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The primary purpose of this study sought to examine the relationship between student teachers' beliefs and classroom practices with regard to developmentally appropriate practice, from the perspective of Urie Bronfenbrenner's Bioecological Theory. The influence of age of student teacher, prior experience and having an Associate's Degree prior to entering the university's teacher licensure program were examined. To investigate the relation between student teachers' beliefs and observed classroom practices, nineteen student teachers enrolled in HDF 460: Professional Experience in Early Childhood, participated in this study. Their participation included completing surveys to obtain demographic information and to assess their beliefs concerning developmentally appropriate practices. Student teachers also had to conduct videotaped lessons and activities in their student teaching placement. In addition, nine cooperating teachers filled out a set of two questionnaires to obtain demographic information and to assess their beliefs about the importance of various classroom developmentally appropriate practices.

All nineteen student teacher participants were recruited from a North Carolina University and were seeking Birth-Kindergarten Licensure. All 9 cooperating teachers who also participated in this study were employed in the local Public School System and had previously had a student teacher from the participating university.

The results reveal that having an Associate's Degree prior to entering the teacher licensure program did not significantly influence reported developmentally appropriate

beliefs. However, having at least one year of prior experience and being a non-traditional student did positively influence those student teachers who were placed in pre-k classrooms in their reported developmentally appropriate beliefs.

The findings also indicate that cooperating teachers' reported beliefs did not appear to have influence on their student teacher's observed practices, although the sample size was limited.

The study provided evidence that all the student teachers started out with relatively high reported appropriate beliefs and retained them and the only change was an increase in reported developmentally appropriate beliefs for those placed in kindergarten classrooms. Implications for pre-service professional development and future research are addressed.

STUDENT TEACHERS' BELIEFS AND DISPOSITIONS AND THEIR RELATION TO OBSERVED CLASSROOM PRACTICES

By

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To my parents, Timothy and Earnestine Tolbert, who have mastered the difficult task of giving their children roots to stay grounded yet wings to soar. I love you both and through your words and wisdom I have been blessed. You have instilled in me Christian principles and the belief that "I can do all things through Christ who strengthens me." With this mentality, I was bound for great success. No matter where I go in life, I know that there's always a place to return to filled with love. To my sisters, Tiffany and Dollie, thank you for sharing your childhood with me. I know when push comes to shove, I can always count on my sisters. I love the fact that no matter what different paths our lives may take, I'll always have you two and you two will always have me. To Agustus, thank you for being exactly what I needed. The patience, nurturing and love I received from you will never be underestimated or forgotten. You have brought laughter and joy to my life and so much love to my heart. To Aliya (BF), Tanika and Trinity, once in while you find a friend who will be a friend forever – thanks for being my forever friends! To Dollie B. Allen "MaDear", Hallelujah Jesus! To the late Rev. Julia Tolbert, rest in peace and it is well with my soul.

APPROVAL PAGE

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CHAPTER I

INTRODUCTION

Statement of Problem

The association between student teachers' beliefs and their classroom practice is becoming a great interest to teacher preparation programs. Research supports that one reason for this escalating interest is in the shift from an emphasis on the association between observable teacher behaviors and children's achievements, to a focus on the thinking and planning that may precede teacher action (Fang, 1996). According to Clark and Peterson (1986), the process of teaching involves two major components: (1) teachers' thought processes and (2) teachers' actions and their observable effects. Traditional teacher research has focused on the latter because teachers' thought processes occur inside their heads and are not readily measurable and more difficult to define with empirical research methods However, researchers soon began to become increasingly interested in the mental constructs and processes that may provide an explanation into why teachers behaved a certain way in the classroom (Fang, 1996). It was then that the focus shifted from how teachers behaved to teacher's thought processes. This line of research assumes that teachers are professionals who make reasonable judgments and decisions within a complex and uncertain community, school and classroom environment and that teacher thoughts, judgments and decisions guide their classroom behavior (Shavelson, 1983). Newer studies have now focused on teachers' beliefs and their

relationship to classroom behavior and practices. Teachers' beliefs may serve as a "contextual filter" through which teachers screen their classroom experiences, interpret them, and adapt their subsequent classroom practices (Clark & Peterson, 1986). Emerging data also supports the position that the characteristics that teachers bring with them (experiences, knowledge, dispositions, beliefs, attitudes) upon entry into formal preparation programs greatly influence their subsequent development as both students and practitioners of teaching (Doyle, 1997).

In addition to beliefs, researchers in social and personality psychology have found that cognitive and personality variables called "dispositions" also have both intentional and unintentional effects on belief formation and change (Sinatra & Kardash, 2004). According to the National Council for Accreditation of Teacher Education (2002, NCATE) dispositions are defined as " the values, commitments, and professional ethics that influence behaviors toward students, families, colleagues and communities and affect student learning, motivation, and development as well as the educator's own professional growth" (p. 53). Dispositions are important to effective teaching because they may enrich positive interactions and routines established and maintained in the classroom. Teachers with a positive attitude and caring, flexible and responsive dispositions tend to have strong interpersonal skills, handle discipline through prevention, and promote a classroom climate of respect and rapport that reflects their commitment to students and their learning (Minor, Onwuegbuzie, Witcher, & James, 2002). These specific teacher characteristics have been identified as characteristics of effective teachers (Howes, Whitebook & Phillips, 1992).

The choices teachers make about what to teach and how to teach may be largely influenced by their beliefs. While one might expect that teachers have pedagogical knowledge and content knowledge about the subject(s) they teach, they may also hold a wide range of beliefs about what it means to be a teacher and how students learn (Pajares, 1992). Despite the level and intensity of content knowledge a teacher may possess, it is their beliefs that are more likely to dictate their action in the classroom (Hall, 2005). This is important because as teacher educators, we have to remember that pre-service and in-service teachers are influenced by their experiences as former students, as well as student teaching, lead teaching, and the contexts they have or are currently experiencing (Hall, 2005). If we wish to change teachers' knowledge we may have to start first with examining their belief systems. Isenberg (1990) insists that "broadening the view of teaching to include thoughts and beliefs as well as behaviors will lead to a better understanding of the variations in practice seen across individual teachers as well as the incongruity seen when teachers do not consistently use recommended teaching behaviors" (p. 325). This research will focus on beliefs of pre-service teachers relating to the importance of developmentally appropriate practices in preschool/kindergarten classrooms. While focusing on pre-service teachers, the present research must also include literature on professional development. The professional development of teachers has been shown to be related to the quality of early childhood programs (Howes, Whitebook & Phillips, 1992).

Professional Development

Research that focuses on indicators of high quality classrooms suggests that education is a better predictor of teacher effectiveness than experience (Howes et al., 1992). In a study conducted by Cassidy, Buell, Pugh-Hoese and Russell (1995), they found that completion of at least 12 to 20 credit hours of community college coursework resulted in significantly more developmentally appropriate beliefs and practices for these teachers compared to a group of teachers who did not attend college classes. The participants were allowed to choose the specific courses in which they enrolled and majority (85%) of the courses taken was either an early childhood education methods course or a child-related course during the first year of study. Based on the *Early Childhood Environment Rating Scale* (ECERS) and the *Infant-Toddler Environment Rating Scale* (ITERS), the teachers who completed the community college coursework improved their classroom quality scores significantly from pretest to posttest. Both the ECERS and ITERS were used as measures of quality and assessed the overall quality of care and of education provided to children (Cassidy et al., 1995).

Many studies agree that education is a good predictor of effective teaching. Burchinal and colleagues (2002) sought to investigate the different levels of education. They found caregivers with a BA or BS (Bachelor of Arts or Bachelor of Science) were significantly more likely to have higher quality classrooms than caregivers in three other education categories (a) Associate's degree (AA) in Early Childhood Education (ECE) or child development associate's degree (b) completion of ECE courses at college, or (c) workshops only or no formal training. Snider and Fu (1990) suggest that it's imperative

that early childhood teachers be required to have both child development education and supervised practice experience *before* taking on the responsibilities of a lead teacher in any preschool classroom.

Taking these studies together, we can conclude that professional development that includes college coursework and/or specialized training is the most beneficial for effective teaching. Strong evidence suggest that professional development in general is significantly related to high-quality in early childhood programs which in turn, produces positive outcomes for children (Whitebook, 2003). This is supported by the National Association for the Education of Young Children (NAEYC). NAEYC, one of the largest professional organizations of early childhood educators, has worked diligently to promote high-quality programs for young children. One major way in which they support this is by facilitating the professional development of individuals working for and with young children birth through age eight (NAEYC, 1994). The types of activities described as professional development vary and range from completion of a required number of training hours to intensive, long-term approaches that may use such strategies as consultation, mentoring, or technical assistance (Campbell & Milbourne, 2005). However, it is formal professional education that has consistently been linked to positive caregiver behaviors (Darling-Hammond, 1998).

Pre-service professional development, which will be the focus of this study, is training and educational opportunities completed *before* entering the classroom as a licensed or paid teacher. Many states permit child care providers and preschool teachers to begin to teach without any professional preparation, while others have pre-service

requirements that range from a week of orientation to four years of college (Bowman, Donovan & Burns, 2000). For example, all professional employees of North Carolina public schools must hold a license for the subject or grade level they teach or for the professional assignment they hold. The standard basis for license is the completion of an approved education program at an accredited college or university (NC Department of Public Instruction, retrieved April 5, 2006).

A major part of the pre-professional development experience and the teacher education program is student teaching. Student teaching is an opportunity for the student teacher to participate in an actual classroom as a teacher under the supervision of a cooperating teacher (the regular teacher of that classroom) and university supervisor. Student teaching has been considered the most powerful part of teacher education (Richardson, 1996). After several years of varied coursework and field experiences, the student teacher suddenly finds him/herself in the "real" world of the school and is required to shift from the mostly theoretical orientation of the structured university setting to the mostly practical concerns of the classroom (Smith, 1997). In relation to high quality teacher education programs and maximizing the student teaching experience, Griffin (1999), argues that "teacher education is best accomplished when it is context-sensitive (rather than exclusively or mainly abstract and unconnected to real-life teaching and learning situations), ongoing (rather than sporadic and disconnected in its components), cumulative in its intentions (rather than having a set of features that do not lead to and build upon on another), reflective (rather than prescriptive and promoted as a

set of truths), and knowledge-based (rather than rooted solely in conventional wisdom and untested proposals)" (p. 16).

In sum, professional development for novice and experienced teachers is one of the major avenues for raising the quality in early childhood programs which in turn will produce positive outcomes for children and their families. Student teaching is a central element of professional development because it is "sandwiched" between two powerful forces – previous formal knowledge, and classroom experience as a student teacher and teacher (Richardson, 1996). This experience is vital because it sets the images of teaching that drive initial classroom practice.

Links between beliefs and behavior.

Teacher beliefs are important considerations in understanding classroom practices and conducting teacher education programs designed to help prospective teachers develop their thinking and practices (Richardson, 1996). The relationship between beliefs and behavior is thought to be interactive. Beliefs are thought to drive actions; however, experiences and reflection on action may lead to changes in and/or additions to beliefs (Richardson, 1996). One of the first large-scale studies to examine this interrelationship was conducted by Bussis, Chittenden, and Amarel in 1976. These researchers investigated teachers' personal constructs of the curriculum and children. Personal constructs were defined as internal mental processes such as understandings, beliefs, and values. Constructs, however, are not merely ways of interpreting and labeling what has happened; they are the means by which we predict and anticipate events (Bussis et al., 1976). Findings from this study suggested that personal

constructions result from an individual's interpretation of the world and they are "forerunners of action" (p.17). They also contend that change can then only result from "personal exploration, experimentation, and reflection" (p. 17).

Combining the mentioned literature on beliefs and behavior, it is my assumption that the relationship between the two is an interactive one and through experiences and reflection one can change by adding to or taking away from their beliefs. One goal of teacher education should be to assist teachers in this interactive process by helping them identify and assess their beliefs in relation to their classroom practices.

Purpose

The purpose of this study is to go beyond the scope of examining the link between teachers' observable actions and their effects on children which has been a traditional approach in teacher education research (Fang, 1996; Shavelson, 1983; Clark & Peterson, 1986; Pajares, 1992). Instead, the current study will examine pre-service teachers' beliefs and dispositions that may influence classroom actions. Researchers have become increasingly interested in finding out and understanding the mental constructs and processes that motivate teachers' behavior (Fang, 1996). The expansion of this line of research to focus on beliefs and dispositions will enhance the field's understanding of the process of student teaching and will offer important insights to those providing pre-service education.

According to Isenberg (1990), teachers' thoughts and beliefs are integral aspects of successful teaching. This is an important task because one clear goal of improving the quality of education is to professionalize teaching by encouraging classroom teachers'

increased autonomy and decision-making (Isenberg, 1990). If classroom teachers are to be viewed as '"thoughtful professionals" and assume decision-making roles, they must acknowledge the influence of their beliefs on their practice (Isenberg, 1990). Although teacher effectiveness cannot be defined by the consistency of beliefs and practices alone, when a teacher's appropriate beliefs are reflected in practice, higher quality is more stable over time (Vartuli, 1999). In addition, examining pre-service teacher beliefs and practices is very important research because it provides the opportunity for researchers, teacher education instructors, and administrators to help teachers reflect on their actions and thinking processes for promoting maximum learning.

The following chapters will describe the Bioecological Theory, discuss the current literature on beliefs and dispositions, describe the methodology used in this study and report the findings. In addition, implications and suggestions for future research will be provided.

CHAPTER II

REVIEW OF THE LITERATURE

Theoretical Perspective

This research will use Bronfenbrenner's (2005) bioecological theory to examine how various environments and characteristics affect the developing student teacher. Within the bioecological theory, development is defined as the "phenomenon of continuity and change in the biopsychological characteristics of human beings both as individuals and as groups" (Bronfenbrenner, 2005, p. 3). The bioecological theory is an elaboration of Bronfenbrenner's earlier ecological theory in which he adds to the concept of proximal process a greater emphasis on the importance of the environment and the interaction between the individual and his/her environment. Proximal processes are the interactions in the individual's immediate environment. Outlined in the bioecological theory are five major levels of the environment: the microsystem, the mesosystem, the exosystem, the macrosystem and the chronosystem. A general overview of all five major levels will be discussed; however, the focus of this study will be on the microsystem, the exosystem and the chronosystem. The microsystem describes the aspects of the environment that directly influences the individual. For the student teacher this would include his/her family and school. The mesosystem refers to the systems of relationships among microsystems. The exosystem refers to social settings that can affect the individual, but in which the individual does not directly participate such as the school

board or the homes of the children in his/her classroom. The macrosystem involves the entire culture and subculture in which the individual lives, which may influence the individual through social norms and traditions such as DAP, school readiness initiatives and federal mandates (Belsky & Barends, 2002). For example, the *No Child Left Behind Act,* signed by President George W. Bush in 2002, includes increased accountability for states, school districts, and schools; greater choice for parents and students particularly those attending low-performing schools; more flexibility for states and local educational agencies in the use of Federal education dollars; and a stronger emphasis on reading especially for our youngest children (U.S. Department of Education, 2004). This federal mandate is very influential in both teacher preparation and practice. Finally, the chronosystem underlies all the other systems and involves the way in which the passage of time, historical events and historical changes affect interactions and experiences.

One limitation of Bronfenbrenner's original model was its exclusion of individual differences including personality and beliefs (Belsky & Barends, 2002). The expansion of the original model to the bioecological model addresses that deficit by placing an emphasis on the importance of the interactions between the individual's characteristics and his or her environment and by adding the element of *experience* (Salkind, 2004). The term *experience* is used to indicate that "the scientifically relevant features of any environment for human development include not only its objective properties but also the way in which these properties are subjectively experienced by the persons living in that environment" (Bronfenbrenner, 2005, p. 5). Experience pertains to the realm of subjective feelings such as anticipations, hopes and personal beliefs. They can emerge at

a very young age or later in life, can relate to self or to others and can apply to the activities in which one engages (Bronfenbrenner, 2005).

