1.004</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>5.29</td>
<td>.985</td>
<td>17</td>
</tr>
</tbody>
</table>

The data within the dimension showed a direct and significant effect among the means from pre, post, and maintenance scores ($F=5.401, p=.010$). The pairwise comparisons test revealed a significant increase from pre to maintenance ($p=.021$) and
post to maintenance ($p=.028$). However, there was not a significant change from pre to post ($p=.995$). See Table 4.

Table 4

*Pairwise Comparisons for Teacher Sensitivity (TS)*

<table>
<thead>
<tr>
<th>(I) TS</th>
<th>(J) TS</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>Sig. $^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Post</td>
<td>.059</td>
<td>.264</td>
<td>.995</td>
</tr>
<tr>
<td></td>
<td>Maint.</td>
<td>-.647</td>
<td>.209</td>
<td>.021</td>
</tr>
<tr>
<td>Post</td>
<td>Maint.</td>
<td>-.706</td>
<td>.239</td>
<td>.028</td>
</tr>
</tbody>
</table>

Regard for Student Perspective (RSP), another dimension within the Emotional Support domain descriptive statistics are displayed in Table 5.

Table 5

*Descriptive Statistics for Regard for Student Perspective (RSP)*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>4.12</td>
<td>1.054</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>3.71</td>
<td>.985</td>
<td>17</td>
</tr>
<tr>
<td>Maint.</td>
<td>5.24</td>
<td>.752</td>
<td>17</td>
</tr>
</tbody>
</table>

Regard for Student Perspective (RSP) dimension, revealed a significant difference among means for pre, post, and maintenance scores ($F=13.084, p=.0001$). The pairwise comparisons test revealed a significant increase from pre to maintenance ($p=.003$) and
post to maintenance ($p = .003$). However, there was not a significant change from pre to post ($p = .493$). See Table 6

Table 6

Pairwise Comparisons for Regard for Student Perspective (RSP)

<table>
<thead>
<tr>
<th>(I) RSP</th>
<th>(J) RSP</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>Sig. $^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Post</td>
<td>.412</td>
<td>.310</td>
<td>.493</td>
</tr>
<tr>
<td></td>
<td>Maint.</td>
<td>-1.118</td>
<td>.283</td>
<td>.003</td>
</tr>
<tr>
<td>Post</td>
<td>Maint.</td>
<td>-1.529</td>
<td>.333</td>
<td>.001</td>
</tr>
</tbody>
</table>

Behavior Management (BM), the last of the five dimensions within the Emotional Support domain and another one of the contributing factors analyzed to determine an effect among subjects from pre-assessment, post-assessment and to a maintenance phase. The descriptive statistics for this dimension is shown in Table 7.

Table 7

Descriptive Statistics for Behavior Management (BM)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>3.94</td>
<td>.966</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>4.06</td>
<td>1.249</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>5.18</td>
<td>.951</td>
<td>17</td>
</tr>
</tbody>
</table>
Significant difference among the means for pre, post, and maintenance ($F = 8.193, p = .001$). The pairwise comparisons test revealed a significant increase from pre to maintenance phases ($p = .010$) and an increase from post to maintenance ($p = .018$). However there was not a significant increase from pre to post ($p = .972$). See Table 8

Table 8

<table>
<thead>
<tr>
<th>Pairwise Comparisons for Behavior Management (BM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I) BM</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Pre</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Post</td>
</tr>
</tbody>
</table>

There were improvements in the Emotional Support domain as measured through teacher-child interactions after the dependent variable was presented. There were noticeable differences and improvements in Teacher Sensitivity, Regard for Student Perspective, and Behavior Management.

**Question 2:** Does in-service training with follow-up consultation improve teacher’s ability to provide instructional support to young children?

Improvements in teacher’s abilities within the Instructional Support domain were measured by collecting specific data on teacher-child interactions regarding the five associated dimensions aforementioned. Information on the five dimensions was collected at pre-assessment, post-assessment, and again during the maintenance phase. Data were
collected repeatedly at three different times, thus a repeated measures design was employed.

Pairwise comparisons with Sidak’s correction for multiple comparisons were used to follow up a significant $F$ statistic. The alpha level was set at .05. Analyses were produced for each dimension to answer question two.

To answer question two, analyses were conducted on the five dimensions associated with Instructional Support. Productivity (PD), Instructional Learning Formats (ILF), Concept Development (CD), Quality Feedback (QF), and Language Modeling (LM) all make up the Instructional Support domain. Regarding Productivity, descriptive and inferential statistics were collected and reported. There was a significant difference among the means from pre, to post, and maintenance ($F= 6.408, p= .005$). Descriptive statistic data for Productivity are presented in Table 9.

