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CLASSROOM PEER GROUP ACCEPTANCE AND FRIENDSHIP:
LINKS TO SELF-CONCEPT AND SENSE OF SCHOOL BELONGING
IN A DEVELOPMENTAL CONTEXT

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IN A DEVELOPMENTAL CONTEXT

by

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Dedication

To my husband, Robert, who was there the whole time, with much love and appreciation.

To my parents, Rose Poncia Morgan and Alvin Monroe Morgan, Jr., who were there from the very beginning and instilled a love of learning.

And to the memory of my grandmother, Anita Rinaldo Poncia, who valued education, supported and inspired me, and looked forward to this day very much.

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CLASSROOM PEER GROUP ACCEPTANCE AND FRIENDSHIP:
LINKS TO SELF-CONCEPT AND SENSE OF SCHOOL BELONGING
IN A DEVELOPMENTAL CONTEXT

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Two forms of classroom peer group relationships, group acceptance and friendship, were examined in terms of differential influences on self-concept and sense of school belonging among 258 second graders and 182 fifth graders. Sample groups reflected the Sullivanian juvenile and preadolescent stages. The use of sense of school belonging in this context was a new and exploratory use of this variable. Results suggested that classroom peer relationships were linked to both variables for second grade, but not fifth grade, students. For second graders, there was evidence of a significant association between group acceptance and self-concept, group acceptance and school belonging, and friendship and school belonging, although the

strength of the relationships was weak. For fifth graders, there was not evidence of a significant association between either of the peer relationship variables and the outcome variables. Overall, the premise that classroom peer group acceptance and friendship would exert differential influences on self-concept and sense of school belonging was not supported. Results suggested that developmental differences, rather than a unique linkage with a particular type of peer relationship, appear to be the more important factor when considering sense of school belonging. Results are discussed in terms of the limitations of the study, possible alternate avenues for investigation, and implications for the selection of school-based interventions for children at-risk of being alienated at school.

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CHAPTER I

Introduction

Peer relationships have long been believed to be an important contributor to children's development and adjustment. Both theorists (e.g., Furman & Robbins, 1985; Sullivan, 1953) and researchers have emphasized the importance of this connection. Empirical evidence suggests that socialization with peers influences long term adjustment and life outcomes (Cowen, Pederson, Babijian, Izzo, & Trost, 1973; Roff, 1963; Roff, Sells, & Golden, 1972), and that poor peer relationships are meaningfully linked to a myriad of maladaptive behaviors and psychological maladjustment (Bagwell, Newcomb, & Bukowski, 1998; Kupersmidt & Coie, 1990; O'Neil, Welsh, Parke, Wang, & Strand, 1997; Parker & Asher, 1987; Roff, 1990; Woodward & Fergusson, 1999).

Group acceptance and friendship, two aspects of children's peer relationships, have been studied extensively over the past three decades. A child's successful participation in both of these types of peer experience is believed to be important for healthy development and social competence (Bukowski & Hoza, 1989; Furman & Robbins, 1985). Since the 1970s, a wealth of research has been conducted with the aim of better understanding how these aspects of peer relationships contribute to child and adolescent development. Self-concept, loneliness, and school related attitudes and performance have received significant attention as outcome variables. Research

findings tend to agree that both peer group acceptance and participation in friendship are linked to some degree with self-concept (Bradley & Newhouse, 1975; Dunstan & Nieuwoudt, 1994; Fordham, 1995; Mannarino, 1978; Vandell & Hembree, 1994), loneliness and social dissatisfaction (Asher, Hymel, & Renshaw, 1984; Asher & Wheeler, 1985; Crick & Ladd, 1993; Dunstan & Nieuwoudt, 1994; Frankel, 1990; Parker & Asher, 1993), and perhaps school adjustment (Ladd, 1990; Ladd & Price, 1987; O'Neil et al., 1997), with few studies (Clark & Drewry, 1985) offering contradictory evidence.

However, research that has endeavored to separate out the effects of peer acceptance and friendship suggests that each may be more uniquely predictive of some variables than others. Thus far, this evidence indicates that friendship may be more singularly linked to self-concept (Bishop & Inderbitzen, 1995; Bukowski, Hoza, & Newcomb, 1991; Vandell & Hembree, 1994), while group acceptance may be more influential on other variables, perhaps perceptions of social competence (Bukowski et al., 1991) or feelings of belongingness (Bukowski, Hoza, & Boivin 1993). Another common postulate has been that a lack of one of these peer relationships may be made up for by the positive presence of the other (e.g., the effects of peer group rejection may be tempered by the presence of a friendship). Several investigators have conceptualized friendship as a "buffer" against negative outcomes associated with otherwise poor peer relationships (Bukowski et al., 1993; Fordham, 1995; Parker & Asher, 1993; Renshaw & Brown, 1993).

A further potentially important, yet infrequently addressed, factor is developmental stage. The concept that relational needs and goals are dependent upon developmental stage was a central tenet of Sullivan's (1953) theories of peer group socialization. Sullivan purported that a person's relational needs change from one developmental period to the next. Specifically, he theorized that the need for group acceptance was of greatest importance for healthy adjustment during the "juvenile" period, while the need for intimacy, afforded by close friendships, became the critical relationship during "preadolescence." Sullivan believed failing to meet these needs at each critical juncture could result in maladjustment, particularly where self-esteem is concerned. However, while developmental differences in children's conceptions of friendships and interpersonal competencies have been well-addressed over the years, this developmental focus typically has not been extended to studies of group acceptance and friendship. These studies may identify a particular developmental context of focus, but comparisons across ages or developmental stages is rare. No known studies thus far have included both group acceptance and friendship as variables and explored age group differences.

Following Sullivan's theories and the lead of researchers who have considered self-concept an important variable in children's peer relations research (e.g., Bishop & Inderbitzen, 1995; Bukowski et al., 1991; Vandell & Hembree, 1994), self-concept was chosen for the current study as an outcome variable. Belongingness was chosen as a second, more exploratory, outcome variable. Belongingness, or a sense of being

an included and valued part of a group, may be a critical dimension of the social educational context. Feelings of school belonging have been found to be correlated with a variety of school-related and psychological variables, including school motivation (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993), academic achievement (Goodenow, 1993b; Roeser, Midgley, & Urdan, 1996), school effort and involvement (Anderman & Anderman, 1999; Goodenow, 1993b), decreased feelings of self-consciousness (Roeser et al., 1996), and positive affect (Anderman, 1999).

The purpose of the current investigation was to examine the influences of classroom peer group acceptance and participation in friendship in elementary school children at two age levels within the framework of Sullivan's social development theory (Sullivan, 1953). The study aimed to extend existing knowledge regarding how peer group acceptance and friendship differentially influence self-concept and sense of school belonging, with a particular focus on potential developmental differences, something that has not been explicitly addressed by previous studies. The study was designed to address the following general queries: Do group acceptance and participation in a friendship influence children's self-concept differentially, depending on the developmental stage of the child? And, do group acceptance and participation in friendship perhaps uniquely exert influence on a child's adjustment, depending on the outcome variable (i.e., sense of school belongingness) being measured? It was hoped that a better understanding of these influences could be of use in selecting more effective interventions for helping at-risk

children have positive social experiences at school, and consequently, more adaptive emotional and behavioral outcomes.

CHAPTER II

Integrative Analysis

From the age of school entry onward, if not before for most children, socialization within the peer group becomes a primary and ubiquitous developmental task. Most of the important activities in the everyday life of a child--working, playing, learning--are undertaken in the context of groups. The peer relationships of children have long been recognized as an important element in child development.

Children's Peer Relationships and their Effect on Development

In the social development literature, the premise that poor peer relationships in childhood lead to later maladjustment is a common theme. In particular, those children who stand out for their inability to get along in groups, to cooperate and engage effectively with their peers, and to be accepted are considered to be at-risk for negative outcomes. Underlying this premise is the belief that interactions with peers play a vital and fundamental role in the development of social competence and adaptive functioning in general.

In examining these basic tenets of child social development, the undergirding question is: Are peer relationships really an important contributor to children's development and adjustment? Certainly, the convictions of those answering this question in the affirmative resound through the literature. The essence of this view is captured in a statement from Johnson (1980) who asserted that "[e]xperiences with peers are not superficial luxuries to be enjoyed by some students and not by others.

Student-student relationships are an absolute necessity for healthy cognitive and social development and socialization" (p. 125).

Harry Stack Sullivan's (1953) theories clearly support the view that peer relationships are central in development and contribute importantly to later outcomes. A substantial body of his writings are centered on the premise that interactions and relationships with others affect how we view the world and who we become. Sullivan believed that human beings have a "profound need for dealings with others" (p. 262), and a lack of adequate experiences and development in interpersonal relations leads to the likelihood of "serious defect of personal orientation...in living" (p. 262) marked by intense feelings of loneliness and a poor ability to function adaptively in a social world.

Sullivan held that there are key interpersonal needs at each stage of development that must be met for healthy development of the self. In infancy, it is a need for tenderness. In childhood, it becomes the need for adult participation in child activities (e.g., play and speech). The juvenile era is marked by a need for peers, relationships with an equal, as well as the important need for acceptance by those peers. Sullivan believed the final important component contributing to true loneliness is the failure to have the need for intimate exchange met. The arrival of this need for interpersonal intimacy with a peer, which manifests in a special relationship Sullivan called "chumship," is the hallmark of the preadolescent era.

Sullivan focused on the interpersonal needs of the juvenile and preadolescent stages as particular and critical contributors to development of a healthy self-concept. He suggested that a lack of acceptance during the juvenile era, leading to feelings of alienation and isolation from the peer group, would lead to feelings of inferiority and have a detrimental effect on self-esteem. The intimacy of chumship during the preadolescent era affords the invaluable experience of receiving self-validation as the preadolescent recognizes the positive regard a peer holds for him or her. The failure to receive this type of validation could lead to a failure to develop a strong sense of self-worth. The chumship experience was held by Sullivan to be so powerful that it fundamentally shaped the self, to the extent that it could serve as a context in which the negative effects of previous poor peer experiences (e.g., rejection) could be counteracted.

Along with Sullivan, a group of theorists known as symbolic interactionists (including Cooley and Mead) also strongly emphasized peer relationships as critical in the development of the self-concept. They argued that social interactions provide us with information regarding how others perceive us, and this information is used to define and form the self. This feedback we receive through others contributes directly to the formation of self-concept. Negative feedback would then directly contribute to a negative concept of self (Bukowski & Hoza, 1989).

In addition to theorists' assertions, empirical evidence also suggests that peer relationships are meaningfully linked to life adjustment and outcomes. Researchers

have found links between poor peer adjustment in childhood and later delinquency and criminality (Ollendick, Weist, Borden, & Greene, 1992; Parker & Asher, 1987; Woodward & Fergusson, 1999), deficits in school work habits and academic achievement (O'Neil et al., 1997), negative academic outcomes such as truancy, grade retention, suspension, and dropping out of school (Kupersmidt & Coie, 1990; Parker & Asher, 1987), and negative mental health outcomes (Bagwell et al., 1998; Roff, 1990). In a critical review of dozens of studies conducted over the previous fifty years, Parker and Asher (1987) evaluated the claim that peer relationships in childhood are linked to later adjustment and concluded that empirical evidence does support the contention that problematic peer relations are an "at-risk" marker for future problems, including dropping out of school and criminality. Adult psychopathology was also linked to poor peer relations in childhood, although evidence for a predictive relationship was weak (see Parker & Asher, 1987, for a comprehensive review of these studies).

An Historical Overview of Research in Children's Peer Relations

In a recent review of research on children's peer relations, Ladd (1999) traces the history of interest in this area to theorists such as Freud, Erikson, and Piaget, who advanced the argument that development of the individual is significantly influenced by social groups. By the 1930s, researchers were investigating the social world of children in the form of empirical studies of children's peer relations. Initial work focused on examining the nature of children's peer groups and the status or position

of individuals within the group. Interest in the area surged, however, in the 1970s and 1980s when multiple studies offered evidence suggesting that peers play a critical role in the development of interpersonal competence, to the extent that socialization with peers influences long-term adjustment and life outcomes (e.g., Cowen et al., 1973; Roff, 1963; Roff et al., 1972). Researchers proceeded to ask questions designed to lead to a better understanding of the correlates of social competence. Why are some children successful at achieving positive peer experiences while others are not?

In the course of examining social competence in children, competence became commonly defined in terms of the child's place within the group. Children were described as having "good" or "poor" peer relations based on their level of overall peer group acceptance. Thus, popularity, or sociometric status, became the most well-known and common index of quality of peer relationships in developmental research (Berndt, 1989; Furman & Robbins, 1985). Increasingly refined methods for determining and categorizing a child's social status within a particular group of peers were developed (e.g., Asher & Dodge, 1986; Coie & Dodge, 1983; Newcomb & Bukowski, 1983).

However, at the same time, researchers were noting that a child's popularity within the group did not always correspond perfectly with that child's success at making friends (e.g., McGuire & Weisz, 1982). Many unpopular children do have reciprocated friendships, while some popular children do not have any. For example,

Parker and Asher (1993) found that in their sample of elementary age children, 45% of low-accepted children had at least one friend, while 6% of high-accepted children had no reciprocated friendships in their classroom. In addition, some children (typically labeled *controversial*) are named as a most-liked peer by some children and as a least-liked peer by other children within the same classroom (e.g., Coie, Dodge, & Coppotelli, 1982). Investigators began to take note and assert that to examine peer relations only in terms of social status overly simplifies a complex social world.

Furman and Robbins (1985) and Bukowski and Hoza (1989) were among the first to advocate strongly for the importance of distinguishing between popularity and friendship in the empirical study of children's peer relationships. Children's peer experiences are comprised of a multitude of potential relationships, including intragroup, intergroup, and dyadic levels of experience. Furman and Robbins (1985) noted that studies in the children's peer relations literature were unsystematic in differentiating among different types of relationships, instead relying on indexes such as sociometric status to describe a child's quality of peer relationships. They argued that friendships are distinct from other types of peer relationships, and that each of these relationship forms may contribute in unique ways to child development.

Friendships and other peer relationships may offer different "provisions," or types of social support, to children. For example, group experiences offer opportunity for a sense of inclusion, while friendships provide opportunities to experience peer loyalty, affection, and intimacy. Both may offer provisions for assistance from others,

nurturance, companionship, and enhancement of self-worth (Furman & Robbins, 1985).

Bukowski and Hoza (1989) also examined the status of studies addressing how peer relations affect adjustment and argued for more rigorous integration of theory and research in this area. They stated that current methods were doing "little to facilitate the development of theory regarding how particular types of peer experiences contribute to specific aspects of adjustment" (p. 16), and emphasized the need for "distinguishing more carefully between the particular social constructs that can be placed under the superordinate heading 'peer relations'" (p. 16). To underscore their argument for considering different levels of experience in studying social relationships, these authors returned to the theoretical writings of Bronfenbrenner (1979) and Moreno (1934), both of whom emphasized the importance of considering the nature of social relations within both the larger group and dyadic contexts. More directly addressing the nature of children's relationships, Sullivan's (1953) work also was emphasized. Sullivan theorized that different aspects of children's peer relations are important at different ages or developmental levels. He believed that the need for group acceptance was of paramount importance for healthy adjustment during the juvenile period (approximately ages 6 - 9 years), while the need for intimacy, afforded by chumships, or close friendships, became the critical relationship during preadolescence (approximately ages 9 - 12 years). Finally, Bukowski and Hoza lauded Furman and Robbins' (1985) proposed theoretical model of social provisions

for explicitly working to distinguish between affordances offered by different aspects of peer relations. A concluding call was made for investigators to turn their attention to "uncovering the relative and unique contributions that popularity and friendship make to adjustment" (p. 38), stating that, through such work, researchers would be addressing "one of the major 'unknowns' of the peer relations literature" (p. 38).

Distinguishing Between Group Acceptance and Friendship

In the last decade, researchers have heeded the call to delineate the differential influences of various aspects of children's peer relationships. A significant portion of this attention has been placed on better understanding peer group acceptance and friendship experiences and how they influence children. Before undertaking an examination of studies in this realm of research, however, a summary of conceptual differences and distinctions between these constructs will be briefly reviewed.

The fundamental distinction between group acceptance and friendship lies in the nature of the experience, which occurs at either the group or the dyadic level. Peer group acceptance (also discussed in the literature using the terms *popularity* or *social status*) is a unilateral construct in that it encompasses the view of the group toward the individual (Bukowski et al., 1993). The overall level to which a particular peer group accepts or rejects an individual is commonly measured using nomination procedures or rating scales, in order to obtain an index of acceptance or liking.

Friendship, however, is a bilateral construct specific to two individuals. Unlike the measurement of group acceptance, which relies only on assessing the view

of the group toward the individual, measures of friendship must take into account the perspectives of both individuals in a dyad in order to determine accurately the nature of the relationship. Most commonly, empirical studies require the determination of mutuality as a minimum requirement for defining a relationship as a friendship. Accordingly, measurement of friendship entails determining whether or not two children reciprocally nominate one another as a "friend," typically using a simple, nomination-based procedure (i.e., asking a child to list his or her friends or "best" friends). By using mutuality, or reciprocation, as a basis for identifying friendships, the essential bilateral nature of the relationship is considered and respected (Bukowski et al., 1993).

Although distinct constructs, group acceptance and friendship are also interrelated. Both are conceptually grounded in the notion of "liking." Group acceptance reflects the level to which a child is generally liked by peers, while friendship is an indicator of liking on an individual level (Bukowski et al., 1993). With this element in common, it is not surprising that measures of group acceptance and friendship show some level of interrelationship. Empirical study of the correlation between measures of group acceptance and measures of mutual friendship has found evidence of moderate levels of correlation, ranging between .38 and .49 (Bukowski, Newcomb, & Hoza, 1992, cited in Bukowski et al., 1993).

Research on Peer Group Acceptance and Friendship

Studies of peer group acceptance. Concern regarding the established link between poor peer relations and later life adjustment difficulties led to efforts to explain how peer relations difficulties contribute to maladaptive outcomes. Researchers have recognized a need to identify and investigate the psychosocial mechanisms that may be mediating the relationship between poor peer relations and negative life outcomes. As described previously, many of these initial efforts focused on group acceptance (i.e., popularity) and its associated outcomes.

In an early study, Bradley and Newhouse (1975) addressed the relationship between sociometric acceptance and self-concept among sixth grade students. The study was based on the conception that the responses of others to the individual are of key importance in influencing self-concept and, consequently, behavior. Using positive and negative peer nominations to assess sociometric status and the Piers-Harris Children's Self-Concept Scale to assess self-concept, they found that "positive liking status" was associated with significantly higher self-concept scores. The effect was significant for both males and females. The authors concluded that "it would appear that the concept of self is a factor highly related to how elementary school children are perceived by their peers" (p. 220), and suggested "if school personnel can first identify those children who possess negative liking status in the classroom, then efforts can be made to influence their school performance by improving both liking status and self-concept" (p. 221).

