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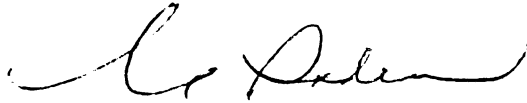
CHILDREN'S SOCIAL COMPETENCE AND THE
DEVELOPMENTAL APPROPRIATENESS OF THEIR
CLASSROOM ENVIRONMENT

presented by

Erica Celeste Poindexter

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**CHILDREN'S SOCIAL COMPETENCE AND THE DEVELOPMENTAL
APPROPRIATENESS OF THEIR CLASSROOM ENVIRONMENT**

By

Erica Celeste Poindexter

**Submitted to
Michigan State University
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Professor Anne K. Soderman

ABSTRACT

CHILDREN'S SOCIAL COMPETENCE AND THE DEVELOPMENTAL APPROPRIATENESS OF THEIR CLASSROOM ENVIRONMENT

By

Erica Celeste Poindexter

The purpose of this study was to investigate the relationship between teachers' developmentally appropriate practices observed in kindergarten classrooms and children's social competency skills. Using the *Assessment of Practices in Early Elementary Classrooms (APEEC)* and the *Pre-K/Kindergarten Social Competency Scale (PK/K-S)*, this study examined the influences of teachers' physical environment, instructional context, and social context on children's levels of social competence. One hundred and sixty-six kindergarten children and 11 kindergarten teachers in an urban, Midwest school district participated in this study. As would be expected, a paired t-test indicated a positive change in children's social competency skills over the course of the academic school year. A multiple regression analysis showed a significant relationship between children's social competency scores in November and teachers' scores on the APEEC. However, a second analysis indicated there were no statistically significant relationships between children's social competence and teachers' scores on the APEEC in May. It is believed that teachers' problematic scoring of the PK/K-S may have contributed to this non-significant relationship. Implications for future studies strongly persuade researchers to have more than one observer complete the PK/K-S. It is also suggested that additional demographic information for each child's SES status, temperamental style, and disability level be collected in order to help identify which individual characteristics may be related to social competence.

To all of the people who believed in me and never lost faith that I would achieve success.

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Shawn, thanks for never giving up on me, and never letting me give up on myself. Your harsh but loving taste of reality was exactly what I needed to stay focused.

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CHAPTER I

INTRODUCTION

Social competence is an evaluative term defined as *the ability to function effectively in society appropriate to your age* (Kostelnik, Soderman, & Whiren, 2004). More specifically, it refers to the overall quality and adequacy of the behavior one displays in his or her interactions with others. This term reflects the judgments people make about behavior, especially in regard to teacher expectations, peer acceptance, social-emotional regulation, and communication (Landy, 2002). In order to achieve social competence, one must possess the skills that meet the demands of the people with whom he or she interacts with on a daily basis. (Knapczyk & Rodes, 1996; McFall, 1982). It is the development of these skills that have been linked to children's levels of happiness, success, popularity, and satisfaction. It is also stated that children who learn to develop these positive social relations have more positive social relationships, which in turn allows them to achieve greater school success (Pellegrini & Glickman, 1990; Berndt & Keefe, 1995; Kostelnik et al., 2002).

In the classroom environment, caregivers and teachers are thought to impact children's social competence in a variety of ways. Examples include: how they instruct children; how they model social behaviors and attitudes; how they plan the physical environment; how they formulate routines; and how they discipline children (Kostelnik et al., 2002). In fact, the way in which these strategies are implemented could result in a social learning environment that enhances or inhibits children's developing attitudes and behaviors associated with social competence (Kostelnik et al., 2002). More specifically,

it can be concluded that the developmental appropriateness of the environment is extremely important in relation to enhancing children's social competence.

The term "developmentally appropriate practice" or DAP refers to the decisions made about the well-being and education of young children on the basis of three important sources of knowledge (Bredekamp & Copple, 1997; Kostelnik, Soderman, & Whiren, 2004): what teachers know about how children develop and learn; what teachers know about the strengths, needs, and interests of individual children; and what they know about the social and cultural contexts in which children live. According to the National Association for the Education of Young Children (NAEYC), there are certain distinct attributes that can be found in all developmentally appropriate programs. For example, all DAP programs provide "a safe and nurturing environment that promotes the physical, social, emotional, aesthetic, intellectual, and language development of each child while being sensitive to the needs and preferences of families" (Bredekamp & Copple, 1997, p.8). Furthermore, all DAP programs are based on the notion that children learn by actively constructing their own knowledge through interacting with peers, adults, and materials, with educational decisions being guided by questions relating to age, individual, social, and cultural experiences (Jones & Gullo, 1999). In fact, the core idea behind DAP is that "the child is the basic unit of the curriculum" (Jambunathan, Burts, & Pierce, 1999, p. 167). Incorporating these developmental guidelines into the teaching practices used in elementary classrooms were found to lead to fewer negative social behaviors, better problem solving skills, and more cooperation in children than those enrolled in a more traditional classroom (Kostelnik, Soderman, & Whiren, 2004).

The Purpose of the Study

The purpose of this study is to investigate the relationship that exists between teachers' developmentally appropriate practices observed in kindergarten classrooms and children's social competency skills. More specifically, this study will determine if certain aspects of the classroom, including the physical environment, instructional context, and social context relate to children's social competency.

Significance of Study

The term DAP, adopted by NAEYC (Bredekamp & Copple, 1997), was specifically designed to raise the quality of curriculum and program practices for all young children (Raines & Johnson, 2003). Particularly, it was designed to ensure that the child was the basic unit of the curriculum (Jambunathan, Burts, & Pierce, 1999). All aspects of the program were to revolve around the physical, social, emotional, and intellectual needs of the child, while also ensuring that the child was in a safe and organized environment (Bredekamp & Copple, 1997).

Several studies were designed to assess the effects associated with DAP. Specifically, studies pertaining to the developmental appropriateness of kindergarten teachers' beliefs and practices and those examining the social and academic effects of DAP have concluded that curricular approaches that incorporate developmentally appropriate practices have led to positive educational outcomes (Jones & Gullo, 1999; Charlesworth, Hart, Burts, & Hernandez, 1991; Charlesworth, Hart, Burts, Thomasson, Mosley, & Fleege, 1993; Burts, Hart, Charlesworth, DeWolf, Ray, Mael, & Fleege, 1993; Marcon, 1992; Sherman & Mueller, 1996). In terms of gender and ethnicity, studies have shown that DAP has been shown to have positive effects on academic and behavioral outcomes, as well as alleviating stress-related behaviors of lower

socioeconomic, non-mainstream, non-European, and male students (Hart, Burts, Durland, Charlesworth, DeWolf, & Fleege, 1998; Bloch, 1992; Cannella, 1997; Fowell & Lawton, 1992; Jipson, 1991; Kessler, 1991a, 1991b; Kessler & Swadener, 1992; Lubeck, 1994; Ludlow & Berkeley, 1994; O'Loughlin, 1992; Walsh, 1991).

Despite all of the reports stating the positive effects related to DAP, much work still remains in order to increase the implementation of DAP and advocate the importance of it in relation to the development of young children. In fact, developmentally appropriate practices are still *not* the norm in early childhood education programs (Dunn & Kontos, 1997; Raines & Johnson, 2003). Since it is unclear why the majority of early childhood programs are not implementing DAP, one of the intentions of this study is to further examine the usefulness of DAP. In addition to determining its importance, this study is also designed to add to the literature available regarding the relationship that exists between developmentally appropriate practices used in kindergarten classrooms and children's social competence.

Much research exists linking DAP with socioemotional and cognitive development; however, fewer studies exist that examine the relationship between DAP and social development. Based on this information and the scarcity of research found pertaining to this issue, there is a great need to further study the outcomes that developmentally appropriate practices has on the development of young children, especially in regards to social competence.

Conceptual Framework

Human ecology theory was chosen as an appropriate framework for analyzing the relationship that exists between kindergarten children's level of social competence and the developmental appropriateness of their classroom environment. The basis of human ecology theory suggests that the quality of one's life depends mainly on the interaction and interdependence that humans have with their environment (Bubolz & Sontag, 1993). Several characteristics that help to describe the quality of one's life include but are not limited to: safety, support, aesthetics, and satisfaction (Bubolz & Sontag, 1993). Of interest in this study was the developmental appropriateness of the classroom context and its relationship to kindergarteners' developing social competence.