Table 9

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>4.06</td>
<td>.966</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>3.71</td>
<td>1.047</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4.88</td>
<td>.857</td>
<td>17</td>
</tr>
</tbody>
</table>

The pairwise comparisons test revealed a significant increase from post to maintenance ($p=.004$). However, there was not a significant difference or change from pre to post assessments ($p=.750$) or pre to maintenance ($p=.063$). See Table 10.
The descriptive statistics for Instructional Learning Formats, another dimension of the Instructional Support domain are reported in Table 11.

Table 11

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>4.18</td>
<td>1.185</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>3.18</td>
<td>1.131</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4.76</td>
<td>1.033</td>
<td>17</td>
</tr>
</tbody>
</table>

Further, there was a significant difference among the means for pre, post, and maintenance assessments ($F= 9.375, p = .001$). The pairwise comparisons test revealed a significant increase from post to maintenance ($p = .004$). However, there was not a significant change from pre to post assessment ($p = .056$) or from pre to maintenance ($p = .211$). See Table 12.
Table 12

*Pairwise Comparisons for Instructional Learning Formats (ILF)*

<table>
<thead>
<tr>
<th>(I) ILF</th>
<th>(J) ILF</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>Sig. a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Post</td>
<td>1.000</td>
<td>.383</td>
<td>.056</td>
</tr>
<tr>
<td></td>
<td>Maint.</td>
<td>- .588</td>
<td>.310</td>
<td>.211</td>
</tr>
<tr>
<td>Post</td>
<td>Maint.</td>
<td>-1.588</td>
<td>.0412</td>
<td>.004</td>
</tr>
</tbody>
</table>

To further answer question two, data on Concept Development, another dimension within the Instructional Support domain was analyzed. The descriptive statistics are presented in Table 13.

Table 13

*Descriptive Statistics for Concept Development (CD)*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>3.88</td>
<td>1.111</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>3.06</td>
<td>1.345</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4.59</td>
<td>1.121</td>
<td>17</td>
</tr>
</tbody>
</table>

There was a significant difference among the means for pre, post, and maintenance \(F=7.823, p=.002\). The pairwise comparisons test revealed a significant increase from post to maintenance \(p=.211\). However, there was not a significant change or difference from pre to post \(p=.075\) or from pre to maintenance \(p=.174\). See Table 14.
Table 14

Pairwise Comparisons for Concept Development (CD)

<table>
<thead>
<tr>
<th>(I) CD</th>
<th>(J) CD</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>Sig. a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Post</td>
<td>.824</td>
<td>.335</td>
<td>.075</td>
</tr>
<tr>
<td></td>
<td>Maint.</td>
<td>-.706</td>
<td>.351</td>
<td>.174</td>
</tr>
<tr>
<td>Post</td>
<td>Maint.</td>
<td>-1.529</td>
<td>.463</td>
<td>.013</td>
</tr>
</tbody>
</table>

Descriptive Statistic data is provided in Table 15 on Quality of Feedback, a dimension with the Instructional Support domain. This data was used to answer question number two.

Table 15

Descriptive Statistics for Quality of Feedback (QF)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>3.76</td>
<td>1.091</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>3.18</td>
<td>1.334</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4.88</td>
<td>.857</td>
<td>17</td>
</tr>
</tbody>
</table>

Statistics on Quality of Feedback revealed a significant difference among the mean scores ($F=13.405, \ p=.001$). The pairwise comparisons test revealed a significant increase from pre to maintenance ($p=.002$) and from post to maintenance ($p=.001$). However, there was not a significant increase from pre to post ($p=.286$). See Table 16.
Table 16

*Pairwise Comparisons for Quality of Feedback (QF)*

<table>
<thead>
<tr>
<th>(I) QF</th>
<th>(J) QF</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>Sig. a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Post</td>
<td>.588</td>
<td>.344</td>
<td>.286</td>
</tr>
<tr>
<td></td>
<td>Maint.</td>
<td>-1.118</td>
<td>.270</td>
<td>.002</td>
</tr>
<tr>
<td>Post</td>
<td>Maint.</td>
<td>-1.706</td>
<td>.381</td>
<td>.001</td>
</tr>
</tbody>
</table>

The fifth dimension (Language Modeling) within Instructional Support was analyzed and descriptive and inferential information are provided in Table 17.