The link between peer group acceptance and loneliness has been a focus for other researchers. In an examination of the link between group acceptance and loneliness in children, Asher, Hymel, and Renshaw (1984) used positive nominations and rating scales to classify third through sixth graders into *popular*, *average*, and *unpopular* sociometric groups. They found social status to be significantly, though moderately, related to feelings of loneliness and social dissatisfaction. Children with unpopular status tended to report more loneliness and social dissatisfaction.

In a subsequent study looking at loneliness, Asher and Wheeler (1985) again sociometrically classified third through sixth grade students using rating scales and positive and negative nomination procedures, this time delineating between children who were sociometrically rejected and those who were sociometrically neglected. This investigation stemmed from previous descriptive research and theory suggesting that, while both groups of children may be unpopular, it is rejected children who are at greatest risk for long-term adjustment difficulties. Results found that rejected children did report the highest levels of loneliness, while neglected children did not differ in levels of loneliness from other status groups.

Supporting evidence for the link between group acceptance and loneliness was offered by Dunstan and Nieuwoudt (1994) in their study of a limited population of children in second, fourth, and sixth grade at a private remedial school. An inverse relationship between levels of loneliness (measured by teacher report) and levels of group acceptance was reported. As well, an inverse relationship between self-concept

and levels of group acceptance was found, although the authors warned that the results regarding self-concept should be interpreted cautiously since the validity of the self-concept measure used (i.e., the Piers-Harris Children's Self-Concept Scale) was questionable in the context of the study.

In addition to self-concept and loneliness, researchers have investigated the connection between group acceptance and variables such as social stress and various aspects of school performance and motivation. Frankel (1990) studied perceptions of social stress and support in 11 - 14 year old girls, finding that increased popularity was associated with lower levels of perceived social stress. Interestingly, feelings of social support were not related to sociometric classifications (e.g., popular), but instead appeared related to friendship. Perceptions of support were positively correlated with number of friendship nominations received and participation in a reciprocated best friendship.

Shifting in focus to younger children, O'Neil et al. (1997) examined the correlates of social status over time by assessing children's social status and academic correlates during their kindergarten, first grade, and second grade years. Peer rejection that was stable across two school years (e.g., kindergarten - first grade) was found to be predictive of deficits in social skills, school work habits, and, by second grade, of lower academic performance. Conversely, children who were stably accepted by peers over the early school years appeared to be buffered from early academic difficulties. Ladd (1990) also found that early rejection by peers in the

kindergarten classroom predicted more negative attitudes toward school and lower school performance by the end of the school year.

Studies of friendship. As awareness grew that friendship is a construct distinct from group acceptance, studies investigating the effects of friendship began to appear. Clark and Drewry (1985) conducted an early empirical study addressing friendship as a social experience separate from peer group acceptance and investigating differences between children with and without reciprocated friendships. Looking only at the presence or absence of a reciprocated friendship, Clark and Drewry found no differences in the self-concept of children with friendships and children without friendships. This finding was consistent for both the third graders and sixth graders in the sample.

While Clark and Drewry's (1985) work suggested that friendship may not be an important influencing factor in regard to self-concept, subsequent work has suggested friendship is importantly linked to related outcomes. Other researchers studying friendship have found that children without friends are lonelier (Parker & Asher, 1993), have more difficulty adjusting to school (Ladd, 1990; Ladd & Price, 1987), and, when occurring in conjunction with weak parental bonding, a higher reported occurrence of psychiatric symptoms (Bachar, Canetti, Bonne, De-Nour, & Shalev, 1997).

Other evidence, as well, suggests that friendship may serve a positive or protective role in children's lives. Fordham (1995) examined the role of friendship

for socially anxious nine- and ten-year-olds. She found that social anxiety was negatively correlated with self-worth, putting these children at risk for adjustment difficulties related to poor self-esteem. However, a stronger, positive correlation was found between quality of friendship and feelings of self-worth and perceptions of classmate support. Fordham suggested that a good quality friendship may bolster feelings of self-worth, thus buffering a child from the potentially negative effects of social anxiety.

Studies of peer group acceptance and friendship. Studies that examined group acceptance and friendship separately left many researchers questioning the extent to which outcomes may have been affected by the unconsidered contributions of other domains of peer experience. Consequently, researchers began the process of seeking to disentangle the influences of group acceptance and friendship on children's adjustment. In the past decade, researchers frequently have considered both friendship and group acceptance simultaneously in their designs. Outcome variables such as self-concept and loneliness have been a primary focus of many of these studies, with more recent efforts expanding to consider school-related attitudes and performance, as well. These studies also have included a wide variety of age groups, although age comparisons within studies are rare.

Working from a Sullivian perspective, Mannarino (1978) used the Piers-Harris Children's Self Concept Scale to measure differences in self-concept in sixth grade boys with and without chumships. Though there were no differences in

average levels of social acceptance for boys with and without friends, boys who were involved in a chumship had more positive self-concepts than those who were not.

Mannarino suggested that these findings supported Sullivan's notion that chumships provide opportunities for intimacy and validation that enhance feelings of self-worth.

Bishop and Inderbitzen (1995) studied the same variables in a sample of ninth graders and also found that friendship, rather than group acceptance, accounted for differences in self-esteem. No differences in self-esteem (as measured by the Coopersmith Self-Esteem Inventory) were found between groups of differing sociometric status. However, significant differences in self-esteem were found when students with friendships and students without friendships were compared.

Adolescents with friends reported more positive levels of self-esteem. In addition, having at least one friend, as compared to having no friends, appeared to be the determining factor. Increased numbers of friendships offered no benefits beyond those of having at least one friend.

Bukowski, Hoza, and Newcomb (1991) speculated beyond self-esteem alone and attempted to determine if group acceptance and friendship were uniquely linked to different outcome variables. They found that among their sample of fourth and fifth graders, having friends was uniquely linked to self-esteem while group acceptance was uniquely related to self-perceptions of social competence (cited in Hartup, 1993). Like Mannarino (1978) and Bishop and Inderbitzen (1995), the findings suggested that friendship predicts self-esteem better than group acceptance.

A study by Vandell and Hembree (1994) with a slightly younger age group, third graders, found similar results, but with an unusual twist. Group acceptance was not found to correlate with self-concept except among children classified as neglected, where there was a low negative correlation. Controlling for group acceptance, friendship was correlated with self-concept, but the direction of the correlation depended on level of group acceptance. For children who were not rejected by their peers, self-concept was positively correlated with number of friendships, as might be expected. However, among peer-rejected children, the opposite pattern occurred. Surprisingly, rejected children with no friends reported higher self-concept scores than those with one or more friendships. While noting the need for further investigation of this finding, the authors speculated that the friendships of rejected children may be poor in quality and not emotionally supportive. These children could be more likely to receive negative messages from friends that contribute to lower feelings of self-worth.

Other researchers have examined loneliness as a variable influenced by group acceptance and friendship, many finding that these two types of peer experience appear to have a joint influence on adjustment. Studies of loneliness among both preschool and elementary age children have found that both group acceptance and friendship contribute to feelings of loneliness. Controlling for level of group acceptance, children without friends are lonelier than children with friends (Parker & Asher, 1993). The loneliest children are those with both low group acceptance and no

friends (Renshaw & Brown, 1993). Researchers have speculated that both higher group acceptance and participation in friendships serve as a buffer for loneliness, so that unpopular children with friends are protected by their friendships and popular children without friends are protected by their popularity (Parker & Asher, 1993; Renshaw & Brown, 1993).

This mechanism may be especially powerful for children who are rejected by their peers. A study of loneliness in four- and five-year-olds by Sanderson and Siegal (1995) found that rejected preschoolers with friends were no more lonely than their non-rejected peers with friends. Friendship did not mediate loneliness in this way among average-accepted children, suggesting that friendship may have special benefits for rejected children at this age.

Other researchers have offered a more complex interpretation of the relationship between group acceptance, friendship, and loneliness. Using path analysis techniques, Bukowski et al. (1993) agreed that participation in friendship is directly linked to feelings of loneliness, but concluded that group acceptance is only linked to loneliness indirectly. Group acceptance is, instead, linked directly to another variable: children's feelings of inclusion and social belongingness, which then influences emotional well-being. The authors suggested that friendship mediates the link between popularity and loneliness, acting as a buffer against feelings of loneliness.

Although socioemotional outcomes have been a primary focus of studies of peer acceptance and friendship, investigations have examined school-related attitudes and academic achievement as well. Studies of five- and six-year-olds have found both friendship and group acceptance to be linked to social dissatisfaction and school liking (Ladd & Coleman, 1997; Ladd, Kochendorfer, & Coleman, 1997), while both have been linked to academic achievement (Diehl, Lemerise, Caverly, Ramsay, & Roberts, 1998; Wentzel & Caldwell, 1997) and attitude toward school (Diehl et al., 1998) in older elementary age children.

In summary, research has indicated that both types of peer relationships, peer group acceptance and friendship, contribute in important ways to child development. Self-concept, loneliness, and school related attitudes and performance have received the most attention as outcome variables. A common postulate has been that a lack of one of these peer relationships may be made up for by the positive presence of the other (e.g., the effects of peer group rejection may be tempered by the presence of a friendship). Many investigators appear to concur with the conceptualization of friendship as a "buffer" against negative outcomes associated with otherwise poor peer relationships.

However, the picture remains in need of further clarification. There appears to be a general consensus that both group acceptance and friendship are linked to some degree with self-concept (Bradley & Newhouse, 1975; Dunstan & Nieuwoudt, 1994; Fordham, 1995; Mannarino, 1978; Vandell & Hembree, 1994), loneliness and

social dissatisfaction (Asher et al., 1984; Asher & Wheeler, 1985; Crick & Ladd, 1993; Dunstan & Nieuwoudt, 1994; Frankel, 1990; Parker & Asher, 1993), and perhaps school adjustment (Ladd, 1990; Ladd & Price, 1987; O'Neil et al., 1997), with few studies (Clark & Drewry, 1985) offering contradictory evidence. Still, research that has endeavored to separate out the effects of peer acceptance and friendship suggests that each may be more uniquely predictive of some variables than others. Thus far, this evidence indicates that friendship may be more singularly linked to self-concept (Bishop & Inderbitzen, 1995; Bukowski et al., 1991; Vandell & Hembree, 1994), while group acceptance is more influential on other variables, perhaps perceptions of social competence (Bukowski et al., 1991) or feelings of belongingness (Bukowski et al., 1993).

An additional element of this research that requires further clarification is the significance of age-related factors. As a whole, this body of research includes a wide range of age groups, but offers little in the way of developmental comparisons. The importance of understanding these connections is addressed in the following section.

Developmental Considerations

Although developmental differences in children's conceptions of friendships and interpersonal competencies have been well described and documented over the years, developmental considerations have not been a major focus of research examining outcomes related to peer group experiences. This is the case despite the evidence that developmental stage is likely an important factor.

Sullivan (1953) theorized that a person's relational needs change from one developmental period to the next. As summarized previously, he believed that the need for group acceptance was of greatest importance for healthy adjustment during the juvenile period, while the need for intimacy, afforded by close friendships, became the critical relationship during preadolescence.

Changes in the dominant social goals of each stage, mirroring those proposed by Sullivan, have been observed through observation of children's conversations with friends. These reflect developmental changes in their themes. In early childhood, conversations center on fun through coordinated play. During middle childhood, the issues of self-presentation, inclusion by peers, and avoidance of rejection become central in children's talk. Conversations in early adolescence shift to a focus on self-exploration, self-definition, self-disclosure to others, and problem-solving personal issues with friends (Gottman & Mettetal, 1986; Parker & Gottman, 1989). These observations indicate that children's interpersonal concerns shift as they age.

As children mature, they become increasingly aware of the complexities of peer relationships. Research suggests that the distinction between popularity and friendship in children's peer relationships increases with age. For preschool age children, the number of friends a child has and his or her social status are highly related (Rizzo, 1988), but the size of this association between group acceptance and having friends decreases with age (Bukowski, Pizzamiglio, Newcomb, & Hoza, 1996). Dunstan and Nieuwoudt's (1994) study of second, fourth, and sixth graders

bears out these findings for elementary age children. They found that the younger children in their sample were more likely to nominate the same few children as friends (i.e., a "core group" of popular children), while older children were more diverse in their nominations. This suggests that as children grow older, their friendships are more likely to include children with different standings in the social group. Consequently, there is a greater likelihood that a child would be engaging in friendships even in the absence of popularity, and conversely, that a child could experience high levels of peer acceptance without necessarily having close friendships.

Research on children's awareness of peer preferences supports the idea that children's conceptions of peer acceptance and friendship become increasingly complex as they age. Krantz and Burton (1986) found that children became better at accurately identifying the preferred playmates of peers as they grew older, suggesting that with development comes increased awareness of peer dynamics. Children also appear to become increasingly able to differentiate complex dimensions of friendship, such as support and conflict, as they age (Berndt & Perry, 1986).

Very few researchers to date have specifically addressed potential developmental differences in the influence of peer group experiences. Even when multiple age groups are included in studies, analyses exploring potential group differences are often lacking. An example is Dunstan and Nieuwoudt's (1994) study of second, fourth, and sixth graders. The study is almost singular in its inclusion of

three distinct age groups in a study addressing peer experiences and related socioemotional outcomes. Unfortunately, the sample was limited by its low numbers and, as it was drawn from a private remedial school, its restricted representativeness. In addition, age correlations, rather than age group comparisons, were the only analyses conducted. Consequently, age-related group differences may have been obscured. Findings did indicate that, overall, level of group acceptance was negatively correlated with both loneliness and self-concept. Possible age differences in levels of loneliness and self-concept were not explored. Similarly, an extensive study by Crick and Ladd (1993) compared third and fifth graders on several dimensions, including level of group acceptance and loneliness, but gave only minimal attention to the possible interaction of grade, feelings, and peer status. The study did report that third graders tended to report higher levels of loneliness than fifth graders, while fifth graders reported higher levels of social anxiety than third graders. However, interactions between these variables and group acceptance were not addressed.

A few investigators have explored and reported actual group comparisons, with the aim of exploring developmental differences. Clark and Drewry (1985) included both third and sixth graders in their sample and conducted between-groups comparisons by grade level. As previously mentioned, their findings also were unique in being the only reported study not to find differences in self-concept

between children with and without friends. This result was the same for both third and sixth graders, suggesting no developmental differences in this area.

Some researchers have found evidence for developmental differences in the influence of peer experiences on adjustment. Buhrmester (1990) directly compared preadolescent and adolescent samples to determine whether the strength of the association between friendship intimacy and psychosocial adjustment increased with age. His findings indicated that the association did increase with age, suggesting that intimate friendships become increasingly important as children develop.

Other possible developmental differences are suggested by comparisons of research studies looking at single age groups. For example, there is a fairly consistent consensus among studies (reviewed in the preceding sections) that having a friend is associated with better self-concept, but most of these studies were conducted with preadolescents or early adolescents (Bishop & Inderbitzen, 1995; Bukowski et al., 1991; Fordham, 1995; Mannarino, 1978). Of the only two studies found that examined the link between friendship and self-concept in younger children, both looking at third graders, there is no consensus. One found no differences in self-concept related to having friends (Clark & Drewry, 1985), while the other found differences, but some unexpected patterns related to those differences (i.e., that rejected children with friends have lower self-concept than those without friends) (Vandell & Hembree, 1994). These findings suggest that perhaps developmental

differences in the influence of friendship on self-concept do exist; certainly, there is room for further clarification of the matter.

There appears to be a need for more research addressing developmental factors. While investigators may identify a particular developmental context of focus in their studies, comparisons across ages or developmental stages is rare. No known studies thus far have included both group acceptance and friendship as variables and explored age group differences. In their recent volume on children's friendships and peer relationships, editors Bukowski, Newcomb, and Hartup (1996) noted this lack of recent attention given to age differences in the properties and effects of friendship, and urged increased concern for this area. Others have drawn attention to this need, as well (Furman, 1993; Parker & Asher, 1987).

Sense of Belongingness at School

Recent years have seen a more intensive interest in endorsing the importance of studying the interpersonal contexts in which education takes place. Schools are now urged to strive to become "communities of learning," where respectful relationships among all members of the community is a primary goal (Carnegie Council on Adolescent Development, 1989). Researchers have come to embrace the idea that learning is not an individual pursuit, but something that is achieved through interactions with others. To better understand learning and motivation at school, the influence of the social context must be understood. Goodenow (1992) has argued that

"learning, development, and education are so fundamentally embedded in a social matrix that they cannot be truly understood apart from that context" (p. 178).

Belongingness, or a sense of being an included and valued part of a group, may be a critical dimension of the social educational context. The need to belong appears on Maslow's (1962) hierarchy of human needs as a prerequisite that must be met before higher needs, such as the desire for knowledge, can be met. In a seminal paper, Baumeister and Leary (1995) strongly argued the case of the "belongingness hypothesis," that the need to belong is a "fundamental human motivation" (p. 497) and that "much of what human beings do is done in the service of belongingness" (p. 498). The failure to form and maintain at least a minimum level of interpersonal attachments has negative effects on health, adjustment, and feelings of well-being (Baumeister & Leary, 1995).

Goodenow (1992) suggested that perceived belonging and support at school may be the single most critical factor influencing whether at-risk students stay in school and achieve academically or not. Alienated students, those without a sense of school belonging and identification with school goals, may feel there is little reason to remain in the school environment and be tempted simply to drop out of an unrewarding environment. Conversely, at-risk students who do feel a sense of connection and identification may be protected enough by those feelings of belonging to prevent dropping out (Finn, 1989).

In an effort to address these theories empirically, Goodenow spearheaded a series of studies examining the relationship of sense of classroom belonging to school motivation and achievement (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993). Using the Psychological Sense of School Membership scale (PSSM), a measure developed specifically for use with adolescents in the area of school belongingness research, she found a clear connection between sense of belongingness in the school environment and several important school variables. Belongingness was found to be correlated with self-reported school motivation (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993) grade point average (Goodenow, 1993b), and to a lesser degree with school effort and involvement (Goodenow, 1993b). Sex differences also were found for school belonging, suggesting that adolescent girls feel more comfortable and included at school than adolescent boys (Goodenow, 1993b). The authors suggested that sense of belongingness may influence motivation levels, which in turn affect school behavior and achievement.

Interestingly, grade-related differences were found in the influence of belonging on motivation. In a sample of sixth, seventh, and eighth graders, Goodenow (1993a) found that the correlation between belonging and motivation decreased with age. The developmental implications of this suggest that as students grow older, feelings of belonging or supportiveness by others at school become less important or influential in maintaining motivating feelings or expectancies.