In human ecology theory, the well-being of individuals cannot be considered apart from the well-being of the whole ecosystem (Bulboz & Sontag, 1993). In other words, one must closely examine the surrounding environments in which the individual interacts, in order to identify their existing relationships. More specifically, to gain a better understanding of behavior and development in relation to one's environment, an ecological analysis should be conducted based on Bronfenbrenner's four interdependent organizational systems (1979; 1989; Griffore & Phenice, 2001). These systems include, the microsystem, the mesosystem, the exosystem, and the macrosystem. For the purposes of this study, the microsystem of the classroom was chosen as the unit of analysis, consisting of a pattern of activities, roles, and interpersonal relations experienced by the developing persons (in this study, the children and the teachers) in a given setting (in this study, the classroom) with particular physical, instructional, and material characteristics,

that may limit or promote development (in this study, social competence) (Bronfenbrenner, 1993; Thomas, 2000).

Evidence shows that children are significantly influenced by the microsystem in which they live, especially in terms of social competence (Kostelnik, et al. 2002). The family unit, which is the primary system in which children interact, provides them with their earliest social relationships that prepare them for the social world. It is the settings located in the microsystems beyond the home, that peers, relatives, caregivers and teachers provide additional opportunities for social learning (Kostelnik et al. 2002). In fact, a significant amount of social learning occurs at school, where children interact with peers of the same age. Through peer relationships, children learn concepts of reciprocity and equity; consequences of their behavior for both themselves and others; the appropriateness of their actions; and how to modify their behavior according to the feedback they receive from their peers. Teachers also have a crucial role in promoting children's social competence (Clarke-Stewart, Gruber, & Fitzgerald, 1994; Kostelnik et al., 2002). Strategies related to how they instruct, formulate routines, discipline, plan the physical environment, and model social behaviors and attitudes, either enhance or inhibit children's developing attitudes and behaviors associated with social competence (Kostelnik et al., 2002).

Based on this theoretical framework, a conceptual model was designed to show the ecological development of social competency based on the interactions that the children have within their microsystems. Figure 1 illustrates the broad range of biological and environmental influences that contribute to the development of children's social competence. Figure 2, on the other hand, illustrates the conceptual model of the

actual influences of social competence that were examined in this study. This figure looks specifically at how the teacher and classroom environment influences children's social competence.

Figure 1: The Ecology of Social Competence

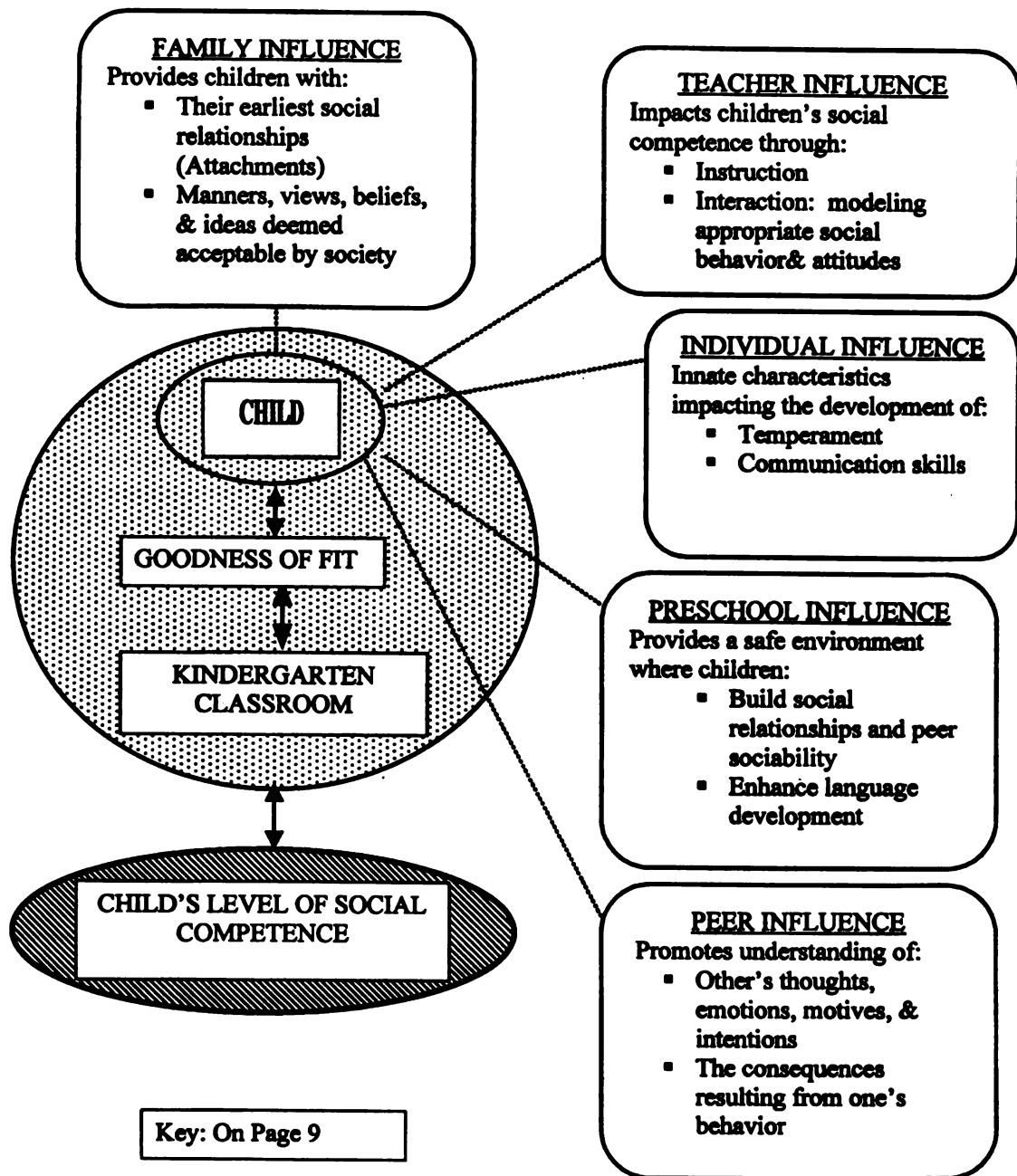
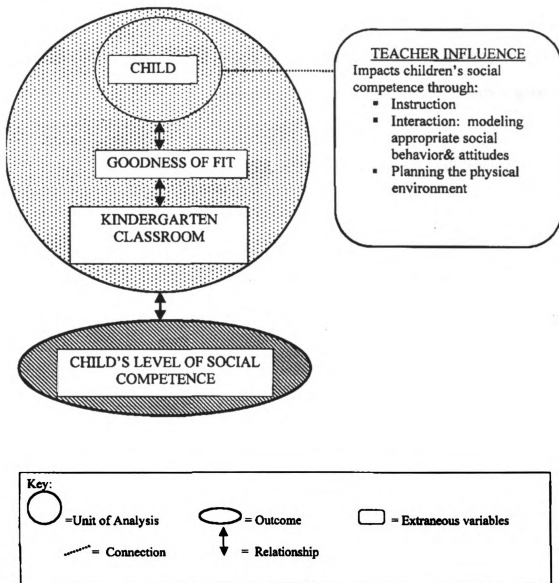


Figure 2: The Ecology of Social Competence As It Applies To This Study



Research Questions

This study will address the following research questions:

Research Question 1: Do teacher ratings of children's social competence vary depending on demographic variables, such as gender and ethnicity?

Research Question 2: Do children's social competency skills change over the course of the school year?

Research Question 3: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's physical environment scores obtained on the *Assessment of Practices in Early Elementary Classrooms* (APEEC)?

Research Question 4: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's instructional context scores obtained on the APEEC?

Research Question 5: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's social context scores obtained on the APEEC?

Research Question 6: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's total score obtained on the APEEC?

Conceptual and Operational Definitions

Social competence. Generally, social competence can be defined as the ability to function effectively in society appropriate to your age (Kostelnik, Soderman, & Whiren, 2004). However, definitions of social competence tend to vary from one society to another. In the United States, children who are socially competent are viewed as being responsible, independent, friendly, cooperative, purposeful, and self-controlled (Baumrind, 1995; Kostlenik, et al. 2002). Based on these characteristics, this study conceptually defines children's social competence as the overall quality and adequacy of the behavior one displays in his or her interactions in regards to teacher expectations, peer acceptance, social-emotional regulation, and communication (Landy, 2002; Knapczyk & Rodes, 1996).

For this study, social competence is operationally defined as teacher ratings of children's social competency skills as scored on the *Pre-K/Kindergarten Social Competency Scale* (PK/K-S) (Soderman, 2002).