In addition, from the bioecological model, four interrelated components have emerged commonly referred to as the process-person-context-time (PPCT) model (Bronfenbrenner, 2005). These components are: "(a) the developmental *process*, involving the fused and dynamic relation of the individual and the context; (b) the *person*, with his/her individual repertoire of biological, cognitive, emotional and behavioral characteristics; (c) the *context* of human development, conceptualized as the nested levels, or systems of the ecology of human development…; and (d) *time*, conceptualized as involving the multiple dimensions of temporality" (Bronfenbrenner, 2005, p. xv). Bronfenbrenner and Morris (1998) also indicate that the person-context-time components of the PPCT model should have priority in defining the biopsychosocial characteristics of the person which addressed the gap left previously by his earlier theories. They conclude:

> Three types of Person characteristics are distinguished as most influential in shaping the course of future development through their capacity to affect the direction and power of proximal processes through the life course. The first are dispositions that can set proximal processes in motion in a particular developmental domain and continue to sustain their operation. Next are bioecological resources of ability, experience, knowledge, and skill required for the effective functioning of proximal processes at a given stage of development. Finally, there are demand characteristics that invite or discourage reactions from the social environment of a kind that can foster or disrupt the operation of proximal processes. The differentiation of these three forms leads to the combination in patterns of Person structure that can further account for differences in the direction and power of resultant proximal processes and their developmental effects (Bronfenbrenner & Morris, 1998, p. 995).

Relating these principles to the proposed study, the student teacher is the developing *person*. The *process* of the student teacher attempting to implement his/her beliefs into practice will be examined. In addition to studying student teachers' beliefs as they relate to developmentally appropriate practice (DAP), this study will also examine dispositions of the teacher, such as having a positive attitude, having enthusiasm and the willingness to take initiative and being responsive. Further, the *context* that will be examined is the classroom microsystem which includes the children and the cooperating teacher. It is important to note that the relationship between beliefs and practices in an ongoing process. As a student teacher adds new knowledge and gains more experience his/her beliefs about what is best for children may change as well as his/her repertoire of classroom behaviors and practices.

The bioecological perspective was not fully investigated in this project because of limitations due to time, resources and data collection. Even though the macrosystem was not fully explored, its influences will help to explain the context and setting in which teachers are expected to perform and to excel.

Similar to Bronfenbrenner, this research views the classroom as a complex environment in which the student teachers' and students, explore, negotiate, and assemble personal knowledge, beliefs and interpretations of their environments through ongoing interactions (Simmons et al., 1999). By examining how student teachers' view learning and teaching (through a focus on their beliefs and classroom actions), I attempt to add greater insight into the kinds of experiences on which teacher education programs should

be built to promote effective teaching which will in turn promote higher quality classrooms.

In addition, while researchers have noted the importance of studying teacher's beliefs and dispositions so have notable educators in the field. Parker Palmer (1998), who is a highly respected author and teacher, states "good teaching cannot be reduced to technique; good teaching comes from the identity and integrity of the teachers" (p. 10). Beliefs and dispositions are important to study simultaneously with classroom practice because as Stanovich (1999) notes, dispositions are the "relatively stable psychological mechanisms and strategies that tend to generate behavioral tendencies and tactics" (p. 157).

The bioecological theory will help guide this research by acknowledging that the most significant educational variation does not exist at the level of instructional materials, accredited universities or school districts, but at the level of the individual teacher. Although these materials, resources and programs are valuable, their value in the long run is determined by the teachers' interpretation and use of them (Bussis, Chittenden & Amarel, 1976). Given Bronfenbrenner's theory, it becomes clear that in order to fully investigate and subsequently improve the quality of education one must explore the various influences on teachers' beliefs and classroom practices.

Developmentally Appropriate Practice

From the Developmentally Appropriate Practice (DAP) point of view, teachers serve primarily as resources to children's self-initiated activities, provide open-ended opportunities for children to explore concrete materials and to interact with each other.

Basic skills teaching using drill and practice, workbooks, and worksheets is discouraged; instead basic skills are supposed to be embedded in everyday meaningful activities (Bredekamp & Copple, 1997). DAP also refers to a child-centered approach to instruction that views the child as the primary source of the curriculum and recognizes young children's unique characteristics. Lastly, teachers can support children's growth by offering appropriate materials and activities that match their observations of children's emerging cognitive, physical/motor and affective/social development.

DAP is based on three dimensions of knowledge: "what is known about child development and learning – knowledge of age-related human characteristics that permits general predictions within an age range about what activities, materials, interactions, or experiences will be safe, healthy, interesting, achievable, and also challenging to children; what is known about the strengths, interests, and needs of each individual child in the group to be able to adapt for and be responsive to inevitable individual variation; and knowledge of the social and cultural context in which children live to ensure that learning experiences are meaningful, relevant, and respectful for the participating children and their families" (Bredekamp & Copple, 1997, p. 9). An assortment of questionnaires and observation tools have been designed and produced to distinguish developmentally appropriate practices and beliefs from inappropriate practices and beliefs (Charlesworth et al., 1993; Buchanan et al., 1998; Cassidy et al., 1995).

Findings from various research studies have provided data that support the effectiveness of DAP. Burts, Hart, Charlesworth and Kirk (1990) examined inappropriate and appropriate kindergartens. The researchers used the *Teacher*

Questionnaire to identify classrooms that ranged from extremely inappropriate to extremely appropriate. The *Teacher Questionnaire* is mainly composed of two subscales: *Teacher Beliefs Scale* (TBS) and *Instructional Activities Scale* (IAS). The *Teacher Beliefs Scale* is a 30-item self-reported questionnaire designed to assess the teacher's philosophy regarding developmentally appropriate practices as defined by NAEYC. The *Instructional Activities Scale* is a 31 item self-reported questionnaire used to assess how often teachers perceived children participating in various classroom activities. To validate the teachers' responses to the *Teacher Questionnaire*, the *Checklist for Rating Developmentally Appropriate Practice in Kindergarten Classrooms* (Burts et al., 1990) was used as an observation tool. The checklist was also based on the NAEYC guidelines and consists of 28 items reflective of those included on the *Teacher Questionnaire*. The findings suggest that in the more appropriate classrooms, there were significantly more center, group story, and transitions activities, whereas in the developmentally inappropriate classroom, there were more whole group and workbook/worksheet activities. The activities conducted in the inappropriate classrooms are not advocated by NAEYC because of its instructional strategies that revolve around teacher directed, whole group activities and paper and pencil tasks (Burts et. al., 1990). Student outcomes were measured by the *Classroom Child Stress Behavior Instrument* (CCSBI). The CCSBI was used to observe children's stress behaviors which included over 50 child stress indices such as complaints of feeling sick, stutters, physical hostility, tremors or tics, or nail biting Burts et al., 1990). Significantly more total stress behaviors as well as group time and workbook/worksheet stress behaviors were observed in the developmentally

inappropriate classroom when compared to the more developmentally appropriate classrooms.

Another study that looked at DAP kindergarten classrooms and the affect on children's stress levels was conducted by Burts, Hart, Charlesworth, Fleege, Mosley and Thomasson (1992). DAP programs were defined as programs which included providing experiences that meet the needs of individual children and promoting self-esteem and positive feelings toward learning. In contrast, developmentally inappropriate practice (DIP) included almost exclusive use of teacher-directed, highly structured, large group lessons, direct teaching of discrete skills, lack of opportunities to move around the room and make choices, over-reliance on punishment and extrinsic reward systems and the use of standardized assessment test. The *Teacher Questionnaire* was used as well as the *Checklist for Rating Developmentally Appropriate Practice in Kindergarten Classrooms* to verify the teachers' responses. Their findings revealed that children in DIP classrooms exhibited more overall stress behavior than did children in DAP classrooms during whole group, waiting, and group transitions (Burts et al., 1992). These findings are extremely relevant because today's young children are exposed to numerous stressors outside the school setting, and males and children in poverty are especially vulnerable, and any additional contributors of stress produced in the classroom may have serious consequences.

In another study by Zeng and Zeng (2005), developmentally inappropriate practices and beliefs were examined in kindergarten classrooms nationwide. This is the first study to examine on a nationally representative sample, the status quo of U.S.

kindergarten teacher instructional practices and beliefs within the framework of DAP as advocated by NAEYC (Bredekamp & Copple, 1997). Data were collected on a national probability sample of teachers (N = 3,047) using the *Kindergarten Teacher Questionnaire*. The variables of teacher practices and beliefs covered a wide range of aspects of teacher practices, which included characteristics of teacher in class activities, evaluation methods, classroom organization, and their views on kindergarten readiness. The DAP analyses showed that about 35% of the U.S. kindergarten teachers agreed or strongly agreed that it is beneficial for preschool children to receive formal reading and math instruction (Zeng & Zeng, 2005). No student outcome was provided in this study due to the emphasis on the varying kindergarten teacher characteristics, practices and beliefs (i.e. educational background, teaching experiences, specialized training, in-class activities, evaluation methods, classroom organization).

Lastly, DAP has been widely cited for placing children from diverse cultures and backgrounds on a level playing field in the classroom (Charlesworth, 1998). For example, findings from Charlesworth, Hart, Burts, Mosley, and Fleege, (1993) indicate that developmentally appropriate kindergarten curriculum promotes equity in developmental outcomes, at least when considering African American and European American children from socio-economically diverse backgrounds. Cultural factors play an important function in determining how and what children learn. These factors interface with age potential, personal characteristics, and experience giving not only direction but substance as well. Culture is important, therefore, to any discussion of DAP since it deeply affects the teaching/learning process. In regards to culture, DAP

encourages teachers, staff and directors to establish strong bidirectional relationships among children and their families. Mutual respect is one of the first goals when attempting to acknowledge cultural/ethnic differences (Charlesworth, 1998).

Based on the previous studies, DAP appears to enhance children's creativity, motivation, promotes equity and decrease anxiety and stress. DAP views the child as the primary source of the curriculum and recognizes young children's unique characteristics. Once again, under the DAP perspective, teachers serve primarily as resources to children's self-initiated activities, provide open-ended opportunities for children to explore concrete materials and to interact with each other. These findings would suggest that the actual implementation of DAP in classrooms would be major goal worth striving for.

Research on Teachers' Dispositions

The examination of dispositions in teacher education programs is a relatively new concept compared to other fields of study. For example, in the parenting literature, it has been cited that individual differences such as personality relate to parenting (Belsky, 1984). As defined earlier, dispositions are " the values, commitments, and professional ethics that influence behaviors toward students, families, colleagues and communities and affect student learning, motivation, and development as well as the educator's own professional growth" (NCATE, 2002, p. 53). The term "dispositions" appears several times in the 2002 edition of the Professional Standards for the Accreditation of Schools, Colleges and Departments of Education. Dispositions are always included with two other standards: knowledge and skills. According to the Professional Standards, it is these

three standards that an effective teacher is constituted. Each standard becomes a lens through which all pre-service teachers and college of education faculty are assessed (McKnight, 2004). Additionally, the NCATE dispositions standard assists teacher education faculty in framing guidelines for student professionalism, both pre-service and in-service teachers. By improving the student dispositions assessment process, faculty members can carefully monitor students and assist them in examining inappropriate behavior and in attaining high appropriate expectations (Seguin & Seguin, 2005).

In the 1996 edition of the *Handbook of Research on Teacher Education*, Ducharme and Ducharme identified voids in the literature on pre-service teachers and teacher preparation. One challenge cited by these authors was the need to explore psychological traits of pre-service teachers that may be predictive of successful teaching. According to their reviews, the rationale for further research in this area was supported by documentation accumulated in a variety of other occupational fields such as counseling and nursing to show that personal qualities have an effect on work performance (Daugherty, Logan, Turner, & Compton, 2003).

Very little teacher education research has been conducted linking teachers' dispositions directly to classroom practices, teacher retention or teacher attrition even though a variety of other fields have suggested that the psychological make-up of individuals may have a great effect on present and future performance. For example, the National Aeronautics and Space Administration (NASA) require all prospective astronauts to undergo intensive psychological testing before being admitted into the program (Ducharme & Ducharme, 1996). Due to many teacher shortages and reform

efforts calling for "highly qualified" teachers, keeping effective teachers should be of great concern to teacher educators and school district personnel.

Research on Teachers' Beliefs

In addition to teacher dispositions, teacher beliefs have been gaining great interest in the teacher education literature. Studying beliefs in other disciplines and fields of study is not a new concept. Using another example from the parenting literature, it has been noted quite extensively that what parents believe about parenting is related to their own parenting which subsequently affects their children's developmental outcomes and accomplishments as well as their family life environment (Sigel & McGillicuddy-De Lisi, 2002). In addition to considering observed parental behavior, parenting literature also focuses on how parents perceive, organize, and understand both their children and their roles as parent (National Institute of Child Health and Human Development Early Child Care Research Network; NICHD ECCRN, 2004). Researchers in this field have found out that it is the parental cognitions that may affect the nature of the routine interactions of parents with their children. For example, parents who are more child-centered in their beliefs about the nature of children may be more likely to support the development of autonomy in the child and be more sensitive to the children's needs and interest. On the other hand, parents who hold more adult centered beliefs may be more directive and intrusive or less likely to notice and support their children's interest and activities. Thus, the beliefs that parents hold about the nature of children and the best approaches to child rearing may play a significant role in their support for the development of the social and behavioral competencies (NICHD ECCRN, 2004). In this research, beliefs will be

defined "as confidence in the truth or existence of something that is not immediately susceptible to rigorous proof" (Aiken, 2002, p. 6). As it relates to teachers, this definition was chosen because what a teacher believes encompasses all that she/he knows or believes to be true and will presumably act accordingly.

Research has shown parent-child interactions to be quite similar to teacher-child interactions; therefore, we can suggest teacher beliefs will have similar effects on observed behavior as do parent beliefs. However, while there are similarities between teacher-child interactions and parent-child interactions, there are quite a few differences as well. These differences are due to the parent and teacher having separate roles and responsibilities. While there is little dispute that both teachers and parents share the common task of educating and socializing children, the roles and responsibilities each plays in society is quite different (Adams & Christenson, 2000). For example, parents are expected to provide the basic necessities for their children (i.e. clothing, shelter, food). If this need is not met, a strain on the parent-child interaction may occur. This is different from teacher-child interactions because this is not a responsibility of the teacher.

Congruence of Teachers' Reported Beliefs and Reported and Observed Practices

Research indicates that teachers' actual practices are associated with their beliefs, and that teachers filter new information through personal beliefs. Charlesworth, Hart, Burts and Hernandez (1991) examined 113 kindergarten teachers using the *Teacher Questionnaire*, which identified developmentally appropriate or inappropriate reported beliefs and reported practices. They found positive correlations between developmentally appropriate reported beliefs and reported activities ($r = .63$, $p = .000$) as

well as between developmentally inappropriate reported beliefs and activities ($r = .71$, $p = .000$). These correlations were based on two self-reports of beliefs and practices, which were completed at the same time. Therefore, teachers' responses on the first scale may have influenced their ratings on the second scale and that the correlations would be much lower if the teachers filled out the two scales at different times or if the ratings were based on actual observations in addition to the self-reports.

Stipek and Byler (1997) addressed the limitation of only self reports in their study by using an early childhood program observation measure in addition to a self-report questionnaire. *The Early Childhood Classroom Observation Measure* (ECCOM), developed by Stipek (1996) was designed to index ratings of quality concerning instruction, management, social climate, cultural sensitivity, and resources of preschool and kindergarten classrooms. The ECCOM involved an observer making 47 ratings based on the classroom instruction and social climate after several (averaging two and a half) hours of observation (Stipek, Daniels, Galluzzo & Milburn, 1992). The range of scores for the items varied from 3 to 5 and each item had different descriptions associated with particular ratings. For example, for the item "work vs. play" there were three alternatives: (a) clearly distinguished, (b) occasionally distinguished, and (c) not clearly distinguished (Stipek & Byler, 1995). The self-report questionnaire assessed the teacher's own beliefs about appropriate education for young children and was divided into three parts. In the first part, teachers rated on a 5-point Likert-type scale the relative importance of seven goals for their program: social skills, independence and initiative, basic skills, cooperation, knowledge, self-concept, and creativity. The second part was

designed to assess teachers' endorsement of practices associated with a basic skills or a child centered orientation. Teachers indicated on a 5-point scale the degree to which they agree or disagree with 31 statements. The final part was mostly open-ended questions relating to a variety of topics relevant to early childhood education (Stipek & Byler, 1997).