More recently, other researchers also have found relationships between school belonging and increased academic achievement (Roeser et al., 1996), decreased feelings of self-consciousness (Roeser et al., 1996), positive affect (Anderman, 1999), and an increased focus on academic tasks (Anderman & Anderman, 1999). Though the direction of causality is still in question for all of these correlations, these findings suggest that belongingness is a variable of some importance in many aspects of the educational context.

Throughout the school belongingness research, the implication that feelings of belongingness are linked to level of peer group acceptance is clear, but the actual association between the two variables has not been well substantiated. The only empirical evidence offered that corroborates the suggestion of a link is a correlation between teacher ratings of peer status and self-reports of belongingness (Goodenow, 1993b). An examination of belongingness and group acceptance as derived from student report (i.e., peer group acceptance ratings) has not yet been reported.

Sex and Ethnicity as Variables in Children's Peer Relationships

Although a primary focus of the current review has been developmental (i.e., age-related) differences in children's peer relationships, a review of the literature in this area would not be complete without a discussion of two other important intrapersonal variables: sex and ethnicity.

Sex differences in children's peer relationships. It has been well established that sex differences are a highly salient characteristic of children's friendships and

peer relationships. By two years of age, children can distinguish males from females (Thompson, 1975). By three years of age, they can accurately label the sex of self and others, and they begin to show awareness of sex stereotypes (Cowan & Hoffman, 1986). From approximately age three onward, children exhibit an increasing preference for same-sex peers that does not begin to abate until adolescence. Sex-segregation in friendship and play is clearly apparent in the elementary school setting, especially between the third and sixth grades, when it may reach its peak. Beginning in about sixth grade, sex-segregation in peer relationships begins to decline, with cross-sex relationships becoming more common during high school years (Shrum, Cheek, & Hunter, 1988).

Qualitative differences in boys' and girls' peer relationship patterns tend to be characterized by a focus on intimacy in relationships for girls and a connection with the larger peer group for boys. Girls' friendships are typically more intimate and exclusive than boys', a pattern that continues from childhood into adolescence (Berndt, 1982). In elementary school, girls tend to associate in smaller peer clusters than boys (Benenson, 1990; Ladd, 1983), but are closer in their relationships (Erwin, 1993). Play is typically in intimate groups or pairs (Benenson, Apostoleris, & Parnass, 1998; Gilligan, 1982). In contrast, elementary age boys associate in larger peer clusters, often participating in team related activities or competitive play (Erwin, 1993), but have less intimate individual friendships. Although peer cluster size may differ for boys and girls, research suggests that across developmental age groups,

boys and girls have a similar number of "best friends" in their respective peer groups at school (Benenson, 1990; Cairns, Perrin, & Cairns, 1985; Ray, Cohen, & Secrist, 1995), although girls' friendships still exhibit higher levels of intimacy (Buhrmester, 1990; Erwin, 1993).

Relationship to the larger peer group may be more important for boys than girls when it comes to social competence and social status. Waldrop and Halverson (1975), in a study of the peer interactions of seven-and-a-half-year-olds, found that correlates of social competence were different for boys and girls. Girls who were highly intensive in their relationships were more socially adept in their same-sex peer group, while boys with more extensive relationship networks were more socially adept in their same-sex peer group. The size of boys' peer networks appears to be significantly related to social status, as well. Benenson (1990) examined social status (i.e., group acceptance/popularity) among 9 - 11 year-olds and found that, for boys, peer cluster size was highly correlated with higher social status ($r = .72$). For girls, the correlation was much smaller ($r = .28$).

Despite these sex differences in relation to the relative importance of the larger peer group, group acceptance remains an influential variable on girls' peer relations. A study of children in kindergarten, first, third, and fourth grades reported that, beginning in kindergarten, girls with similar levels of group acceptance interacted significantly more with each other than with girls of different status (Gottman, 1986). This was true irrespective of level of group acceptance, meaning

that higher accepted girls tended to associate among themselves, and lower accepted girls tended to associate among themselves. Interestingly, the same pattern of behavior did not appear for boys until the fourth grade. The author suggested that girls may be relatively more aware of their social status at an early age, and that awareness was influential in determining their peer interactions with similar status peers.

An ethnographic study by Eder (1985) examining an older (adolescent) age group also found group acceptance to be an important variable for girls. Girls expressed high levels of concern and interest in identifying who was most popular at their school. And even though many of the girls' friendships were outside of the popular cluster of girls, all of the girls were still strongly influenced by their own level of perceived popularity within the greater peer group. Benenson et al. (1998) suggest that, in contrast to boys, girls appear to be functioning at two levels of peer relations simultaneously. Girls sustain an intensive focus on their more intimate friendships and small group interactions, while concurrently maintaining an acute awareness of the dynamics of social status within the larger peer group.

Ethnicity as a variable in children's peer relationships. Awareness of racial and ethnic differences among humans begins at an early age, and expression of racial/ethnic group preference may even precede the cognitive ability to accurately identify individuals of different races. Children generally can correctly identify Black individuals from White individuals by five years of age. The ability to accurately

recognize other ethnic groups is close behind, developing by about seven years of age (Foster, Martinez, & Kulberg, 1996). However, researchers have found that children express positive attitudes toward their own group as early as 3 - 4 years of age (Aboud, 1987). By 10 - 12 years of age, children identify with and show a greater preference for their own ethnic group as a point of reference for normative behavior (Spencer & Markstrom-Adams, 1990).

Ethnicity plays a role in both peer group acceptance and friendships among children. Research has consistently found that elementary-age Black and White children show same-race preferences in their sociometric choices and friendship nominations, and observational studies have reported that Black and White children interact more frequently with same-race peers in the classroom setting (Foster et al., 1996). At the same time, researchers analyzing ethnic differences in sociometric studies involving ethnically heterogeneous populations have not found disproportionately higher numbers of children of a particular ethnicity to be socially rejected. Studies involving Black/White (Patterson, Kupersmidt, & Vaden, 1990; Wentzel, 1991), Caucasian/East Indian/Oriental (Bichard, Alden, Walker, & McMahon, 1988), and Asian-/African-/Euro-/Spanish-American (Howes & Wu, 1990) children have not found a significant relationship between social status and ethnicity. In addition, despite same-race preferences, many children report having friendships with children of other ethnicities at school (Hallinan & Teixeira, 1987; DuBois & Hirsch, 1990; Howes & Wu, 1990). Graham et al. (1998) followed

elementary age children (grades 1 - 6) longitudinally and found children's preference both for same-sex and same-race friendships increased with age; however, overall, sex appeared to be a more salient consideration in friendship choices than race.

While it is evident that both sex and ethnicity are variables related to preference in children's peer relationships, one appears to be more influential than the other. Although same-race preferences in friendships exist, sex-segregation, as opposed to ethnic group-segregation, is the dominant pattern in children's peer relationships. Foster et al. (1996) reported that most researchers in this area agree on this point: that sex appears to be a more instrumental variable in friendship choices and social status than ethnicity.

THE CURRENT STUDY

Study Rationale

Group acceptance and friendship are argued to become increasingly distinct forms of experience as children grow older (Bukowski et al., 1993; Bukowski, Pizzamiglio, et al., 1996). While both undoubtedly affect children of all ages to some degree, there is evidence to suggest that each may exert influence differentially depending on the stage of social development a child is experiencing (e.g., Bishop & Inderbitzen, 1995; Buhrmester, 1990; Clark & Drewry, 1985). There also is evidence that each may exert influence differentially depending on outcome (e.g., Bukowski et al., 1993; Bukowski et al., 1991; Ladd et al., 1997). Research is moving in the direction of trying to identify which types of peer experiences are more or less important based on the outcome examined. Developmental stage may be another important, though underconsidered, factor in whether a certain type of peer experience has more or less influence on adjustment at particular points in time in a child's life.

A principal area of investigation for the current study was to examine how friendship affects children at different developmental stages. It was proposed that friendship does serve as a buffer against the effects of other negative influences or peer group experiences, as has been suggested by several researchers (e.g., Bukowski et al., 1993; Fordham, 1995; Parker & Asher, 1993; Renshaw & Brown, 1993), but that the strength of this effect is linked to developmental stage. It was hypothesized

that children in the stage of social development Sullivan called the juvenile stage are much less influenced by the protective factors of friendship than children in the Sullivanian preadolescent stage. This premise is rooted in theories of developmental differences in the affordances or functions of social experiences put forth initially by Sullivan (1953), and supported by later writers such as Furman and Robbins (1985). Namely, the theories assert that learning behavioral norms and to negotiate in a group of peers is the primary social task of juvenile age children, and thus group acceptance is the most essential social factor for healthy emotional development in children this age; the theories also assert that experiencing intimacy in a dyadic relationship as a way of learning about the self, and as a precursor to being able to form later adult romantic relationships, is the primary social task of preadolescence, thus the experience of intimacy through friendship becomes the most important factor at this age. Sullivan (1953) believed that these experiences had an impact on self-esteem, and subsequent research has suggested that there is a connection (e.g., Bishop & Inderbitzen, 1995; Bradley & Newhouse, 1975; Bukowski et al., 1991; Dunstan & Nieuwoudt, 1994; Fordham, 1995; Mannarino, 1978; Vandell & Hembree, 1994).

Following Sullivan's theories and the lead of researchers who have considered self-concept an important variable in children's peer relations research, self-concept was chosen for the current study as an outcome variable. Consequently, it was expected that having a reciprocated classroom friendship would have a greater influence on self-concept in preadolescent children than in juvenile children.

Additionally, it was expected that level of group acceptance would have a greater influence on self-concept in juvenile children than in preadolescent children.

Controlling for level of group acceptance, friendship was expected to have an effect on self-concept at both ages. However, differences between children with and without reciprocated classroom friendships, at each group acceptance level, were expected to be greater for preadolescent age children.

The second principal area of investigation for the current study was to examine how classroom friendships and group acceptance at school may exert influence differentially depending on the outcome measured. While postulating that friendship would be tied most closely to self-concept, group acceptance was hypothesized to be linked more strongly to feelings of belongingness, or sense of group membership. Newly introduced ideas and research on belongingness suggest that it is a variable importantly linked to school outcomes for children (e.g., Goodenow, 1993a, 1993b; Goodenow & Grady, 1993). As a developing and relatively unstudied area of research, few studies examining belongingness as a variable in school populations exist. Those that do support the notion that group acceptance may be uniquely linked to feelings of belongingness (Bukowski et al., 1993). Others have found links between group acceptance and variables that may be conceptually linked to feelings of belongingness, such as loneliness and social satisfaction (Asher et al., 1984; Asher & Wheeler, 1985; Dunstan & Nieuwoudt, 1994; Frankel, 1990; Parker & Asher, 1993).

In an exploratory vein, the current study also predicted that peer group acceptance would influence feelings of belongingness at school at all ages. Specifically, children at different levels of peer group acceptance were expected to report differences in feelings of belongingness. Because this was a variable hypothesized to be uniquely linked to group acceptance, children with classroom friendships were not expected to report different levels of belongingness than children without classroom friendships. These patterns were expected to manifest for both juvenile and preadolescent age children.

Although the primary focus of the current investigation was developmental differences, sex differences in children's peer relationships have been well documented, and this variable also was expected to have an influence on outcomes. It was anticipated that friendship would have a greater effect on outcome variables for girls than boys, and group acceptance would have a greater effect on outcome variables for boys than girls. Research suggests that boys are more oriented toward the larger peer group, while girls are more oriented toward smaller, more intimate relationships, and that this qualitative difference continues across developmental stages (i.e., childhood to adolescence) (Berndt, 1982; Erwin, 1993). The size of a child's peer cluster (i.e., the group with whom a child associates) has been found to be more related to social status for boys than for girls (Benenson, 1990). Additionally, social competence has been found to be more highly related to intensity of

relationships for girls, and extensity of relationships for boys (Waldrop & Halverson, 1975).

While ethnicity also has been established as an influential variable in children's peer relationships, it was not expected that ethnic group differences would occur in the present study. Research generally has not found a significant relationship between social status and ethnicity (e.g., Bichard et al., 1988; Howes & Wu, 1990; Patterson et al., 1990). Additionally, despite evidence for same-race preferences in friendships, cross-race friendships are commonly reported (e.g., Hallinan & Teixeira, 1987; Howes & Wu, 1990), and friendship choices appear to be more strongly driven by sex preferences than race (Graham et al., 1998).

In sum, the conceptual basis of the current study hinges on the premise that friendship contributes to how a child feels about him- or herself (i.e., self-concept) to a greater extent once friendship becomes a more meaningful relationship to the individual on a developmental level. It is not until intimacy becomes an important device for learning about the self through another person that friendship has a primary impact on the opinions one forms about oneself. Up until that point, the extent to which one is successful or not successful in learning how to be a part of a group (i.e., group acceptance) is the primary standard by which one judges oneself. For this reason, group acceptance feeds into self-concept to a greater extent at earlier ages, but less so at later ages when friendship becomes more powerful as a potential buffer. However, while the importance of being part of the group may wane in its ability to

influence self-concept, it retains influence over feelings related to a sense of belongingness--such as loneliness, social satisfaction, and happiness at school.

Statement of Purpose

The current study aimed to contribute to the research base in several ways. First, the study sought to clarify whether developmental differences in the influence of friendship and group acceptance exist, something that has not been explicitly addressed by previous studies. Though many studies of group acceptance and friendship have included a range of ages, crossing possible developmental stages, potential developmental differences typically are not a focus of the research or systematically investigated (e.g., Asher et al., 1984; Asher & Wheeler, 1985; Frankel, 1990; Parker & Asher, 1993; Renshaw & Brown, 1993). The few studies that have taken a developmental approach (e.g., Buhrmester, 1990; Clark & Drewry, 1985; Crick & Ladd, 1993) have left many areas to be explored. No studies thus far have examined both variables of group acceptance and friendship while simultaneously including age-related comparisons as an aspect of the design.

In addition, the relationship between sense of belongingness, group acceptance, and friendship at school was explored. The application of sense of belongingness as a variable to research on group acceptance and friendship was a new use of this variable. Finally, in conjunction with the use of belongingness as a variable, the study explored whether a newly developed belongingness measure, the Psychological Sense of School Membership scale, was valid for use with children

younger than preadolescents. Thus far, its use has not been reported with children below the age of nine years.

Research Questions and Hypotheses

The current study sought to answer the overarching questions: Do group acceptance and participation in a classroom friendship influence children's self-concept differentially, depending on the developmental stage of the child? And, do group acceptance and participation in a classroom friendship perhaps uniquely exert influence on a child's adjustment, depending on the outcome variable being measured? To answer these questions, more specific subsets of questions were asked.

First, does participation in a classroom friendship provide children with benefits (e.g., improved self-concept) not afforded to those without such friendships? And if so, does friendship's influence vary with the age of the child, where greater benefits are afforded to preadolescent children than to juvenile stage children? Next, does level of group acceptance influence children's self-concept? And if so, does this effect vary with age? Particularly, does group acceptance affect self-concept to a greater extent for younger children?

To address the second overarching question of whether group acceptance and friendship influence children's adjustment differentially depending on the outcome being measured, sense of school belongingness was chosen as a potentially uniquely linked outcome variable. Specific questions of interest regarding the relationship between group acceptance, friendship, and belongingness were: Does group

acceptance, as opposed to friendship, uniquely predict feelings of school belongingness in children? And, does this relationship exist independent of developmental stage?

Hypotheses addressing each of these areas were as follows:

Hypothesis 1

Controlling for level of group acceptance, it was expected that there would be a significant difference between self-concept scores of children with classroom friendships and children without classroom friendships, with self-concept scores of children with classroom friendships predicted to be higher. This effect was expected to occur at both grade levels. Additionally, an interaction effect for sex and friendship was expected, where the difference between self-concept scores for children with and without friendships would be greater for girls than for boys.

Rationale: This hypothesis is consistent with a majority of researchers who have found that having a friend is associated with better self-concept (e.g., Bishop & Inderbitzen, 1995; Bukowski et al., 1991; Fordham, 1995; Mannarino, 1978). It does contradict Clark and Drewry's (1985) finding of no differences in self-concept between children with and without friends; however, is it possible that in this study differences in self-concept may have been masked by the failure to control for level of group acceptance. Controlling for level of group acceptance in the current study, it was expected that difference between subgroups would emerge. Predicted sex differences were based on research suggesting intimacy in relationships, a hallmark of

friendship, is more important to girls than boys during elementary school (Berndt, 1982; Erwin, 1993; Waldrop & Halverson, 1975).

Hypothesis 2

It was expected that there would be a greater difference between self-concept scores of children with and without classroom friendships for fifth graders than for second graders. This was expected to be seen as a significant interaction effect for the variables of grade and friendship. Additionally, as in Hypothesis 1, an interaction effect for sex and friendship was expected, where the difference between self-concept scores for children with and without friendships would be greater for girls than for boys. This effect was expected to occur at both grade levels.

Rationale: Sullivan's (1953) theories suggest that friendship becomes increasingly important and influential on self-concept as children age. This was expected to be a result unaffected by level of group acceptance.

Hypothesis 3

Self-concept would be more strongly related to level of group acceptance for second graders than for fifth graders. Additionally, there would be a stronger relationship between self-concept and group acceptance for boys than girls, at both grade levels.

Rationale: Sullivan's (1953) theories suggest that self-concept is more influenced by group acceptance in juvenile children than in preadolescent children. Finding that group acceptance is associated with self-concept, when friendship is not

considered as a potential buffering variable, would be consistent with previous studies of group acceptance (e.g., Bradley & Newhouse, 1975; Dunstan & Nieuwoudt, 1994). Predicted sex differences were based on findings that association with the larger peer group is more important to boys than to girls during elementary school (Berndt, 1982; Erwin, 1993), and that a larger social network is related to greater social competence among boys, but not among girls (Waldrop & Halverson, 1975).

Hypothesis 4

It was predicted that, at both grade levels, group acceptance would be positively associated with school belongingness scores. It was expected that a stronger association might occur for boys than for girls, at both grade levels.

Rationale: This finding would be consistent with Goodenow's (1993b) reported positive correlation between teacher ratings of peer status and student reported feelings of belongingness. As in Hypothesis 3, the prediction of a sex difference in the relative strength of the association was based on findings that association with the larger peer group is more important to boys than to girls during elementary school (Berndt, 1982; Erwin, 1993).

Hypothesis 5

At both grade levels, there would be no difference between school belongingness scores of children with classroom friendships and children without classroom friendships.

Rationale: This hypothesis was exploratory in nature and based on the premise that group acceptance and friendship may be uniquely linked to different outcome measures. Postulating that feelings of belongingness stem from large-group dynamics, friendship, as a more intimate dyadic relationship, was not expected to have a measurable impact on a child's feelings of inclusion in the overall group.

Hypothesis 6

There would be no significant differences among ethnic groups for the group acceptance and friendship variables.