Developmental appropriateness of the classroom environment. The developmental appropriateness of the classroom environment is conceptually defined by the National Association for the Education of Young Children (NAEYC) as an environment in which teachers recognize the importance of, and integrate the following practices into their classroom: (1) knowledge about children and how they develop and learn, (2) knowledge about individual children in their group, (3) knowledge about the social and cultural context in which children live and learn, and (4) knowledge about curriculum planning, recognizing that the curriculum should be integrated, including knowledge and skills from all domains of development (Bredekamp and Copple, 1997).

For this study, developmental appropriateness of the children's classroom environment is operationally defined as an observational rating of kindergarten teacher's performance as scored on the *Assessment of Practices in Early Elementary Classrooms* (APEEC) (Hemmeter et al., 2001). The scales used in the APEEC were categorized according to: physical environment, instructional context, and social context.

Assumptions

The assumptions on which this study is based are:

1. The scores given by the teachers on the PK/K-S are valid.
2. The scores received on the PK/K-S will vary by gender and ethnicity.
3. The scores given by the observers on the APEEC are valid.
4. Children come to school with varying skills of social competence.
5. Teachers have different perceptions of a developmentally appropriate classroom.
6. The Pre-K/K-S measures social competence.
7. Children's interactions outside of the classroom also contribute to their level of social competence.
8. Throughout the course of the school year, children's social competency scores can change both positively and negatively.

Summary

This study was designed to analyze the relationship that exists between children's social competence in November and May and the developmental appropriateness of their classroom environment. The human ecological theory used as the conceptual framework for this study proposes that in order to understand children's behavior and development, children must be examined within the environment in which they interact. Based on this

framework, a conceptual model was designed to illustrate the influences within children's classroom environments that contributes to their level of social competence. More specifically, the model that applies to this study examined how children's interactions with their teacher and their classroom environment influenced their development of social competence.

The following chapter includes a literature review of related research. Information pertaining to the methodology is located in Chapter III. The results of this study will be presented in Chapter IV and discussions and implications for practice and for future research will be presented in Chapter V.

CHAPTER II

LITERATURE REVIEW

Social Competence

The goal of this research is to determine how social competency relates to the developmental appropriateness of the classroom environment. Social competence is an evaluative term defined as the ability to function effectively in society appropriate to your age (Kostelnik, Soderman, & Whiren, 2004). This term reflects the judgments people make about behavior, especially in regards to teacher expectations, peer acceptance, social-emotional regulation, and communication (Landy, 2002). Other behaviors associated with social competence include: adopting social values, developing a sense of personal identity, acquiring interpersonal skills, learning how to regulate personal behavior in accordance with societal expectations, planning and making decisions, and developing cultural competence (Kostelnik, et al. 2002). Past research has concluded that social competence is an important asset capable of successfully facilitating a child's adjustment to school (Bates, Luster, & Vandenberg, 2003). However, as additional research will show, a child's success rate also depends heavily on the existence and quality of environmental factors such as peers, family, and teacher influences. Other individual characteristics that children possess also contribute to their level of competence. Research specifically targets biological factors such as temperament, communication skills, and the status of one's health, as potential genetic influences.

Influences of Social Competence

Peer Influences. One influence that helps to determine a children's level of social competence is the relationship they have with their peers. The more children interact

with others of the same age group at school, the more social learning occurs (Kostelnik et al. 2002). Through peer relationships, children learn concepts of reciprocity and equity; conflict resolution and problem solving; an understanding of other's thoughts, emotions, motives, and intentions; and an evaluation of the appropriateness of their actions (Kostelnik et al., 2002; Santrock, 2000a). In fact, there is a general consensus in the literature that making friends, keeping friends, and being friends with others are important indices of social competence during childhood (Vaughn, Colvin, Azria, Caya, & Krzysik, 2001; Berndt, 1989, 1996; Bukowski, Newcomb & Hartup, 1996; Hartup, 1996a; Hartup & Stevens, 1997; Parker & Asher, 1993; Parker, Rubin, Price, & DeRosier, 1995; Vaughn, Azria, Krzysik, Caya, Bost, Newell, & Kazura, 2000). Furthermore, interactions with friends tend to be associated with social competence in ways that interactions with non-friend acquaintances are not (Vaughn et al. 2001; Azmitia & Montgomery, 1993; Hartup, 1996b; Ladd & Kochenderfer, 1996; Newcomb & Bagwell, 1995, 1996). Research shows that children who lack friends and acceptance by peers are less likely to experience social success, and adjust well to school (Kostelnik et al., 2002; Ladd & Kochenderfer, 1996). Studies have found that kindergarteners whom their peers victimized, or who were aggressive toward others, had more school-adjustment problems, including school difficulties, delinquency, and drug abuse. On the other hand, children who entered school with friends, who were well liked, and who were able to make and sustain new friendships, were noted as being able to initiate positive relationships with teachers. These children tend to feel more positive about school, participate in school more, and have higher achievements than children not as friendly or able to establish friendships (Denham et al. 2003; Gagnon, Craig, Tremblay, Zhou &

Vitaro, 1995; Haapasalo & Tremblay, 1994; Ladd & Kochenderfer, 1996; Tremblay, Pagani-Kurtz, Masse, Vitaro, & Pihl, 1995). Overall, studies find that children who are able to establish positive peer relationships are more likely to be successful in school and in other aspects of life (Kostelnik et al., 2002; Birch & Ladd, 1996; Kontos & Wilcox-Herzog, 1997).

Family Influences. The primary function of a family, no matter the type, is to be responsible for providing children with physical needs, nurturance, and skills for socialization (Kostelnik et al., 2002; Goldsmith, 1999). As children's first teachers, families provide children with their earliest social relationships, models for behaviors and roles, a framework for values and beliefs, and intellectual stimulation (Kostelnik et al., 2002; Bobbitt & Paolucci, 1986). They also introduce children to environments outside of the home, like school. Essentially, it is the continued interactions that the family has with these environments (i.e. school) that make the difference in children's development.

In a study conducted by Taylor and Machida (1994), studying the contributions of parent involvement in Head Start children's school adjustment, findings showed that supportive personal relationships between children and their parents helped children better adapt to the school environment. Another study found that family support was a predictor of children's teacher-rated competencies and that gains over time in family support were predictive of improved behavioral adjustment in school (Taylor & Machida, 1994; Dubow, Tisak, Causey, Hyroshko, & Reid, 1991). Reynolds' (1989; Taylor & Machida, 1994) also concluded that teacher-rated parental involvement in school was predictive of early academic achievement and social maturity in low-income and at-risk

children. Overall, it was established that parent involvement has a significant impact on children's social and emotional development.

Teacher Influences. Teacher influences are described as affecting children's social competence in a variety of ways. The strategies that teachers use to instruct, model social behaviors, plan, and discipline, all help either to enhance or restrain children's developing attitudes and behaviors associated with social competence (Kostelnik et al., 2002). For example, in classrooms described as having a positive and child-centered social atmosphere, children displayed increased problem-solving skills, more cooperation, and less stress in comparison to children in strict, teacher-directed classrooms (Kostelnik, et al. 2002; Burts et al., 1992; Dunn & Kontos, 1997). Children in child-centered classrooms also tended to have more positive teacher relationships. Children who are able to establish these positive teacher-child relationships are noted as being more sociable, engaging in more complex play, and behaving more flexibly than children who have negative or detached relationships with their teachers (Kostelnik, et al. 2002; Elicker & Fortner-Wood, 1997).

There are certain characteristics associated with teachers and their relationships with children that have been linked to the development of the child outcomes stated above. Some of these characteristics include the sensitivity of teacher's interactions; dimensions of warmth/security/, anger/dependence, and anxiety/security; and dimensions of closeness, dependency, and conflict (Birch & Ladd, 1997). A study conducted by Birch and Ladd (1997) determined the levels of significance that existed between closeness, dependency, and conflict, in teacher-child relationships. Closeness, which encompassed a degree of warmth and open communication between the teacher and

child, was found to significantly support children in the school environment. Teacher's warmth was associated with children's positive behaviors and attitudes towards school, and open communication with the classroom teacher encouraged children to become involved and engaged in school. The degree of dependency or clinginess that children displayed towards the teacher, contrasted with closeness, and resulted in the children being less tentative in their explorations of their school environment and in their social interactions. Last, conflictual teacher-child relationships, which was characterized by discordant interactions and a lack of rapport between the teacher and the child, was found to foster feelings of anger and anxiety in children, often leading children to feelings of alienation, loneliness, and negative attitudes toward school. (Birch & Ladd, 1997)

Temperament. In addition to the biological influences mentioned above, research also finds genetic influences to be contributing factors in the development of children's social competence. Temperament, which is often described as the "core" of one's personality, is an inborn set of brain systems that regulates emotional intensity, reactivity, and attentional focus (Evangelista, 2002; Teglasi, 1997; and Rothbart & Jones, 1998). In general, this term is used to describe differences in children or in their behavioral styles (Landy, 2002; Chess & Thomas, 1996). According to Thomas and Chess (1977) there are three major types of temperamental styles associated with children. (1) The difficult child is described as having irregular and unpredictable routines; intense reactions; and often displays a lot of negative moods. (2) The easy child has a regular and predictable routine; readily approaches new things; shows a mild degree of reaction; and exhibits positive moods. (3) The slow-to-warm-up or shy child usually withdraws in new situations; has a low activity level; and also displays a lot of negative moods. It has been

found that once children display one of these styles, the characteristics associated with them usually remain stable over time. With this in mind, Thomas and Chess (1977) have coined the term, “goodness of fit.” This term is used to emphasize the importance of the relationship between the child’s temperament and elements of his or her environment. Because friction can arise between a child’s temperamental style and the values and personality of his or her parent or caregiver, it is important that a “good fit” exists. In fact, it is the “goodness of fit” that exists between the child’s temperament and his or her environment that is an important determinant in the child’s developmental outcomes (Landy, 2002).