The main purpose of this study was to explore ways in which teachers felt they were able or unable to put their own beliefs into actual practice. The study included 18 preschool, 26 kindergarten, and 16 first grade teachers. This study focused on teachers' beliefs about how children learned, their views on the goals of early childhood education, their position on policies related to school entry, testing, and retention (Stipek & Byler, 1997). Findings from the questionnaire indicated that a basic skills orientation and child centered orientation were negatively associated with each other, $r = -.64$, $p < .0001$. The more teachers endorsed formal basic skills practices, the less they endorsed child-centered practices (Stipek & Byler, 1997). Reported beliefs about effective practices were associated with some of the teachers' goals at different grade levels. The more preschool teachers believed that children learn best through child-centered practice, the more important independence ($r = .74$, $p < .01$) and a positive self-concept ($r = .59$, $p < .001$) were rated as goals. The more kindergarten teachers embraced child-centered practices, the lower basic skills ($r = .63$, $p < .01$) and knowledge acquisition ($r = -.60$, $p < .01$) were rated as goals. First grade teachers' support for child centered approaches was significantly associated with social skills ($r = .53$, $p < .10$) as a goal. From the observational data, child centered preschool and kindergarten teacher beliefs were

associated with an observed positive social climate (preschool: $r = .67$, $p < .01$, kindergarten: $r = .37$, $p < .10$) and negatively correlated with an emphasis on basic skills (preschool: $r = -.85$, $p < .001$, kindergarten: $r = -.73$, $p < .00$). The relationships were in the opposite direction for the basic skills orientation teacher beliefs scale; it was correlated negatively with the observed classroom social climate (preschool: $r = -.49$, $p < .05$, kindergarten: $r = -.60$, $p < .001$) and positively with the observed emphasis on basic skills (preschool: $r = .64$, $p < .05$, kindergarten: $r = .78$, $p < .001$) (Stipek & Byler, 1997).

Another study conducted by Buchanan, Burts, Bidner, White and Charlesworth (1998) found similar results. In their study, which identified teacher characteristics that were related to self-reported beliefs and classroom practices, they found that many primary teachers do agree with the principles advocated by the NAEYC guidelines in their beliefs and their practice. The study included 277 first, second and third grade teachers who completed the *Primary Teacher's Beliefs and Practices Survey*. This measure is a modified version of the *Teacher Questionnaire* (Bredekamp, 1987) that was developed from the NAEYC guidelines and has been used to assess kindergarten teachers' beliefs and practices. The *Primary Teacher's Beliefs and Practices Survey* included standard questions about the teacher's educational background, teaching experience, and current work situation. The researchers made minor additional modifications to reflect the differences in curriculum between kindergarten and first through third grades. The *Checklist for Rating Developmentally Appropriate Practice* (Charlesworth et al., 1993) was used to confirm the validity of the *Primary Teacher's Beliefs and Practices Survey*. The teacher variable that most strongly predicted DAP was

the amount of influence teachers believed they had on the way they plan and implement curriculum. Teachers who believed they had more relative influence on what happened in their classrooms than other sources (i.e. parents, principals) reported more agreement with developmentally appropriate beliefs and practices. This finding is also consistent with the finding by Charlesworth and colleagues (1991) that teachers who used more developmentally inappropriate practices believed that parents and principals had more influence over their teaching than they (the teachers) did. In other words, teachers who held more appropriate beliefs and practices felt they had more control over their teaching than did teachers with fewer appropriate beliefs and practices.

Associations have been found in the presented studies between teachers' beliefs about appropriate practices and the practices they were observed implementing in their classrooms. However, teachers' stated beliefs are not always consistent with their actual classroom practice.

Incongruence of Teachers' Reported Beliefs and Observed Practices

Research has demonstrated that developmentally appropriate practices appear to enhance children's developmental outcomes (Burts et al., 1990, Burts et al., 1992, Charlesworth et al., 1993). With this knowledge, one would expect that the majority of preschool and kindergarten classroom in the United States would use developmentally appropriate practices. According to the Cost, Quality and Child Outcomes Study, (Helburn, 1995 as cited in Helburn & Howes, 1996) this is not the case. The study indicated that about 86% of the centers in the study (n = 401) provided mediocre or poor quality services and that only 14% of the centers met levels of process quality that were

high enough to support children's development as measured by the Early Childhood Environment Rating Scale (ECERS). The ECERS is a standardized measure used to provide assessments of the curriculum, the environment, teacher-child interactions, and teaching practices within the classroom (Harms & Clifford, 1980). Likewise, the National Child Care Staffing Study found that only 9% of preschool centers (n = 227) were developmentally appropriate (Whitebook, Howes, & Phillips, 1989). Additionally, only 20% of a randomly selected sample of public kindergarten classes (n = 103) met or exceeded a criterion of developmental appropriateness in the state of North Carolina (Bryant, Peisner, & Clifford, 1991). The criterion of developmental appropriateness (a mean score $\geq$ 5.0 on the ECERS) used in this study was cited as a realistic criterion by the authors.

While the majority of preschool and kindergarten classrooms are not using developmentally appropriate practices, many teachers seem to hold and report developmentally appropriate beliefs. Some possible explanations for this discrepancy are parent pressure and pressure from school district administration and principals to have more of an academic emphasis (Stipek & Byler, 1997). Charlesworth and colleagues (1993) gave 204 kindergarten teachers questionnaires that measured kindergarten teachers' beliefs and practices on the importance of providing developmentally appropriate activities and materials in their classroom. The TBS and IAS questionnaires were based on guidelines for developmentally appropriate practice from NAEYC (Bredekamp & Copple, 1997). Observers also used the *Checklist for Rating Developmentally Appropriate Practice in Kindergarten Classrooms* to rate areas of

classroom practice and procedure. The results showed that most teachers viewed appropriate beliefs as being important even though they might not include developmentally appropriate activities frequently and may use more inappropriate activities on a regular basis (Charlesworth et al., 1993). This finding justifies the necessity for measures other than self-reported questionnaires to be used when assessing not only the link between teachers' beliefs and practices but classroom quality as well. One major critique of this study was the lack of information concerning teachers' personal characteristics.

Similarly, Bryant and colleagues (1991) found that based on a questionnaire they created, both teachers and principals scored high indicating a generally high level of knowledge and belief in developmentally appropriate practices; however pressures from other influences not measured in the study could be why there were problems in actually implementing and supporting these practices daily in the classroom. On a scale of 1 to 5 (1 = least appropriate, 5 = most appropriate), the mean principal developmental appropriateness score was 4.05 and the mean teacher developmental appropriateness score was 4.13. Some potential influences include parent and community values, attitudes of and pressures from first and second grade teachers, and the type of quality of supervision and training (Bryant, Clifford, & Peisner 1991). In many communities, parents and educators seem to be reemphasizing basic academics in order to promote school success. This trend can affect all grades, even preschool, since each one is expected to prepare children adequately for the next (Bryant et al., 1991).

This influence is a clear example of what Bronfenbrenner refers to as macrosystem influences. Even though the teacher may hold high developmentally appropriate beliefs their practices may not be in line because of the high accountability placed on them through federal mandates such as *No Child Left Behind* Act.

Vartuli (1999) conducted a study that investigated the continuum of beliefs reported by teachers who taught different grades (Head Start through third grade) and how those beliefs relate to classroom practice and found similar findings as Charlesworth and colleagues (Charlesworth et al., 1993) and Bryant and colleagues (Bryant et al., 1991). These beliefs were about children, curriculum, instruction and learning in early childhood classrooms. This was a longitudinal study conducted from the fall of 1992 through the spring of 1997. Participants were 137 educators including 18 Head Start, 20 kindergarten, 33 first grade, 33 second grade and 33 third grade teachers. The TBS was used to compare specific teacher self-reported beliefs with the *Early Childhood Survey of Beliefs and Practices* (Vartuli, 1999). These two measures produced moderate correlations and all correlations were significant. Grade levels were then combined to further explore the strength of the relationship. Head Start was combined with kindergarten and first grade and second grade was combined with third grade. The results show the congruence of beliefs and practice was moderate for Head Start and kindergarten teachers and low moderate for first, second and third grade teachers (Vartuli, 1999). Teachers in this study consistently rated developmentally appropriate beliefs higher than was reflected in their developmentally appropriate practices. One additional finding was that as grade level increased the level of self-reported

developmentally appropriate beliefs and practice decreased. Perhaps many teachers of older children find it difficult to translate developmentally appropriate beliefs into actual teaching strategies due to local/state mandates, peer pressure, and school culture (Vartuli, 1999). As in previous mentioned studies, teachers' professed importance of developmentally appropriate practices was stronger than what was reflected in their classroom activities and materials.

In addition, Wilcox-Herzog (2002) found no relationship between beliefs about varying types of teacher-child interactions, play styles, involvement, and verbalizations and behaviors for early childhood teachers. Her study included forty-seven teachers who worked with children aged 3-5. Teaching beliefs were measured with a self-report questionnaire and teaching actions were measured with four videotaped observations. The questionnaire assessed teachers' beliefs about the importance of varying types of teacher-child interactions. These varying types of teacher-child interactions and beliefs were divided into four subscales: beliefs about sensitivity (Cronbach's alpha = .83), beliefs about play style (Cohen's kappa = .72), beliefs about involvement (Cohen's kappa = .79), and beliefs about verbalization (Cohen's kappa = .75).

Most teachers were videotaped during free choice time for approximately 2 half-hour sessions. Teachers were given the questionnaire at the end of their final videotaping session. In order to code the videotapes, Wilcox-Herzog utilized a time sampling procedure to rate the level at which teachers verbalized with children, the responsivity of their interactions, and which play style they were engaging in. Teachers were observed for 5 seconds and the observer then recorded their interactions with children. Fifteen

seconds were then allowed to lapse on the videotape before the next five second scan was conducted (Wilcox-Herzog, 2002). The findings suggested inconsistencies between teachers' beliefs and their actions. The intercorrelations revealed no significant relationships between teachers' beliefs and their behaviors (ranging from -.076 to .197) (Wilcox-Herzog, 2002). These inconsistencies may be due to a variety of factors including lack of measurement specificity and the inclusion of participants with less extreme beliefs (Wilcox-Herzog, 2002). The sample from this particular study was skewed towards participants with at least some experience and/or education in early childhood education. The average years of experience were 7.6, with a range of 0-30 years.

Lastly, Smith (1997) conducted a study on student teachers' beliefs that is quite comparable to the research proposed. His study investigated how the student teaching experience affects the beliefs of the student teacher. He focused on the influences of institutional socialization and the impact of the cooperating teacher. Institutional socialization is important because student teachers are not merely socialized into the profession, but into the particular institutional setting in which they are placed (Yon & Passe, 1990). As a result, school bureaucracy may override the broader planning and implementation skills developed in pre-service course work and may lead to the development of beliefs substantially different from those held prior to beginning teaching (Rust, 1994). The other source of influence, the cooperating teacher is very important as well. It is a common perception that cooperating teachers have more influence on the

attitudes and beliefs in areas such as discipline and curricular content of student teachers than their university supervisor (Smith, 1997).

The study included 60 undergraduate elementary education majors at a Midwestern university currently placed in kindergarten through third grade settings as the student teaching culmination of their teacher education programs (Smith, 1997). Elementary level student teaching consists of 16 full day weeks. The first group (n = 35) had received elementary preparation only and the second group (n = 25) had elementary plus early childhood education preparation. All data were collected by mail within two weeks of their student teaching placement with an initial packet consisting of three instruments, two pertaining to self and one the cooperating teacher. These measures were: *The Primary Teacher Questionnaire* (PTQ), an *Adaptation to the PTQ*, and the *Internal Control Index*, respectively. The adaptation to the PTQ used the same items as the PTQ, but the student teachers were asked to indicate the degree to which they perceived each of the statements would be endorsed by their cooperating teachers. Later, at the end of their placement the PTQ was collected again.

The results showed that the student teachers with early childhood preparation had an overall higher level of endorsement of appropriate practices than the student teachers with elementary preparation only. Findings also included no support for the belief that student teachers tend to adopt a more utilitarian, less idealistic approach to instruction as a consequence of institutional socialization. Lastly, the results of a correlational analysis showed no relationship between the student teachers' pre-placement scores and the perceived scores for the cooperating teachers, as well as no relationship between the post-

placement scores and the perceived scores for the teachers (Smith, 1997). This is a very essential finding because it illustrates that student teachers typically retained their beliefs regardless of influences like placement and the cooperating teacher, which only strengthens the need for future studies to further explore the importance of student teacher's beliefs. One major weakness of this study is that all data were based on teacher self-report and not on observations. Thus, there is no way to draw conclusions about the relationship between beliefs and actual classroom practices. The proposed research will attempt to address this shortcoming.

Taken all these studies together, these findings have implications both for how research on DAP needs to be conducted and what is required to change teachers' practices. Researchers need to be mindful that the goals of teachers teaching different grade levels vary. Findings from studies that provide useful information in making decisions about practices based on a variety of outcomes will give practitioners and administrators the ability to select appropriate strategies that most effectively achieve maximum student outcomes.

In addition, changing teachers' practices may not only involve changing beliefs, but involve changing the support system surrounding the teacher. Previously cited data suggest that outside pressures such as parents, type of program and administrators may be great sources of pressure to emphasize developmentally inappropriate practices. One strategy to change this is to help teachers develop skills and strategies for communicating with parents the value of their developmentally appropriate beliefs and practices. Parents

and administrators who are well informed of the benefits of a child-centered approach could contribute to, rather than obstruct efforts (Stipek & Byler, 1997).

Influences on Student Teachers' Beliefs

These varying influences on beliefs and practices illustrate the multiple levels of environmental and personal characteristics such as dispositions influences on individual behavior and development described in the bioecological approach. According to the bioecological approach, the teacher is embedded in the immediate classroom and is directly affected by other settings in the community, economic and political structures such as federal mandates and regulations which makes up the macrosystem. The macrosystem is very vital because it influences the individual through social norms and traditions which then influences the culture of the classroom.

Based on these studies, it is clear that the lack of congruence between beliefs and actual practices is not exclusive to teachers in a certain grade level or child care center. Research also indicates that incongruence is not related to region of state, size of classroom or size of school (Vartuli, 1999; Wilcox-Herzog, 2002). Possible influences may include parent and community pressures and values, pressures from higher level grade teachers and parents and educators emphasizing basic academics in order to promote school success. This trend affects all levels since each one is expected to prepare children adequately for the next (Bryant et al., 1991).

In the teacher education literature, three categories of experience are described as influencing the development of beliefs and knowledge about teaching. The three forms of experience begin at different stages of the teacher's educational career and are (a)

personal experience, (b) experience with schooling and instruction, and (c) experience with formal knowledge (Richardson, 1996; Goodson, 1992, Bullough & Baughman, 1993). Personal experience includes dispositions, beliefs about self in relation to others, and understanding of the relations of schooling to society. Ethnic and socioeconomic background, gender, geographic location, religious upbringing and life decisions may all also affect a teacher's beliefs that, in turn, affect learning to teach and teaching (Richardson, 1996). Experience with schooling and instruction suggest that students arrive in pre-service teacher education with a set of deep-seated beliefs about the nature of teaching based on their own experiences as students and it is these strong beliefs, in combination with the salience of the real word of teaching practice that creates their belief system (Richardson, 1996). Lastly, formal knowledge is the understandings that have been agreed on within a community of scholars as worthwhile and valid (Richardson, 1996). This knowledge usually begins when a student enters kindergarten and often before, depending on the nature of family and community life.

This current research will specifically look at the influence of the cooperating teacher. A cooperating teacher is an employed teacher working in a public or private school who allows/invites a student from a local university to study and work in her classroom as a student teacher at the request of the university (Fenton, retrieved April 14, 2006). Assessing the cooperating teacher's beliefs is very important because over a relatively short amount of time (16 weeks), the student teacher is expected to find a functional degree of continuity between the preparation received earlier from the

University faculty members and the current day to day model of the cooperating teacher (Smith, 1997).

In a study conducted by Borko and Mayfield (1995), the influence of the cooperating teacher was explored. Data were drawn from four participants in the Learning to Teach Mathematics (LTTM) project. The LTTM project is a longitudinal study which examined the process of becoming a middle school mathematics teacher by following a small number of novice teachers through their final year of teacher preparation and first year of teaching (Borko & Mayfield, 1995). At the time of data collection all four participants were seniors in an undergraduate program designed to lead to a Bachelor of Arts degree in education and certification to teach kindergarten through 8th grade. The cooperating teachers for the four participants were chosen by the district's associate superintendent for instruction, in consultation with school principals. Cooperating teachers varied widely in years of teaching experience and knowledge of mathematics. Primary data sources were interviews and observations. The findings revealed that most student teacher/cooperating teacher relationships included conversations that lacked in-depth exploration of issues of teaching and learning and were too rushed. However, all four participants reported that they had learned new ways of presenting content or explaining ideas and three of the student teachers reported gaining confidence in themselves and becoming more comfortable with their roles as teachers. All four student teachers indicated that their cooperating teachers played a role in their learning. Differences in the student teachers' perceptions of their cooperating teachers' influence were associated, to some degree, with the cooperating teachers' views

of their roles and with the nature and extent of student teacher/cooperating teacher interactions. Some cooperating teachers did not believe that they should play an active role in student teachers' learning. This study illustrates just how important beliefs are. Based on the cooperating teacher beliefs about what role he or she should play may discourage positive interactions which are essential to the maximum potential of student teaching being realized. The maximum potential of student teaching is realized when a cooperating teacher can provide feedback about specific lesson components, give suggestions about new ways to think about teaching and learning, and offer encouragement to reflect on one's practice (Feiman-Nemser & Buchmann, 1987).