Rationale: This hypothesis was consistent with research indicating that friendship choices appear to be more strongly driven by sex preferences than by race (e.g., Graham et al., 1998). It also was consistent with previous findings that have not found a significant relationship between social status and ethnicity (e.g., Bichard et al., 1988; Howes & Wu, 1990; Patterson et al., 1990).

CHAPTER III

Methodology

Participants

Participants were 258 second grade students and 182 fifth grade students attending two, neighborhood public schools located in a large suburban area in southeast Texas. Of the entire sample, 233 participants (53%) were female and 207 (47%) were male. Participants ranged in age from 7 - 12 years. The mean age of second graders was 7.74 years (range = 7 - 9 years) and the mean age of fifth graders was 10.79 years (range = 10 - 12 years). For the second grade sample, 36% of the total sample was comprised of 7-year-olds ($n = 82$) and 64% was comprised of 8-year-olds and 9-year-olds ($n = 147$). Of the entire sample, 7% of the participants were Asian, 13% were Black, 29% were Hispanic, and 51% were White. Information regarding the variables of sex, age, and ethnicity is presented in Table 1.

Ethnic demographics for the four school/grade subgroups were tabulated, then compared to complete grade level data (i.e., all students enrolled at that grade level) for each school in order to examine whether there appeared to be any participant bias related to ethnicity. Overall, participant demographics were a close reflection of whole school demographics across school and grade levels. For each school and grade level, differences between whole grade level ethnicity percentages and sample data ethnicity percentages were no more than 2 percentage points for any ethnic subgroup, with two exceptions. The sample percentage of School 2/Grade 5/Hispanic

participants was 19%, compared to a 23% occurrence of this ethnic group among fifth graders at School 2 (-4% difference), and the sample percentage of School 2/Grade 5/White participants was 69%, compared to a 63% occurrence of this ethnic group among fifth graders at School 2 (+6% difference). Overall, however, it appeared that sample ethnic demographics closely paralleled whole school/grade level ethnicity demographics.

Table 1

Sex, Age, and Ethnicity Demographics for Subgroups of the Sample Population

Variable	School 1 Grade 2	School 2 Grade 2	School 1 Grade 5	School 2 Grade 5	Total
Sex					
Male	<i>n</i> =60	<i>n</i> =67	<i>n</i> =36	<i>n</i> =44	<i>n</i> =207
Female	<i>n</i> =65	<i>n</i> =66	<i>n</i> =52	<i>n</i> =50	<i>n</i> =233
Total	<i>n</i> =125	<i>n</i> =133	<i>n</i> =88	<i>n</i> =94	<i>N</i> =440
Age (years)					
Mean	7.83	7.66	10.82	10.76	8.99
SD	0.58	0.55	0.49	0.58	1.60
Ethnicity					
Asian	6% <i>n</i> =7	10% <i>n</i> =13	9% <i>n</i> =8	4% <i>n</i> =4	7% <i>n</i> =32
Black	23% <i>n</i> =28	8% <i>n</i> =10	15% <i>n</i> =13	7% <i>n</i> =7	13% <i>n</i> =58
Hispanic	40% <i>n</i> =50	21% <i>n</i> =28	34% <i>n</i> =30	19% <i>n</i> =18	29% <i>n</i> =126
Native American	0% <i>n</i> =0	0% <i>n</i> =0	0% <i>n</i> =0	0% <i>n</i> =0	0% <i>n</i> =0
White	32% <i>n</i> =40	62% <i>n</i> =82	42% <i>n</i> =37	69% <i>n</i> =65	51% <i>n</i> =224

Measures

Assessment procedures for the proposed study had four major aims:

- 1) To assess level of classroom peer group acceptance for each child participant.
- 2) To determine whether or not a child was participating in a mutually reciprocated classroom friendship.
- 3) To measure each child participant's level of self-concept.
- 4) To measure each child participant's sense of school belonging.

Student Demographic Information

Participant demographic information related to ethnicity was obtained through school district records, and categorical labels reflect school district terminology (i.e., Asian, Black, Hispanic, Native American, White). Demographics related to age were obtained through self-report, with participants being asked at the time of data collection to report the number of years of age they were. Information related to participant sex was also obtained through self-report, with participants being asked to circle or write "boy" or "girl" on one of the measures.

Peer Group Acceptance Measure

The purpose of utilizing a peer group acceptance measure was to assess a child's peer group status from the perspective of his or her classroom peer group as a whole. The decision to use a peer group acceptance technique necessitated choosing

from among the variety of techniques and formats that have been used for this purpose.

Two primary methods of gathering sociometric data are the peer nomination method and the peer rating method, with some researchers combining the use of both (e.g., Asher & Dodge, 1986; Diehl et al., 1998). The peer nomination method generally entails asking students to nominate a specified number of classmates that fit a stated criterion. For example, a participant might be asked to indicate the three classmates he or she likes the most (i.e., positive nominations) and the three classmates he or she likes the least (i.e., negative nominations). The nominations can then be used to divide children into different social status classifications (e.g., *average, popular, rejected, neglected, controversial*) based on an established methodology (e.g., Coie et al., 1982; Parker & Asher, 1993). The peer rating method involves asking children to rate each classmate on a dimensional scale based on some established criterion. For example, a child might be presented with a Likert scale and asked to rate how much he or she likes each classmate using the points on the scale (e.g., 1 = *like a lot*; 5 = *don't like at all*). The resulting peer acceptance ratings can then be averaged and used in correlational analysis (e.g., Ladd et al., 1997; Wentzel & Caldwell, 1997) or used to classify participants into social status groups (e.g., Asher & Dodge, 1986).

It is important to note that concerns about the use of sociometric assessment devices have been expressed by some institutional review boards, schools, and

parents (Iverson, Barton, & Iverson, 1997). Ethically, concerns have been raised that children, particularly less well-accepted children, may be at risk for experiencing negative feelings or treatment after completing sociometric measures. In that they ask children to acknowledge negative feelings or thoughts about their peers, sociometric rating scales also seem to contradict values taught to children by adults (Hayvren & Hymel, 1984; Iverson et al., 1997). In recent years, researchers have addressed the first set of concerns, regarding risk of harm, in the form of empirical studies using observational and self-report data. The results of these investigations are consistent in their findings that children do not appear to have negative experiences, neither in their interactions with peers nor in their affect or mood, as a result of participating in sociometric peer-rating tasks (Bell-Dolan, Foster, & Sikora, 1989; Hayvren & Hymel, 1984; Iverson et al., 1997). Iverson et al. (1997), in a recent and thorough investigation, set themselves the goal of determining whether the human subjects' rights standard of "minimal risk of harm, harm not greater than that children might encounter in daily life" (p. 104) was met when sociometric rating scales were used, and concluded that it was. Also addressing the question of value concerns, the authors stated,

[i]n response to the concern that children should not receive implicit sanction from adults to say negative things about others, we propose that it is psychologically healthy to be able to privately express (and not deny) negative

thoughts and feelings about peers, yet not make thoughts and feelings public and openly hurtful (p. 111), and went on to note that "many children [in the study] reported that what they liked most about the sociometric experience was the opportunity to express their real feelings" (p. 11).

For the purposes of the current study, use of the peer rating technique was selected. The peer rating technique was believed to be most desirable as it allowed for avoidance of the use of negative peer nominations, which may have undermined the study's acceptance at data collection sites, while simultaneously allowing for the collection of data regarding feelings of dislike among classmates. Additionally, although students may rate a classmate as "not liked" on the scale, use of the peer rating technique does not require them to identify any classmate as "disliked." A student may rate all classmates as "liked," if that is how he or she feels. Another advantage of the peer rating method is each participant provides data on how he or she feels about every classmate, not just a limited few.

An additional measurement issue was whether to use the peer group acceptance data as a continuous or discrete variable. As previously noted, researchers have used peer rating data both to conduct correlational analyses and to classify participants into social status groups. Although social status classifications are widely used, and often believed to provide richer, more descriptive information about samples, there are several problems associated with their use. A primary difficulty is

that sometimes the data results in high numbers of participants falling into an "unclassifiable" category, meaning that these participants do not fit the criteria for any of the other categories. Several recent studies have reported "Unclassifiable" rates of 21% (Diehl et al., 1998), 27% (Bishop & Inderbitzen, 1995), 37.5% (Asher & Dodge, 1986), and 39.1% (Ray et al., 1995). In addition, because the relative proportion of some social status categories (e.g., rejected) are typically low, there is danger of attaining very low numbers in certain categories, which could severely limit the statistical analyses and comparisons that can be made. Due to these concerns about likely loss of usefulness of significant amounts of data, it was decided to use the peer group acceptance ratings as a continuous variable.

The measure used in the current study was a paper-and-pencil questionnaire and was personalized for each classroom. Each student's questionnaire was comprised of a list containing the name of every student in his or her classroom with parental consent to participate in the study. Instructions indicated that participants were to rate each classmate on the list on a five-point Likert scale (1 = *not at all*, 5 = *very much*) in terms of how much they like to interact with that child. For this measure, a pictorial version of the Likert scale (using faces to represent points on the scale) was used to help increase child understanding of the task. See Appendix A to review the directions given to students on the first page of the measure.

Although use of this technique for assessing peer group acceptance has been in common use for decades, the exact wording of what children are asked to rate has

varied from study to study. Researchers have asked children to rate how much they like each classmate (e.g., Bukowski et al., 1996; George & Hartmann, 1996; Noll, Zeller, Vannatta, Bukowski, & Davies, 1997), how much they would like to be in school activities with each classmate (e.g., Wentzel & Caldwell, 1997), and how much they like to play with each classmate (e.g., Asher & Wheeler, 1985; Ladd, 1983; Ladd et al., 1997; Parker & Asher, 1993; Renshaw & Brown, 1993; Rose & Asher, 1999), although rationales for choice of wording typically are not offered.

Reasoning from the premise that acceptance of another involves not only liking, but also a visible demonstration of that liking through willingness to associate, the wording for the current measure asked children to indicate "how much you would like to play with or do activities at school with this person." In addition, it was reasoned that this wording would help make the task more concrete, particularly for the younger children responding to the measure.

In the current study, the group acceptance measure was administered in all classrooms, regardless of the individual classroom participation rate (i.e., the percentage of students in a classroom completing the measure). However, in order to help ensure that the peer group as a whole is accurately represented in each classroom, researchers have noted the importance of establishing a minimum classroom participation level criterion when gathering sociometric data--that is, a minimum level of class participation required for the data from that class to be

included in analyses involving sociometric data. Unfortunately, no standardized application of such a criterion currently exists.

Many studies using sociometrics report classroom participation rates without noting whether or not a minimum had been established. In fact, numerous studies fail to report classroom participation levels at all. Hamilton, Fuchs, Fuchs, and Roberts (2000) reviewed 26 studies that used sociometric methods and found that 17 of the studies did not report participation levels. Of the nine studies that did, reported participation rates ranged from 68% - 100%. A current sampling of 20 studies from the peer group acceptance literature that used sociometrics found only two studies that reported class participation rates. One of these reported rates ranging from 70% - 100% and the other rates from 60% - 92%. Of the remaining studies, 12 studies did not report any class participation rates, 5 reported that "all" students in a sample participated (2 of these studies used passive consent procedures), and 1 study reported whole grade level, though not classroom, participation percentages. Two of the studies mentioned differences in average participation rates across grade or age levels. Of these, one study reported a higher participation rate for its "preschool" sample (93%) than its "primary" sample (81%). The other reported an average participation rate of 45% across fourth grade classes and 74% across seventh grade classes.

Generally, it has been assumed that the lower a classroom participation rate, the less accurate sociometric information gathered from that classroom will be. A

few researchers have attempted to study systematically the effects of participation rates on the accuracy of sociometric classifications. Crick and Ladd (1989) used a computer simulation technique to determine how accurate sociometric classifications (based on positive/negative peer nominations) remained when calculated using randomly selected subsamples of peer ratings at 90%, 80%, 70%, 60%, and 50% levels. Results found that as the percentage of classroom raters decreased, sociometric classifications became increasingly inaccurate. Classification errors were found at all percentage levels, but appeared to increase substantially below the 70% participation point. However, even at the 90% participation level, the rate of misclassifications ranged from 0 - 15%, depending on the sociometric category. *Rejected* classifications remained most accurate, even at the 50% level (18% misclassified at the 50% level), while *Unclassified* and *Controversial* classifications were most likely to be misclassified as participation levels decreased (46% and 50%, respectively, misclassified at the 50% level). While Crick and Ladd (1989) sought to examine the effects of decreased participation rates on sociometrics in general, Hamilton et al. (2000) specifically attempted to determine what level of participation is "sufficient" to attain a valid and representative sample when collecting classroom sociometric data. They compared sociometric rating subsamples (based on peer rating scale data) at the 75%, 50%, and 25% levels with data collected at the 92% - 100% participation level. Like the Crick and Ladd (1989) study, results indicated that as the level of participation decreased, sociometric ratings tended to differ

increasingly from the 92% - 100% level ratings. The authors concluded that they could not yet determine a minimum participation rate standard for classroom sociometry. However, they were willing to state tentatively that the level should be "above 75%," noting that even at the 75% participation level, ratings were statistically significantly different from those at the 92% - 100% level.

For the current study, with no clear standard set by prior research, determining an appropriate classroom participation level for inclusion in the analyses was difficult. Research on participation rates suggests that any participation rate below 100% is likely to be associated with some error; however, this level of rigor would exclude all classrooms from the current study's data set. The Crick and Ladd (1989) and Hamilton et al. (2000) studies, while acknowledging no real "good enough" level, were somewhat consistent in finding that inaccuracies are increased substantially below the 70% -75% level. These data were relatively similar despite the fact that the two studies used different forms of sociometric data. Hamilton et al. (2000) were at least tentatively willing to establish "above 75%" as a minimum acceptable standard for classroom participation levels.

In addressing the issue of establishing validity standards for sociometric data, Hamilton et al. (2000) further noted that the intended purpose or use of the data might also be an acceptable variable to consider when selecting the level of rigor at which to examine the data. The authors cited Salvia and Ysseldyke's (1998) established guidelines for determining the psychometric adequacy of tests: .60 reliability

coefficient for tests used for group decision making; .80 for tests used in screening decisions; and .90 for tests used to make individual decisions about a student's placement or programming. They suggested that similar criteria might be logically applied to the use of sociometric data.

Further complicating the matter are practical considerations related to difficulty in obtaining high classroom participation levels. Even with sustained recruitment efforts, typically not all parent consent forms are returned, not all parents give consent for participation, and not all child participants assent to participate. Additionally, with medium-sized class enrollments (i.e., 20 - 25 students per class) the failure of as few as three students to participate could drive the class participation rate below the 90% level. These issues are common hazards in research involving sociometry, but are generally considered to be reasonable limitations of the methodology.

For the purposes of the current study, it was decided to conduct independent analyses at three different classroom participation criterion levels. For the first level, it was decided to conduct analyses with all the data, which included classrooms with participation rates ranging from 55% - 91%, in order to maximize power, although sociometric validity is likely to be decreased. Thus, at this level all 14 of the second grade classrooms and all 12 of the fifth grade classrooms were included in the analyses.

For the second level, based on data from the Crick and Ladd (1989) and Hamilton et al. (2000) studies, 75% was selected as a reasonable participation level, balancing the need for validity with the need to include as much of the data set as possible. This figure also falls within parameters of the rationale based on Salvia and Ysseldyke's (1998) guidelines, considering that the measures are being used to provide information about groups, not individuals. At this level, 12 of the 14 second grade classrooms and 5 of the 12 fifth grade classrooms met the criterion to be included in the analyses.

Finally, for the third level, because existing research has clearly indicated that higher participation levels are associated with higher validity, it was decided to conduct analyses at the 90% level. Use of this participation level required exclusion of all of the fifth grade data, as none of those classrooms had participation rates as high as 90%, as well as slightly more than half of the second grade data. However, 6 of the 14 second grade classrooms remained to include in analyses at this level.

By conducting analyses at several different criterion levels, methodological issues related to both power and validity could be addressed. Unfortunately, the current study's data set did not contain enough classrooms with high participation levels to complete all analyses with the highest levels of sociometric rigor. However, conducting analyses at different criterion levels made it possible to obtain some results that addressed all hypotheses, albeit with limitations related to validity of the

sociometric data, as well as some results that addressed only limited sets of hypotheses, but with higher levels of sociometric rigor.

Classroom participation rates for completion of the group acceptance measure are presented in Table 2. Note that these percentages are based on the actual number of students in each classroom who completed the group acceptance measure, not the number of students with parent consent in each class. In some classrooms, group acceptance measure participation was lower than overall participation because not all students assented to complete the group acceptance measure. The percentages listed in Table 2 indicate the percentage of children in each classroom who rated their peers on the group acceptance measure.

Table 2

Classroom Participation Rates for Completion of the Group Acceptance Measure

Class	Class <i>n</i>	Participant <i>n</i>	Participation Rate
School 1-Grade 2			
Class 1	22	19	86%
Class 2	22	14	64%
Class 3	21	19	90%
Class 4	21	19	90%
Class 5	21	19	90%
Class 6	21	16	76%
Class 7	22	19	86%
School 2-Grade 2			
Class 8	23	17	74%
Class 9	21	19	90%
Class 10	23	19	83%
Class 11	22	17	77%
Class 12	22	18	82%
Class 13	22	20	91%

Table 2 (continued)

Class 14	22	20	91%
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School 1-Grade 5

Class 15	21	13	62%
Class 16	24	18	75%
Class 17	22	14	64%
Class 18	22	13	59%
Class 19	21	12	57%
Class 20	21	18	86%

School 2-Grade 5

Class 21	22	14	64%
Class 22	22	18	82%
Class 23	22	19	86%
Class 24	20	11	55%
Class 25	20	15	75%
Class 26	21	15	71%

Friendship Nomination Measure

The purpose of the friendship nomination measure was to determine whether or not a child was participating in a mutually reciprocated friendship in his or her classroom. It was constructed as a paper-and-pencil measure (individualized for each classroom) comprised of a list of names containing the name of every classmate with parental consent to participate in the study. Instructions indicated that students should circle the names of their three best friends on the list. Instructions further indicated that students could circle up to three names on the list, but did not have to circle three if they had fewer than three best friends on the list. See Appendix B to review the directions given to students on the first page of this measure.

Researchers using this measure sometimes will ask children to rank-number their choices from "very best" friend to "next best" friend and so on (e.g., Parker & Asher, 1993). Because the current study was interested in close classroom friendships, rather than best friendships, such distinctions were not requested. A child was determined to have a close friendship in the classroom if one of his or her three nominated best friends mutually acknowledged that child as a best friend on his or her own list.

Piers-Harris Children's Self-Concept Scale

The purpose of utilizing the Piers-Harris Children's Self-Concept Scale was to assess each child participant's level of self-concept. The Piers-Harris is an 80 item true-false scale which measures a child's evaluative feelings about him- or herself.