Goodness of Fit. The “goodness of fit” model examines the relationship between the individual characteristics of the child, such as capacities and styles of behavior with the expectations and demands of the environment. It is the congruence between these expectations and child characteristics that determine the fit of the child to the environment. This fit is ultimately associated with the development of social competence (De Schipper, Tavecchio, Van Ijzendoorn, & Van Zeijl, 2004).

In terms of teacher-child relationships, the “goodness of fit” is determined by how well the teacher is able to adapt his or her expectations and teaching styles to fit the needs and temperament of the child. In the APEEC used in this study, this was addressed in question 13, which addressed if teacher’s expectations of children’s behaviors were appropriate for their age and abilities. Research has found that accommodating the child’s needs usually results in positive adaptive outcomes (Churchill, 2003). In a study focusing on middle schoolers’ temperaments and their teachers’ expectations in the classroom, researchers found that the fit between the child and the teacher related to

teacher ratings of competence, as well as standardized tests of achievement (Churchill, 2003; Lerner & Lerner, 1983; Lerner, Lerner, & Zabski, 1985; Talwar, Nitz, & Lerner, 1990). In another study examining the goodness of fit between Head Start teachers and preschool children, results concluded that the “fit” significantly related to children’s social development. More importantly, both child cognition and social outcomes were found to be the result of the “goodness of fit” between teacher and child (Churchill, 2003).

Individual Influences. In addition to children’s temperamental styles, there are other individual characteristics that influence children’s social development. Two influences include having developmental delays or disorders and the child’s ability to communicate. For example, children who are identified as having developmental delays require intervention services to help them function within the domains of cognition, communication, physical development, psychosocial development, or adaptive or self-care. Children with developmental delays in one of the above domains often lag behind the norms associated with their chronological age. Although there are many reasons that children may have developmental delays, including health factors (i.e. complications resulting from a premature birth), mental retardation, and abuse (i.e. physical), studies have reported that 75 percent of these children have lower social competences or social status, regardless of the cause of their delay (Waterman, 2002; Moisan, 1998). Reviewed research by Swanson (1996) and Swanson & Malone (1992) found children with learning disabilities to be more socially rejected than their non-disabled peers. These children also engaged in or were recipients of more hostile interactions. Children with learning problems showed weaker empathy, had poor conflict resolutions skills, frequently

misinterpreted nonverbal messages, and were less tactful (Waterman, 2002; Swanson & Malone, 1992). Ultimately, students with learning disabilities, in comparison to students without disabilities, were found to engage in fewer social activities, were less skilled problem solvers, and showed lower levels of social competence.

In terms of communication, the use of language is thought to be the root of social development (Goody, 1997). According to Goody (1997), effective language is essential in the development of social intelligence. Any problems in language processing are expected to interfere with one's social performance. Research relating to language development found that about 50-80 percent of children with language-based disabilities exhibited poorer social, personal, and behavioral adjustments (Waterman, 2002; Bender & Smith, 1990; Bryan et al., 1998; Crick & Dodge, 1994; Cummings, Vallance, & Brazil, 1992; Schacter, Pless, & Bruck, 1991; Vallance, Cummings, & Humphries, 1998). More specifically, research findings suggest that impairments in the ability to effectively communicate thoughts and needs, along with the tendency to misinterpret the messages of others, significantly contributes to the development of poor social skills and problem behaviors (Waterman, 2002; Vallance, Cummings, & Humphries, 1998).

Demographic differences. Although there are numerous influencing factors that contribute to children's development of social competence, there are two predetermined elements that are noted to have a significant effect on children's social development. These elements consist of children's ethnicity and gender. In a study of teacher and parent assessments of social competence in inner-city children, Cartledge, Adedapo, & Johnson (1998), found that teachers consistently perceived young female students to have more social skills, and fewer behavior problems than male students. This is not

unexpected because these findings were consistent with the findings of other studies reporting females as being more socially competent than males (Cartledge, Adedapo, & Johnson, 1998; Gresham & Elliott, 1990; Walker, 1983). Most research in this area repeatedly shows males to be more physically aggressive and combative, in comparison to females (Cartledge, Adedapo, & Johnson, 1998; Cartledge & Milburn, 1996). In fact, the only social skill in which teacher's perceptions did not show a significant gender difference was assertion, which includes behaviors such as initiating interactions with others and dealing with issues of being treated fairly (Cartledge, Adedapo, & Johnson, 1998).

In relation to ethnicity, there is little research available on the effects that race has on the assessment of children's behaviors. A study by Feng and Cartledge (1996) found that although there were no perceived differences between African American and Caucasian children in social skills, teachers did rate African American children as exhibiting more externalizing behaviors than their non-Black peers. Keller (1988) found that teachers also gave lower adjustment ratings to African American students. Furthermore, it has been documented that African American males are disproportionately singled out in school for disciplinary action by educators and are more likely to receive more punishing consequences and pathological labels than Caucasians (Council for Exceptional Children, 1994). With this aside, researchers attribute African American's urban environment as having a significant influence on their social performance. As a solution, they dictate that the most salient social needs for African American males are alternatives to aggression, like more effective conflict-management skills (Cartledge,

Adedapo, & Johnson, 1998; Cartledge & Milburn, 1995; Hammond & Yung, 1993; Prothrow-Stith, 1991).

Developmentally Appropriate Practice (DAP)

The National Association for the Education of Young Children has done an enormous amount of research on the developmental needs of young children. Their policy statement for educating children from birth through age eight emphasizes the interrelationship of the physical, emotional, social, and cognitive domains of development (Bredekamp & Copple, 1997). In order to provide the best educational setting for young children, teachers are encouraged to abide by the following program guidelines directing them to: (a) recognize variations in development among children, (b) provide opportunities for active learning by allowing children to choose and plan their own activities, and (c) build social relationships between children through small group activities (Evangelista, 2002). These guidelines are designed to educate the whole child. Following these guidelines ensures that each child is acknowledged as an individual based on his or her physical, social/emotional, and intellectual growth and development, and that methods for academic learning are planned accordingly. Furthermore, DAP supports child-initiated and hands on activities, with teacher-directed instruction primarily occurring in response to an individual child's needs. Most teacher-directed instructions should occur in short interactions between the teacher and individual child or in very brief interactive whole group activities (Moyer, 2004). DAP discourages teaching methods that are entirely whole group or which relies on pencil and paper seatwork as opposed to hands-on, active learning.

The Need For DAP. Due to a variety of reasons such as societal pressure, misunderstandings about how children learn, aggressive marketing of commercial materials, shortages of teachers specifically prepared to work with young children, and the reassignment of trained teachers in areas of declining enrollment, many kindergarten classrooms are now making a change for the worse (Moyer, 2004). According to present research, more kindergartens are adopting commercially prepared curricula, which are often extensions of the textbook series currently being used in early elementary grades (Stipek, Feiler, Daniels, & Milburn, 1995; Durkin, 1987; Educational Research Service, 1986; Shepard & Smith, 1988). Studies show more kindergarten classes are reporting to be whole-class or teacher-directed. Generally, this means teachers are using more formal reading instruction, written assignments, and frequent grading as a means of teaching and assessing their students (Stipek, Feiler, Daniels, & Milburn, 1995; Bryant, Clifford, & Peisner, 1991; Durkin, 1987; Hiebert, 1988; Spodek, 1982). Adoptions such as these are often thought to ensure the continuity of learning through elementary school. Instead, this change of curriculum is academically pushing our children further than they may developmentally be ready to go. As a result, pushing children into academic areas too soon has a negative affect on learning (Elkind 1996; Moyer, 2004). Many refer to this practice as the “miseducation” of young children (Moyer, 2004).