Teachers' Age

In addition to education serving as a predictor of teacher effectiveness, so to is teacher's age. According to Hargreaves (2005), teachers are defined not just by their age or even career stage, but also by their generation. Through their careers, teachers and others carry with them meanings and missions that define and are derived from their particular generation. The existing literature on teachers' careers suggests that new teachers who are also young adults are trying to establish their basic confidence and competence as professionals (Hargreaves, 2005). Yet younger teachers are inclined to embrace the ideals of their teacher education program (Hargreaves, 2005). Older teachers who move into teaching from other lives and careers bring more experience, knowledge and maturity to the professions, from being parents or professionals elsewhere, but they often also bring somewhat solidified views about knowledge, learning and children that can hinder their ability to adapt to new ideals (i.e., DAP)

(Bullough, Knowles, & Crow, 1991). Older teachers who may have not moved into teaching from other fields, but have been teaching for many years may also exhibit different views about knowledge and how children learn. These older teachers may have been educated or trained in a different era where different learning strategies were emphasized and some may continue to hold outdated beliefs that are not in line with the current educational trends and reform.

Lin, Lawrence and Gorrell (2003) conducted a study to examine perceptions of children's readiness for school held by kindergarten teachers who had different training experiences and in different school contexts. The participants included 3,305 kindergarten teachers and 21,260 kindergarteners from the Early Childhood Longitudinal Study – Kindergarten cohort in the 1998-1999 school year. The researchers found that teachers' age was associated with differing teacher expectations. Teacher age was a self-report measure. The age range for teachers was 24-58 years, with the median of 42 years (Lin et al., 2003). Older teachers were statistically significantly less likely to say that academic skills were very important or essential than younger teachers. Although this study did not provide data as to if these academic skills were based on developmentally appropriate or inappropriate practices, there is some speculation as to why younger teachers might value academic attainment in kindergarten more than older teachers. First, we do not know how much the difference is related to experience, initial licensure expectations or changes in emphasis in preparing teachers for kindergarten (Lin et al., 2003). Secondly, as the authors pointed out, younger teachers who show greater concern for academic attainment may be reflecting a greater emphasis on academics in early

childhood. Lastly, the novice teachers are entering the professions at a time when there is a growing national concern (macrosystem influence) about student achievement at all levels (Lin et al., 2003).

Children's Engagement

Research from the early childhood literature has investigated the relation between quality of teaching and children's engagement. Teachers observed to be controlling in the classroom (i.e., often redirecting children, seldom elaborating on children's behaviors, rarely acknowledging or praising children's behavior) had fewer children actively engaged in activities (deKruif, McWilliam, Ridley, & Wakely, 2000). Teachers observed to be responsive were found to have more children at higher levels of engagement than their less responsive counterparts (McWilliam, Scarborough, & Kim, 2003). Low student engagement is illustrated in a classroom where a large number of students are distracted, wandering around, or talking with peers about something other than the teachers' planned activity/lesson (Pianta, LaParo, & Hamre, 2005). In contrast, high student engagement is demonstrated in a classroom where most students frequently volunteer information or insights and respond to teacher prompts. Students in this classroom setting are clearly interested in what the teacher is saying or the current activity as evidenced by their active participation (i.e., asking questions, answering question, talking with peers about activity/lesson, etc.) (Pianta et al., 2005).

While there are many key elements that contribute to the relation between the quality of teaching and children's success (i.e. compliance and cooperation), for the purpose of this study, children's engagement will be the only indicator examined.

Beliefs Changing Over Time

In the bioecological approach, the chronosystem underlies all the other systems and involves the way in which the passage of time, historical events and historical changes affect interactions and experiences. Doyle (1997) found that student teachers' beliefs changed from viewing teaching and learning as passive acts of teachers giving the information to students to a belief that teaching and learning are active processes in which teachers should act as facilitators. Two reported influences on the changes in student teachers' beliefs were experiences gained while teaching in the field and the student teachers' ability to reflect on that experience. The breadth and depth of field experiences (i.e. student teaching) were identified as important factors in assisting student teachers in the development of their beliefs as they progress through the program.

Research Questions and Hypotheses

The research literature clearly demonstrates that teachers' dispositions and what teachers believe about DAP are important concepts in understanding classroom practices. Because dispositions and beliefs are formed through experience and education (Pajares, 1992; Richardson, 1996) it is important to examine the role each one has on helping prospective teachers develop their developmentally appropriate classroom practices. In addition, age is another variable of interest I will examine to investigate the relationship it may have on student teachers' beliefs on developmentally appropriate practices.

For the purpose of this study, formal child care programs included family child care, center-based care or public school settings. Teachers' beliefs about the importance of various classroom developmentally appropriate practices on both the pre-k and

kindergarten level were assessed by *the Teacher Beliefs Scale* (TBS; Charlesworth et al., 1991). Teachers' personal and professional behaviors were measured by the *Teacher Dispositions Scale* (TDS). To assess the quality of teachers' social and instructional interactions with children as well as the level of children's engagement, the *Classroom Assessment Scoring System* (CLASS; Pianta et al., 2005) was used. Prior experience included any previous work with young children in formal child care programs. Age was divided into two categories: traditional and nontraditional. Students who fell into the traditional category were 24 years old or younger and students who fell into the nontraditional category were 25 years old or older at the beginning of student teaching. Lastly, the Associate's Degree category described participants who had previously obtained an Associate's Degree prior to entering the university's teacher licensure program.

Because the influence of the cooperating teacher is so important to the developing student teacher, Research Question # 7 explored the relationship between the cooperating teacher beliefs and the student teachers' observed classroom practices.

Research Question

I. What relation does prior experience or student teachers' age have on student teachers' beliefs at the beginning of student teaching?

Hypothesis

a. Student teachers with at least some prior experience will have higher reported developmentally appropriate beliefs on the TBS score at the beginning of student teaching than student teachers without prior experience.

b. Student teachers who are 24 years old or younger (i.e., traditional student) will provide higher self-reported developmentally appropriate beliefs than student teachers 25 years or older (i.e., non-traditional student).

Research Question

II. What relation does prior experience, prior education or age have on student teachers' observed classroom practices?

Hypothesis

a. Student teachers' with prior experience working with young children in formal programs will have higher ratings on Emotional Support Factor of the CLASS than those with no prior experience.

b. Student teachers' with an Associate's Degree will have higher ratings on the CLASS (emotional & instructional support factors) than student teachers' without an Associate's Degree.

c. Traditional aged student teachers' will have higher ratings on the CLASS (emotional & instructional support factors) than non-traditional aged student teachers.

d. There will be a greater congruency in teachers' beliefs and classroom practices for student teachers' with prior experience in working with young children than those without prior experience.

Research Question

III. What is the association between dispositions related to positive attitude, being responsiveness to children's needs and being flexible and student teachers' observed practices?

Hypothesis

a. The emotional support factor from the CLASS will have a significantly higher correlation with TDS scores than the instructional support factor from the CLASS.

Research Question

IV. How do student teachers differ in their reported beliefs and their observed classroom practices?

Hypothesis

a. Student teachers teaching in Pre-K and kindergarten classrooms will have similar reported developmentally appropriate beliefs.
b. Student teachers teaching in Pre-K classrooms will have higher ratings on the instructional support factor of the CLASS than student teachers' teaching in kindergarten classrooms.
c. Student teachers teaching in Pre-K classrooms will have greater congruency between their reported developmentally appropriate beliefs (TBS score) and demonstrated practices (CLASS score) than student teachers in kindergarten classrooms.

Research Question

V. Do student teachers with higher CLASS scores have higher levels of child engagement?

Hypothesis

a. Student teachers with higher ratings on the CLASS will have classrooms with higher ratings of children's engagement.

Research Question

VI. Do student teachers' beliefs change over time from the beginning of their student teaching placement to the end of their student teaching placement?

Hypothesis

a. Student teachers' will have similar scores on the TBS at the beginning and end of student teaching placement.

Research Question

VII. What influences do cooperating teachers have on student teachers' beliefs about developmentally appropriate practices and their observed practices?

Hypothesis

a. Student teachers' observed practice will be similar to their cooperating teachers' reported beliefs about developmentally appropriate practices.

CHAPTER III

METHODOLOGY

The following chapter contains a description of the methods which were used in this study. Included in this section is information on how the participants were recruited and the measures used during data collection.

Participants

Nineteen student teachers enrolled (Spring 2005 and Fall 2005) in HDF 460: Professional Experience in Early Childhood participated in the study. HDF 460 is a 16-week, full-time student teaching experience, in which students teach in a public school preschool or kindergarten setting under the direction of a cooperating classroom teacher with university supervision. The primary purpose of the 16-week long student teaching experience is to provide an opportunity for practical hands-on classroom teaching experience and the opportunity to reflect on that teaching experience. All participants were recruited from the Department of Human Development and Family Studies at the University of North Carolina at Greensboro and were seeking Birth-Kindergarten Licensure. Sixty-three percent (n = 12) of the student teachers were placed in kindergarten classrooms. The mean age of the student teachers was 25 years of age with a range of 22-34 years. With the exception of two participants all the participants in this study were female. Seventy nine percent of the student teachers (n = 15) described their ethnic background as Caucasian and the remaining 21% (n = 4) described their ethnic

background as African American/Black. In addition 63.2% of the sample had previous experience working with young children with a mean of 4 years, ranging from 1-10 years.

As part of the course requirements, students had to complete several questionnaires and conduct videotaped lessons and activities in their student teaching placement. Students were asked to provide consent which allowed the data to be used for this study in addition to meeting the course requirements. Participation in this study strictly voluntary and their participation did not have any influence on the overall grade in the course. This research and the consent letters were approved by the University of North Carolina at Greensboro Institutional Review Board, which insures that research involving human subjects follow federal regulations.

A total of 9 cooperating teachers participated in this study. The cooperating teachers have been teaching for a mean of 24.66 years, ranging from 8 to 37 years. The majority of cooperating teachers in this sample were Pre-k teachers (n = 5). Only 1 cooperating teacher described her ethnic background different from Caucasian. She described herself as being of a mixed background (African American and Caucasian). Out of the total nine teachers, five teachers indicated that kindergarten was not the highest grade level taught. One teacher highest level taught was 1st grade, one teacher highest level taught was 2nd grade, two teachers highest level taught was 3rd grade and 1 teacher highest level taught was 5th grade. All cooperating teachers had their North Carolina Teacher Licensure and at least a 4-year college degree with 3 teachers having completed some graduate school and 3 teachers having a Master's degree. The mean age of the participating cooperating teachers was 49 years with a range of 32-60 years of age.

To asses the cooperating teacher influences, a separate packet was prepared for the cooperating teachers to complete and return. The packet included a cover letter describing the study, two copies of the consent form, the *Teacher Belief Scale*, the *Teacher Characteristic Questionnaire* and a self-addressed postage paid envelope. The packets were hand delivered to 15 cooperating teachers who had supervised the student teachers in this study. Delivery took place on March 20 and 21, 2006.

Measures

The five measures used for this study included the *Student Characteristics Questionnaire*, *Teacher Belief Scale* (TBS; Charlesworth et al., 1991), the *Teacher Dispositions Scale*, the *Classroom Assessment Scoring System* (CLASS; Pianta, LaParo, & Hamre, 2005) and the *Teacher Characteristics Questionnaire*.

The *Student Characteristics Questionnaire* was used to obtain the student teachers' background information including prior experience, prior education and future plans (see Appendix A).

The *Teacher Beliefs Scale* (TBS) was used to assess teacher beliefs about the importance of various classroom practices and whether they were developmentally appropriate. The TBS is a 36-item measure in which teachers' rate a particular practice on a 5-point Likert scale based on two types of classrooms: pre-k classrooms and kindergarten classrooms. These two levels allowed analyses to be conducted on beliefs relating to differences in pre-k and kindergarten classrooms. The teacher was to respond to the items by circling the number that most nearly represented his/her personal beliefs about the importance of that item in a preschool classroom and again for a kindergarten

classroom. In this research study the term "level" will refer to the two TBS scores (pre-k and kindergarten) for each student teacher. A 1 indicates "not important at all and a 5 indicates "extremely important." An example of an item on the TBS includes: "It is _____for preschoolers/kindergarteners to learn through interaction with other children." Scores range from 36-180 with higher scores indicating more developmentally appropriate beliefs (see Appendix B) (Charlesworth et al., 1991).

The *Teacher Dispositions Scale* (TDS) is a 14- item questionnaire that rates the student teacher's personal and professional behaviors. The Human Development and Family Studies Faculty modified this instrument from the UNCG Teacher's Academy required rating scale to be appropriate for the Birth through Kindergarten level. This questionnaire was completed by the student teacher's cooperating teacher during the exit interview, which took place at the end of the student teaching experience. Items were assessed using a 6-point Likert type scale with 1 being "failed to demonstrate" to 5 being "consistently demonstrated". A rating of 6 indicated a quality or behavior that was not applicable. Total rating scores range from 14-70. Ratings of 6 were removed from summative analyses. Higher ratings indicate positive personal and professional qualities and behaviors consistently demonstrated. Example items includes: (a) a positive attitude, (b) recognizes and articulates personal strengths and skills and (c) locates and utilizes opportunities for professional development (see Appendix C).

The CLASS (Preschool version) is an observational rating system that emphasizes both instructional and social dimensions of early elementary and pre-kindergarten classrooms (Pianta et al., 2005). The CLASS assesses the quality of teachers' social and

instructional interactions with children as well as the intentionality and productivity evident in classroom settings (Pianta et al., 2005). Using videotapes of the student teachers' actual classroom practices, the student teacher was rated on ten dimensions. Each videotape was between 25 and 30 minutes long and was collected during the last two weeks of their 16-week student teaching experience.

The ten dimensions of the CLASS are Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspectives, Behavior Management, Productivity, Concept Development, Instructional Learning Formats, Quality of Feedback, and Language Modeling. Positive Climate reflects the enjoyment and emotional connection between the teachers and children and among children. Negative Climate is the level of expressed anger, hostility or aggression exhibited by teachers and/or students in the classroom. Negative Climate is scaled in the opposite direction of the other CLASS dimensions, therefore reverse coding was used. Higher negativity indicates lower quality. Teacher Sensitivity is the extent to which teachers provide comfort and reassurance. Regard for Student Perspectives is the degree to which teachers' interactions with students and classroom activities place an emphasis on students' interest, and point of view. Behavior Management reflects how well teachers monitor, prevent and redirect behavior. Productivity encompasses how well the classroom runs with respect to routines and the degree to which teachers maximize time spent in learning activities. Concept Development is the degree to which teachers promote higher order thinking and problem solving. Instructional Learning Formats include how teachers engage students in activities and facilitate activities. Quality of

Feedback focuses on how teachers extend students' learning through their responses and participation. Language Modeling is the extent to which teachers facilitate and encourage children's language (Pianta et al., 2005).

Each dimension was rated on a 7-point scale ranging from 1 or 2 (classroom is low on that dimension); 3, 4, or 5 (classroom is in the midrange); and 6 or 7 (classroom is high on that dimension). For example, for positive climate a teacher scoring in the low range (a score of 1 or 2) would have very few, if any, displays of joint laughter or physical/verbal affection between themselves and their students. A teacher scoring in the high range (a score of 6 or 7) would be observed to have frequent joint laughter, genuine praise and warm, supportive relationships with his/her students (see Appendix D).