The Piers-Harris focuses on children and adolescents' conscious self-perceptions. The manual for the Piers-Harris defines self-concept as "a relatively stable set of self-attitudes reflecting both a description and an evaluation of one's own behavior and attributes" (p. 1) and considers it as interchangeable with the terms "self-esteem" and "self-regard" (Piers, 1984).

The Piers-Harris is a paper-and-pencil questionnaire that is orally administered to children in fourth grade or below. Children are presented with a series of statements that tell how some people feel about themselves (e.g., "I am well behaved in school") and are asked to indicate whether each statement applies to them using either a *yes* or *no* response (Piers, 1984).

Although the Piers-Harris is recommended for use with children ages 8 to 18 years, it was administered to all students participating in the study, including those second graders who were under the age of 8 years. Of the second graders who participated in the study, 36% were 7 years old and 64% were 8 or 9 years old at the time of data collection. The recommended restriction of the administration of the Piers-Harris to children 8 years or older reflects a general concern in the field with the assessment of self-concept in young children (Piers, 1984). Concerns have been raised that young children do not yet possess a general sense of self-worth and are only capable of evaluating specific behaviors. In addition, the reliability of scores could be affected by young children's inability to understand the items and a related randomness in responding. However, the Piers-Harris manual summarizes a number

of studies that have used the Piers-Harris with children 6 and 7 years old with no reported difficulties in administration. In addition, several of the studies reported test-retest reliabilities comparable to those for older children and means and standard deviations similar to those of the Piers-Harris standardization sample of older children. For the purposes of this study, it was decided that, with an understanding of the limitations of the measure's use with younger children, the advantages of maintaining consistency in measurement across age groups outweighed the risks of error in measurement. As a precaution, however, second graders' self-concept data were analyzed to determine whether any significant differences related to age were evident.

The Piers-Harris provides an overall self-concept score and six cluster scale scores (Behavior, Intellectual and School Status, Physical Appearance and Attributes, Anxiety, Popularity, and Happiness and Satisfaction). Items are scored in the direction of positive self-concept, so that a higher score indicates a more positive assessed self-concept. The total raw score is the total number of responses marked in the positive self-concept direction (range = 0 - 80). Only the overall self-concept score (i.e., the total raw score) was used in this study.

Test-retest reliability for the Piers-Harris has been calculated for a variety of populations and time intervals. Coefficients ranged from .42 (8 month interval) to .96 (3 - 4 week interval). Median test-retest reliability across 20 coefficients from 13 reported studies was .73 (Piers, 1984). Internal consistency coefficients have ranged

from .88 - .93 (Piers, 1984). The reported reliability estimates for the Piers-Harris compare favorably with other measures used to assess personality traits in children and adolescents (Piers, 1984). The Piers-Harris has been shown to correlate with numerous other measures of self-concept, including the Coopersmith Self-Esteem Inventory ($r = .85$) and the Personal Attribute Inventory for Children ($r = .67$) (Piers, 1984). Construct validity has been established using factor analytic techniques, and several factor analysis replications have confirmed the factorial validity of the six scales of the Piers-Harris (Piers, 1984). However, at least one study cited in the Piers-Harris manual has warned of possible factorial instability, indicating that the Piers-Harris may be more unidimensional than multidimensional (Platten & Williams, 1981). This suggests that more confidence may be placed in the Piers-Harris overall self-concept score than in individual cluster scores.

Psychological Sense of School Membership Scale

The purpose of utilizing the Psychological Sense of School Membership (PSSM) scale was to measure each child participant's sense of school belonging. The PSSM (Goodenow, 1993b) is an 18 item scale designed to measure students' perceived belonging or psychological membership in the school environment. Respondents are asked to read a series of statements and then indicate to what extent each statement applies to them on a five-point Likert scale ranging from 1 (*not at all true*) to 5 (*completely true*). Items for the PSSM were chosen to be reflective of issues such as how much students feel liked, personally accepted, included, respected,

supported, and encouraged to participate by other students, teachers, and school personnel. Items also were included that addressed feelings of belonging or being a part of the school in general, as opposed to feelings of alienation (Goodenow, 1993b).

The PSSM was developed in order to fill a need for research instruments useful in studying contextual and environmental influences in education, and as a measure potentially useful in identifying individual differences in feelings of belongingness at school as a possible at-risk marker (Goodenow, 1993b). Although it is a recently developed scale, studies reporting its use have indicated evidence of good reliability and validity. The scale was developed for use with early- to mid-adolescent students; in its current form it has been used with children ranging in age from 9 - 14 years of age (Goodenow, 1993b). Internal consistency reliability coefficients have ranged from .79 - .88 (Anderman, 1999; Goodenow, 1993b; Goodenow & Grady, 1993) and have been found to be similar across age groups and urban and suburban samples (Goodenow, 1993b). Construct validity was addressed through contrasted groups validation procedures. Predicted group differences for sense of school belonging were found for length of residence in the community (for suburban students only), urban versus suburban community, sex, and social standing with peers. Grade level differences in sense of belongingness were not expected and not found. Some predicted group differences did not emerge. For both urban and suburban students, special education status was not found to influence sense of belonging in school. Group differences for ethnicity did not occur for the suburban sample. For urban

students, however, being a member of the ethnic majority group at a school with a clear numerical majority was predictive of greater feelings of belongingness. The PSSM also distinguished in the expected direction between students who chose to transfer to a new middle school and peers who stayed at their same school (Goodenow, 1993b).

For the purposes of the current study, which included exploratory use of the PSSM with younger children, a slightly modified version of the PSSM was used. Because the PSSM was developed for use with children approximately grades five and up, some of the wording of the measure was adapted for use with younger children. The wording of two of the items was modified with the goal of being more cognitively understandable to children at the second grade level. Wording changes were made in consultation with one second grade and one third grade teacher, each with 5 - 10 years of experience teaching at that grade level. In addition, a pictorial version of a Likert scale (using faces to represent points on the scale) was incorporated into the measure, also to increase child understanding of the task. Finally, based on input from the teachers of second graders participating in the study, the font size was increased on the second graders' copies of the PSSM, and every other item was shaded in gray to assist the students in staying on the correct line and correctly marking the faces adjacent to the item being answered. Refer to Appendix C for the directions printed on the PSSM measure and a list of original and modified PSSM items.

Procedures

Recruitment Procedures

Participants were recruited from two elementary schools in a large, suburban school district that agreed to participate in the study. Permission to conduct the study was obtained at the district level and from each school principal. District demographic data from the 1999-2000 school year (when data collection took place) indicated that the student population in the district was ethnically diverse, although predominantly White (8% Asian; 9% Black; 22% Hispanic; <1% Native American; 61% White).

Participating schools were chosen based on the willingness of school administration and personnel to participate in the project, as well as the ethnic and socioeconomic diversity afforded by the populations. The two schools differed demographically in socioeconomic makeup and ethnic diversity of their student populations. School 1 was comparatively more ethnically diverse and served a lower socioeconomic population. Data for the School 1 student population (all grade levels) in 1999-2000 indicated the following demographic information for ethnicity: 7% Asian; 24% Black; 35% Hispanic; <1% Native American; 34% White. The proportion of the whole school population eligible to receive free/reduced lunch (a school district measure of economic status) was 44%. Data for the whole School 2 population in 1999-2000 indicated the following demographic information for ethnicity: 10% Asian; 8% Black; 19% Hispanic; <1% Native American; 62%

White. The proportion of the whole school population eligible to receive free/reduced lunch was 19%. Due to demographic differences between the two school populations, preliminary analyses were completed prior to hypothesis testing in order to establish whether group differences (on the variables of friendship, group acceptance, self-concept, and sense of school belongingness) related to school were evident. Refer to Table 3 for further comparison of school and grade level demographic information.

Table 3

Percentage of Whole School and Grade Level Population by Ethnic Category

School/Grade	Asian	Black	Hispanic	White	Native American
School 1					
Total	7%	24%	35%	34%	<1%
Grade 2	6%	24%	39%	31%	0%
Grade 5	8%	17%	34%	41%	0%
School 2					
Total	10%	8%	19%	62%	<1%
Grade 2	9%	10%	21%	60%	0%
Grade 5	6%	8%	23%	63%	0%

Note: percentages are rounded to the nearest whole percent

All students enrolled in general education classrooms at the second grade level and the fifth grade level at each school were asked to participate in the study. This included students from 14 different classrooms of second graders (7 classes per school) and 12 different classrooms of fifth graders (6 classes per school). Students in non-mainstream, self-contained classrooms (e.g., behavior management classrooms) were not invited to participate in the study. There were no bilingual classrooms at either grade level at either school.

Second and fifth graders were chosen as participant groups in order to include children at the ages that most closely approximate the juvenile (ages 6 - 9 years), and preadolescent (ages 9 - 12 years) stages of development as defined by Sullivan (1953). To fit these criteria, second graders (typically aged 7 - 8 years) and fifth graders (typically aged 10 - 11 years) were the target groups for data collection. While understanding that developmental stage progression does not necessarily exactly mirror age progression, it was hoped that by choosing children of the ages that fall approximately in the middle of the estimated age range of each developmental stage, the participant groups would most accurately represent the desired criteria for each developmental stage.

In an attempt to strengthen further the study's design, the participant base for the study was drawn from schools. By using an unselected, school-based sample of children (i.e., as opposed to a clinic sample) it was hoped that the sample population would provide a wide range of variability, as well as a natural context for assessing

group related behaviors such as acceptance, thus increasing the generalizability of the findings. A disadvantage of using a school-based sample, however, was it necessitated including large numbers of children in the sample in order to assure that an adequate number of children with no classroom friendships, who were expected to be proportionately fewer in numbers, were included in the study.

Procedure for Parent Consent and Child Assent

Parent consent was obtained through standard consent procedures. Recruitment materials distributed to parents were provided in both Spanish and English. All requirements and procedures for consent prescribed by the Departmental Review Committee of the Department of Educational Psychology and by The University of Texas' Institutional Review Board (IRB) were followed.

Parents were informed about the study through an informational packet distributed to students by their teachers. The materials included a cover letter from the school principal, a consent form with a description of the study and "certificate of consent" for parents to sign, and a slip of paper reminding parents that return of the signed consent form entered their child in a drawing to win a prize. The cover letter was written by the primary investigator, then approved and signed by each building principal before being distributed. In order to encourage return of completed consent forms, and as a gesture of appreciation for their time, students and parents were told that returning their signed consent form entered them into a drawing for a \$25 gift certificate to either a toy store or a local movie theater. One gift certificate was

awarded at each grade level at each school (total of four prizes). It was stated in the cover letter that every child who returned a completed consent form would have an equal chance to win a prize, whether or not consent for participation in the study was given. Parents were asked to return completed consent forms to their child's homeroom teacher, who held the completed forms until the primary investigator retrieved them. (Cover letter text is presented in Appendix D, and consent form text is presented in Appendix E.)

Prior to distributing the consent forms, the primary investigator visited each second and fifth grade classroom to describe the study and procedures to the students. Students were then asked to take the consent packets home to their parents. It was emphasized to the students that their parents did not need to give permission for them to participate in the study in order for them to be entered into the drawing for a gift certificate. Students also were shown a "Prize Bag" and were told that they would be allowed to pick a prize (i.e., small items such as stickers, pens, plastic figurines, candy, etc.) from that bag immediately upon returning their consent form to their teacher. All teachers agreed to take responsibility for distributing prizes from the Prize Bag upon return of consent forms. Approximately one week before the deadline for returning permission slips, the primary investigator again visited individual classrooms to encourage students to return their signed consent forms by the deadline. A printed reminder of the deadline also was distributed to students, and additional copies of the consent packet were offered and given to any student who

asked for a new one. Four classrooms with particularly low return rates were visited again two to three days before the deadline, to encourage further return of the forms.

Only students returning their consent forms by the stated deadline were included in the prize drawing; however, students returning their forms after the deadline were still allowed to participate in the study. Any student returning a signed consent form with the "Yes, I give my consent for my child to participate in this study" portion marked was considered to have parent consent to participate in the study.

A total of 441 positive parent consent forms were returned (259 for Grade 2; 182 for Grade 5). The overall return rate of consent forms was 85%. Of the entire population of second and fifth graders at both schools, 78% received parent consent to participate in the study.

To address child assent, students were visited in their classrooms by the primary investigator prior to data collection in order to explain the study and the children's choices and rights regarding participation. Students were told that they would be given a letter and permission form about the study to take home to their parent(s) or guardian(s), and that they must have parent consent in order to participate. They were told that if parent permission was given, each student could then choose if he or she wished to participate in the study. Students were told that if at any time during the course of data collection they decided they did not wish to participate, they could indicate that choice by: a) informing their teacher or the

examiner that they did not wish to participate, or b) simply not filling out the measures. Both options were left open to students in order to allow them the opportunity to avoid drawing other students' attention to their choice.

At the first data collection session, prior to completing any measures, assent forms were passed out to all students with parent consent. The assent form was read aloud by the examiner and children were asked to sign the form if they agreed to take part in the research project. Any child who signed the assent form was considered to have given his/her assent to participate in the study, unless he or she indicated otherwise (i.e., verbally to the teacher or examiner, or by not completing the measures) during the data collection sessions. The full text of the assent form is presented in Appendix F.

The overall rate of student assent varied among data collection sessions. Two second grade students with parent consent did not assent to participate in any of the data collection sessions. One second grade student assented to participate in the first data collection session, but not the second or third sessions. Two students (one second grader and one fifth grader) assented to complete all measures with the exception of the group acceptance measure. One fifth grade student assented to participate in the first and second sessions, but not the third session.

See Table 4 for further information about consent return and participation rates at each school and grade level.

Table 4

Consent Return and Student Participation Rates

Category	Grade 2		Grade 5		Total
	School 1	School 2	School 1	School 2	
Students Enrolled	<i>n</i> =150	<i>n</i> =155	<i>n</i> =131	<i>n</i> =127	<i>N</i> =563
Returned Consent Forms	<i>n</i> =136	<i>n</i> =142	<i>n</i> =94	<i>n</i> =105	<i>N</i> =477
Consent Form Return Rate	91%	92%	72%	85%	85%
Students Receiving Consent to Participate	<i>n</i> =125	<i>n</i> =134	<i>n</i> =88	<i>n</i> =94	<i>N</i> =441
Parent Consent Rate	83%	86%	67%	74%	78%
Students (with Consent) Giving Assent to Complete All Measures	<i>n</i> =125	<i>n</i> =130	<i>n</i> =88	<i>n</i> =92	<i>N</i> =435
Total Student Participation Rate (for Those Completing All Measures)	83%	84%	67%	72%	77%

Parent and School Staff Involvement

Parent involvement in the study was limited to being asked to review the consent packet and return the completed consent form. Building principal involvement with the study included meeting with the principal investigator to

discuss the project and review the proposed procedures and measures, writing a letter of support for the project (for the purposes of Institutional Review Board approval), and reviewing and signing a cover letter for the consent packet. All second and fifth grade teachers at each campus were asked by the building principal to assist in facilitating the study. Their involvement included meeting with the primary investigator as a group to review the procedures and timeline of the study, scheduling data collection times with the investigator, collecting completed parent consent forms, distributing prizes to the students from the prize bag, and allowing the examiners access to their classrooms during the school day for the purposes of administering the measures. At the conclusion of the data collection sessions, teachers and building principals were given a small gift (i.e., flowers) by the primary investigator to thank them for their assistance with the project.

During the course of data collection, efforts were made to accommodate principal and teacher preferences for scheduling data collection sessions and to prevent disruption of the learning process as much as possible. The district research study review board, as well as building principals, required that data collection not begin until after the yearly administration of the Texas Assessment of Academic Skills (TAAS) tests, which took place in April, was completed. For scheduling individual data collection sessions, teachers selected preferred times and dates from an offered list of choices.

Procedure for Completion of Measures

Data collection took place during April 2000 and May 2000. Data were collected late in the school year in order to help ensure that students had time to become familiar with and establish relationships with their classmates. Measures were administered by either the author or a school psychology doctoral student familiar with standardized testing procedures and trained in the study's protocol.

Measures for the study were administered to each class as a group in the regular classroom. For participants who were absent on the day data collection was completed in their classroom, make-up sessions were held in a small group setting at the school at a later date. The protocol for the make-up sessions was identical to that for regular sessions; however, the environment was not identical. Children answering measures in the regular classroom setting completed the measures in a larger group setting with most of their classmates present. Because two of the measures asked participants to rate their classmates and provide information about their friendships with those classmates, the setting could have increased the saliency of the task. Children answering measures in make-up sessions were in a smaller group environment (typically 3 - 7 students), and all students in the group were not necessarily from the same classroom. Despite these environmental differences, it was believed that the advantages of maximizing the completeness of the data set outweighed the dangers of inconsistency in administering the measures, particularly

since the accuracy of peer group acceptance ratings and friendship nominations are increasingly compromised by missing data.

All measures were administered in English. Although all classrooms participating in the study received monolingual (English) instruction, it was anticipated that some classrooms contained students who were bilingual. Prior to administration of the measures, all classroom teachers reviewed the measurement materials and procedures and were asked whether they believed any of their students would not be able to understand the measures adequately due to English language limitations. All teachers agreed that as long as the directions and items were read aloud, and children were given the opportunity to ask clarifying questions, students should be able to understand the measures in English. No teacher identified any specific students in their classroom that they believed would not be able to understand the measures due to English language limitations.

The first four measures were administered across two sessions, approximately one week apart. Each of these two data collection sessions lasted approximately 40 - 50 minutes. For the purposes of validating the reliability of the measure, the Psychological Sense of School Membership scale was re-administered to a randomly selected half of the classes at each grade level during a third session at approximately a two-week interval following initial administration of the measure (mean time elapsed between administrations = 13.92 days). The third sessions lasted approximately 15 minutes.

Students were told that they were participating in a research project about children and their friends at school, that all their answers to the measures would be treated confidentially, and that they did not have to answer any of the questions if they did not want to. During each data collection session, students were asked to use portable dividers at their desks to shield their work while completing measures, in order to ensure greater confidentiality of responses. Students at the schools participating in the study commonly use such dividers during the course of their school day and were familiar with their use and purpose.

Students who did not have parental permission to participate, or who did not choose to assent to participate in the study, were assigned an alternate activity by their teacher. The primary investigator suggested to teachers that students who were not participating be asked to read a book at their seats; however, teachers were left with discretion in this area. Most teachers asked students to read, draw, or complete other work at their seats. One allowed students to work on a classroom computer.

At the end of each data collection session, the examiner led the children in a brief, fun activity, and/or distributed pieces of candy as a treat. All children in the class, including those who were not participating in the study, were invited to take part in these activities.