Despite societal changes and what research shows, “kindergarten remains a place where children need a quality program in order to achieve their full potential” (Moyer, 2004, p.82). To reflect this, the kindergarten program should be of high quality and serve as a strong foundation upon which children build skills, knowledge, and attitudes towards school and lifelong learning. Based on this information, making a positive change in the

kindergarten environment is a major issue that needs to be addressed. In relation to the standards of the NAEYC and The Association for Childhood Education International, changes should be made based on three major areas: physical environment, instructional context, and social context (Bredekamp & Copple, 1997; 1987).

Components of DAP

Physical Environment. According to Bronfenbrenner (1979, p.845), a child's development is enhanced in an environment where children can observe and participate in "ongoing patterns of progressively more complex activity" and are guided by persons "with which the child had developed a positive emotional relationship." This environment should make the children feel safe and secure. To ensure that optimal learning occurs, children should have, "opportunity, resources, and encouragement to engage in the activities" on their own (Bronfenbrenner, 1979, p.845). Joan Moyer (2004, p. 82) comments, "kindergarten children are active, curious learners who need adequate space, a variety of materials, and large blocks of times in which to try out their ideas." To facilitate learning, teachers should arrange their classroom based on the children's interest, level of interaction and involvement, developmental stage, skill development, and overall attitude towards school and learning (Moyer, 2004). The physical environment of the room should be set up to accommodate various teaching styles (i.e. large group, small group, and individual learning activities), facilitate movement, and display learning materials. To provide children with the best opportunity for learning, these materials should be changed and combined to increase levels of complexity to help children become more self-directed and involved.

Instructional Context. Educators and developmental psychologist have debated for many years over the effects that different instructional approaches have on young children's learning and social development. As discussed earlier, many kindergarten classrooms are currently conforming to the teaching styles of elementary classrooms, which use teacher-directed activities, textbooks, and worksheets to educate young children. Based on NAEYC's national standards, this form of teaching is inappropriate and unacceptable. Instead of using whole group methods, kindergarten teachers are encouraged to provide children with a variety of activities and materials to promote and encourage "hands-on" activities, communication, and problem-solving skills (Bredekamp & Copple, 1997). Children should be given an opportunity to work in various settings, consisting of whole-group instruction (i.e. circle time), small groups, and chances to work independently at learning centers suited to the children's wide range of skills, interests, and needs.

Recent studies focusing on the social-emotional effects of didactic teaching environments compared to child-initiated or DAP environments found that preschool children enrolled in the child-initiated programs display lower levels of test anxiety than children enrolled in the academic program (Hyson, Hirsh-Pasek, & Rescorla, 1990). Children in inappropriate, academically based programs exhibited more total stress behaviors through the day and more stress behaviors during group times and workbook/worksheet activities than children in child-initiated programs (Burts, Hart, Charlesworth, & Kirk, 1990).

In terms of cognition or academic achievement, children in child-initiated programs scored higher on measures of creativity, or divergent thinking, in comparison to

children in academically based programs (Dunn & Konots, 1997; Hyson, Hirsh-Pasek, & Rescorla, 1990). Children in DAP classrooms also had better outcomes in language development. They were reported to have better verbal and receptive language skills than children in academically based programs (Dunn & Kontos, 1997; Marcon, 1992).

Social Context. Finally, early childhood teachers need to understand the influence of social cultural contexts on learning, recognizing children's developing competence, and accepting a variety of ways for children to express their developmental achievements. As a part of the social context of the classroom, teachers should learn about the cultures of all of the children in their classroom and use this diversity as a guideline for teaching, being sure to encompass all ideas and backgrounds into their classroom. Encouraging this type of social interaction plays a significant role in the cognitive development of young children. According to the developmental standards of NAEYC, children's social context should enable them to have an active role in the decision-making process in their classroom (Bredekamp & Copple, 1997). A positive adult-child relationship should exist for children to feel safe and secure. Once these feelings are established, children can look to teachers to provide instruction, model social behaviors and attitudes, plan the physical environment, formulate routines, and provide discipline and guidance (Kostelnik et al., 2002).

Outcomes Associated With DAP. Current research shows that children from families with low socioeconomic status (SES) begin school, on average, with significantly poorer academic skills than more advantaged children (Stipek & Rosaleen, 1997; Bryant, Burchinal, Lau, & Sparling, 1994; Goldenberg, Reese, & Gallimore, 1992; Griffin, Case, & Siegler, 1994; Jordan, Huttenlocher, & Levine, 1992; Starkey & Klein,

1992). In reality, these children are considered to be extremely behind and are forced to begin school trying to “catch- up.” In fact, most of the preschool environments these disadvantaged children attended were developmentally inappropriate, which often led to negative outcomes, including relatively greater declines in school achievement by the fourth grade and poor social adjustment in adolescence (Huffman & Speer, 2000; Marcon, 1995; Schweinhart, Weikart & Larner, 1986). Without assistance or a proper educational environment, these children are being setup to fail.

On the other hand, DAP programs have been found to lead to more positive outcomes in young children. In a DAP environment, the teachers plans the curriculum with the children’s interest in mind. They provide engaging learning experiences in which the children can succeed, while also being challenged to work on the edge of their developing capabilities (Bredekamp & Copple, 1997). Supporting studies of DAP have found positive outcomes in children in relation to academic, social, and behavioral domains (Hoffman & Speer, 2000). By the first grade most students who were enrolled in developmentally appropriate classrooms had significantly higher cognitive skills, in comparison to students in less developmentally appropriate classrooms. The positive long term effects of DAP are indicated by higher rates of high school graduation, fewer arrests and acts of misconduct, and higher monthly incomes as adults (Schweinhart & Weikart, 1993; Huffman & Speer, 2000). More specifically, most research indicates that more DAP has a positive effect on academic and behavioral outcomes and mitigate stress related behaviors of lower socioeconomic, nonmainstream, non-European American, and male students (Hart et al. 1998; Hart et al. 1997).

Summary

Many studies have been conducted to investigate how developmentally appropriate practices influence children's cognitive and emotional development. In terms of the classroom environment, teachers have been found to have a major impact on children's social development. The strategies they use to instruct, model social behaviors, plan, and discipline, all help to enhance or restrain children's developing attitudes and behaviors associated with social competence (Kostelnik et al., 2002). Current research examining teacher behaviors in DAP programs, have reported that children develop more positive attitudes and have higher success rates in school (Schweinhart & Weikart, 1993; Huffman & Speer, 2002).

With this in mind, the results in Chapter IV will present information relevant to the relationship that exists between children's social competency skills and components of the developmental appropriateness of their classroom environment as measured by the APEEC.

CHAPTER III

METHODS

Research Design

This was a correlational study involving an analysis of kindergarten children's social competency skills and the developmental appropriateness of their classroom environment. The subjects of this study were enrolled in one of eleven different kindergarten classrooms selected from eight elementary schools located in an urban, Midwest school district. Analysis of secondary data collected from a larger study was used for this investigation.

Participants

The total number of participants for this study included 11 female kindergarten teachers and 166 kindergarten children, of which 88 were males and 78 were females. The mean age of the children during the initial testing was approximately five years and 6 months old (Mean= 66.80 months, SD= 5.36). Table 1 presents the age of the kindergarten children during the initial testing in November.

Table 1. Gender and Age of Children During Initial Testing in November

Variable	N	Mean (SD.)
Male	86	66.80 (5.46)
Female	77	66.79 (5.27)
Total	163	66.80 (5.36)

This study also utilized demographic variables including the race/ethnicity of the children. The ethnic composition of the sample, listed in Table 2, illustrates that the

largest group of the children participating in this study were African-American (N=75, 45.2%).

Table 2. Ethnicity of Children

Variable	Frequency	%
Ethnicity		
African American	75	45.2
Caucasian	51	30.7
Hispanic	30	18.1
Native American	5	3.0
Asian	3	1.8
Other	2	1.2
Total	166	100

Research Questions

The research questions addressed in this study are listed on page 10 in Chapter One.

Measures

Two instruments were utilized in this study to assess the social competence of kindergarten children and the developmental appropriateness of their classroom environment at the end of kindergarten. These instruments included the *Pre-K/Kindergarten Social Competency Scale (PK/K-S)* (Soderman, 2002), and the *Assessment of Practices in Early Elementary Classrooms (APEEC)* (Hemmeter et al., 2001). A copy of the PK/K-S instrument is included in Appendix A.