Table 17

*Descriptive Statistics for Language Modeling (LM)*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>4.06</td>
<td>.899</td>
<td>17</td>
</tr>
<tr>
<td>Post</td>
<td>3.59</td>
<td>1.460</td>
<td>17</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4.82</td>
<td>1.015</td>
<td>17</td>
</tr>
</tbody>
</table>

There was a significant difference among the means for pre, post, and maintenance scores ($F= 5.96, p= .006$). The pairwise comparisons test revealed a significant increase from post to maintenance ($p=.034$). There was not a significant change from pre to post ($p=.443$) or from pre to maintenance ($p=.067$). See Table 18.
Table 18

Pairwise Comparisons for Language Modeling (LM)

<table>
<thead>
<tr>
<th>(I) LM</th>
<th>(J) LM</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>Sig. a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Post</td>
<td>.471</td>
<td>.333</td>
<td>.443</td>
</tr>
<tr>
<td></td>
<td>Maint.</td>
<td>-.765</td>
<td>.304</td>
<td>.067</td>
</tr>
<tr>
<td>Post</td>
<td>Maint.</td>
<td>-1.235</td>
<td>.433</td>
<td>.034</td>
</tr>
</tbody>
</table>

*Question 3: What were Head Start teachers’ attitudes regarding Emotional and Instructional training and consultation after participating in the study and did they prefer training over consultation or were their no differences in attitudes?*

To answer question three and to gather social validity data the investigator developed The Efficacy of Emotional and Instructional Support on Head Start Teacher-Child Interaction survey that included ten items and a five point Likert scale with five being the highest rating and one being the lowest (see Appendix A). The questions from the likert scale addressed effectiveness of the training sessions as well as the overall experience as research participants. Each item within the scale was calculated to present mean scores. The final results from the Likert scale will be discussed in this section.

When asked to rate the effectiveness of the training sessions, 94% rated the training sessions from effective to very effective, 6% rated somewhat effective; however, no participants rated the trainings at not at all effective. In rating the effectiveness of the facilitator’s presentation of material and information during the training sessions, 95% of
the participants rated between very effective and effective. Only 5% rated somewhat effective, and no participant gave a rating of not effective for this item.

Regarding the effectiveness of the consultancy sessions, 79% of the participants rated between effective and very effective, where 21% gave a rating of somewhat effective. Again, no participants gave a rating of not effective for this item. When rating the effectiveness of the consultants’ support and guidance in the Emotional Support domain, 69% of the participants rated between effective and very effective. However, 27% rated somewhat effective and 4% rated the consultants’ support and guidance in Emotional Support not effective.

When rating the effectiveness of the consultants’ in providing support and guidance in Instructional Support domain, 79% of the participants gave ratings between effective and very effective. Eighteen percent rated somewhat effective, and 3% rated not effective. To determine which was most beneficial for the participants, training or consultation, the participants were asked to rate how training and consultation compared. When asked to rate the effectiveness of training sessions compared to consultancy sessions, 58% of participants rated training sessions as extremely more effective, 21% rated somewhat more effective, and 21% rated not more effective.

When asked to rate the effectiveness of consultancy sessions compared to training sessions 43% participants rated consultancy sessions between more to extremely effective. Thirty-two percent rated somewhat effective and 25% rated not more effective.

In addition to support provided in Instructional and Emotional Support through training and consultation, information was gathered on the benefits of the study with regards to increasing teacher-child interactions. According to the participants 95% believed the
study was very beneficial where only 5% rated somewhat beneficial. There were no ratings of not at all beneficial.

Participants also rated their overall experience as research participants and 94% of indicated their experience was somewhat good to good. However, 6% rated the experience as somewhat bad. Lastly, when asked to rate the likelihood of their participation in future similar studies, 89% rated somewhat likely to very likely, where 11% rated not likely soon. However, no participants indicated they would not at all be likely to participate in future studies. Social validity data on the participants responses ar presented in Table 19.

In summary and according to descriptive, inferential, and social validity data, it appears there was a direct effect between the independent variable (e.g. training and consultation) and the dependent variable (e.g. teacher-child interactions). However, some data revealed greater effect and significant differences when compared to others. Further, there was clearly no significant difference within two of the dimensions within the Emotional Support domain. According to repeated measures and pairwise comparisons, there were no noticeable effects in mean scores for Positive Climate or for Negative Climate. However, for three (i.e. Teacher Sensitivity, Regard for Student Perspective, and Behavior Management) of the other dimensions within Emotional Support, there were significant differences and significant increases from pre to maintenance and post to maintenance.
Table 19