This study used the two factors (Emotional Support and Instructional Support) reported in the study conducted by LaParo, Pianta, and Stuhlman (2004). These two factors provide a global measure of classroom processes. Factor 1, Emotional Support, is a composite of Positive Climate, Negative Climate (reversed), Teacher Sensitivity, Regard for Student Perspectives and Behavior Management. Factor 2, Instructional Support, is a composite of Productivity, Concept Development, Instructional Learning Formats, Quality of Feedback, and Language Modeling. In addition to the ten dimensions, Student Engagement was used as a measure of student outcome. Student Engagement was rated on the same 7-point scale as the other dimensions and was intended to capture the degree to which all students in the class are focused and participating in the learning activity presented or facilitated by the teacher.

Inter-rater reliability was established on the CLASS prior to actual coding of videotapes. Reliability of 80% or higher was established across six videotape segments of preschool classrooms not associated with this study. This level of reliability is consistent with the method for calculating reliability that was utilized when the original reliability was determined for this measure. An initial reliability of 92% was calculated before coding of the student teachers was conducted. Inter-reliability between researcher and master coder was calculated on 20% of the student teachers who were videotaped (*n* = 4). The reliability average was 90.5% responses within 1 scale point of the master coder responses.

The *Teacher Characteristic Questionnaire* is a modification of the *Student Characteristics Questionnaire*. The *Teacher Characteristics Questionnaire* was used to obtain the cooperating teachers' background information including prior experience and prior education (see Appendix E).

Procedure for Collecting TBS and TDS Data

Students enrolled in the Birth through Kindergarten (B-K) program complete the TBS (pre-k and kindergarten) at several different time points throughout their matriculation as part of a larger study. For this study, TBS data was analyzed from two different time points. The first TBS (pre-k and kindergarten) was completed at the beginning of student teaching, HDF 460: Professional Experience in Early Childhood. This course is a supervised professional experience for students working with children in early childhood settings. The second TBS (pre-k and kindergarten) was completed at the

end of student teaching after 16 weeks of teaching in the classroom. There were a total of 15 CLASS scores due to 4 videotapes being inaudible and therefore, uncodeable.

TDS data were collected during the exit interview during the last week of student teaching. The exit interview consists of collaborative evaluations on the student teacher by the University Supervisor and cooperating teacher. During this time in addition to the TDS data, several forms were completed that were necessary to indicate that the student teaching performance was successfully completed. The exit interview usually took between 20 – 30 minutes and took place in the school during a convenient time for the cooperating teacher. The cooperating teacher completed the disposition survey by rating student teachers on personal and professional qualities and behaviors.

Procedure for Collecting CLASS Data

Student teachers were videotaped in their class on a 'typical day" during the last two weeks of the student teacher's 7-week lead teaching period. A typical day refers to a day in which there were no unusual events or interruptions that would occur during the day such as a field trip, picture day, party day, or a substitute teacher in the classroom. The videotaped recording lasted approximately 30 minutes and generally included 3 types of activities. Those three activities included: large group (i.e. morning group time, circle time), transition time (i.e. when children are moving from group to center time or from table activities to large group) and another type of activity that is not large group or transition (i.e. individual desk work, small groups). Videotaping was completed for Spring 2005 participants during the weeks of April 4, and 11, 2005 and for Fall 2005 participants during the weeks of November 7 and 14, 2005. Videotaping took place 2

additional times before this recording took place, therefore the children, the student teacher, the cooperating teacher and the researcher were all familiar with the procedures of being recording.

A manual was used, which provided an overview of the measure, information about observing in classrooms, coding and definitions for each dimension. To assist the observer in making her ratings, indicators of the dimension and examples of teacher behavior were provided.

CHAPTER IV

RESULTS

This chapter presents the results from the analyses. Analyses for this study were competed using the SPSS (v.12) statistical program. First an overview of the analyses is provided, then the finding are reported, which includes additional information about the sample. Finally, each hypothesis is tested and the results are reported.

Overview of Analysis

The purposes of this study were to determine: (1) the relationship of prior experience and/or age have on student teachers' reported teaching beliefs on developmentally appropriate beliefs (DAP), (2) the relationship of prior training and age on student teachers' observed classroom practices, (3) the association between dispositions related to positive attitude, being responsiveness to children's needs and being flexible and student teachers' observed classroom practices, (4) whether student teachers differ in their reported teaching beliefs and observed classroom practices (5) the relationship between higher student teachers' observed classroom practices and children's engagement, (6) whether student teachers' reported teaching beliefs change over time from the beginning of student teaching to the end of their student teaching, and (7) the relationship between cooperating teachers reported teaching beliefs about developmentally appropriate practices and student teachers' reported teaching beliefs about developmentally appropriate practices and observed classroom practices.

T-test and correlational analyses were used to statistically analyze the data for each of the seven research questions.

Preliminary Analysis

The scores on the *Teacher Belief Scale* (TBS) and the *Classroom Assessment Scoring System* (CLASS) were tested to determine whether their distributions were normal. The Shapiro-Wilk Normality Test was conducted on both the TBS (pre-k and kindergarten) and CLASS (emotional support factor and instructional support) (See Table 1). Due to all scores having *p* values greater than .05, the scores were considered normally distributed. No changes or exclusions were made to the original data based on this analysis. Table 2 lists total means, actual ranges and potential ranges for both levels of the TBS (pre-k and kindergarten) and CLASS (emotional support factor and instructional support factor) separately for pre-k and kindergarten classrooms.

Table 1

TBS and CLASS Normality Test p Values

	p value
TBS-Pre-K Beginning Student Teaching	.898
TBS-Pre-K End of Student Teaching	.738
TBS-K Beginning of Student Teaching	.633
TBS-K End of Student Teaching	.266
Emotional Support Factor	.064
Instructional Support Factor	.156

Table 2

Total Mean, Actual Ranges and Potential Ranges for TBS and CLASS by Classrooms

	Classroom Placements	M	Actual Range	Potential Range
TBS – Pre-K Beginning Student Teaching	Pre-K (n = 6)	131.67	120-145	36-180
	Kindergarten (n = 11)	126.45	114-146	36-180
TBS – Pre-K End Student Teaching	Pre-K (n = 7)	137.43	121-167	36-180
	Kindergarten (n = 12)	131.33	117-142	36-180
TBS – K Beginning Student Teaching	Pre-K (n = 6)	136.67	126-147	36-180
	Kindergarten (n = 11)	133.09	118-150	36-180
TBS – K End Student Teaching	Pre-K (n = 7)	143.43	131-167	36-180
	Kindergarten (n = 12)	140.33	123-150	36-180
CLASS Emotional Support	Pre-K (n = 5)	22.80	20-25	5-35
	Kindergarten (n = 10)	21.30	12-26	5-35
CLASS Instructional Support	Pre-K (n = 5)	15.00	12-19	5-35
	Kindergarten (n = 10)	16.50	11-26	5-35
Cooperating Teachers				
TBS – Pre-K	(n = 9)	130.67	118-141	36-180
TBS – Kindergarten	(n = 9)	137.63	128-149	36-180

For further analyses the student teachers were divided into groups representing four categories: age, prior experience, prior Associate's Degree and student teaching placement. Age was divided into two categories: traditional and nontraditional. Students who fell into the traditional category were 24 years old or younger and students who fell into the nontraditional category were 25 years old or older. According to the U. S.

Department of Education, National Center for Education Statistics (2002) a nontraditional student primarily refers to an individual 25 years or older, who may have been out of formal schooling for a period of 5 years or more, had delayed enrollment (did not enter postsecondary education in the same calendar year that he or she finished high school) or may have life experiences that are different from traditional aged students. For the purpose of this study and due to the limited sample size, only the age criterion was used as a cutoff of a nontraditional versus traditional student. Prior experience included any previous work with young children in formal child care programs. These formal child care programs included family child care, center-based care or public school. This group was divided into two groups which include those with at least 1 year of prior experience and those without any prior experience. The last category contained two groups. Group one consisted of participants with an Associates Degree prior to entering the university's teacher licensure program and Group two consisted of those who did not have an Associates Degree prior to entering the teacher licensure program. Lastly, the sample was divided according to where the student teacher was placed. The only two options for placements were pre-k classrooms and kindergarten classrooms. See Table 3 for TBS, CLASS and TDS mean scores by age, prior experience and prior Associate's Degree. It is important to note that each category was not totally exclusive and included overlapping. There were missing data for each measure administered. Two student teachers did not complete the TBS at the beginning of the semester; therefore there were 17 TBS scores at the beginning of student teaching and 19 TBS scores at the end of student teaching. There were a total of 15 CLASS scores due to four videotapes being

inaudible and uncodeable. Lastly, one student teacher did not identify her age which resulted in a total of 18 student teachers in the traditional/nontraditional categories.

Due to only 6 *Teacher Dispositions Scale* Scores being collected, the researcher could not conduct any disposition analyses.

Table 3

Mean TBS, CLASS, and TDS Scores by Student Age, Prior Experience, and Prior Associate's Degree

	Age						*Prior Experience*						*Prior Associate's Degree*					
Measures	traditional			Non-traditional			None			Some			No Associate's Degree			Associate's Degree		
	n	M	SD	*n*	M	SD	*n*	M	SD	*n*	M	SD	*n*	M	SD	*n*	M	SD
TBS-Pre-K (Beginning of the Semester)	9	128.70	8.13	7	129.29	11.80	7	133.57[a]	11.82	10	124.60[a]	6.29	13	129.92	10.19	4	123.00	6.68
TBS-Pre-K (End of the Semester)	10	129.70[b]	4.90	8	140.13[b]	13.80	7	135.00	6.25	12	132.75	13.38	15	132.80	12.45	4	136.50	2.08
TBS-K (Beginning of the Semester)	9	135.00	9.95	7	134.86	10.11	7	137.57	10.16	10	132.10	9.16	13	135.54	10.49	4	130.50	5.75
TBS-K (End of the Semester)	10	138.80	6.93	8	144.63	12.22	7	141.86	4.53	12	141.25	11.70	15	140.80	10.46	4	144.00	4.69
CLASS																		
Instructional Support Factor	9	14.33	2.50	5	17.40	5.60	6	14.50	2.81	9	17.00	5.14	12	15.33	3.80	3	18.67	6.66
Emotional Support Factor	9	21.11	3.76	5	22.40	2.88	6	19.67[c]	4.13	9	23.22[c]	1.99	12	21.58	3.50	3	22.67	3.51
Children's Engagement	9	3.67	0.71	5	4.20	1.10	6	3.67	1.03	9	4.11	.78	12	3.75	0.87	3	4.67	0.58
TDS	4	69.75	0.50	1	70.00	.	1	70.00	.	5	69.80	0.45	6	69.83	0.41	0	.	.

Note: letter superscripts denote where comparisons were made that reached statistical significance

[a, b, c] $p < .05$

Findings

Research Question 1

Hypothesis IA states that student teachers with prior experience will have higher reported developmentally appropriate beliefs on the TBS completed at the beginning of student teaching than student teachers without prior experience. Pre-k and kindergarten classrooms were combined for these analyses. The overall mean on the TBS before student teaching began was 128.29 for preschool and 134.35 for kindergarten. At the kindergarten level (TBS), student teachers with no prior experience (M = 137.57) at the beginning of student teaching were not significantly different ($p < .05$) from those with at least some prior experience (M = 132.10). However, at the pre-k level (TBS) the student teachers with no prior experience (M = 133.57) at the beginning of student teaching reported significantly higher developmentally appropriate beliefs than those with at least some prior experience (M = 124.60; $t(15) = -2.04$, $p = .05$).

Hypothesis IB examined the difference between traditional (24 years and younger) and nontraditional students (25 years and older). Traditional students did not report significantly higher developmentally appropriate teaching beliefs (see Table 3) than nontraditional students at the beginning of student teaching. A significant difference did occur at the end of student teaching at the pre-k level, ($t(16) = -2.24$, $p = .04$). Non-traditional students had significantly higher reported scores on the pre-k level than traditional students.

Research Question 2

Hypothesis 2A states that student teachers' with prior experience working with young children in formal programs will have higher ratings on the emotional support factor of the CLASS than those with no prior experience. The results showed significantly higher mean ratings on the emotional support factor for those with prior experience (M = 23.22) than those without prior experience (M = 19.67; $t(13) = 2.25$, $p = .04$).

According to Hypothesis 2B, student teachers' with a prior Associate's Degree will have higher mean ratings on the CLASS (emotional & instructional support factors) than those without a prior Associate's Degree. There were no significant differences between these two groups on either CLASS factor.

Hypothesis 2C stated that traditional aged student teachers will have higher ratings on the CLASS (emotional & instructional support factors) than non-traditional aged student teachers. Results did not indicate significantly higher means for traditional aged student teachers compared to non-traditional students on the two CLASS factors: emotional support ($t(12) = .66$, $p = .520$), instructional support ($t(12) = 1.44$, $p = .176$).

Hypothesis 2D examined the congruency in student teachers' beliefs at the beginning of student teaching and classroom practices for student teachers' with prior experience in working with young children than those without prior experience. First, a correlation matrix for TBS and CLASS scores was produced. See Table 4. Next, those correlations were used in a standard test for correlation. In a standard test for correlation, two correlation coefficients are transformed using the Fisher Transformation to determine

whether two correlations have different strengths. The results showed no greater congruency in teachers' beliefs and classroom practices for student teachers' with prior experience than those without prior experience. The *p* values are given in Table 5 and illustrate no significant difference ($p < .05$) between the two correlations.

Table 4

Correlation Matrix for TBS and CLASS Scores by Experience

	TBS-Pre-K (Beginning of Student Teaching)	TBS-K (Beginning of Student Teaching)	Emotional Support Factor	Instructional Support Factor
Some Prior Experience				
TBS-Pre-K (Beginning of Student Teaching)				
TBS-K (Beginning of Student Teaching)	.845** ($n = 10$)			
Emotional Support Factor	-.470 ($n = 7$)	-.504 ($n = 7$)		
Instructional Support Factor	-.363 ($n = 7$)	-.434 ($n = 7$)	.587 ($n = 9$)	
No Prior Experience				
TBS-Pre-K (Beginning of Student Teaching)				
TBS-K (Beginning of Student Teaching)	.849* ($n = 7$)			
Emotional Support Factor	.138 ($n = 6$)	.234 ($n = 6$)		
Instructional Support Factor	.158 ($n = 6$)	.161 ($n = 6$)	.844* ($n = 6$)	

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

Table 5

Standard Test for Correlation

	p values
Correlations	
-.470 with .138	.396
-.363 with .158	.480
-.504 with .234	.299
-.434 with .161	.412

Research Question 3

Hypothesis 3A states that the emotional support factor from the CLASS will have a significantly higher correlation with TDS scores than the instructional support factor. There were insufficient data to conduct this analysis (only 6 TDS scores).

Research Question 4

According to hypothesis 4A, student teachers teaching in Pre-k and kindergarten classrooms will have similar reported developmentally appropriate beliefs (average for both Pre-k and kindergarten levels) at the beginning of student teaching. There was not a statistically significant difference in reported developmentally appropriate beliefs scores for student teachers teaching in Pre-k or kindergarten classrooms ($t(15) = .927$, $p = .37$), which suggest similar reported beliefs. See Table 6.

One additional analysis was used to examine if there was a statistically significant difference in reported developmentally appropriate beliefs scores for student teachers teaching in Pre-k or kindergarten classrooms at the end of student teaching. The results suggested similar reported beliefs at the end of student teaching regardless of pre-k or kindergarten placements. See Table 7.

Table 6

Mean TBS Scores for Pre-K and Kindergarten Classrooms at the Beginning of Student Teaching

	M	SD	*n*
Pre-K Classrooms	134.17	8.48	6
Kindergarten Classrooms	129.77	9.73	11

Table 7

Mean TBS Scores for Pre-K and Kindergarten Classrooms at the End of Student Teaching

	M	SD	*n*
Pre-K Classrooms	140.42	13.30	7
Kindergarten Classrooms	135.83	7.29	12

Hypothesis 4B states that student teachers teaching in Pre-k classrooms will have higher mean scores on the instructional support factor of the CLASS than student teachers teaching in kindergarten classrooms. As presented in Table 8, there were no significant differences for the Instructional Support Factor for student teachers teaching in pre-k and kindergarten classrooms ($t(13) = -.61$, $p = .56$). Note that two student teachers were missing TBS data at the beginning of student teaching. Further analysis also revealed that there were no significant differences for the Emotional Support Factor ($t(13) = .793$, $p = .44$).