Pre-K/Kindergarten Social Competency Scale (PK/K-S). The teachers in this study were requested to complete the *PK/K-S* (Soderman, 2002) twice during the year, to measure the kindergarteners' social competency skills. This rating scale was produced

specifically for the teachers involved in this program by combining readiness indicators from the Head Start Checklist, children's report cards, and social competency skills as outlined in *Developmentally Appropriate Curriculum* (Kostelnik, Soderman, & Whiren, 2004). Because this readiness scale is yet to be published, Soderman (personal communication, 2004) verifies that this instrument has content validity because the selected variables included in the assessment scale have been reviewed and edited by other experts in the fields of early childhood education and child development. Because the internal reliability of the instrument was not determined, a reliability analysis was conducted on this scale (see Chapter V).

The intended purpose of this instrument was to provide kindergarten and Head Start teachers with a measurement that would document the occurrence of specific skills as they relate to social competency (i.e. comforts or helps others who are upset, hurt, or having difficulty with a task).

This instrument is comprised of twenty-five items. Teachers were expected to rate each item on a four-point frequency scale (4= often characteristic, 3= sometimes characteristic, 2 = rarely characteristic, and 1= not characteristic). Teacher ratings were done twice during the school year, in the months of November and May. These scores were used to determine if a relationship existed between children's social competency scores and teachers' scores on the APEEC. The difference in the scores of the first and last ratings were computed to show if children's social competency scores changed over time.

Assessment of Practices in Early Elementary Classrooms (APEEC). The classroom attended by the kindergarten children in this study was assessed for its

developmental appropriateness using the *Assessment of Practices in Early Elementary Classrooms (APEEC)* (Hemmeter, et al., 2001). This instrument is divided into three broad domains of classroom practices: physical environment, instructional context, and social context. The APEEC consists of forty items, scored along a 7-point continuum of developmentally appropriate classroom practices, with descriptors at the “1”, “3”, “5”, and “7” anchors (i.e. “1” indicates the classroom is *inadequate* in terms of developmentally appropriate practices, ‘3’ indicates *minimal* developmentally appropriate practices, ‘5’ indicates that classroom is *good* in terms of developmental appropriateness, and ‘7’ indicates *excellent* developmentally appropriate practices”) (Hemmeter, et al., 2001). To obtain the classroom score, the total sum of the sixteen item-level scores used to measure the physical environment, instructional context, and social context was divided by the total number of items scored. Higher scores on the APEEC reflect higher quality classrooms and according to the authors, should be associated with positive child outcomes (Hemmeter, et al., 2001).

Interrater agreement and validity data for the APEEC were established using 38 K-3 classrooms in the spring of 1997. Results showed that the APEEC was an internally consistent, valid measure of developmentally appropriate practices. However, the interrater agreement data was low. Based on those results, the authors conducted a series of revisions and pilot tests in 1998. As a result, the data from the revised field-tests suggested that the APEEC was an internally consistent, valid measure of developmentally appropriate practices that had good interrater agreement (Hemmeter, et al., 2001).

Interrater agreement and validity data were also collected using 69 classrooms, grades K-3, in North Carolina and Kentucky. Overall, the interrater agreement was

reported to be high at the descriptor level, item level, and total score level. At the descriptor level, the percentage of agreement among two observers averaged 86%, ranging from 76% to 93% across 135 descriptors. The exact average of the item level percentage of agreement was 58%, ranging from 31% to 81%. The Kappa statistic was also calculated to determine the measure of reliability that accounts for chance agreement and the degree of disagreement between observers. The Kappa statistic was generally weighted .50 or higher for 12 items of the sixteen item level scores; however, 2 of the 4 remaining items fell below .47. The median weighted Kappa was .59. The interrater agreement of this measure between two observer ratings was .86, which suggested that a high level of interrater agreement was established with the APEEC. Construct validity was also determined by comparing the APEEC with two other measures, the Assessment Profile for Early Childhood Programs (Abbott-Shim, & Sibley, 1988) and the Teachers Beliefs and Practices Scale (TBPS) (Buchanan, Burts, Bidner, White, & Charlesworth, 1998; Charlesworth, Hart, Burts, Thomassom, Mosley, & Fleege, 1993; Hemmeter et al., 2001). The modest-to-high-correlations between the measures suggest that the APEEC is a valid measure of developmentally appropriate practices.

Data Collection Procedure

The data used in this study were previously collected during the 2002-2003 school year for the Leap Frog Program (Soderman & Farrell, 2003). This study utilized a part of the database that included the children's level of social competence and developmental appropriateness of their teacher's classrooms.

To assess the children's level of social competence, classroom teachers were asked to complete the PK/K-S assessment on each child in their classroom twice during

the school year. The difference between the November and May rating were computed to show if children's social competency scores changed over time. This study also used the November and May scores obtained on the PK/K-S to determine if a relationship existed between children's social competency scores and their teachers' scores received on the APEEC.

Each elementary classroom was assessed for approximately one hour by two observers, using the APEEC. Observers were also privy to children's social competence, though formal assessments were not done. A fifteen-minute teacher interview was also conducted to obtain additional information listed at the end of each section on the APEEC. After completing each assessment, the observers met to discuss their observations before coming to a mutual consensus about the score assigned in each category. In each case, there was high interrater reliability between the scores given on the APEEC. However, interrater reliability was not statistically determined.

Data Analysis

Relationships between the variables in this study were determined using a multiple regression. These variables included kindergarteners' November and May social competency scores from the PK/K-S, and the sub scores and total score of the APEEC used to assess the developmental appropriateness of the classroom environment.

In order to investigate how social competency scores relate to the subscales of the APEEC and to determine if teachers with higher APEEC scores have children with higher social competency scores, a multiple regression model was created.

To determine if demographic variables contributed to the differences in children's PK/K-S scores given by their teachers, a T-Test and a One-Way ANOVA was conducted.

A T-Test was run to indicate if children's scores varied by gender, and a One-Way ANVOA was conducted to indicate if PK/K-S scores varied according to ethnicity.

Additionally, a paired sample t-test was run to compare scores of the November PK/K-S and the May PK/K-S, to determine if there was any change in children's behavior over the course of the school year. Alpha was set at .05. A reliability analysis was also conducted on the PK/K-S measure of social competency to determine the instrument's level of internal consistency.

Limitations

1. Due to the sample size and location in which this study took place, the results cannot be generalized to a population larger than its assessable population, which includes all kindergarten children in an urban, Midwest school district.
2. Teachers were solely used to report on their students' social competency skills, which could have resulted in biased behavioral ratings. It would have been useful to have another source of data on children's social competence.
3. The PK/K-S had not been tested for its degree of validity and reliability. Moreover, if it was not used with integrity by the classroom teacher, it would not be a reliable measure of children's social competence.
4. Because the observers did not complete independent score sheets for the APEEC classroom assessment, interrater reliability was not established.
5. No demographic information was collected on the children's families. For example, information relating to ethnicity, age, education level of parent(s), income, family type, and number of family members living in the same household were not obtained.

6. No demographic information was collected on teachers. As a result, information relating to their age, ethnicity, educational background, early childhood training, and number of years spent teaching kindergartner could not be included.
7. Demographics collected on the children's previous educational background were not specific and only included information about their enrollment in Head Start and Michigan School Readiness Programs. Additional information on their involvement in preschool or other childcare services was not collected. Therefore, this information could not be utilized.
8. No information was collected on individual or peer influences, as mentioned in Chapters I and II, to be contributing factors to the development of children's social competency.

CHAPTER IV

RESULTS

Results

All data for this study were collected from eleven kindergarten classrooms in an urban, Midwest school district. The data for analyzing children's social competence were measured using the PK/K-S. The developmental appropriateness of the classroom environment was measured using the APEEC. These two variables were analyzed to investigate the relationship between children's social competence and the developmental appropriateness of their classroom environment. The findings for the PK/K-S's internal consistency and for each research question are presented as followed.

Reliability-internal consistency

A reliability analysis conducted on the 25- item PK/K-S showed the Cronbach's alpha for the November and May assessment, possessed a high level of internal consistency and reliability. These results are listed below in Table 3.

Table 3. Reliability Analysis

Scale	Mean	Cronbach's Alpha
November PK/K-S (N=160)	3.18	.95
May PK/K-S (N=163)	3.51	.91

Variance in gender and ethnicity in children's social competency score.

To determine if children's social competency scores varied by gender, an independent t-test was run. The results are listed below in Table 4. A One-Way ANOVA was also conducted to determine if children's scores varied by ethnicity. The results for this analysis are presented in Table 5.

Research Question 1: Do teacher ratings of children's social competence vary depending on demographic variables, such as gender and ethnicity?