<table>
<thead>
<tr>
<th>Question</th>
<th>Not Effective</th>
<th>Somewhat Effective</th>
<th>Effective</th>
<th>Very Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>0%</td>
<td>5%</td>
<td>42%</td>
<td>53%</td>
</tr>
<tr>
<td>Question 2</td>
<td>0%</td>
<td>5%</td>
<td>16%</td>
<td>79%</td>
</tr>
<tr>
<td>Question 3</td>
<td>0%</td>
<td>21%</td>
<td>37%</td>
<td>42%</td>
</tr>
<tr>
<td>Question 4</td>
<td>5%</td>
<td>26%</td>
<td>37%</td>
<td>32%</td>
</tr>
<tr>
<td>Question 5</td>
<td>5%</td>
<td>16%</td>
<td>42%</td>
<td>37%</td>
</tr>
<tr>
<td>Question 6</td>
<td>21%</td>
<td>21%</td>
<td>32%</td>
<td>26%</td>
</tr>
<tr>
<td>Question 7</td>
<td>26%</td>
<td>32%</td>
<td>11%</td>
<td>32%</td>
</tr>
<tr>
<td>Question 8</td>
<td>0%</td>
<td>5%</td>
<td>42%</td>
<td>53%</td>
</tr>
<tr>
<td>Question 9</td>
<td>0%</td>
<td>5%</td>
<td>5%</td>
<td>90%</td>
</tr>
<tr>
<td>Question 10</td>
<td>0%</td>
<td>11%</td>
<td>26%</td>
<td>63%</td>
</tr>
</tbody>
</table>

Note: The actual questions that were presented to the participants on the Likert scale to gather social validity data are presented in Appendix A.

When looking at data regarding Instructional Support, across all dimensions, the significance and difference was noticed from post to maintenance assessment. However, one dimension (i.e. Quality of Feedback) showed significant differences and increases from pre to maintenance and from post to maintenance. Behavior Management and Quality of Feedback had the most significant differences among all dimensions.

Regarding social validity, according to the data presented, overall, the study was viewed as beneficial among a greater percentage of participants. There is no documentation or data indicating the participants did not find the study beneficial. Further, an equally greater percentage of participants indicated they would be willing
participants in a similar study in the future. However, participants clearly viewed training most beneficial when compared to consultation towards improving teacher-child interactions. Further they viewed the presentation and information from the facilitator as very effective.
CHAPTER 5

IMPLICATIONS

The study was designed to examine the efficacy of training and consultation on Head Start teacher-child interactions. Based on information gathered regarding best practices and best approaches towards learning, the investigator developed a training model, the Emotional and Instructional Support (EIS) Approach in which training and consultation was provided to Head Start teachers. The intervention implemented components of PBS and followed a prescriptive format based on Blooms Taxonomy and Maslow’s Hierarchy of Needs.

The student investigator, a research team of Head Start center directors, and education coordinators implemented the intervention to 21 Head Start teachers located in Southern Nevada. The full scope of the study and implementation of the intervention extended over a six week period in which the participants received training and consultation on alternating weeks.

The study was designed and implemented as a result of an increased need for quality care and education within early care and education settings. According to LaParo, Pianta, and Hamre (2008), quality within early care and education settings may be improved through direct teacher and child interactions. The interactions between teachers and his or her students have been viewed as process quality. Process quality is more beneficial than structural quality (e.g. material, credentials of teachers, and geographical areas of facilities)(La Paro, Pianta, & Hamre, 2008).

Not only was the study implemented in response to an increased need for quality care and education for young children, the study extended the literature and directly
contributed to the body of research on this and similar topics. There have been at least two studies in which training with a component of consultation has been beneficial and where there have been direct effects on teachers’ abilities. In one study, Benedict, Horner, and Squires (2007) increased teachers’ abilities to implement components of PBS in early childhood environments after the implementation of training and consultation. In another study conducted by Campbell and Milbourne (2005), there were noted improvements in program quality as measured by the Infant and Toddler Environmental Rating Scale (ITERS) after training and consultation had been provided to early care and education teachers.

The current study contributed to the literature by improving the quality of training by following a structured format for the presentation of information through interactive training sessions, by providing evidence based instruction, and by providing non-threatening and extended consultation sessions. Included in this chapter is a discussion of the findings for each research question, conclusions related to each finding, and implications and recommendations for future research studies.

Cumulatively, there were noticeable differences and significant effects and differences in mean scores among subjects across domains and dimensions. When answering the first research question and determining whether the intervention had an effect on teacher-child interactions, statistical analysis was conducted on each dimension within the Emotional Support domain. It was evident teachers did not improve significantly in establishing a positive climate from pre-assessment, to post-assessment, to maintenance assessment phases. However, their mean scores for this dimension were relatively in the mid range as rated by the CLASS. Mid-range scores would be scores
between 3 and 4. The negative climate dimension did not yield results that proved significant differences in mean scores over time. However, their mean scores for this dimension were in the low range as rated by the CLASS, indicating there was no to minimal negativity present within the climate or environment. Low range scores were between 1 and 2.