Actual completion of the measures involved 437 students, although the exact number of students completing each measure varied. One second grade student with parent consent moved prior to data collection, and consequently completed none of

the measures. Two additional second grade students did not assent to complete any of the measures. One fifth grade student returned his parent consent form after the first data collection session was past; consequently, he completed only the Piers-Harris and PSSMs. Two other students (one second grader and one fifth grader) assented to complete all measures except the group acceptance measure. Another second grade student agreed to complete the group acceptance measure and the friendship nomination measure, but not the Piers-Harris or PSSM. One fifth grade student completed all measures in the first and second data collection sessions, but did not choose to participate in the second PSSM administration during the third data collection session. Five students with both parent consent and child assent did not complete the second administration of the PSSM due to being absent during the third data collection session. For all other measures, make-up sessions were able to be arranged for students absent during a data collection session.

See Table 5 for total number of measures completed. It should be noted that although 435 group acceptance measures were completed (as indicated in Table 5), peer group acceptance rating averages were still obtained for 439 students (i.e., all students with consent, with the exception of one that moved prior to data collection and one that did not turn in his consent form until after the group acceptance measure had been administered), due to the nature of the measure (i.e., group acceptance scores are based on an average rating of scores across protocols, not within a single protocol). Although some children did not assent to completing the measure (i.e.,

rating fellow classmates), their names were still included on the measure and a group acceptance score was obtained through fellow classmates' ratings.

Table 5

Number of Measures Completed

Group	Measure				
	Group Acceptance	Friendship Nomination	Piers-Harris	PSSM#1	PSSM#2
Total Sample	435	437	437	437	229
Grade 2	255	256	255	255	130
Grade 5	180	181	182	182	99

Completion of the peer group acceptance measure. The peer group acceptance measure was the first measure administered during the first data collection session. The measure was a paper-and-pencil questionnaire which took approximately 10 - 15 minutes for students to complete. Instructions were read aloud. Students were presented with a list containing the name of every classmate with parental consent to participate in the study. They were then asked to rate each classmate on a five-point Likert scale (1 = *not at all*, 5 = *very much*) in terms of how

much they like to interact with that child. Prior to completing the measure, the examiner guided the students in completing a practice measure to allow them familiarity with using the rating scale format.

Because of the potentially sensitive nature of this information, the importance of students keeping their responses confidential was strongly stressed at the beginning of the first data collection session. In a statement made to each classroom, the examiner emphasized that "it is okay to have feelings that you like to play with or do things with one person more than another," but "it is not okay to share those feelings with others where they might have hurt feelings or feel bad." Students were further told that by completing the measure, they were promising that they would not share any of their responses with any other student, even if they wanted to share "good" information. They were told the reason for this was "so that nobody gets hurt feelings or feels uncomfortable about what they put." Students were told they could share their responses with their parents, but not other students. The examiner asked that any participant who felt that he or she could not honestly promise to keep his or her information private not fill out the measure.

To address these issues further, a distracter task was given to students at the end of the first data collection session, in order to interfere with the retention and potential sharing of peer ratings. Following the suggestion of Doll (1996), session scheduling was arranged so that the peer rating measure was never administered

immediately before a dismissal time (e.g., lunch, end of school day) when students might have more opportunity to discuss their responses with classmates.

Completion of the friendship nomination measure. The friendship nomination measure was completed during the first data collection session, following completion of the group acceptance measure. It took less than 5 minutes to complete.

Instructions were read aloud. Each child was asked to indicate his or her three best friends in the class by circling them on a list of names containing the name of every classmate with parental consent to participate in the study. Students were told they could circle up to three names, but did not have to circle three if they had fewer than three best friends on the list.

Completion of the Piers-Harris Children's Self-Concept Scale. The Piers-Harris was the first measure students completed during the second data collection session. The measure took about 20 minutes to complete. In the current study, the Piers-Harris was read aloud, item by item, to students in both second and fifth grade to ensure that reading ability was not a factor in completion of the measure. During the administration of the measure, participants were encouraged to ask the examiner for an explanation of any words or phrases that they did not understand.

Completion of the Psychological Sense of School Membership Scale. The PSSM was the second measure completed during the second data collection session. The measure took approximately 15 - 20 minutes to complete. The PSSM was read aloud, item by item, to all students to ensure that reading ability was not a factor in

completion of the measure. Students were encouraged to ask the examiner for clarification of any words or directions that they did not understand. In completing the measure, students were presented with a series of statements and were asked to indicate to what extent each statement applied to them on a five-point Likert scale ranging from 1 (*not at all true*) to 5 (*completely true*).

To contribute further to knowledge about the test-retest reliability of the PSSM, particularly regarding its use with younger children, the measure was re-administered to a randomly selected half of the classes at each grade level (7 second grade classes; 6 fifth grade classes) during a third data collection session at approximately a two-week interval following initial administration of the measure. Ten classes completed the measure exactly 14 days after initial administration. Two classes completed it 13 days after initial administration, and one class completed it 15 days after initial administration. Mean time elapsed between administrations was 13.92 days.

Procedure for Scoring of the Measures

All measures were hand-scored. Scoring was completed by the author and a research assistant with a doctorate in educational psychology who was trained in scoring procedures. The accuracy of all hand scoring was double checked. All scores were input into a computer spreadsheet by the author. Accuracy of inputting was verified by comparing computer generated calculations of totals with handscored calculations.

Scoring of the peer group acceptance measure. Following the method used by Parker and Asher (1993), scoring of this measure consisted of calculating an average rating received from classmates for each child (range of possible scores = 1.0 - 5.0), then standardizing these scores within each classroom. Standardization of scores was completed by calculating a *t*-score for each student. Standardization within each classroom was done for the purpose of establishing a child's relative standing within his or her classroom, as opposed to within the sample as a whole.

Historically, researchers often have calculated sociometric data based on information gathered from same-sex peers only. This has been particularly true when sociometric data are gathered using a positive/negative nomination method, since there is evidence that children tend to exhibit strong same-sex preference and opposite-sex bias when asked to nominate most- and least-liked peers (Bichard et al., 1988). Although children have more freedom in rating peers when the peer rating method is used (i.e., they are not forced to identify peers as "liked" and "disliked"), some researchers have still used only same-sex peer data when calculating group acceptance ratings (e.g., Howes, 1990; Krantz & Burton, 1986). However, other investigators have calculated sociometric peer ratings both ways (i.e., using both same-sex and both-sex ratings) in the same study and have found highly similar results (Asher et al., 1984; Asher & Wheeler, 1985).

For the purposes of the current study, both-sex ratings will be utilized as the primary method of analysis. An advantage to using both-sex ratings is that the

number of peer ratings is increased, thus increasing the accuracy of the average rating for each student. However, group acceptance ratings also will be calculated using same-sex ratings only, and analyses using both types of ratings (i.e., same-sex and both-sex) will be compared.

Scoring of the friendship nomination measure. Each student's friendship nominations were compared with the nominations of the other students in his or her class. If a student circled the name of at least one classmate who had circled his or her name in return, that student was considered to have a reciprocated classroom friendship. If none of the classmates nominated by a student nominated him or her in return, that student was considered to not have a reciprocated classroom friendship. Generally, if a student circled more than three names on the list, his or her measure was considered unscorable and was excluded from analyses. A small number of students circled more than three names, but placed the numbers "1," "2," and "3" next to three of the names. This was taken as an indicator that those names were that student's top three nominations, and these data were included in the analyses. For the purposes of data analyses, the positive presence of a classroom friendship was coded as 1, and the lack of a classroom friendship was coded as 2.

Scoring of the Piers-Harris Children's Self-Concept Scale. The Piers-Harris was hand-scored using the Quick-Score template included with the protocols. The template indicates whether an item is to be scored as a "0" or a "1." The overall sum of scores was then calculated for each protocol. Because an estimate of overall self-

concept was the primary goal for use of this measure and met the needs of the study for hypothesis testing, only the overall self-concept score, and not cluster scores, were calculated for use in data analysis. Additionally, the overall self-concept score was believed to be most likely to be the score of greatest strength and validity.

The Piers-Harris also includes a Response Bias Index and an Inconsistency Index, both of which were calculated for each respondent. The Response Bias Index is intended to measure the extent to which a respondent may be displaying acquiescence (i.e., the tendency to respond *yes* to all or almost all items) or, conversely, a negative response bias (i.e., the tendency to disagree with items regardless of their content) (Piers, 1984). Calculating it simply entails counting the number of *yes* responses the respondent marked. The Inconsistency Index was developed as an aid to detecting random response patterns. It is calculated using the Quick-Score form, which lists pairs of items that conceptually would be expected to be answered in a particular pattern. If the pair of items does not match the pattern prescribed by the template, that pair is marked as inconsistent. The Inconsistency Index reflects the total number of such pairs marked as inconsistent. The Piers-Harris manual indicates that index scores above the cut-off points (*t*-score of 70) could be an indicator of a lack of validity of the protocol, although it also is noted that the cut-off points are somewhat arbitrary (Piers, 1984).

Scoring of the Psychological Sense of School Membership Scale. An overall score was obtained by calculating the average score for all completed items, which

could range from 1.0 to 5.0. Items on the PSSM are scored in the direction of higher levels of belongingness, so that a higher score indicates greater or more positive feelings of belongingness and school membership. To calculate the overall score for the PSSM, negatively worded items were first reverse scored. Then, these item scores were summed with positively worded item scores to achieve a total sum of scores. An average score was then calculated by dividing the sum of scores for all completed items by the number of completed items.

Data Exclusion Criteria

Prior to conducting analyses, missing data were examined as a possible criterion for excluding some individual measures from the analyses. Validity indexes were available for the Piers-Harris, and these were considered as well.

Many of the group acceptance measures were missing data, particularly those completed by second graders. Some of the missing data were due to unscorable responses (e.g., more than one rating point marked on a single item), while other missing data were the result of a child failing to fill out a rating for some of the children on the measure. Due to the nature of the measure (i.e., group acceptance scores are based on an average rating of scores across protocols, not within a single protocol), missing data were considered not in terms of how many items were missing from an individual protocol but to what degree each participant's own group acceptance score was affected by missing data. In most cases, missing data for a single student were limited to one or two missing ratings; that is, that participant's

group acceptance score was based on 1 - 2 fewer ratings than the maximum number possible (based on those participating) for that classroom. The highest number of missing ratings for a single student was three, which occurred in only one case. Although missing ratings resulted in a lower percentage of raters for that individual student, no student had so many missing ratings that exclusion from analyses appeared necessary.

For six of the completed friendship nomination measures (Grade 2, $n = 4$; Grade 5, $n = 2$) it could not be determined whether or not that student had a reciprocated friendship in the classroom. This situation occurred when a student circled more than three names on the list, rendering the measure unscorable. As a result, these six measures resulted in missing data and were excluded from related analyses.

Many of the Piers-Harris protocols also were missing data due to items not being completed or being unscorable (i.e., it could not be determined which response was marked). In the majority of cases, no more than 1 - 3 items were missing on a single protocol. Only one participant's protocol was remarkable for an unusual number of missing items; in this case, 12 items were unscorable or not answered. Although the Piers-Harris manual does not provide guidelines for determining what entails excessive missing data, it was decided that the protocol containing 12 missing items appeared to be an outlier and, accordingly, it was excluded from analyses.

The Piers-Harris also includes a Response Bias Index and an Inconsistency Index, both of which were calculated for each respondent. The Piers-Harris manual indicates that index scores above the cut-off points (i.e., *t*-score of 70) could be an indicator of a lack of validity of the protocol, although it is also noted that the cut-off points are somewhat arbitrary (Piers, 1984). Many of the protocols from the current data set contained elevations on one or both of these indexes. Twenty-one percent of the Grade 2 Piers-Harris protocols and 6% of the Grade 5 protocols were elevated on at least one of the indexes. Five percent of the Grade 2 protocols and 1% of the Grade 5 protocols were elevated on both indexes. Much of the Piers-Harris manual's discussion of the use of these indexes centers on implications for interpreting individual protocols. On an individual basis, elevated scores on the indexes can be considered in terms of individual item responses and weighed against other information known about the child. Because the present study deals with group differences and interpretations, however, such analysis was not possible. Additionally, the Piers-Harris manual acknowledges that the cut-off points are somewhat arbitrary. Accordingly, although implications for validity were considered, the decision was made not to exclude any of the protocols on the basis of elevated Piers-Harris index scores.

Some of the PSSM protocols also were missing data, with missing data being more common for second graders than fifth graders. Missing data were due to unscorable responses (e.g., more than one rating point marked for a single item) or

were the result of a child failing to complete an item. For the first administration of the PSSM, most protocols with missing data had no more than 1 - 2 items missing. Three protocols were missing either three or four items. For the second administration of the PSSM all protocols with missing data had 1 - 2 items missing with the exception of one apparent outlier, which was missing 11 items. On this protocol, it appeared that the student failed to turn the paper over to answer the 11 questions on the back side. In the absence of published guidelines for determining excessive missing data, it was decided to exclude the one protocol with 11 missing items. All others were included in the analyses.

Tests of Psychometric Adequacy of the Piers-Harris and PSSM

To determine the psychometric adequacy of the Piers-Harris and PSSM for the present sample of children, the internal consistency of responses from these measures were calculated using Cronbach's alpha. For the entire Piers-Harris data set, the reliability coefficient was .92, which is consistent with reliability coefficients reported in the Piers-Harris manual (range = .88 - .93) (Piers, 1984). Similar reliability coefficients were found for the independent Grade 2 ($\alpha = .92$) and Grade 5 ($\alpha = .92$) samples. Because the Piers-Harris is recommended for use with children ages 8 years and older, separate reliability coefficients were calculated for 7-year-old Grade 2 students and all other Grade 2 students. Results found reliability coefficients of .92 for both of these subgroups, suggesting that the internal consistency of the Piers-Harris remained stable among both the younger and older Grade 2 students.

For the whole PSSM data set, the reliability coefficient was .86. Reliability coefficients calculated for Grade 2 ($\alpha = .82$) and Grade 5 ($\alpha = .88$) were similar. These coefficients compared well with previously reported internal consistency reliability coefficients for the PSSM, which have ranged from .79 - .88 (Anderman, 1999; Goodenow, 1993b; Goodenow & Grady, 1993). The PSSM appeared to retain its internal consistency with the Grade 2 students. This is an interesting finding in that the measure was developed for use with early- to mid-adolescent students and has not previously been reported to have been used with children below 9 years of age (Goodenow, 1993b).

Because the PSSM is a newly developed measure and was used in an exploratory manner in the current study, test-retest reliability coefficients were also calculated for this measure. For the total sample, PSSM scores obtained at a two-week interval were found to be positively correlated (Pearson $r = .81, p < .01$). Test-retest data also were positively correlated when calculated independently for Grade 2 (Pearson $r = .74, p < .01$) and Grade 5 (Pearson $r = .87, p < .01$).

CHAPTER IV

Results

The sections below describe results of statistical analyses performed on data gathered as part of the current study. First, descriptive statistics addressing the characteristics of the database are presented. The descriptive statistics section presents an overall summary of data for the entire sample, then a description of the sample at each of the three classroom participation levels (i.e., All Data Level, 75% Level, and 90% Level) targeted for analysis in this study. Next, results of preliminary analyses to identify potential covariates for use in subsequent analyses are reported. Last, results of tests of the major hypotheses are presented. The sections addressing preliminary analyses to identify covariates and tests of the major hypotheses are organized in terms of the three classroom participation levels.

Most data analyses were performed using the SPSS Graduate Pack 10.0 for Windows 95/98/2000 or Windows NT statistical package. Some basic analyses (e.g., sums, means) were calculated using a Microsoft Excel spreadsheet program, or by hand.

Descriptive Statistics

Descriptive statistics, including means, standard deviations, and frequency data, were calculated for the entire sample, by grade level, for each of the four primary measures: group acceptance measure; friendship nomination measure; Piers-Harris Children's Self-Concept Scale; and the Psychological Sense of School

Membership scale (PSSM). As the PSSM was administered twice, data from the first administration are presented under the label *PSSM #1* and data from the second administration are presented under the label *PSSM #2*. See Table 6 for a summary of these descriptive data.

Table 6

Grade Level Means, Standard Deviations, and Frequency Data for the Measures

Measure	Grade 2			Grade 5		
	Female	Male	Total	Female	Male	Total
Group Acceptance	<i>n</i> =131	<i>n</i> =127	<i>n</i> =258	<i>n</i> =102	<i>n</i> =79	<i>n</i> =181
Mean	3.37	3.09	3.23	3.21	2.88	3.06
SD	0.61	0.62	0.63	0.61	0.61	0.63
Friendship Nomin.	<i>n</i> =127	<i>n</i> =125	<i>n</i> =252	<i>n</i> =102	<i>n</i> =77	<i>n</i> =179
Friendship (in %)	74%	72%	73%	78%	77%	78%
No Friendship (in %)	26%	28%	27%	22%	23%	22%
Piers-Harris	<i>n</i> =130	<i>n</i> =124	<i>n</i> =254	<i>n</i> =102	<i>n</i> =80	<i>n</i> =182
Mean	59.78	59.48	59.64	59.40	57.88	58.73
SD	12.58	11.72	12.15	12.15	13.08	12.56
PSSM #1	<i>n</i> =130	<i>n</i> =125	<i>n</i> =255	<i>n</i> =102	<i>n</i> =80	<i>n</i> =182
Mean	3.85	3.81	3.83	3.57	3.38	3.49
SD	0.71	0.71	0.71	0.75	0.77	0.76
PSSM #2	<i>n</i> =58	<i>n</i> =71	<i>n</i> =129	<i>n</i> =58	<i>n</i> =41	<i>n</i> =99
Mean	3.88	3.95	3.92	3.63	3.48	3.57
SD	0.90	0.78	0.84	0.80	0.91	0.85

The composition of the samples for each of the three classroom participation levels also was analyzed. At the All Data Level ($n = 440$), analyses included data from all classrooms. This included 14 second grade classrooms ($n = 258$) and 12 fifth grade classrooms ($n = 182$). A total of 233 girls and 207 boys were in this sample. Overall classroom participation rates (i.e., the overall percentage of students in the classroom who had consent to participate in the study) ranged from 57% - 95%. The percentage of students in each classroom completing the group acceptance measure ranged from 55% - 91%.

At the 75% Level ($n = 315$), analyses included data from 12 of the 14 second grade classrooms ($n = 227$) and 5 of the 12 fifth grade classrooms ($n = 88$). A total of 168 girls and 147 boys were in the sample. At this level, overall classroom participation rates ranged from 75% - 95%. The percentage of students in each classroom completing the group acceptance measure ranged from 75% - 91%.

At the 90% Level ($n = 117$), analyses included data from 6 of the 14 second grade classrooms ($n = 117$) and none of the fifth grade classrooms. A total of 58 girls and 59 boys were in the sample. At this level, overall classroom participation rates ranged from 90% - 95%. The percentage of students in each classroom completing the group acceptance measure ranged from 90% - 91%.