Table 8

Mean Instructional Support Factor Scores for Pre-K and Kindergarten Classrooms

Pre-K			
	M	SD	*n*
Instructional Support Factor	15.00	2.74	5
Emotional Support Factor	22.80	1.92	5
Kindergarten			
	M	SD	*n*
Instructional Support Factor	16.50	5.13	10
Emotional Support Factor	21.30	3.95	10

According to Hypothesis 4C, student teachers teaching in Pre-k classrooms will have greater congruency between their reported developmentally appropriate beliefs (TBS scores at both the pre-k and kindergarten levels) and observed practices (CLASS scores for emotional support and instructional support factors) than students teachers in kindergarten classrooms. Using the standard test for correlation, results showed no greater congruency between pre-k classrooms and kindergarten classrooms reported developmentally appropriate beliefs and observed practices. Refer to Tables 9 and 10. Note that the total number of student teachers with CLASS data were 15 due to four videotapes that could not be coded. The total number of student teachers with TBS data at the beginning of student teaching was 13 due to two missing TBS scores. The standard test values are shown in Table 11.

Table 9

Correlation Matrix for TBS and CLASS Scores for Pre-K Classrooms

	TBS-Pre-K (Beginning of Student Teaching)	TBS-K (Beginning of Student Teaching)	TBS-Pre-K (End of Student Teaching)	TBS-K (End of Student Teaching)
CLASS				
Emotional Support Factor	.225 (n = 4)	.902 (n = 4)	.002 (n = 5)	.224 (n = 5)
Instructional Support Factor	.627 (n = 4)	.351 (n = 4)	-.356 (n = 5)	-.416 (n = 5)

Table 10

Correlation Matrix for TBS and CLASS Scores for Kindergarten Classrooms

	TBS-Pre-K (Beginning of Student Teaching)	TBS-K (Beginning of Student Teaching)	TBS-Pre-K (End of Student Teaching)	TBS-K (End of Student Teaching)
CLASS				
Emotional Support Factor	-.280 (n = 9)	-.229 (n = 9)	-.002 (n = 10)	-.081 (n = 10)
Instructional Support Factor	-.320 (n = 9)	-.299 (n = 9)	-.107 (n = 10)	.089 (n = 10)

Table 11

Standard Test for Correlation

	p values
Correlations	
.225 with -.280	.632
.627 with -.320	.323
.902 with -.229	.112
.351 with -.299	.532
.002 with -.002	.996
-.356 with -.107	.741
.224 with -.081	.700
-.416 with .089	.507

Research Question 5

Hypothesis 5A states that student teachers with higher ratings on the CLASS will have higher ratings of children's engagement. Results indicated that there was a moderate significant correlation between student engagement and the Instructional support factor ($r = .53$, $p = .04$). The Emotional support factor closely approached the significant level ($r = .47$, $p = .077$).

Since there were such limited findings from the two CLASS factors (Emotional support and Instructional support) the ten dimensions were examined individually. Table 12 shows the means, standard deviation, and ranges for each of the ten dimensions used in this study. The means for the majority of scales were in the middle range (between 3 and 5), indicating generally positive impressions of the classroom environment and teacher-child interactions. Concept Development, Quality of Feedback and Language Modeling (all under the Instructional Support factor) were in the low range indicating very few indicators were present to support instruction and positive teacher-child

interactions. Since Negative Climate was coded in the reverse, a lower score indicated higher quality.

Correlations among the ten CLASS dimensions are shown in Table 13 and ranged from .734 to -.057. The highest correlation (r = .734) was between Quality of Feedback and Concept Development. The lowest correlation (r = -.057) was between Productivity and Negative climate.

Table 12

Means, Standard Deviations, and Ranges for Ten Dimensions from the CLASS (n = 15)

	M	SD	Range
Dimension			
Positive Climate	5.60	.986	3-7
Negative Climate	1.73	1.100	1-5
Teacher Sensitivity	5.13	.915	3-6
Regard for Student Perspective	4.07	1.387	1-6
Behavior Management	5.40	1.121	3-7
Productivity	4.73	1.223	2-6
Concept Development	2.33	1.113	1-5
Instructional Learning	3.67	1.496	2-6
Quality of Feedback	2.40	.910	2-5
Language Modeling	2.87	.990	1-4

Table 13

Correlations Among the Ten Scales on the CLASS

	Positive Climate	Negative Climate	Teacher Sensitivity	Regard for Student Perspectives	Behavior Management	Productivity	Concept Development	Instructional Learning Formats	Quality of Feedback	Language Modeling
Positive Climate										
Negative Climate	.158									
Teacher Sensitivity	.697**	-.317								
Regard for Student Perspectives	.752**	.106	.668**							
Behavior Management	.220	-.602*	.501	.028						
Productivity	.616*	-.057	.481	.180	.448					
Concept Development	.456	.019	.093	.309	.229	.332				
Instructional Learning Formats	.388	-.318	.348	.321	.341	.338	.586*			
Quality of Feedback	.589*	-.314	.446	.430	.322	.424	.776**	.734**		
Language Modeling	.600*	-.232	.651**	.527*	.630	.499	.562	.305	.460	

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

Research Question 6

Hypothesis 6A states that student teachers will have similar scores on the TBS at the beginning and end of their student teaching placement. Table 14 reports the TBS mean scores at both levels of the TBS (Pre-k and kindergarten) completed at the beginning and end of the student teachers' placement using a paired *t* test. For this analysis, two participants were excluded due to no reported end TBS scores. The TBS pre-k and kindergarten scores were significantly correlated from the beginning to the end of student teaching, pre-k ($r = .59$, $p = .012$) and kindergarten ($r = .65$, $p = .005$). The paired *t* test illustrated a significant difference in scores from beginning to end of student teaching at the kindergarten level ($t(16) = -3.19$, $p = .006$). Scores for the TBS (kindergarten level) increased its mean score from 134.35 to 140.18 from the beginning to the end of student teaching. At the pre-k level, the mean score increased but was not significant. This analysis grouped all student teachers together regardless of pre-k or kindergarten placements.

Table 14

Student Teachers' Paired t-test TBS Scores

	M	*t*	*p*
Beginning TBS-Pre-k	128.29		
End TBS-Pre-k	131.47	-1.6	.129
Beginning TBS-kindergarten	134.35		
End TBS-kindergarten	140.18	-3.19	.006**

**$p < .01$

To follow up Research Question 6, and to examine which student teachers had the most change in scores from beginning to end of student teaching, based on classroom placement another paired *t* test was used. The results revealed that the student teachers placed in kindergarten classrooms increased the most at the kindergarten level of the TBS ($t(11) = -2.87$, $p = .017$). See Tables 15 and 16.

Table 15

Paired t-test on TBS Scores for Pre-K Classroom Placement

	M	*t*	*p*
Beginning TBS-Pre-k	131.67		
End TBS-Pre-k	132.50	-.667	.534
Beginning TBS-kindergarten	136.67		
End TBS-kindergarten	139.50	-1.705	.149

Table 16

Paired t-test on TBS Scores for Kindergarten Classroom Placement

	M	*t*	*p*
Beginning TBS-Pre-k	126.45		
End TBS-Pre-k	130.91	-1.49	.165
Beginning TBS-kindergarten	133.09		
End TBS-kindergarten	140.55	-2.87	.017*

*$p < .05$

In addition to a paired *t* test analysis, an item by item analysis was also used to decipher if there were any differences that were masked by an overall total score. The

results showed very small differences by item for the beginning and end of student teaching, which suggest congruency in items on the measure.

Research Question 7

Hypothesis 7A states student teachers' observed practices will correlate to their cooperating teachers' reported beliefs about developmentally appropriate practices. Findings indicate no significant correlations between cooperating teachers' beliefs with student teachers' observed practices. See Table 17. A summary of the findings by hypothesis is provided in Table 18.

Table 17

Correlation Matrix of Student Teachers' Practices with Cooperating Teachers' Reported Beliefs

	Student Teachers' Practices	
	Emotional Support Factor (Student Teacher)	Instructional Support Factor (Student Teacher)
Cooperating Teachers' Reported Beliefs		
TBS-Pre-K (Cooperating Teacher)	.011	.317
TBS-Kindergarten (Cooperating Teacher)	-.384	.212

Table 18

Summary of Findings by Hypothesis

Hypothesis 1a

Student teachers with no prior experience had higher reported developmentally appropriate beliefs than those with prior experience at the Pre-k level.

Hypothesis 1b

Nontraditional student teachers had higher reported developmentally appropriate beliefs than traditional students at the end of student teaching at the Pre-k level.

Hypothesis 2a

Student teachers with prior experience showed significantly higher mean ratings on the emotional support factor than those with no prior experience.

Hypothesis 2b

No significant differences between those with a prior Associate's Degree and those without a prior Associate's Degree on either CLASS factors.

Hypothesis 2c

No significantly higher means for traditional aged student teachers compared to nontraditional students on the two CLASS factors.

Hypothesis 2d

No greater congruency in teachers' beliefs and classroom practices for student teachers with prior experience.

Hypothesis 3a

Insufficient data to conduct analysis.

Hypothesis 4a

Student teachers teaching in Pre-k and kindergarten classrooms had similar reported developmentally appropriate beliefs at the beginning and end of student teaching.

Hypothesis 4b

No significant differences for the Instructional Support Factor for student teachers teaching in pre-k and kindergarten classrooms.

Hypothesis 4c

No greater congruency between pre-k and kindergarten classrooms developmentally appropriate beliefs and observed practices.

Hypothesis 5a

A moderate significant correlation between student engagement and the Instructional support factor. The Emotional support factor closely approached the significant level.

Hypothesis 6a

Student teachers beliefs at the kindergarten level increased from the beginning to end of student teaching.

Hypothesis 7a

No significant correlations between cooperating teachers' beliefs with student teachers' observed practices.

CHAPTER V

DISCUSSION

Previous research in the field of early childhood education has focused on the effectiveness of developmentally appropriate practice (Burts, et al., 1992; Zeng & Zeng, 2005) and the prevalence of developmentally appropriate practices in kindergarten and pre-k (preschool) classrooms (Bryant, et al., 1991; Charlesworth et al., 1993). There have been fewer studies however, that have examined the relationship between teachers' beliefs about developmentally appropriate practices and observed classroom practices. Further, even fewer studies have investigated individual characteristics of student teachers and other factors that influence the level in which a teacher is able to maintain agreement in her/his beliefs and actual practices concerning developmentally appropriate practice (DAP).

The present study examined the relationship between student teachers' beliefs and practices regarding developmentally appropriate practices. This study went beyond the scope of examining the link between teachers' observable actions and their effects on children which has been a traditional approach to teacher education research by expanding the research to include teachers' beliefs. Emerging data support the position that teachers' beliefs greatly influence their subsequent development as both students and practitioners of teaching. In attempting to examine the research questions, Bronfenbrenner's Bioecological Theory was used as the theoretical perspective. Relating

this perspective to this study, the student teacher is the developing *person*. The *process* included the student teacher attempting to implement his/her beliefs into practice. In addition to studying student teachers' beliefs as it relates to DAP, this study also attempted to examine the dispositions of the student teacher, such as having a positive attitude, having enthusiasm and the willingness to take initiative and being responsive. Unfortunately, the data were insufficient to conclude any disposition findings. Further, the *context* that was examined was the classroom microsystem which included the children and the cooperating teacher. The Bioecological theory was a very important framework to use in this particular research project because at all levels (pre-k – 12^{th} grade), the American education system is marking by both constant changes in curriculum and the responses to societal expectations that demand schools to improve in producing positive student outcomes (File & Gullo, 2002).

One finding of this study was that student teachers' beliefs were consistent with their observed practices. This was evident by the fact that even when student teachers were grouped according to three variables (age, prior experience and prior Associate's Degree), the means for developmental appropriate beliefs and practices remained relatively constant with a few exceptions. This is consistent with Smith (1997) who found relatively stable attitudes concerning developmentally appropriate practices over the course of student teaching.

The few exceptions this study found with regard to developmentally appropriate beliefs remaining relatively constant between groups was for student teachers without any prior experience and nontraditional aged student teachers. Student teachers with no

prior experience had higher reported developmentally appropriate beliefs than those with prior experience at the Pre-k level. Nontraditional student teachers had higher reported developmentally appropriate beliefs than traditional students at the end of student teaching at the Pre-k level. In addition, in regard to developmentally appropriate practices remaining relatively constant, the only exception was for student teachers with prior experience who showed significantly higher mean ratings on the emotional support factor than those with no prior experience.

Findings from this study also demonstrated a moderate significant correlation between student engagement and the Instructional support factor while the Emotional factor closely approached significance. Lastly, developmentally appropriate beliefs increased over the course of student teaching at the kindergarten level. There was no significant correlation between cooperating teachers' developmentally appropriate beliefs with student teachers' observed practices.

Relation of Prior Associate's Degree, Prior Experience and Age on Beliefs

The findings revealed that having a prior Associate's Degree did not significantly influence developmentally appropriate beliefs. It is important to note that out of the nineteen student teachers only 4 reported having an Associate's Degree creating unequal comparison groups. Results also revealed that student teachers who reported not having any prior experience had higher TBS means which related to more developmentally appropriate beliefs. This difference was significant at the Pre-k level at the beginning of the semester. One explanation for this finding is that those student teachers with no prior experience had no "realistic" view of the classroom. Because their beliefs could not be

based on personal experiences, they were based on the formal knowledge received in their teacher education program (Richardson, 1996). The teacher education program from which this study solicited participants from strongly advocates developmentally appropriate practices. The only other significant difference was between traditional and nontraditional age students at the end of the semester on the Pre-k level. Contrary to the stated literature, older students reported significantly higher developmentally appropriate beliefs. One explanation for this finding may be that since only one criterion was used as a cutoff for groups (age), the differences between groups were not high. Although the definition for a nontraditional student" is not precise, the definition includes several characteristics such as delaying enrollment, attending part time, having dependents other than a spouse and considered financially independent for purposes of determining eligibility for financial aid in addition to being over the age of 25 (US Department of Education, National Center for Education Statistics, 2002). Therefore, based on how many characteristics were identified and present in the study may have radically changed the make-up of the sample. In addition, the range of ages (22-34) were quite narrow resulting in few discriminatory factors. Since ages did not exceed 34 years, there were no likely differences due to different generation perspectives or from entering the teaching professional later in life from another field.

Another explanation for the finding of very little differences between age, prior experience and prior education on appropriate self-reported beliefs may be that it is easy to agree with statements that are indicative of appropriate beliefs.

Furthermore, when all student teachers were considered, placement in either a pre-k classroom or kindergarten classrooms did not appear to have a significant influence on reported developmentally appropriate beliefs. This is a positive finding because it illustrates that despite the pressure of being more structured in a kindergarten setting, the kindergarten student teachers were still advocating developmentally appropriate beliefs. Generally, kindergarten classrooms are more structured than pre-k classrooms because of the requirement to adhere to a time schedule based in part on cooperative uses of playgrounds, cafeterias, gyms or buses. Furthermore, kindergarten classrooms are usually part of a larger institution with older children and different educational expectations and mandates than preschool (U.S. Department of Health & Human Services, 2003).

In addition, student teachers did report similar reported beliefs at the beginning and end of student teaching on the pre-k, but not on the kindergarten level. The analysis used a paired *t*-test which excluded two participants who did not have TBS scores recorded at the beginning of the semester. Scores significantly increased from the beginning to the end of student teaching in kindergarten classrooms. Thus, the present study presents no confirmation for the idea that student teachers tend to adopt a more utilitarian, less idealistic approach to instruction as a consequence of institutional socialization (Smith, 1997). In fact, the student teachers placed in kindergarten classrooms reported higher beliefs at the end of student teaching than at the beginning. One possibility for this finding is that perhaps the student teachers in kindergarten classrooms were faced more with higher academic pressures from their cooperating

teacher, children's parents and/or principals. These current societal pressures strongly contradicted with their beliefs and they more than ever saw the need to advocate developmentally appropriate beliefs. In other words, amidst an environment where inappropriate practices may have been present, their developmentally appropriate beliefs were only solidified and possibly strengthened. Another explanation for this finding could be the feedback from children's behavior in kindergarten classrooms provided evidence that developmentally inappropriate practices were not effective. Further research is needed in this area to verify and explore children's behavior in structured classrooms and how that relates to teachers' beliefs changing about developmentally appropriate practices.