For the three remaining dimensions within emotional support, there were significant differences in the mean scores with increases from pre to maintenance and also from post to maintenance. It is interesting to note that teacher improvement was not noted from pre to post assessment. It is possible that participants needed more time to effectively process and implement the information learned through training and consultation.

The absence of effect or difference in pre and post assessment scores could have come as a result of not sufficient time to learn and effectively implement strategies. Although the research team members were all trained and reliable on scoring procedures using the CLASS, different team members observed and rated across assessment phases. It is possible a level of observer bias influenced and impacted the difference in scoring. It is advised for future studies that, the raters remain constant throughout the study phases to increase the likelihood of consistently scoring during all assessment phases.

In answering the second question, similar processes applied. The investigator analyzed each dimension within Instructional Support. Consistently across all dimensions within the Instructional Support domain, there were significant differences. The pairwise comparisons test revealed a significant increase only from post to maintenance for all dimensions within the Instructional Support domain with the
exception of Quality of Feedback where there was a significant increase from pre-assessment to maintenance as well as from post to maintenance.

According to the results of the data, the intervention had a direct effect on mean scores. However, for the Instructional Support domain, effects occurred primarily between post and maintenance assessment phases. It was during the maintenance phases that the student investigator gathered data on teacher-child interactions using the CLASS instrument. Observer bias may explain these results because research team members gathered data on teacher-child interactions during pre and post assessment instead of the student investigator.

In addition to the statistical data for questions one and two, social validity data were collected. The information gathered was used to answer question three. Collectively, a large majority of the participants rated their total experience in the research study as somewhat good to good. There were no participants whose ratings indicated they were not at all likely to participate in a similar study.

Collectively a large majority of the participants rated the training sessions and student investigator’s presentation of information as effective to very effective. Effectiveness of training sessions were rated higher when compared to consultation sessions. A larger percentage of the participants indicated through their ratings, the consultants support in Instructional Support was effective to very effective when compared to Emotional Support. It was evident through collection of social validity data, the participants had different opinions regarding the study, yet they all believed the study supported the improvement in their interactions will engaging with her students.
The results from the current study concur with those from previous studies (Campbell & Milbourne, 2005; Benedict, Horner, & Squires, 2007). There were direct and significant effects from pre to post assessment after training and consultation had been provided. However, including a control group in future studies could prove beneficial for yielding different results. In the study conducted by Campbell and Milbourne (2005), the researchers included a comparison control group who did not receive the intervention (e.g. training and consultation) to identify any differences in mean scores from pre to post assessment.

Campbell and Milbourne also considered education and experience in early care and education when reviewing final results. In addition and to further increase improved scores, the consultant and the caregiver after pre-assessment data were collected, came together to establish outcomes for each observed indicator from the actual measurement tool. Similarly, in another study by Benedict, Horner, and Squires (2007), after the initial assessment of teacher’s abilities to implement components of PBS an action plan was developed between consultant and caregiver where the information gathered from the action plan was the source of focus for subsequent consultation sessions.

Consultation sessions occurred during regular classroom activities whereby the consultant observed the classroom, modeled strategies, and provided verbal and written feedback on the caregiver’s use of targeted skills and supports. Looking at both studies, Benedict, Horner, and Squires (2007) and Campbell and Milbourne (2005), increased mean scores and successful response to intervention came as a result of extended time between implementation of intervention and post-assessment data. Implementation of
intervention extended for two months for one study (Benedict, Horner, & Squires, 2007) and six months for another study (Campbell & Milbourne, 2005).

Practical Implications and Recommendations for Future Research

In continuing further to improve quality and practices in early care and education and to gather additional data on the effect of training and consultation on teacher performance, the following implications should be considered. Based on the data from the present study and those studies previously implemented, it is clear training and consultation is effective. However, to increase significance in mean scores and to increase effect, there should be intense, extended, and individualized training to improve consultant performance and their ability to observe, rate, and provide support effectively and appropriately.

In addition to, extended and individualized training and support for consultants to improve their support to teachers, there should be sufficient time for teachers to implement lessons learned between training and consultation and post and maintenance phases. During the study presented here, there were only six to eight weeks between intervention and post-assessment. It was during the pre-assessment and post-assessment phases that there were not significant differences among mean scores. However, in the other aforementioned studies, there were significant differences in mean scores and significant levels of effect. It is reasonable to believe this was due to extended time for training and consultation.