Intercorrelation matrices also were tabulated for data from each of the primary measures (i.e., group acceptance measure, friendship nomination measure, Piers-

Harris, PSSM). Matrices were calculated for each grade level at each data analysis level. Refer to Tables 7, 8, 9, 10, and 11 to review the intercorrelation matrices.

Table 7

Pearson Correlations for the Primary Measures for Grade 2, All Data Level

	ACC	ACC-T	FRIEND	PIERS	PSSM1	PSSM2
ACC	1.000	.925** <i>n</i> =258	-.439** <i>n</i> =252	.232** <i>n</i> =254	.243** <i>n</i> =255	.300** <i>n</i> =129
ACC-T		1.000	-.456** <i>n</i> =252	.228** <i>n</i> =254	.249** <i>n</i> =255	.291** <i>n</i> =129
FRIEND			1.000	-.111 <i>n</i> =250	-.135* <i>n</i> =251	-.195* <i>n</i> =128
PIERS				1.000	.647** <i>n</i> =254	.671** <i>n</i> =129
PSSM1					1.000	.740** <i>n</i> =129
PSSM2						1.000
Mean	3.23	49.99	1.27	59.64	3.83	3.92
SD	0.63	9.76	0.44	12.15	0.71	0.84
n	258	258	252	254	255	129

Note. ACC = Group acceptance measure mean scores; ACC-T = Group acceptance measure mean scores standardized within classroom; FRIEND = friendship nomination measure; PIERS = Piers-Harris scores; PSSM1 = First administration PSSM scores; PSSM2 = Second administration PSSM scores
p* < .05. *p* < .01

Table 8

Pearson Correlations for the Primary Measures for Grade 5, All Data Level

	ACC	ACC-T	FRIEND	PIERS	PSSM1	PSSM2
ACC	1.000	.909** <i>n</i> =181	-.414** <i>n</i> =179	.103 <i>n</i> =181	.127 <i>n</i> =181	.157 <i>n</i> =99
ACC-T		1.000	-.407** <i>n</i> =179	.132 <i>n</i> =181	.094 <i>n</i> =181	.110 <i>n</i> =99
FRIEND			1.000	.042 <i>n</i> =179	-.002 <i>n</i> =179	-.081 <i>n</i> =98
PIERS				1.000	.655** <i>n</i> =182	.636** <i>n</i> =99
PSSM1					1.000	.867** <i>n</i> =99
PSSM2						1.000
Mean	3.06	50.00	1.22	58.73	3.49	3.57
SD	0.63	9.69	0.42	12.56	0.76	0.85
<i>n</i>	181	181	179	182	182	99

Note. ACC = Group acceptance measure mean scores; ACC-T = Group acceptance measure mean scores standardized within classroom; FRIEND = friendship nomination measure; PIERS = Piers-Harris scores; PSSM1 = First administration PSSM scores; PSSM2 = Second administration PSSM scores

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

Table 9

Pearson Correlations for the Primary Measures for Grade 2, 75% Data Level

	ACC	ACC-T	FRIEND	PIERS	PSSM1	PSSM2
ACC	1.000	.917** <i>n</i> =227	-.451** <i>n</i> =221	.229** <i>n</i> =223	.236** <i>n</i> =224	.300** <i>n</i> =129
ACC-T		1.000	-.466** <i>n</i> =221	.223** <i>n</i> =223	.244** <i>n</i> =224	.291** <i>n</i> =129
FRIEND			1.000	-.118 <i>n</i> =219	-.171* <i>n</i> =220	-.195* <i>n</i> =128
PIERS				1.000	.650** <i>n</i> =223	.671** <i>n</i> =129
PSSM1					1.000	.740** <i>n</i> =129
PSSM2						1.000
Mean	3.25	49.99	1.28	59.62	3.84	3.92
SD	0.62	9.77	0.45	12.48	0.72	0.84
n	227	227	221	223	224	129

Note. ACC = Group acceptance measure mean scores; ACC-T = Group acceptance measure mean scores standardized within classroom; FRIEND = friendship nomination measure; PIERS = Piers-Harris scores; PSSM1 = First administration PSSM scores; PSSM2 = Second administration PSSM scores

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

Table 10

Pearson Correlations for the Primary Measures for Grade 5, 75% Data Level

	ACC	ACC-T	FRIEND	PIERS	PSSM1	PSSM2
ACC	1.000	.956** <i>n</i> =88	-.424** <i>n</i> =88	.127 <i>n</i> =88	.231* <i>n</i> =88	.214 <i>n</i> =72
ACC-T		1.000	-.399** <i>n</i> =88	.091 <i>n</i> =88	.168 <i>n</i> =88	.130 <i>n</i> =72
FRIEND			1.000	.091 <i>n</i> =88	-.097 <i>n</i> =88	-.158 <i>n</i> =72
PIERS				1.000	.663** <i>n</i> =88	.624** <i>n</i> =72
PSSM1					1.000	.891** <i>n</i> =72
PSSM2						1.000
Mean	3.00	50.00	1.24	58.61	3.46	3.57
SD	0.68	9.77	0.43	13.25	0.82	0.87
<i>n</i>	88	88	88	88	88	72

Note. ACC = Group acceptance measure mean scores; ACC-T = Group acceptance measure mean scores standardized within classroom; FRIEND = friendship nomination measure; PIERS = Piers-Harris scores; PSSM1 = First administration PSSM scores; PSSM2 = Second administration PSSM scores

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

Table 11

Pearson Correlations for the Primary Measures for the 90% Data Level

	ACC	ACC-T	FRIEND	PIERS	PSSM1	PSSM2
ACC	1.000	.981** <i>n</i> =117	-.529** <i>n</i> =114	.288** <i>n</i> =114	.227* <i>n</i> =115	.245* <i>n</i> =91
ACC-T		1.000	-.538** <i>n</i> =114	.251** <i>n</i> =114	.218* <i>n</i> =115	.239* <i>n</i> =91
FRIEND			1.000	-.116 <i>n</i> =112	-.175 <i>n</i> =113	-.182 <i>n</i> =91
PIERS				1.000	.659** <i>n</i> =114	.592** <i>n</i> =91
PSSM1					1.000	.694** <i>n</i> =91
PSSM2						1.000
Mean	3.33	49.98	1.30	60.63	3.91	3.97
SD	0.63	9.82	0.46	12.54	0.67	0.80
n	117	117	114	114	115	91

Note. ACC = Group acceptance measure mean scores; ACC-T = Group acceptance measure mean scores standardized within classroom; FRIEND = friendship nomination measure; PIERS = Piers-Harris scores; PSSM1 = First administration PSSM scores; PSSM2 = Second administration PSSM scores

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

Identification of Potential Covariates

Preliminary analyses were conducted in order to determine whether the variables of school and ethnicity were associated with significant differences on any of the measures. Preliminary analyses also compared 7-year-olds in the Grade 2 sample with all other children in the Grade 2 sample, to determine whether there were any significant group differences between these two age groups on the measures.

To reduce possible inflation in Type I error rates due to the use of multiple univariate tests, MANOVAs were conducted for each variable with all four measures as the dependent variables. These MANOVAs were completed for each of the three different classroom participation criterion levels (i.e., All Data Level, 75% Level, and 90% Level).

At the All Data Level, MANOVAs found no significant differences among groups for school, $F(4, 425) = 1.11, ns$; ethnicity, $F(12, 1117) = 0.93, ns$; or Grade 2 age differences, $F(4, 245) = 0.26, ns$.

At the 75% Level, MANOVAs found no significant differences among groups for school, $F(4, 302) = 0.32, ns$; ethnicity, $F(12, 795) = 0.96, ns$; or Grade 2 age differences, $F(4, 214) = 0.18, ns$.

At the 90% Level, MANOVAs found no significant differences among groups for school, $F(4, 107) = 1.19, ns$; ethnicity, $F(12, 278) = 1.62, ns$; or Grade 2 age differences, $F(4, 107) = 0.20, ns$.

Tests of Major Hypotheses

Reporting of tests of the major hypotheses is organized by hypothesis, with results from each level of data analysis subsumed under each hypothesis. For each major hypothesis, first the hypothesis and related statistical analyses are described, then the results for each level are presented in the following order: All Data Level, 75% Level, 90% Level.

Hypothesis 1

Hypothesis 1 stated that at each grade level, controlling for level of group acceptance, there would be a significant difference between self-concept scores of children with friends and children without friends, with self-concept scores of children with friends predicted to be higher. Additionally, a significant interaction effect for sex and friendship was predicted, where the difference between self-concept scores for children with and without friendships was expected to be greater for girls than for boys. Measures used to test Hypothesis 1 were the peer group acceptance measure, the friendship nomination measure, and the Piers-Harris Children's Self-Concept Scale. Specifically, it was predicted that children with no reciprocal classroom friendships would have significantly lower overall Piers-Harris scores than those with reciprocal classroom friendships, and that this difference in Piers-Harris scores would be greater for girls than for boys.

For the first two data levels, a 2 (friendship/no friendship) x 2 (sex) between-subjects analysis of covariance (ANCOVA) on children's responses to the Piers-

Harris was conducted for each grade level, using level of group acceptance as a covariate. Because the 90% Level included no fifth grade data, a 2 (friendship/no friendship) x 2 (sex) ANCOVA was conducted for the second grade data at this level.

Hypothesis 1: All Data Level results. Results at this level indicated no significant differences in self-concept scores between children with and without classroom friendships at either the second grade level, $F(1, 245) = 0.82, ns$; or the fifth grade level, $F(1, 174) = 1.96, ns$. Additionally, there was no significant interaction effect for sex and friendship at either the second grade level, $F(1, 245) = 1.21, ns$; or the fifth grade level, $F(1, 174) = 0.03, ns$. Analyses were run a second time using same-sex group acceptance ratings, and results remained consistently nonsignificant.

Overall, results suggested that, controlling for level of group acceptance, there were no significant differences in self-concept for children with and without reciprocal classroom friendships. This finding was the same for both grade levels.

Hypothesis 1: 75% Level results. Results at this level were consistent with those found for the All Data Level. No significant differences were found in self-concept scores between children with and without classroom friendships at either the second grade level, $F(1, 214) = 0.16, ns$; or the fifth grade level, $F(1, 83) = 1.66, ns$; and there was no significant interaction effect for sex and friendship at either the second grade level, $F(1, 214) = 1.01, ns$; or the fifth grade level, $F(1, 83) = 1.19, ns$.

Analyses were run a second time using same-sex group acceptance ratings, and results remained consistently nonsignificant.

Hypothesis 1: 90% Level results. Results at this level were consistent with findings at both other levels. No significant differences were found in self-concept scores between children with and without classroom friendships, $F(1, 107) = 0.06, ns$; and there was no significant interaction effect found for sex and friendship, $F(1, 107) = 2.58, ns$. Analyses were run a second time using same-sex group acceptance ratings, and results remained consistently nonsignificant.

Hypothesis 2

Hypothesis 2 stated that there would be a greater difference between self-concept scores of children with and without classroom friendships for fifth graders than for second graders. It was expected that this relationship would be observed as a significant interaction effect for the variables of grade and friendship. It was further hypothesized that a significant interaction effect for sex and friendship would materialize, where the difference between self-concept scores for children with and without classroom friendships would be greater for girls than boys. Measures used to test this hypothesis were the friendship nomination measure and the Piers-Harris. Specifically, it was predicted that there would be a greater difference between Piers-Harris scores of children with and without reciprocal classroom friendships for fifth graders than second graders, and that there would be a greater difference between

Piers-Harris scores of children with and without reciprocal classroom friendships for girls than boys.

For the first two data levels, a 2 (grade) x 2 (friendship/no friendship) x 2 (sex) between-subjects analysis of variance (ANOVA) on children's responses to the Piers-Harris was conducted. Because the 90% Level included no fifth grade data, a 2 (friendship/no friendship) x 2 (sex) ANOVA was conducted.

Hypothesis 2: All Data Level results. Results indicated no significant interaction of grade and friendship/no friendship, $F(1, 421) = 2.28, ns$; and no significant interaction of sex and friendship/no friendship, $F(1, 421) = 0.36, ns$. No significant differences were found for friendship/no friendship, $F(1, 421) = 0.37, ns$; grade level, $F(1, 421) = 0.00, ns$; or sex, $F(1, 421) = 0.02, ns$, either. These results suggest that having a classroom friendship was not associated with higher self-concept for either grade level, and that any effect of having or not having a classroom friendship was not significantly different for girls than boys.

Hypothesis 2: 75% Level results. Similar to results at the All Data Level, results indicated no significant interaction of grade and friendship/no friendship, $F(1, 299) = 2.04, ns$; and no significant interaction of sex and friendship/no friendship, $F(1, 299) = 0.10, ns$. No significant differences were found for friendship/no friendship, $F(1, 299) = 0.08, ns$; grade level, $F(1, 299) = 0.00, ns$; or sex, $F(1, 299) = 0.01, ns$, either.

Hypothesis 2: 90% Level results. Similar to results at the other two data levels, results indicated no significant interaction of sex and friendship/no friendship, $F(1, 108) = 2.96, ns$. No significant differences were found for friendship/no friendship, $F(1, 108) = 1.68, ns$; or sex, $F(1, 108) = 0.38, ns$, either.

Hypothesis 3

Hypothesis 3 stated that self-concept would be more strongly related to level of group acceptance for second graders than for fifth graders, and for boys than for girls. Measures used to test this hypothesis were the peer group acceptance measure and the Piers-Harris. Specifically, it was expected that the correlation between second graders' group acceptance scores and Piers-Harris scores would be significantly stronger than the correlation between fifth graders' group acceptance scores and Piers-Harris scores. It also was expected that the correlation between boys' group acceptance scores and Piers-Harris scores would be significantly stronger than the correlation between girls' group acceptance scores and Piers-Harris scores, at both grade levels.

Pearson correlation coefficients were tabulated separately for Grade 2 (boys and girls), Grade 5 (boys and girls), Grade 2 boys only, Grade 2 girls only, Grade 5 boys only, and Grade 5 girls only. To test for differences between significant correlations, Fisher's r -to- Z transformation was used for each of the following comparisons: Grade 2-Grade 5; Grade 2 boys-Grade 2 girls; Grade 5 boys-Grade 5 girls.

Hypothesis 3: All Data Level results. Results found a significant positive correlation between group acceptance scores and self-concept scores for second graders (Pearson $r = .23, p < .01$), but not for fifth graders (Pearson $r = .13, ns$). Application of Fisher's r -to- Z transformation found there was a significant difference between these correlations at the $p < .05$ level (Z diff = 2.23). For second graders, there was a significant positive correlation between group acceptance and self-concept scores for both boys (Pearson $r = .20, p < .05$) and girls (Pearson $r = .27, p < .01$), but there was not a significant difference between these correlations (Z diff = -0.58, ns). For fifth graders, there was no significant correlation between group acceptance and self-concept scores for either boys (Pearson $r = .08, ns$) or girls (Pearson $r = .16, ns$), and there was no significant difference between these correlations (Z diff = -0.56, ns).

Results suggest that self-concept is more strongly related to level of group acceptance for second graders than for fifth graders; however, even for second graders, the correlation between the two variables, though significant, was weak. There was no evidence that self-concept is more strongly related to group acceptance for boys than for girls.

Hypothesis 3: 75% Level results. Results indicated a significant positive correlation between group acceptance scores and self-concept scores for second graders (Pearson $r = .22, p < .01$), but not for fifth graders (Pearson $r = .09, ns$). However, there was not a significant difference between these correlations at the $p <$

.05 level (Z diff = 1.05). For second graders, there was a significant positive correlation between group acceptance and self-concept scores for girls (Pearson $r = .28, p < .01$) but not boys (Pearson $r = .17, ns$), but there was not a significant difference between these correlations (Z diff = -0.85, ns). For fifth graders, there was no significant correlation between group acceptance and self-concept scores for either boys (Pearson $r = .19, ns$) or girls (Pearson $r = .08, ns$), and there was no significant difference between these correlations (Z diff = 0.48, ns).

Hypothesis 3: 90% Level results. At this level, there was a significant positive correlation between group acceptance scores and self-concept scores for second graders (Pearson $r = .25, p < .01$). This was consistent with the findings for second graders at both other levels. There was a significant positive correlation between group acceptance and self-concept scores for girls (Pearson $r = .28, p < .05$) but not for boys (Pearson $r = .22, ns$); however, there was not a significant difference between these correlations (Z diff = -0.33, ns).

Hypothesis 4

Hypothesis 4 stated that, at each grade level, group acceptance would be positively associated with school belongingness. Additionally, it was predicted that a stronger association may occur for boys than for girls, at both grade levels. Measures used to test this hypothesis were the peer group acceptance measure and the PSSM. Specifically, it was expected that there would be a significant positive correlation between group acceptance scores and PSSM scores for both second graders and fifth

graders. It also was expected that the correlation between boys' group acceptance scores and PSSM scores would be significantly stronger than the correlation between girls' group acceptance scores and PSSM scores at both grade levels.

Pearson correlation coefficients were tabulated separately for Grade 2 (boys and girls), Grade 5 (boys and girls), Grade 2 boys only, Grade 2 girls only, Grade 5 boys only, and Grade 5 girls only. To test for differences between significant correlations, Fisher's *r*-to-*Z* transformation was used for each of the following comparisons: Grade 2 boys-Grade 2 girls; and Grade 5 boys-Grade 5 girls.

Hypothesis 4: All Data Level results. Results found a significant positive correlation between group acceptance scores and PSSM scores for second graders (Pearson $r = .25, p < .01$), but not for fifth graders (Pearson $r = .09, ns$). For second graders, there was a significant positive correlation between group acceptance and PSSM scores for both boys (Pearson $r = .27, p < .01$) and girls (Pearson $r = .23, p < .01$). There was not a significant difference between these correlations ($Z \text{ diff} = .13, ns$). For fifth graders, there was not a significant correlation between group acceptance and PSSM scores for either boys (Pearson $r = -.02, ns$) or girls (Pearson $r = .12, ns$), and there was no significant difference between these correlations ($Z \text{ diff} = -0.93, ns$).

Results suggest that sense of school belongingness is positively associated with group acceptance for second graders, but not for fifth graders; however, even for second graders, the correlation between the two variables was weak. There was no

evidence that sense of school belongingness is more strongly related to group acceptance for boys than girls.