Relation of Prior Experience, Prior Associate's Degree and Age on Classroom Practices

Results demonstrated that means for observed classroom practices were higher for student teachers with at least some experience than those without any prior experience. This is interesting because this finding is the reverse for developmentally appropriate beliefs (beliefs were higher for those without prior experience). Based on the findings from the present study, it appears that student teachers with prior experience were better able to actually implement appropriate classroom practices. This finding is important for teacher education programs and educators because it demonstrates that practical experience in addition to theoretical perspectives are needed to increase the student teachers' understanding of how to actually implement developmentally appropriate practices in the classroom. It is important to note that the CLASS is a measure if global quality and not a direct measure of developmentally appropriate practices, however high

global quality and developmentally appropriate practices are highly related (Pianta et al., 2005).

In addition, higher CLASS scores, which indicated higher ratings of quality, did significantly correlate with higher ratings of children's engagement. This is extremely important because children's engagement is the degree to which all students in the class are actually focused and participating in the learning activities presented or facilitated by the teacher. Child engagement is a critical element of effective schools and child academic outcomes (Pianta et al., 2005).

When the ten individual dimensions from the CLASS were examined, an interesting finding emerged. All the dimensions that fell into the low range (1-2), which indicated lower quality, were under the Instructional Support Factor (Concept Development, Quality of Feedback, and Language Modeling). This has very strong implications for teacher education programs because it implies teacher educators need to make sure they are not only emphasizing strategies to develop and maintain caring and supportive relationships with children (emotional support), but to also develop highly skilled teachers who monitor the child's performance and provide additional explanations and ideas through scaffolding and support (instructional support). This may very well be the bridge that connects developmentally appropriate practices to the increasing academic expectations placed on today's educational system. Working together, emotional and instructional support has been demonstrated to be able to predict children's performance on standardized tests of literacy skills and have higher children's engagement in the classroom across all grade levels (NICHD ECCRN, 2004; Bryant et al., 2002).

Lastly, the nine cooperating teachers' reported beliefs did not appear to have influence on their student teacher's observed practices. There is little consensus in the literature about the influence of various socializing agents on teacher beliefs. Some such as Smith (1997) say that student teachers' beliefs will remain stable over the course of the student teaching experience; while others such as Richardson (1996) say that a change in beliefs will occur due to rising, sometimes conflicting institutional pressures on the student teacher to become socialized into the public school teaching profession. The present study provided evidence that all the student teachers started out with relatively high reported appropriate beliefs and retained them and the only change was an increase in reported beliefs for those placed in kindergarten classrooms. It is important to note that all cooperating teachers in the present study had at least a 4 year college degree in Early Childhood Education or related field. It would have been interesting to investigate the influence of less educated teachers on student teachers' reported beliefs and classroom practices.

Limitations

In examining the findings from this study, several issues were raised. First, the sample for both student teacher and cooperating teacher was small and did not vary greatly in gender, ethnicity, age, prior education or prior experience. Since only four student teachers had an Associate's Degree prior to entering the teacher education program at the university, the effects of a two year degree at a community college was not fully investigated. According to Miller, Pope and Steinmann (2005), community colleges have an unique culture and mission. This mission emphasizes smaller classes

which allow for small group discussion where active participation and hands-on learning are facilitated. Community colleges also have a reputation for being very focused on learning by being more applied and less theoretical in its approach. Second, even though only six *Teacher Disposition Scale* (TDS) scores were collected, the scores demonstrated very little variance. One explanation for this is that the measure was not very discriminatory. The items were very general and did not offer any information as to how the personal and professional qualities and behavior were demonstrated. For example, how often flexibility/adaptability was demonstrated in the classroom by the student teacher was an item. Even if the cooperating teacher rated the student teacher with a rating of 5 meaning "consistently demonstrated", we still have no additional information as to under what conditions this skill was exhibited. A student teacher who is able to exhibit flexibility/adaptability in the midst of chaos and confusion is much different than a student teacher who can only exhibit this disposition in a calm, organized classroom environment.

Furthermore, the low number of collected TDS scores was a result of poor data collection. Several faculty members at the participating university taught this one course (HDF: 460). As a result, materials and forms were not consistently updated, managed and dispersed. This has great implications for teacher education programs because it illustrates the need for consistent faculty members to teach the same courses to ensure consistent, up-to-date information. Teacher educators must also require a clear understanding of the process of learning to teach with today's societal pressures so that

they can take an active role in making the most of the often limited time student teachers spend in the classrooms.

In attempting to use Bronfenbrenner's Bioecological theory to address student teachers beliefs on developmentally appropriate practices and classroom practices, another limitation of the present study was that the mesosystem and the macrosystem could not be investigated. Even though the TBS was collected at two time points, these time points were generally close together (11 weeks) and both conducted during the student teaching practicum. Pajares (1992) asserts that beliefs about teaching are strongly established even before one begins to teach. Data from the TBS given to students as freshman before they actually are accepted into the Teacher Education Program would serve to be interesting and possibly provide more information on the process of developing developmentally appropriate beliefs. Experience and education seem to be critical factors in helping student teachers develop their thinking and classroom practices as they change from students to teachers (Doyle, 1997).

Lastly, the student teachers who participated in this study were all from one institution. This institution strongly advocates developmentally appropriate practices; therefore conclusions regarding program effects could not be explored.

Recommendations and Conclusions

To truly investigate the influences of the cooperating teacher on the student teacher a measure to examine the cooperating teachers' actual classroom practices instead of just reported beliefs would be the first recommendation. The literature supports that even though developmentally appropriate practices are strongly advocated, due to

societal pressures, the teachers' beliefs may not be reflected in their observed practices. Additionally, as in the parental literature, it would have been interesting to examine how cooperating teachers perceived, organized and understood their role as a cooperating teacher. Since parental cognitions affect the nature of the routine interactions of parents with their children, teacher cognitions may also affect how cooperating teachers interact with their student teacher. Cooperating teachers may be more effective if they had training on their duties and responsibilities as a key component in the student teaching experience.

This study seems to suggest that there is a relationship between self-reported beliefs and observed classroom teaching practices for student teachers. This finding supports previous research that has found similar relationships between self-reported beliefs and practices and measures of classroom quality (Smith, 1997; Stipek & Byler, 1997; Charlesworth et al., 1991). This dissertation was undertaken in conjunction with new procedures put in place in the Birth – Kindergarten (B-K) Teacher Education Program studied at the University where this sample was drawn. Both beliefs and dispositions will now be measured at several time points during the Teacher Education Program.

Another recommendation for future research should include longitudinal follow-up studies on student teachers as they move out of the apprentice role under their cooperating teacher into their very own classrooms. Katz (1972) identified developmental stages in teachers related to the concerns that teachers have at different periods of their stage in teacher development. First year teachers who are in the "survival

stage" are primarily concerned with surviving in the classrooms and may exhibit different beliefs and practices than seasoned teachers in the "maturity stage" in which the teacher has come to terms with his/herself as a teacher. Teachers may respond best to educational experiences and information that reflect the particular concerns of their current stage of teacher development (Spodek, 1996).

Although research on teachers' beliefs has become of great interest it is still its "infancy" (Fang, 1996). To question whether or not teachers are able to implement classroom practices that are consistent with their beliefs is not enough. It is of far more concern to question *how* teachers can apply their beliefs within the boundaries and expectations imposed by federal and state mandates and the practical day-by-day classroom activities. Rather than "simply providing student teachers with more theories, educators must help student teachers understand how to cope with the complexities of classroom life and how to apply theory within the constraints imposed by those realities" (Fang, 1996, p. 59). Fang (1996) also stresses that teacher educators should make more of a conscious effort to help student teachers realize what theory, or combination of theories, is most effective in enhancing student learning. Teacher educators should then look for ways that will help them translate their beliefs into effective appropriate instructional practice, so that student outcomes are maximized. In addition, researchers and practitioners need to work together to move the field forward in its thinking about developmentally appropriate classroom practices in the elementary grades beyond kindergarten.

One major implication from this study is for future teacher education programs. Teacher training programs should address directly the beliefs of student teachers in training and not presume that education about developmentally appropriate practice will change beliefs if they are inappropriate. Even though education alone may not change beliefs, education is important. Teacher educators should support educational policies and hiring practices to ensure that teachers in the early elementary grades have a Bachelor's Degree or higher. Findings from Vartuli (1999) suggest that teacher educators must not only promote higher levels of education, but education specific to early childhood education.

The present study has contributed to the literature on early childhood teachers' beliefs and practices. First, the study confirmed that developmentally appropriate classroom practices are affected by education and experience. This finding is useful to teacher education programs because it can be assured that through education, novice teachers' beliefs can be influenced which then can influence their ability to carry their beliefs over into their practices, which ultimately will raise the level of quality of care and education that the children in their classrooms receive. Although teacher effectiveness cannot be defined by the consistency of beliefs and practices alone, when a teachers' appropriate beliefs are reflected in practice, higher quality is more stable over time.

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Appendix A

Student Characteristics Questionnaire

Student Characteristics Questionnaire
Spring 2006

1. Student ID Number: _____

   Course Number: _____

   Semester: _____

   Today's Date: _____ / _____ / _____
   (Month) (Date) (Year)

Check or fill in the blanks below to show which best describes you:

2. Ethnic background:
   ____ African American/Black
   ____ Asian or Pacific Islander
   ____ Caucasian
   ____ Latino/Hispanic
   ____ Mixed
   ____ Other: _____ (Please specify.)

3. What year were you born? _____

4. Gender:
   ____ Female
   ____ Male

5. Please mark the **HIGHEST** level of education that **YOUR MOTHER** has completed:
   ____ Less than high school
   ____ High school diploma or GED
   ____ Some college
   ____ AA degree
   ____ 4-year college degree
   ____ Some graduate school
   ____ Masters degree
   ____ Doctoral degree

6. Do you have children of your own?
   ____ No
   ____ Yes
   If yes, how many? _____

Experience

7. Have you worked with young children (ages birth through 5 years) in a formal program (family child care, center-based care, or public school)?
   ____ No (**Skip to question number 14.**)
   ____ Yes

8. How many years have you worked with children ages birth through 5 years? ____

9. Have you mainly worked full-time or part time?
   ____ Full-Time (35+ hours/week)
   ____ Part-Time (<35 hours/week)

10. What ages have you worked with? (Check all that apply.)
    ____ Infants/Toddlers
    ____ Preschool
    ____ Kindergarten

11. Have you mainly worked in? (Check one.)
    ____ Preschool (Nursery School, Head Start, etc.)
    ____ Day Care Center
    ____ Elementary School Setting
    ____ Family Child Care Setting
    ____ Some Other Setting

12. Have you worked with children who have disabilities?
    ____ No
    ____ Yes
    If yes, did you work in a(n)
    ____ inclusive setting that served both children with disabilities and children without diagnosed disabilities
    ____ self-contained classroom that served only children with diagnosed disabilities

13. Do you work directly with young children (ages birth through 5 years) now?
    ____ No
    ____ Yes
    If yes, how many hours per week? _____

14. Do you intend to work with children ages birth through 5 years when you graduate?
    ____ No (**Skip to question number 17.**)
    ____ Yes

15. **AFTER YOU GRADUATE,** where do you plan to work?
____ Child Care
____ Public School
____ Head Start
____ Early Intervention
____ Other setting working with children ages birth through 5 years

16. What age of children do you plan to work with **AFTER YOU GRADUATE**? (Check only one.)
____ Infants
____ Toddlers
____ Preschoolers
____ Kindergarteners

Education

17. Do you have an Associates Degree?
____ No (**Skip to Question number 20.**)
____ Yes

18. Is your Associates Degree in child development, early education or a similar field?
____ No
____ Yes

19. Are you a 2+ student at UNCG?
____ No
____ Yes

20. Do you intend to be a Birth Through Kindergarten (B-K) major at UNCG?
____ No (**STOP HERE – Do not complete questions 21 – 23.**)
____ Yes

21. Have you declared HDF as your major?
____ No
____ Yes
If yes, which option?
____ Birth Through Kindergarten (licensure)
____ Early Care and Education (non-licensure)
____ Child and Adolescence

22. Where are you taking B-K courses?
____ On campus at UNCG
____ At Wake Tech Community College

23. Have you been accepted by the Teachers Academy? (Have you passed the Praxis I, completed an application to the Teachers Academy, **AND** received a letter of acceptance to the Teachers Academy?)
____ No
____ Yes
____ Don't need to be accepted to the Teachers Academy for my major

Appendix B

Teacher Beliefs Scale

Student ID Number _____

Course Number _____

Semester _____

Date _____ / _____ / _____
(Month) (Date) (Year)

TEACHER BELIEFS SCALE

Please respond to the following items by circling the number that most nearly represents YOUR PERSONAL BELIEFS about the importance of that item in a preschool/kindergarten program. In the first column, rate your response for preschool programs. In the second column, indicate your response for kindergarten programs.

Use the following scale:

1	2	3	4	5
not important at all	not very important	fairly important	very important	extremely important

	Preschool	**Kindergarten**
1. As an evaluation technique in the preschool/ kindergarten program, standardized group tests are ____.	1 2 3 4 5	1 2 3 4 5
2. As an evaluation technique in the preschool/ kindergarten program, teacher observation is ____.	1 2 3 4 5	1 2 3 4 5
3. As an evaluation technique in the preschool/ kindergarten program, performance on worksheets and workbooks is ____.	1 2 3 4 5	1 2 3 4 5
4. It is ____ for preschool/kindergarten activities to be responsive to individual differences in interest.	1 2 3 4 5	1 2 3 4 5

1 not important at all	2 not very important	3 fairly important	4 very important	5 extremely important

		Preschool					Kindergarten				
5.	It is ____ for preschool/kindergarten activities to be responsive to individual differences in development.	1	2	3	4	5	1	2	3	4	5
6.	It is ____ that each curriculum area be taught as separate subjects at separate times.	1	2	3	4	5	1	2	3	4	5
7.	It is ____ for teacher-pupil interactions in preschool/kindergarten to help develop children's self-esteem and positive feelings toward learning.	1	2	3	4	5	1	2	3	4	5
8.	It is ____ for children to be allowed to select many of their own activities from a variety of learning areas that the teacher has prepared (blocks, centers, art, housekeeping, etc.).	1	2	3	4	5	1	2	3	4	5
9.	It is ____ for children to be allowed to cut their own shapes, perform their own steps in an experiment, and plan their own creative drama, art, and writing or scribbling activities.	1	2	3	4	5	1	2	3	4	5
10.	It is ____ for preschoolers/kindergartners to learn to work silently and alone on seatwork.	1	2	3	4	5	1	2	3	4	5
11.	It is ____ for preschoolers/kindergartners to learn through active exploration.	1	2	3	4	5	1	2	3	4	5
12.	It is ____ for preschoolers/kindergarteners to learn through interaction with other children.	1	2	3	4	5	1	2	3	4	5

1 not important at all	2 not very important	3 fairly important	4 very important	5 extremely important

	Preschool	**Kindergarten**
13. Workbooks and/or ditto sheets are ____ to the preschool/kindergarten program.	1 2 3 4 5	1 2 3 4 5
14. Routine group practice on shapes, numbers, letters, months and/or words, etc. using materials such as flashcards and charts is ____ to the preschool/kindergarten program for instructional purposes.	1 2 3 4 5	1 2 3 4 5
15. A structured reading or pre-reading program is ____ to the preschool/kindergarten program.	1 2 3 4 5	1 2 3 4 5
16. In terms of effectiveness, it is ____ for the teacher to talk to the whole group and make sure everyone participates in the same activity.	1 2 3 4 5	1 2 3 4 5
17. In terms of effectiveness, it is ____ for the teacher to move among groups and individuals, offering suggestions, asking questions, and facilitating children's involvement with materials and activities.	1 2 3 4 5	1 2 3 4 5
18. It is ____ for teachers to use their authority through treats, stickers, and/or stars to encourage appropriate behavior.	1 2 3 4 5	1 2 3 4 5
19. It is ____ for teachers to use their authority through punishments and/or reprimands to encourage appropriate behavior.	1 2 3 4 5	1 2 3 4 5

1 not important at all	2 not very important	3 fairly important	4 very important	5 extremely important

	Preschool	Kindergarten
20. It is ____ for children to be involved in establishing rules for the classroom.	1 2 3 4 5	1 2 3 4 5
21. It is ____ for children to be instructed in recognizing the single letters of the alphabet, isolated from words.	1 2 3 4 5	1 2 3 4 5
22. It is ____ for children to color within predefined lines.	1 2 3 4 5	1 2 3 4 5
23. It is ____ for children in preschool/ kindergarten to form letters correctly on a printed line.	1 2 3 4 5	1 2 3 4 5
24. It is ____ for children to have stories read to them individually and/or on a group basis.	1 2 3 4 5	1 2 3 4 5
25. It is ____ for children to dictate stories to the teacher.	1 2 3 4 5	1 2 3 4 5
26. It is ____ for children to see and use functional print (telephone book, magazines, etc.) and environmental print (cereal boxes, potato chip bags, etc.) in the preschool/kindergarten classroom.	1 2 3 4 5	1 2 3 4 5
27. It is ____ for children to participate in dramatic play.	1 2 3 4 5	1 2 3 4 5
28. It is ____ for children to talk informally with adults.	1 2 3 4 5	1 2 3 4 5

1 not important at all	2 not very important	3 fairly important	4 very important	5 extremely important

	Preschool	**Kindergarten**
29. It is ____ for children to experiment with writing by inventing their own spelling.	1 2 3 4 5	1 2 3 4 5
30. It is ____ to provide many opportunities to develop social skills with peers in the classroom.	1 2 3 4 5	1 2 3 4 5
31. It is ____ for preschoolers/kindergarteners to learn to read.	1 2 3 4 5	1 2 3 4 5
32. In the preschool/kindergarten program, it is _____ that math be integrated with all other curriculum areas.	1 2 3 4 5	1 2 3 4 5
33. In teaching health and safety, it is ____ to include a variety of activities throughout the school year.	1 2 3 4 5	1 2 3 4 5
34. In the classroom setting, it is ____ for the child to be exposed to multicultural and nonsexist activities.	1 2 3 4 5	1 2 3 4 5
35. It is ____ that outdoor time have planned activities.	1 2 3 4 5	1 2 3 4 5
36. Input from parents is ____.	1 2 3 4 5	1 2 3 4 5

Adapted from scales developed by Craig Hart, Diane Burts, Rosalind Charlesworth, Pam Fleege, Mark Ickes, and Maryann Durland, Louisiana State University. January, 1990.