An independent t-test determined that by gender, there was a significant relationship in children's scores on the PK/K-S in November and in May ($t = -4.11$, $p = .000$). Female scores were higher in November and May, than the scores of their male classmates. In relation to ethnicity, a One-Way ANOVA determined that there were no significant ethnic differences in children's social competency scores in November or in May.

Table 4. T-Test for differences between males and females in November and May

Table 1. Mean and SD for differences between males and females in November and May					
Group	N	Mean	SD	t	Prob.
Male	86	75.59	13.57	-4.11	.000*
Female	76	84.00	12.34		
(In November)					
Male	87	84.89	14.35	-2.45	.015
Female	78	89.87	11.48		
(In May)					

Table 5. Results of a One-Way ANOVA analysis of variance for ethnicity in children's PK/K-S scores

Groups	Sum of Squares	df	Mean Squares	f-value	Prob.
Between	539.44	4	134.85	.712	.585
Within	29378.41	155	189.54		
Total	29917.84	159			
(In November)					
Between	61.36	4	15.34	.085	.987
Within	28419.82	158	179.87		
Total	28481.18	162			
(In May)					

Relationship between social competency scores over the course of the school year.

In regards to research question 2, a paired t-test was conducted to evaluate differences between mean scores on the PK/K-S over the course of the school year. The results in Table 6 compare the significant differences in the mean scores the kindergarten children received on the PK/K-S in November and in May.

Research Question 2: Do children's social competency skills change over the course of the school year?

The children's scores in May with a mean of 86.14 (SD 13.40), were higher than their November scores, which had a mean of 79.74 (SD 13.43). This was a difference of 6.25 between the two assessments. With an alpha level of .05, the difference in scores were found to be statistically significant, ($t = -7.97$, $p = .000$).

Table 6. Paired T-Test: Social Competency Scores in November and May (161)

Test Time	Mean	SD	Std. Error Mean	T-Test Level of Sig.
November PK/K-S	79.74	(13.43)	1.06	.000*
May PK/K-S	87.14	(13.40)	1.06	.000*

Relationships between kindergarten children's social competency scores and variables of developmentally appropriate classrooms.

A multiple regression was created to determine the relationship that existed between the November and May assessments of the PK/K-S and the three subscales and total score of the APEEC. Tables 7-10 illustrate the results of research questions 3-6.

Research Question 3: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's physical environment scores obtained on the Assessment of Practices in Early Elementary Classrooms (APEEC)?

In regards to the teacher's physical environment scores obtained on the APEEC, a significant relationship was found ($F=6.6$, $p<.05$) between the November ratings children received on the PK/K-S and their teacher's physical environment scores obtained on the APEEC. However, there were no significant relationships between children's May ratings and their teacher's physical environment scores on the APEEC.

Table 7. Multiple Regression Analysis: Physical environment as a predictor of kindergarten children's social competence.

Outcome: November and May scores on the PK/K-S						
Predictor variables	<i>b</i>	SE <i>b</i>	t-Statistic	Prob.	R sq	F-Ratio
Physical environment (November)	4.19	2.08	2.01	<.001*	.11	6.58

Research Question 4: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's instructional context scores obtained on the APEEC?

There is a significant relationship between children's social competency scores and their teacher's instructional scores obtained on the APEEC in November ($F=6.6$, $p<.05$). An increase in teachers' instructional scores is positively related to increases in children's social competency scores. As for children's social competency scores in May, no significant relationships were found.

Table 8. Multiple Regression Analysis: Instructional context as a predictor of kindergarten children's social competence.

Outcome: November and May scores on the PK/K-S						
Predictor variables	<i>b</i>	SE <i>b</i>	t-Statistic	Prob.	R sq	F-Ratio
Physical environment (November)	4.11	1.27	3.23	<.001*	.11	6.58

Research Question 5: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's social context scores obtained on the APEEC?

A significant relationship between children's social competency scores and their teacher's social context scores were found in November ($F=6.6$, $p<.05$). An increase in teachers' social context scores is positively related to increases in children's social competency scores. However, no significant relationships were found in May.

Table 9. Multiple Regression Analysis: Social context as a predictor of kindergarten children's social competence.

Outcome: November and May scores on the PK/K-S						
Predictor variables	<i>b</i>	SE <i>b</i>	t-Statistic	Prob.	R sq	F-Ratio
Social context (November)	-3.91	1.84	-2.12	<.001*	.11	6.58

$p<.05^*$

Research Question 6: How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's total score obtained on the APEEC?

A significant relationship exists between children's social competency scores and the total score teachers received on the APEEC in November ($F=9.7$, $p<.05$). An increase in teachers' total scores is positively related to increases in children's social competency scores. However, in May, no significant relationships between the variables were found.

Table 10. Multiple Regression Analysis: Total scores on the APEEC as a predictor of kindergarten children's social competence.

Outcome: November and May scores on the PK/K-S						
Predictor variables	<i>b</i>	SE <i>b</i>	t-Statistic	Prob.	R sq.	F-Ratio
Total score (November)	3.33	1.07	3.11	.003*	.06	9.69

Summary of Data

This study was designed to investigate the relationships between children's social competence and the developmental appropriateness of their classroom environment. A reliability analysis on the PK/K-S concluded that the instrument had a high level of internal consistency based on Chronbach's alpha. An independent t-test determined there was a significant relationship in the November and May PK/K-S scores by gender. Additionally, a One-Way ANOVA found no significant difference in the November and May PK/K-S scores between ethnic groups. This study did, however, show there was a significant positive change in children's social competency scores over the course of the school year.

Results of research questions 3-6 indicate that all three components of developmental appropriateness, as well as the total scores teachers obtained on the APEEC were significantly related to children's social competency scores measured in November.

On the contrary, results showed there were no significant relationships between children's social competency scores and the developmental appropriateness of their classroom environment, as measured by the APEEC in May. Furthermore, when rated

according to subscales, no significant relationships between kindergarten children's level of social competence and the developmental appropriateness of their teacher's physical environment, instructional context, or social context were found.

A table listing the significance of these findings is presented below (see Table 11).

Table 11. Summary of Findings

Research Question	Findings
1. Do teacher ratings of children's social competence vary depending on demographic variables, such as gender and ethnicity?	A t of -4.43 ($p < .001$) was found in November, and t of -2.89 ($p < .001$) was found in May for variation in gender differences for teacher ratings. No differences were found among ethnic groups in social competence scores.
2. Do children's social competency skills change over the course of the school year?	With a t of -4.24 ($p < .001$) children's social competency scores were shown to increase from November to May with a difference of 6.25 between the two assessments.
3. How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's physical context scores measured on the APEEC?	An F of 6.6 ($p < .05$), found a significant relationship to exist in November. No significant relationship was found in May.

4. How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's instructional context scores measured on the APEEC?	An <i>F</i> of 6.6 ($p < .05$) determined a significant relationship to exist in November. No significant relationship was found in May.
5. How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's social context scores measured on the APEEC?	An <i>F</i> of 6.6 ($p < .05$) determined a significant relationship to exist in November. No significant relationship was found in May.
6. How do kindergarten children's social competency abilities, rated in November and May, relate to their teacher's total scores obtained on the APEEC?	An <i>F</i> of 9.7 ($p < .05$) determined a significant to exist in November. No significant relationship was found in May.

CHAPTER V

DISCUSSION

Discussion

The purpose of this study was to investigate the relationship between teachers' developmentally appropriate practices observed in kindergarten classrooms and children's social competency skills. Specifically, developmentally appropriate practices were rated according to three subscales: physical environment, instructional context, and social context, using the APEEC. Children's social competence was measured using the PK/K-S.

A regression analysis revealed a strong and significant relationship between children's social competency scores measured in November and teachers' scores measured on the APEEC. This indicated that in November, teachers' classroom practices, particularly their method of instruction, were related to the development of children's social competence. On the other hand, there were no significant relationships between children's social competency scores measured in May and their teachers' scores measured on the APEEC.

It is believed that the teachers' integrity when completing the PK/K-S may have also contributed to the non-significant findings of the May assessments. According to a study examining teacher assessments of social competence, "teacher ratings have been shown to be good *initial* evaluations of children's social behaviors" (Cartledge, Adedapo, & Johnson, 1998, p. 116; Greenwood, Walker, Todd, & Hops, 1979; Walker, et al., 1988). Assuming this to be true, and based on observations of the children and teachers within their classroom environment, it is believed that the ratings teachers completed in

November were valid and reliable. However, based on the significantly increased scores some children received and the way in which some teachers completed the May assessment of the PK/K-S, the researcher was led to believe that the May assessments were not a valid or reliable assessment of children's social competence. Tables 12 shows an example of how one teacher rated a student who was scored as having a low level of social competence in November. Table 13 illustrates the exceptional increase in the score the child received during the May assessment. These tables also show the difference in the teacher's scoring technique. In November, the teacher scored each question separately; however, in May, the teacher used a squiggly line to indicate that the child exhibited all of these behaviors often. This teacher was reported as completing twelve out of thirteen student PK/K-S assessments in this manner. Observations of this teacher's classroom by several of the researchers deemed her May assessment as invalid and without integrity.