Although effective components were implanted in the consultation sessions for the present study (e.g. discussions on teacher’s perspective, acknowledgement of
strengths, opportunities for support, and an action plan for future consultancy sessions) the impact of consultation may be improved with more in-class consultation where support is modeled during actual classroom activities. The consultancy sessions should be outcome driven and supported by data where teacher performance was not as significant. Larger sample sizes are recommended for future studies and replication.

In considering effects or a lack thereof and implications from previous studies, it is recommended and considered beneficial to conduct future studies where intensive, outcomes driven, non threatening, and individualized professional development is provided through training and consultation to teachers in early care and education environments. However, the studies should be conducted for extended periods of time, where substantial amounts of time are made available for consultants to be supported as they support his or her assigned teacher or participant.

It would be even more beneficial to add the support provided to consultants as a variable for measuring effectiveness of teacher-child interactions and performance. For example, mean scores and effect size would be measured for teachers who received support from highly trained and supported consultants with consultants who only have minimal education and experience. There should be larger sample sizes where there is both a treatment and control group involved. In addition, there should be an added dimension or variable related to the extension of the training and consultation by measuring pre and post assessment data between teacher-child interactions and child outcomes. Finally, regardless of the variables included, regardless of the participants, and regardless of the research design employed, when implementing interventions in which teacher and student performance will be impacted, the intervention should be
implemented as early in the school or program year as possible. This will allow ample opportunity to gauge progress, provide adequate and timely support, feedback, and follow through.
REFERENCES


Upper Saddle River, New Jersey: Merrill Prentice Hall.


Social/Behavioral IRB – Exempt Review
Approved as Exempt

DATE: November 23, 2009

TO: Dr. Jeff Geiser, Special Education

FROM: Office for the Protection of Research Subjects

RE: Notification of IRB Action by Dr. Paul Jones, Chair
   Protocol Title: The Efficacy of Emotional and Instructional Support (EIS) Training
   and Consultation on Head Start Teacher-Child Interactions
   OPRS# 0910-3253

This memorandum is notification that the project referenced above has been reviewed by the UNLV Social/Behavioral Institutional Review Board (IRB) as indicated in Federal regulatory statutes 45CFR46.

The protocol has been reviewed and deemed exempt from IRB review. It is not in need of further review or approval by the IRB.

PLEASE NOTE:
Attached to this approval notice is the official Informed Consent/Assent (IC/IA) Form for this study. The IC/IA contains an official approval stamp. Only copies of this official IC/IA form may be used when obtaining consent. Please keep the original for your records.

Any changes to the exempt protocol may cause this project to require a different level of IRB review. Should any changes need to be made, please submit a Modification Form.

If you have questions or require any assistance, please contact the Office for the Protection of Research Subjects at OPRS@humanSubjects@unlv.edu or call 866-2704.

Office for the Protection of Research Subjects
4305 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-4047
INFORMED CONSENT
Department of Special Education

TITLE OF STUDY: The Efficacy of Emotional and Instructional Support (EIS) Training and Consultation on Head Start Teacher-Child Interactions

INVESTIGATOR(S): Dr. Jeff Gelfer & Rory B. Sipp

CONTACT PHONE NUMBER: (702) 610.4961

Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to strengthen and improve practices and increase quality within the field of Early Care and Education by enhancing professional development and support to Head Start and preschool teachers.

Participants
You are being asked to participate in the study because you are currently an educator employed by the local Head Start program located in Southern Nevada. Although you are credentialed, degreed, and have had extensive training in the past, it has been noted you have not received specific training on Positive Behavior Support (PBS) Systems, you have not received training on the Classroom Assessment Scoring System (CLASS) and have not received specific training on Instructional Support within the last year. In addition, you have indicated you are available to be trained after traditional work hours between the hours of 5:30 p.m. and 7:30 p.m. every other Monday for a total of three Mondays within a six-week period.

Procedures
If you volunteer to participate in this study, you will be asked to complete the following and adhere to the listed schedule:

As a candidate for the study you will be provided three weeks of training whereby you will attend a two-hour training session for one day per week for a total of three weeks of training sessions. In addition to the training provided, candidates will receive weekly consultation sessions with a member of the research team. During these sessions, candidates and one of the researchers will review pre-recorded teacher-child interactions from previous weeks and together the consultant and the candidate will have discussions on strengths, best practices, and opportunities for continued growth and learning. Together, the researcher and the candidate will discuss new skills and practices for implementation in the classroom.

Between each training week and after each consultation session, candidates will be provided one week to practice their new skills while having a consultant available for further guidance and support.

Participant Initials
If you have any questions or concerns about the study, you may contact the Primary Investigator Jeff Gelfer at (702) 895-1327 mail stop #3014 or contact Student Investigator Rory B. Sipp at (702) 610.4961. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office for the Protection of Research Subjects at 702-895-2794.