Appendix C

Teacher Dispositions

TEACHER DISPOSITIONS

Please respond to the following items by circling the number that most nearly represents how you would rate your student teacher/intern on the following personal and professional qualities and behaviors.

1 failed to demonstrate	2 rarely demonstrated	3 occasionally demonstrated	4 usually demonstrated	5 consistently demonstrated	6 NA

1. A positive attitude	1	2	3	4	5	6
2. Enthusiasm and the willingness to take initiative	1	2	3	4	5	6
3. Responsiveness to the feelings and needs of others	1	2	3	4	5	6
4. Behaves in an ethical and professional way in regard to children, parents, and staff	1	2	3	4	5	6
5. Maintains composure in difficult situations	1	2	3	4	5	6
6. Seeks feedback and implements suggestions for improving instructional performance	1	2	3	4	5	6
7. Locates and utilizes opportunities for professional development	1	2	3	4	5	6
8. Recognizes and articulates personal strengths and skills	1	2	3	4	5	6
9. Progressively develops self-confidence based on realistic evaluation of skills	1	2	3	4	5	6
10. Becomes comfortable as a classroom teacher; constructively working through any feelings of discomfort, with assistance as needed	1	2	3	4	5	6
11. Openness	1	2	3	4	5	6
12. Flexibility/adaptability	1	2	3	4	5	6
13. Resourcefulness	1	2	3	4	5	6
14. Dependability	1	2	3	4	5	6

Appendix D

Classroom Assessment Scoring System

EMOTIONAL SUPPORT
Positive Climate
Reflects the overall emotional tone of the classroom and the connection between teachers and students. The warmth of the teacher's interactions with students and the teacher's display of enjoyment, enthusiasm, and respect of students during instruction as well as social conversations are included in this rating. Interactions among peers should be considered in this rating.
Negative Climate
Reflects the overall level of expressed negativity in the classroom. Teacher negativity (e.g., anger, sarcasm, irritability) as well as peer negativity (arguing, aggression, victimization, bullying) should be considered in this rating. The quality, severity, and intensity of expressed negativity is important to this rating.
Teacher Sensitivity
Encompasses the teacher's responsivity to students' needs and awareness of students' level of academic and emotional functioning. The extent to which the teacher is available as a secure base (allowing students to actively explore and learn and being there to provide comfort, reassurance, and encouragement) should be included in this rating.
Regard for Student Perspectives
This rating captures the degree to which the teacher's interactions with students and classroom activities place an emphasis on students' interests, motivations, and points of view. The teacher's flexibility within activities and ability to demonstrate respect for students' autonomy to participate in and initiate activities should be considered under this rating.
Behavior Management
Encompasses the teacher's ability to use effective methods to prevent and redirect misbehavior. Included in this rating is the extent to which clear expectations for students' behavior are evident. The amount of instructional time taken up by behavior management issues should be considered in this rating.

INSTRUCTIONAL SUPPORT
Productivity
This scale considers how well the teacher manages instructional time and routines so that students are learning and making progress. This scale is intended to capture the degree to which time is effectively managed and down time is minimized for students; it is not a code about the quality of instruction or activities.
Concept Development
Measures the strategies the teacher employs to promote students' higher order thinking skills and creativity through problem-solving, integration, and instructional discussions.
Instructional Learning Formats
Learning formats focuses on what the teacher does either during the lesson or in providing activities, centers, and materials to maximize students' engagement and ability to learn. The manner in which the teacher facilitates activities so that students have opportunities to experience, perceive, explore, and utilize materials should be considered. Considering students' engagement is important for this rating.
Quality of Feedback
Quality of feedback includes the teacher's provision of feedback that is focused on expanding learning and understanding (formative evaluation), not correctness or the end product (summative evaluation).
Language Modeling
Language Modeling is intended to capture the quality and amount of teachers' use of language stimulation and language-facilitation techniques during individual, small group, and large-group interactions with children. Components of high-quality language modeling include self and parallel talk, open-ended questions, repetition, expansion/extension, and use of advanced language.

STUDENT OUTCOME
Student Engagement
This scale is intended to capture the degree to which all students in the class are focused and participating in the learning activity presented or facilitated by the teacher. The difference between passive engagement and active engagement is of note in this rating.

CLASS	
Positive Climate	1 2 3 4 5 6 7
Negative Climate	1 2 3 4 5 6 7
Teacher Sensitivity	1 2 3 4 5 6 7
Regard for Student Perspective	1 2 3 4 5 6 7
Behavior Management	1 2 3 4 5 6 7
Productivity	1 2 3 4 5 6 7
Concept Development	1 2 3 4 5 6 7
Instructional Learning Formats	1 2 3 4 5 6 7
Quality of Feedback	1 2 3 4 5 6 7
Language Modeling	1 2 3 4 5 6 7
Children's Engagement	1 2 3 4 5 6 7

Appendix E

Teacher Characteristics Questionnaire

Teacher Characteristics Questionnaire
Spring 2006

Teacher Name: _____

School Name: _____

Today's Date: _____

Check or fill in the blanks below to show which best describes you:

1. Ethnic background:
   ___ African American/Black
   ___ Asian or Pacific Islander
   ___ Caucasian
   ___ Latino/Hispanic
   ___ Mixed
   ___ Other:_____(Please specify.)

2. What year were you born in? _____

3. Gender:
   ___ Female
   ___ Male

4. Please mark your HIGHEST level of education completed:
   ___ Less than high school
   ___ High school diploma or GED
   ___ Some college; major _____(Please specify.)
   ___ AA degree; major _____(Please specify.)
   ___ CDA
   ___ 4-year college degree; major _____(Please specify.)
   ___ Some graduate school; major _____(Please specify.)
   ___ Master's degree; major _____(Please specify.)
   ___ Doctoral degree; major _____(Please specify.)

5. Do you have your North Carolina Teacher Licensure?
   ___ No
   ___ Yes

6. How many years have you worked with children as a teacher? _____

7. What grade level do you currently teach?
___ Infants/Toddlers
___ Pre-K/Preschool
___ Kindergarten

8. How long have you been working with this grade level/age group?
___ Less than 1 year
___ 1 year
___ 2 years
___ 3 years
___ 4 years
___ 5 years
___ Over 5 years: _____ (Please specify.)

9. What other grade levels have you taught?
___ Childhood Education (Birth – Kindergarten) How many years? ____
___ 1st grade; how many years? _____
___ 2nd grade; how many years? _____
___ 3rd grade; how many years? _____
___ 4th grade; how many years? _____
___ 5th grade and above; how many years? _____

10. What kind of setting do you currently work in?
___ Preschool (Nursery School, Head Start, etc.)
___ Child Care Center
___ Public Elementary School Setting
___ Family Child Care Setting
___ Other Setting: _____(Please specify.)

11. Do you have experience working in different settings other than where you are currently working?
___ Preschool (Nursery School, Head Start, etc.)
___ Day Care Center
___ Elementary School Setting
___ Family Child care Setting
___ Public School Setting

12. Have you worked with children who have disabilities?

___ No

___ Yes

If yes, did you work in a(n)

___ inclusive setting that served both children with disabilities and children without diagnosed disabilities

___ self-contained classroom that served only children with diagnosed disabilities

Appendix F

Consent Forms and Letters

THE UNIVERSITY OF NORTH CAROLINA

GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: Student Teachers' Beliefs and Dispositions and their Relation to Observed Classroom Practices

Project Director: Tenisha L Tolbert
Dr. C. Chris Payne, Faculty Advisor

Participant's Name: _____

DESCRIPTION AND EXPLANATION OF PROCEDURES:
We are collecting information from UNCG students about their teaching, dispositions and beliefs about children and their classroom teaching practices. The purpose of this research is to examine if student teachers' beliefs about appropriate classroom practice are related to their observed classroom practice. We are collecting this information from Birth – Kindergarten (B-K) student teachers who were previously enrolled in HDF 460: Student Teaching Seminar (Spring 2005) and from students currently enrolled in HDF 460: Student Teaching Seminar (Fall 2005).

The Teacher Beliefs Questionnaire, the *Teacher Disposition Scale*, the *Exit Evaluation*, videotaped examples of your teaching and interactions with children and demographic information has already been collected from you during your student teaching: HDF 460 (Spring 2005) or is being collected this semester (Fall 2005). This information is collected as a requirement for the Department's NCATE accreditation process. However, we are also using this information in a dissertation research project being headed by Tenisha Tolbert in the HDFS Department. Your participation in the research we are doing is voluntary.

RISK AND BENEFITS:
There are no risks to participating in this study. Participation in this study does not require any additional time from you. You will benefit from the satisfaction of contributing to the improvement and maintenance of quality teacher education programs. In addition, your participation will benefit the society by improving the preparation of early childhood professionals which will positively impact the quality of early childhood classrooms.

CONFIDENTIALITY:
The information that is collected is strictly confidential. All material will be labeled with an unique ID number only, and this information will be kept in locked file cabinets at all times. The information will be used by our research staff only. Videotapes will only be seen by research project staff. The information you provide will not be shared, without your written permission, with anybody, including your family, an agency, or a hospital. Your name and individual information will not appear in any reports or articles about this study. Questionnaire and evaluation information obtained from this research will be retained for twenty years and then destroyed by shredder. Videotapes will be retained for 5 years and then destroyed by shredder.

The only exception to complete confidentiality is that we are required by law to report obvious signs of physical abuse or neglect and incidents of child abuse that we observe or that you might volunteer to report.

CONSENT:
We would appreciate your voluntary agreement to allow us to use the information from the *Teacher Beliefs Questionnaire*, the *Teacher Disposition Scale*, the *Exit Evaluation*, the videotapes, and the demographic information for research purposes. By signing this form you agree that you understand the procedures and any risks and benefits involved in this research. You can decide not to participate or can withdraw from the study at any time and it will not affect your relationship with the B-K program, with the persons conducting this research, or your grade in HDF 460: Student Teaching Seminar.

The research and this consent form have been approved by the University of North Carolina at Greensboro Institutional Review Board, which insures that research involving people follows federal regulations. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at (336) 256-1482. Questions regarding the research itself will be answered by Tenisha Tolbert by calling (336) 256-0456 or Dr. Chris Payne at (336) 256-1084. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

By signing this form, you are agreeing to participate in the project described above. Please send only one (1) signed form back in the enclosed postage paid envelope. The other form is an exact copy and can be kept for your personal records.

_____ _____

Participant's Signature Date

THE UNIVERSITY OF NORTH CAROLINA

GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: Student Teachers' Beliefs and Dispositions and their Relation to Observed Classroom Practices

Project Director: Tenisha L Tolbert
Dr. C. Chris Payne, Faculty Advisor

Participant's Name: _____

DESCRIPTION AND EXPLANATION OF PROCEDURES:
We are collecting information from cooperating teachers about their beliefs about children. The purpose of this research is to examine if student teachers' beliefs about appropriate classroom practice are related to their observed classroom practice and what is the influence of cooperating teacher beliefs on their student teachers' beliefs. We are collecting this information from UNCG Birth – Kindergarten (B-K) student teachers and their cooperating teachers.

The Teacher Beliefs Questionnaire and *The Teacher Characteristics Questionnaire* will be used in a dissertation research project conducted by the University of North Carolina – Greensboro headed by Tenisha Tolbert and directed by Dr. Chris Payne in the Human Development and Family Studies Department. Your participation in the research we are conducting is voluntary.

RISK AND BENEFITS:
There are no risks to participating in this study. Participation in this study will require you to complete both questionnaires which will approximately take a total of 10 – 15 minutes. You will benefit from the satisfaction of contributing to the improvement and maintenance of quality teacher education programs. In addition, your participation will benefit the society by improving the preparation of early childhood professionals which will positively impact the quality of early childhood classrooms.

CONFIDENTIALITY:
The information that is collected is strictly confidential. All material will be labeled with an unique ID number only, and this information will be kept in locked file cabinets at all times. The information will be used by our research staff only. The information you provide will not be shared, without your written permission, with anybody, including your family, an agency, or a hospital. Your name and individual information will not appear in any reports or articles about this study. Questionnaire and evaluation

information obtained from this research will be retained for twenty years and then destroyed by shredder. The only exception to complete confidentiality is that we are required by law to report obvious signs of physical abuse or neglect and incidents of child abuse that we observe or that you might volunteer to report.

CONSENT:
We would appreciate your voluntary agreement to allow us to use the information from the *Teacher Beliefs Questionnaire* and the *Teacher Characteristic Questionnaire* for research purposes. By signing this form you agree that you understand the procedures and any risks and benefits involved in this research. You can decide not to participate or can withdraw from the study at any time and it will not affect your relationship with the B-K program or with the persons conducting this research.

The research and this consent form have been approved by the University of North Carolina at Greensboro Institutional Review Board, which insures that research involving people follows federal regulations. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at (336) 256-1482. Questions regarding the research itself will be answered by Tenisha Tolbert by calling (336) 256-0456 or Dr. Chris Payne at (336) 217-9738. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

By signing this form, you are agreeing to participate in the project described above. Please send only one (1) signed form back in the enclosed postage paid envelope. The other form is an exact copy and can be kept for your personal records.

_____ _____

Participant's Signature Date

March 20, 2006

Dear Cooperating Teacher,

Please accept this letter as a personal invitation to participate in a study conducted by the University of North Carolina – Greensboro headed by Tenisha Tolbert and directed by Dr. Chris Payne in the Human Development and Family Studies Department. The purpose of this research is to examine student teachers' personal beliefs as well as their cooperating teachers' personal beliefs about children and developmentally appropriate practices in preschool and kindergarten classrooms.

Your participation is strictly voluntary and will only take approximately 10 - 15 minutes. However, your participation is very important because researchers have documented that in order to fully investigate student teachers' personal beliefs the cooperating teachers' personal beliefs must be examined as well due to their beliefs serving as a source of influence. Be assured that all information you provide on the questionnaires will be confidential and used only for the research purposes of this study. From this study, you will benefit from the satisfaction of contributing to the improvement and maintenance of quality teacher education programs. In addition, your participation will benefit the society by improving the preparation of early childhood professionals which will positively impact the quality of early childhood classrooms.

Please take a moment to read and sign the consent form and complete the *Teacher Beliefs Questionnaire* and the *Teacher Characteristic Questionnaire*. Please return all three forms (one signed copy of the consent form, the *Teacher Beliefs Questionnaire*, and the *Teacher Characteristic Questionnaire*) in the enclosed stamped envelope by Friday, March 31, 2006. Please feel free to contact me at (336) 256-0456 if you have any questions or concerns regarding this study.

Thank you,

Tenisha L. Tolbert, M.S.
The University of North Carolina - Greensboro