Table 12. PK/K-S measured in November.

Directions: Rate characteristic of child from 1-4, 1=not characteristic; 2=rarely characteristic; 3=sometimes characteristic; 4=often characteristic.

	Time 1	Time2	Time 3
A. Social Competency Skills			
1. Separates from parent without distress	<u>4</u>	_____	_____
2. Verbalizes feelings	<u>3</u>	_____	_____
3. Asks for help when necessary	<u>4</u>	_____	_____
4. Works and plays cooperatively with others	<u>2</u>	_____	_____
5. When angry, knows how to calm self down	<u>1</u>	_____	_____
6. Puts away materials where they belong; respects materials and equipment	<u>3</u>	_____	_____
7. Respects adults	<u>1</u>	_____	_____
8. Waits turn before speaking	<u>2</u>	_____	_____
9. Follows the rules of the classroom and school without reminders	<u>1</u>	_____	_____
10. Helps to clean up after activities	<u>2</u>	_____	_____
11. Can usually resolve own conflicts with others	<u>1</u>	_____	_____
12. Is friendly and helpful to others	<u>2</u>	_____	_____
13. Is liked by other children; attracts friends	<u>2</u>	_____	_____
14. Capable of making good learning choices without adult intervention	<u>1</u>	_____	_____
15. Follows directions well	<u>1</u>	_____	_____
16. Adjusts to changes in routine without undue stress	<u>2</u>	_____	_____
17. Comforts or helps others who are upset, hurt, or having difficulty with a task	<u>1</u>	_____	_____
18. Can wait his/her turn	<u>3</u>	_____	_____
19. Sticks to an activity for as long as can be expected for a child this age	<u>3</u>	_____	_____
20. Shares materials, equipment with others	<u>2</u>	_____	_____

21. Accepts new activities without fear or reluctance	<u>3</u>	—	—
22. Has an adequate amount of energy during the class period	<u>3</u>	—	—
23. Eager to participate in classroom activities	<u>3</u>	—	—
24. Shows self confidence	<u>3</u>	—	—
25. Stays on task when necessary; attempts to finish a task	<u>3</u>	—	—
Total Number of Skills Identified:	56 <u>25</u>	—	—

Two to three skills to actively target prior to next testing:

Skills after Test 1: ✓ Follow directions
✓ Calm self when angry

Skills after Test 2: _____

Table 13. PK/K-S measured in May.

Directions: Rate characteristic of child from 1-4, 1=not characteristic; 2=rarely characteristic; 3=sometimes characteristic; 4=often characteristic.

	Time 1	Time2	Time 3
A. Social Competency Skills			
1. Separates from parent without distress	_____	_____	4 can do all
2. Verbalizes feelings	_____	_____	_____
3. Asks for help when necessary	_____	_____	_____
4. Works and plays cooperatively with others	_____	_____	_____
5. When angry, knows how to calm self down	_____	_____	_____
6. Puts away materials where they belong; respects materials and equipment	_____	_____	_____
7. Respects adults	_____	_____	_____
8. Waits turn before speaking	_____	_____	_____
9. Follows the rules of the classroom and school without reminders	_____	_____	_____
10. Helps to clean up after activities	_____	_____	_____
11. Can usually resolve own conflicts with others	_____	_____	_____
12. Is friendly and helpful to others	_____	_____	_____
13. Is liked by other children; attracts friends	_____	_____	_____
14. Capable of making good learning choices without adult intervention	_____	_____	_____
15. Follows directions well	_____	_____	_____
16. Adjusts to changes in routine without undue stress	_____	_____	_____
17. Comforts or helps others who are upset, hurt, or having difficulty with a task	_____	_____	_____
18. Can wait his/her turn	_____	_____	_____
19. Sticks to an activity for as long as can be expected for a child this age	_____	_____	_____
20. Shares materials, equipment with others	_____	_____	_____

21. Accepts new activities without fear or reluctance	_____	_____	4
22. Has an adequate amount of energy during the class period	_____	_____	5
23. Eager to participate in classroom activities	_____	_____	1
24. Shows self confidence	_____	_____	1
25. Stays on task when necessary; attempts to finish a task	_____	_____	1
Total Number of Skills Identified:	_____	_____	100

Two to three skills to actively target prior to next testing:

Skills after Test 1: _____

Skills after Test 2: _____

As mentioned earlier in Chapter 3, observers were privy to children's social competence, even though formal assessments were not completed by the observers. In relation to this child, more than one observer who spent a reasonable amount of time in this classroom highly disagreed with the score this child received on the May PK/K-S. This child talked back to the teacher, refused to complete instructed tasks, and often did not follow directions (refer to questions 7, 9, 12, and 15 on Tables). Having observed these behaviors and comparing them with the teacher scores, it is highly unlikely that the teacher completed these assessments with integrity or validity.

Implications for future research and practice

It is important that future research on the relationship between developmentally appropriate practices and social competence be conducted. Based on the findings of this research study, implications for future studies are listed below.

Because research has found teacher-child relationships, parent-child relationships, peer relationships, and temperamental styles of teachers, parents, and children to influence the development of social competence, it is proposed that these influences, in addition to the components of developmental appropriateness used in this study, be assessed and analyzed to determine which factor(s) contribute most significantly to children's development of social competence. Also, children may manifest differing levels of competence in different contexts. Therefore, it is also strongly suggested that these measures be assessed at least twice during the school year, preferably, at the beginning and end. Each assessment should be measured at or around the same time to allow the researcher to examine the development of social competence in relation to these predictor variables. Doing this will also give researchers a more thorough understanding

of what factor(s) have the most significant influence on children's social development, and at what time during the school year.

As mentioned as a limitation of this study (see pages 44-45), it is also recommended that in addition to the teacher, another participant (i.e. parent or observer), who interacts with the children on a consistent basis, complete the PK/K-S assessments. This will allow researchers to examine levels of inter-rater reliability and eliminate any biased scores that may be given by the teacher or observer alone.

Finally, another opportunity for expansion upon this study would be to obtain additional demographic information on the teachers and students. Collecting information about teacher beliefs, teaching experience, age, degree or certifications, and ethnicity will allow further analysis of teachers' influence and children's social competence. Information about children's SES status, prior schooling, temperament style, and disabilities should also be obtained. This information could be used to generalize if there are any specific child characteristics that relate to the development of social competence.

APPENDIX A

PK/K Early Readiness Scale

Directions: Rate characteristics of child from 1-4. 1= not characteristic; 2= rarely characteristic; 3= sometimes characteristic; 4= often characteristic.

	Time 1	Time 2	Time 3
A. Social Competency Skills			
1. Separates from parent without distress	_____	_____	_____
2. Verbalizes feelings	_____	_____	_____
3. Asks for help when necessary	_____	_____	_____
4. Works and plays cooperatively with others	_____	_____	_____
5. When angry, knows how to calm self down	_____	_____	_____
6. Puts away materials where they belong; respects materials and equipment	_____	_____	_____
7. Respects adults	_____	_____	_____
8. Waits turn before speaking	_____	_____	_____
9. Follows the rules of the classroom and school without reminders	_____	_____	_____
10. Helps to clean up after activities	_____	_____	_____
11. Can usually resolve own conflicts with others	_____	_____	_____
12. Is friendly and helpful to others	_____	_____	_____
13. Is liked by other children; attracts friends	_____	_____	_____
14. Capable of making good learning choices without adult intervention	_____	_____	_____
15. Follows directions well	_____	_____	_____
16. Adjusts to changes in routine without undue stress	_____	_____	_____
17. Comforts or helps others who are upset, hurt, or having difficulty with task	_____	_____	_____
18. Can wait his/her turn	_____	_____	_____
19. Sticks to an activity for as long as can be expected for a child this age	_____	_____	_____
20. Shares materials, equipment with others	_____	_____	_____
21. Accepts new activities without fear or reluctance	_____	_____	_____
22. Has an adequate amount of energy during the class period	_____	_____	_____
23. Eager to participate in classroom activities	_____	_____	_____
24. Show self confidence	_____	_____	_____
25. Stays on task when necessary; attempts to finish task	_____	_____	_____
Total Number of Skills Identified:	_____	_____	_____

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