Voluntary Participation
Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality
All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time the information gathered will be manually destroyed.

Participant Consent:
I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

Signature of Participant ___________________________ Date ____________

Participant Name (Please Print) ________________________________

Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.
Appendix A

Social Validity: The Efficacy of Emotional and Instructional Support (EIS) on Head Start Teacher and Child Interactions

Instructions: Research Participants, “Thank You All Again” for your participation in this research study. In addition to data collected using the CLASS measurement tool, I would like to gather additional information regarding specific aspects of the study. The information will be utilized and reported on to increase the social validity of the study for future replication. The information you provide is confidential and your identity cannot be associated with your responses. Read each question carefully and provide your honest response by circling the number that best represents your view.

1. How effective were the training sessions?

| 4 Very Effective | 3 Effective | 2 Somewhat Effective | 1 Not Effective |

2. How effective was the facilitator in his presentation of the information?

| 4 Very Effective | 3 Effective | 2 Somewhat Effective | 1 Not Effective |

3. How effective were the consultancy sessions?

| 4 Very Effective | 3 Effective | 2 Somewhat Effective | 1 Not Effective |

4. How effective was the consultant in providing support and guidance in emotional support?

| 4 Very Effective | 3 Effective | 2 Somewhat Effective | 1 Not Effective |

5. How effective was the consultant in providing support and guidance in instructional support?

| 4 Very Effective | 3 Effective | 2 Somewhat | 1 Not Effective |
6. How would you rate the effectiveness of the training sessions when compared to the consultancy sessions?

<table>
<thead>
<tr>
<th>4 Extremely More Effective than the Consultancy Sessions</th>
<th>3 More Effective than the Consultancy Sessions</th>
<th>2 Somewhat more effective than the Consultancy Sessions</th>
<th>1 The training sessions were not more effective</th>
</tr>
</thead>
</table>

7. How would you rate the effectiveness of the consultancy sessions when compared to the training sessions?

<table>
<thead>
<tr>
<th>4 Extremely More Effective than the training sessions</th>
<th>3 More Effective than the training sessions</th>
<th>2 Somewhat more effective than the training sessions</th>
<th>1 The consultancy sessions were not more effective</th>
</tr>
</thead>
</table>

8. How beneficial was the study for increasing teacher-child interactions?

<table>
<thead>
<tr>
<th>4 Very Beneficial</th>
<th>3 Beneficial</th>
<th>2 Somewhat Beneficial</th>
<th>1 Not Beneficial At All</th>
</tr>
</thead>
</table>

9. Overall how was your experience as a research participant?

<table>
<thead>
<tr>
<th>4 Good</th>
<th>3 Somewhat Good</th>
<th>2 Somewhat Bad</th>
<th>1 Not Good at All</th>
</tr>
</thead>
</table>

10. What would be the likelihood of you participating in a similar study?

<table>
<thead>
<tr>
<th>4 Very Likely</th>
<th>3 Somewhat Likely</th>
<th>2 Not Likely Soon</th>
<th>1 Not at All Likely</th>
</tr>
</thead>
</table>
Appendix B

UNLV

Emotional and Instructional Support

Consultancy Checklist

Participant Name: ___________________________ Date: ___________________________

Consultancy Week: circle appropriate session 1 2 3 4 5 6 7 8 9 10 11 12

Consultant Name: ___________________________ Contact Number: ________________


/ Wk:8 / Wk:9 / Wk:10 / Wk:11 / Wk:12 / Total Consultancy Hrs: ________________

II. Participant Perspective of Recording Interaction

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

III. Acknowledgment of Strengths

Emotional Support (Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspective, Behavior Management, Productivity):

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Instructional Support (Instructional Learning Format, Concept Development, Quality of Feedback, Language Modeling):

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Developed by Rory B. Stig (Student Investigator)
III. Opportunity for Support

Emotional Support: (Positive Climate, Negative Climate, Teacher Sensitivity, Respect for Student Perspective, Behavior Management, Productivity):

Instructional Support: (Instructional Learning Format, Concept Development, Quality of Feedback, Language Modeling):

IV. Action Plan

<table>
<thead>
<tr>
<th>Task</th>
<th>By Whom</th>
<th>Timeline</th>
<th>Status</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Consultant Signature: ____________________________ Date: ___________

Participant Signature: ____________________________ Date: ___________

Developed by Rory B. Sipp (Student Investigator)
### Appendix C

## Intervention Implementation

### Fidelity Checklist

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Advanced Organizers:</strong> The facilitator provides a clear and concise overview of content that will be covered during the training sessions. Time is factored in for participants to ask questions for clarity and for timely and clear feedback.</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Introduction:</strong> The facilitator provides information to participants regarding the purpose of the study, current information regarding the field of early care and education regarding program quality, research problems within the field of early care and education and helps participants understand the purpose of the training. Time is factored in for participants to ask questions for clarity and for timely and clear feedback.</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Logistics and Timelines:</strong> The facilitator provides clear examples to participants regarding events that will occur during the process of the intervention and dates and times for each event. Time is factored in for participants to ask questions for clarity and for timely and clear feedback.</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Emotional Support:</strong> Prior to introducing content, facilitator ensures basic levels of physiological needs are met (e.g. room environment, food, etc). The facilitator presents information following a continuum of Bloom's Taxonomy where basic knowledge on content is established first and moving on to comprehension up to an evaluative process for each topic. The facilitator provides a clear and concise overview of Emotional Support as described by Pianta, La Paro, and Hamre (2008). Information is provided on domains and dimensions of Emotional Support and how additional information will be presented across other domains within the training.</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Positive Climate:</strong> The facilitator provides an overview of the description of Positive Climate. Information is provided and there is time for discussion regarding how to establish positive climates. Time is factored in for participants to ask questions for clarity and for timely and clear feedback.</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Negative Climate:</strong> The facilitator provides an overview of the description of Negative Climate. Information is provided and there is time for discussion regarding what contributes to a negative climate. Time is factored in for participants to ask questions for clarity and for timely and clear feedback.</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Teacher Sensitivity:</strong> The facilitator provided an overview of the description of Teacher Sensitivity. Information is provided and there is time for discussion regarding how to anticipate problems within daily routines, how to respond sensitively and how to provide respectful and compassionate support.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Regard for Student Perspectives:</strong> The facilitator provided an overview of the description of Regard for Student Perspectives. Information is provided and there is time for discussion regarding respecting students as individuals by allowing them to become autonomous and by developing activities based on the interest of children.</td>
</tr>
</tbody>
</table>

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Developed by Rory K. Sipp (Student Investigator)
9. **Behavior Management (PBS):** Prior to introducing content, facilitator ensures basic levels of physiological needs are met (e.g. room environment, food, etc.). The facilitator presents information following along a continuum of Bloom's Taxonomy where basic knowledge on content is established first and moving on to comprehension up to an evaluative process for each topic. The facilitator provides adequate information regarding Behavior Management and components of Positive Behavior Supports as an intervention for reducing inappropriate behavior and for supporting appropriate behaviors.

10. **Productivity:** The facilitator provides adequate information regarding strategies to assist teachers with managing instructional times and routines by proactively preparing lessons, developing consistent routines, and by implementing smooth transitions.

11. **Concept Development:** Prior to introducing content, facilitator ensures basic levels of physiological needs are met (e.g. room environment, food, etc.). The facilitator presents information following along a continuum of Bloom's Taxonomy where basic knowledge on content is established first and moving on to comprehension up to an evaluative process for each topic. The facilitator provides adequate information and examples of how to increase higher order thinking, problem solving, and cognition in children.

12. **Quality of Feedback:** The facilitator provides adequate information regarding how teachers provide responsive, sensitive, and appropriate feedback to children.

13. **Language Modeling:** The facilitator provides adequate information regarding how teachers support language development in children through modeling and experiences.

14. **Instructional Learning Formats:** The facilitator provides adequate information regarding how teachers maximize students' interest, engagement, and abilities to learn using a variety of modalities and materials, effective facilitation, and by planning lessons ordering to student's interest.

### Total and Calculations

<table>
<thead>
<tr>
<th>Total Agree</th>
<th>Total Disagree</th>
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</thead>
</table>

\[
\text{Total IOA} = \frac{\text{Agreements}}{\text{Agreements} + \text{Disagreements}} \times 100 \text{ TO GET THE PERCENT OF AGREEMENT BETWEEN OBSERVERS.}
\]

<table>
<thead>
<tr>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA Fidelity Percentage</td>
</tr>
</tbody>
</table>

---

Developed by Rory R. Sipp (Student Investigator)
VITA

Graduate College
University of Nevada, Las Vegas

Rory Brown Sipp

Degrees:
Associate of Science, 1997
Faulkner University

Bachelor of Science, Early Childhood, 2001
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Master of Education, Educational Leadership, 2004
University of Nevada, Las Vegas

Dissertation Title: The Efficacy of Emotional and Instructional (EIS) Support Training and Consultation on Head Start Teacher-Child Interactions

Dissertation Examination Committee:
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Committee Member, Susan Miller, Ph. D.
Committee Member, David Grant, Ph. D.
Committee Member, Richard Tandy, Ph. D.