Hypothesis 4: 75% Level results. Results were consistent with those found at the All Data Level. Analysis found a significant positive correlation between group acceptance scores and PSSM scores for second graders (Pearson $r = .24, p < .01$), but not for fifth graders (Pearson $r = .17, ns$). For second graders, there was a significant positive correlation between group acceptance and PSSM scores for both boys (Pearson $r = .26, p < .01$) and girls (Pearson $r = .23, p < .01$). There was no significant difference between these correlations ($Z \text{ diff} = .24, ns$). For fifth graders, there was no significant correlation between group acceptance and PSSM scores for either boys (Pearson $r = .12, ns$) or girls (Pearson $r = .20, ns$), and there was no significant difference between these correlations ($Z \text{ diff} = -0.37, ns$).

Hypothesis 4: 90% Level results. Results were consistent with those from other data levels in that there was a significant positive correlation between group acceptance scores and PSSM scores for second graders (Pearson $r = .22, p < .05$). However, unlike results from the other two data levels, group acceptance and PSSM scores were not correlated for both boys and girls. There was a significant positive correlation between group acceptance and PSSM scores for boys (Pearson $r = .43, p < .01$) but not for girls (Pearson $r = .04, ns$). There was a significant difference between these correlations ($Z \text{ diff} = 2.19, p < .05$).

Hypothesis 5

Hypothesis 5 stated that, at each grade level, there would be no difference between school belongingness scores of children with and without classroom friendships. Measures used to test this hypothesis were the friendship nomination measure and the PSSM. Specifically, it was expected that there would be no significant difference between scores on the PSSM for children with and without reciprocated classroom friendships.

For the first two data levels, univariate analysis of variance (ANOVA) tests on children's responses to the PSSM were conducted for each grade level. Because the 90% Level included no fifth grade data, only one ANOVA (for second grade) was conducted at this level.

Hypothesis 5: All Data Level results. Results found a significant difference between PSSM scores of children with friendships and those without friendships for Grade 2 students, $F(1, 249) = 4.62, p < .05$; but not for Grade 5 students, $F(1, 177) = 0.00, ns$.

Results suggest that having a classroom friendship is associated with more feelings of school belongingness for second graders. For fifth graders, however, sense of school belongingness does not appear to be affected by having a classroom friendship.

Hypothesis 5: 75% Level results. Results at this level were similar to those found at the All Data Level. There was a significant difference in PSSM scores for

Grade 2 students with and without reciprocal classroom friendships, $F(1, 218) = 6.53$, $p < .01$; but no significant difference for Grade 5 students, $F(1, 86) = 0.81$, *ns*.

Hypothesis 5: 90% Level results. Results at this level were inconsistent with those found at the All Data and 75% Level. The ANOVA found no significant difference in PSSM scores for Grade 2 students with and without reciprocal classroom friendships, $F(1, 111) = 3.51$, *ns*.

Hypothesis 6

Hypothesis 6 stated that there would be no significant differences among the four ethnic groups for the group acceptance and friendship variables. Measures used to test this hypothesis were the group acceptance measure and the friendship nomination measure. Specifically, it was expected that there would be no significant differences between group acceptance scores and frequency of reciprocated classroom friendships for children in different ethnic categories.

To test for ethnic group differences in level of group acceptance, univariate analysis of variance (ANOVA) tests on children's responses to the group acceptance measure were conducted. To test for group differences in reciprocated friendships/no reciprocated friendships, Pearson Chi-Square tests on friendship frequency counts were conducted.

Hypothesis 6: All Data Level results. Results found no significant differences between group acceptance scores for the variable of ethnicity, $F(3, 435) = 0.74$, *ns*.

There also were no significant differences in the frequencies of having or not having a

reciprocated friendship for the variable of ethnicity, $\chi^2(3, n = 431) = 1.01, ns$.

Because the ethnic compositions of School 1 and School 2 differed, these analyses also were done separately for each school. Results of these analyses were consistent in finding no significant ethnic group differences for group acceptance, School 1: $F(3, 209) = 1.32, ns$; School 2: $F(3, 222) = 0.15, ns$; or friendship, School 1: $C^2(3, n = 208) = 4.05, ns$; School 2: $C^2(3, n = 223) = 1.44, ns$, at either school. The analysis involving group acceptance data was run a second time using same-sex group acceptance ratings, and results remained consistent (i.e., nonsignificant).

Results suggest that ethnic group membership is not associated with significant differences in either level of group acceptance or having/not having a reciprocal classroom friendship.

Hypothesis 6: 75% Level results. Results were similar to those for the All Data Level, in that there were no significant differences between group acceptance scores for the variable of ethnicity, $F(3, 311) = 0.83, ns$. There also were no significant differences in the frequencies of having/not having a reciprocated friendship for the variable of ethnicity, $C^2(3, n = 309) = 0.64, ns$. School 1 and School 2 also were compared, and results of these analyses were consistent in finding no significant ethnic group differences for group acceptance, School 1: $F(3, 143) = 1.33, ns$; School 2: $F(3, 164) = 0.08, ns$; or friendship, School 1: $C^2(3, n = 144) = 4.09, ns$; School 2: $C^2(3, n = 165) = 2.79, ns$, at either school. The analysis

involving group acceptance data was run a second time using same-sex group acceptance ratings, and results remained consistent (i.e., nonsignificant).

Hypothesis 6: 90% Level results. At this level, results indicated there were significant differences between group acceptance scores for the variable of ethnicity, $F(3, 113) = 3.01, p < .05$. Further pairwise comparisons indicated that there were significant differences in group acceptance scores between the Asian and Hispanic groups and the Asian and White groups. Notably, at this level of analysis, cell size for the Asian group was quite small ($n = 4$). Similar to the other two data levels, there were no significant differences in the frequencies of friendship/no friendship for the variable of ethnicity, $C^2(3, n = 114) = 1.85, ns$. The analysis involving group acceptance data was run a second time using same-sex group acceptance ratings, and results remained consistent (i.e., significant).

School 1 and School 2 also were compared, and results of these analyses indicated that when data were analyzed separately by school, there were no significant ethnic group differences for group acceptance, School 1: $F(3, 53) = 2.22, ns$; School 2: $F(3, 56) = 1.06, ns$; or friendship, School 1: $C^2(3, n = 55) = 5.14, ns$; School 2: $C^2(3, n = 59) = 1.79, ns$.

CHAPTER V

Discussion

The primary purpose of the current study was to examine whether evidence for developmental differences in the influence of children's peer relationships exists, and to determine whether different forms of peer relationships exert influence differentially depending on the outcome variable being measured. The two types of peer relationships addressed in the current study were peer group acceptance and friendship. By design, the study was limited to examining children's peer relationships in the context of the school setting. Consequently, the definition of peer group acceptance was limited to a child's level of acceptance in his or her primary classroom setting, and the definition of friendship status was limited to determining whether or not a child was participating in a reciprocated classroom friendship.

A secondary purpose of the study was to explore the relationship between sense of belongingness at school and the peer relationship variables. Self-concept and sense of school belonging were selected as the outcome variables for the study. Self-concept was chosen due to its status as a frequently investigated variable in children's peer relationship theory and research (e.g., Bishop & Inderbitzen, 1995; Bradley & Newhouse, 1975; Bukowski et al., 1991; Clark & Drewry, 1985; Dunstan & Nieuwoudt, 1994; Fordham, 1995; Mannarino, 1978; Sullivan, 1953; Vandell & Hembree, 1994). Sense of school belonging is a much more recently developed concept (Goodenow, 1992) and was chosen in an exploratory vein for use in the

current study. A link between friendship and self-concept has had much theoretical support, with some empirical evidence supporting the association, as well (Bishop & Inderbitzen, 1995; Mannarino, 1978). Although not previously investigated empirically, a possible link between peer group acceptance and sense of school belonging appeared theoretically valid. Accordingly, hypotheses for the current study proposed that there would be measurable differences in the influence of each type of peer relationship. Specifically, it was hypothesized that friendship would be more strongly linked to self-concept, while group acceptance would be uniquely linked to sense of school belonging.

In the following sections of this chapter, several topics are discussed. First, a discussion of the descriptive data and preliminary analyses described in Chapter IV is presented. Discussion of each of the major hypotheses of the study follows. Next, a comparison of findings at differing data analysis levels (i.e., All Data Level, 75% Level, and 90% Level) and a comparison of analyses conducted using group acceptance scores based on both-sex and same-sex peer ratings are presented. A discussion of the exploratory use of the Psychological Sense of School Membership scale (PSSM) then follows. And last, a summary of findings and implications, limitations of the study, and directions for future research are presented.

Discussion of Descriptive Data and Preliminary Analyses

As intended, the mean age of the second grade participants (7.74 years) fell within the age range that generally defines the juvenile stage of development (i.e., 6 -

9 years), and the mean age of the fifth grade participants (10.79 years) fell within the age range that generally defines the preadolescent stage of development (i.e., 9 - 12 years). The ages of participants in the current study thus appear to reflect the desired Sullivanian developmental stages adequately.

Mean scores and frequencies for the primary measures were generally consistent with expected levels based on prior empirical research. The proportion of children at each grade level having at least one reciprocated friendship in the current study (Grade 2 = 73%; Grade 5 = 78%) is comparable to the proportion reported in a school sample by Vandell and Hembree (1994) (80%). Research utilizing the PSSM has reported mean group scores ranging from 3.09 - 3.84 (Goodenow, 1993b), which is similar to the range of scores found across grade levels in the current study (i.e., 3.49 - 3.83). Mean Piers-Harris Children's Self-Concept Scale scores were slightly higher than expected with second graders averaging a total score of 59.64 and fifth graders averaging 58.73. These scores fall at the high end of the average range, considering that the Piers-Harris was normed with a mean of 50 and standard deviation of 10. Overall, self-reports of self-concept, though within the average range, may have been slightly inflated in the current sample. Group acceptance means were not compared with previous research findings, partly because variations in methodology make direct comparisons difficult, and also because the use of group acceptance as a variable generally entails examining relative level of group

acceptance compared with peers, rather than raw or mean scores. Consequently, comparison of mean scores across studies is for the most part irrelevant.

Preliminary analyses conducted to determine whether the variables of school, ethnicity, and second grade age group (i.e., 7-year-olds vs. non-7-year-olds) were associated with significant differences on any of the four measures indicated no evidence for such differences. Lack of differences between schools on the four measures was interesting, as the schools were fairly different demographically. One of the schools in the study was comparatively more ethnically diverse and served a lower socioeconomic population than the other. Encouragingly, the finding that these two schools did not significantly differ on the variables provides some evidence that the ethnic and socioeconomic composition of a school may not be a critical variable in determining whether or not children at the school are accepted by peers and are able to establish reciprocal classroom friendships. It also provides some evidence that the composition of a school may not meaningfully influence children's overall self-concept and ability to establish a sense of school belonging.

The lack of school differences for PSSM scores was particularly interesting as one study by Goodenow (1993b) found that status as a member of the majority ethnic group within a school with a clear ethnic majority (i.e., 75% of the student body was Hispanic) was associated with significantly higher levels of school belonging. However, Goodenow's samples were drawn from urban schools, while the current study utilized suburban school samples. In addition, the school with a clear ethnic

majority in the current study was predominantly White, not Hispanic (62% White at second grade; 69% White at fifth grade). Perhaps ethnic differences in the effect of being a majority group member at a school exist. Finally, Goodenow's sample was drawn from an older age group than the current study's sample, which also might account for differences.

Lack of differences for the variable of ethnicity was not unexpected, as research has suggested that ethnicity is not a key variable for determining social status (Bichard et al., 1988; Howes & Wu, 1990; Patterson et al., 1990) and that sex is a more important variable than ethnicity when it comes to friendships and peer relationships (Foster et al., 1996). In the current study, Hypothesis 6 directly addresses this premise that ethnicity is not a significantly influential variable in determining level of group acceptance and whether or not a child will have a reciprocated friendship at school. (The reader is referred to the discussion of Hypothesis 6 presented later in this chapter for further information and interpretation related to this topic.) Self-concept scores also were not expected to be significantly different for ethnicity, as studies examining these variables have suggested that ethnicity does not appear to be a principal factor influencing self-concept, but rather the individual experiences of children within the groups (Piers, 1984). Finally, sense of school belonging scores also were, as found, not expected to be significantly different for ethnicity, outside of the context of being part of a majority/minority ethnic group environment at school.

Potential differences for seven-year-old second graders versus non-seven-year-old second graders were investigated primarily because the Piers-Harris had not been designed for use with the youngest end of this age group. However, results suggest that there are no meaningful differences between scores of younger and older second graders for any of the variables.

Discussion of Findings

Hypothesis 1: Friendship and Self-Concept

Results of the current study did not support the hypothesis that, controlling for level of group acceptance, having a reciprocated classroom friendship would be associated with significantly higher self-concept. There were no significant differences in self-concept scores for children with and without reciprocated classroom friendships at either grade level. These same results were consistent across all three levels of data analysis and were the same regardless of whether same-sex or both-sex group acceptance ratings were used in the analyses. More specifically, children with and without reciprocated classroom friendships tended to report similar levels of self-concept.

Results also did not support the secondary hypothesis that there would be an interaction effect for sex and friendship, where the difference between self-concept scores for children with and without friendships would be greater for girls than for boys. This finding is not surprising, however, considering that the overlying premise that friendship has a significant effect on self-concept was not supported. There was

a greater mean difference in self-concept scores for girls with and without friendships (with scores falling in the expected direction) than for boys, but these differences were not significant.

These findings related to friendship and self-concept were unexpected as they are incongruent with the majority of the research and theory in this area, which has suggested that the presence of a friendship offers a positive or protective influence on self-concept. Relatively few studies, however, have directly compared students with and without friendships on the variable of self-concept in the manner employed in the current study (i.e., treatment of friendship as a categorical variable and comparison of group differences on that variable). Of the reviewed studies that directly compared students with and without friendships on the variable of self-concept, Bishop and Inderbitzen (1995) and Mannarino (1978) found students with friendships reported significantly more positive levels of self-esteem than those without, while Clark and Drewry (1985) found no differences in self-esteem for the variable of friendship. There are, however, qualitative differences between the methodology and characteristics of the sample populations in these three studies that could account for some of the discrepancies in findings.

Bishop and Inderbitzen's sample was comprised of an adolescent age group (ninth graders), while Clark and Drewry's sample was comprised of juvenile and preadolescent age groups (third and sixth graders). Perhaps differences in findings for these two studies reflect developmental differences. Although Sullivanian theory

suggests that close friendships become a critical relationship during preadolescence (approximately ages 9 - 12 years), possibly the effects of friendship on the variable of self-concept do not emerge to the extent of being measurable until the adolescent stage. Mannarino, however, used a sample comprised of students in the preadolescent age group (sixth graders) and still found results consistent with Bishop and Inderbitzen's. Additionally, both Mannarino and Clark and Drewry utilized a sixth grade sample in their studies, but found contradictory results for students at that grade level. There appear to be some critical differences in the sample and methodology of these two studies, however.

Clark and Drewry's study was similar to the current study in that reciprocity was considered in determining the presence or absence of a friendship, and that only classroom friendship nominations were allowed. Both boys and girls were included in the sample, and the reported intelligence quotients of the sample appeared to be relatively consistent with an average population (group means ranged from 104 - 108).

In contrast, Mannarino's study did not assess reciprocity in friendship nominations, but instead used three different criteria for determining whether a true chumship existed. First, friendship stability over time was required (i.e., student was required to nominate the same person(s) as "best friends" over a two week period for a friendship to be considered present). Second, the friendship needed to score high on a "Chumship Checklist" designed to assess aspects of quality of the relationship.

Third, the student had to report a preference in spending his free time with his best friend, as opposed to a group of friends. A friendship had to meet all three criteria in order to be considered a true chumship and be included in the friendship group, thus Mannarino's criteria resulted in a more rigorous definition of friendship than that of Clark and Drewry's study or the current study. Mannarino's study also allowed students to nominate fellow classmates, other children in the school, or children living in their neighborhood as friends. Consequently, although defining friendship more rigorously, Mannarino's study also allowed friendships across environments to be included in the study.

Due to these differences in friendship criteria, the "friendship" group in Mannarino's study most likely was comprised of students with a best friendship with features of true intimacy. Because friendships from environments other than the classroom also were taken into account, the friendship groups in the study also were likely to have included children who truly did or did not have a best friendship influencing their lives, while the current study and the Clark and Drewry study were limited to examining the influences of classroom friendships. It is hypothesized that this type of best friendship may have a measurable influence on self-concept, whereas less intense and/or classroom friendships do not. Still, in interpreting the meaningfulness of these results, the generalizability of Mannarino's sample also is a consideration. The sample in Mannarino's study consisted only of boys and may have represented an atypical subsection of the population in that reported intelligence

quotients were more than one standard deviation above the mean for both friendship and no-friendship groups (group means ranged from 120 - 122).

Developmental differences in samples and differences in the definition of friendship are two possible explanations for the unexpected findings related to Hypothesis 1. A third possibility is that it is the quantitative number of friendships that is important, rather than the presence or absence of a friendship.

Researchers have suggested that the presence of a single friendship is powerful enough to influence positive outcomes (e.g., Bukowski & Hoza, 1989), and the hypotheses related to friendship in the current study are based on this premise. Bishop and Inderbitzen (1995) examined this question empirically and found that, among a sample of ninth graders, having a greater number of friendships was not significantly associated with positive outcomes beyond those afforded by having at least one friend. However, again, these results may be reflective of developmental differences in the influence of friendship on self-concept. Vandell and Hembree (1994) addressed the same question utilizing a sample of third graders and found that number of classroom friendships, rather than simply the presence or absence of a single friendship, was positively associated with greater socioemotional and academic adjustment. They concluded that the benefits of having a single friend were not equal to the benefits of having increased numbers of friends. The current study's age groups are more similar to Vandell and Hembree's sample, suggesting that perhaps

number of friendships might have been the more important factor for the current sample.

In sum, in comparing current results to previous findings, the lack of expected differences in self-concept between students with and without reciprocated classroom friendships might be explained in terms of developmental differences, friendship definitions, and/or failure to measure friendship in terms of quantity. Perhaps the influence of classroom friendships has a measurable effect on self-esteem during the adolescent stage of development (Bishop & Inderbitzen, 1995), but not earlier (Clark & Drewry, 1985), and that effect is reflected in the current results. Alternatively, friendship may have had the expected effect in the current study if friendship had been defined differently. The presence or absence of a classroom friendship does not appear to have a significant influence on overall self-concept, but friendship in general may, particularly if quality of the friendship is considered (Mannarino, 1978). If the current study had expanded the measurement of friendship to take into account friendships outside the classroom, and/or the quality of those friendships, the results may have been different. And finally, friendship may have had the expected effect if quantitative differences in the number of classroom friendships had been analyzed, as opposed to simply the presence or absence of a friendship.

In regard to addressing results of the secondary hypothesis that there would be an interaction effect for sex and friendship, speculation on the meaning of these results is difficult in light of the fact that no significant differences were found for

friendship as a variable. The hypothesis was primarily rooted in theory, rather than empirical research findings. In fact, sex differences were not examined in this manner in similar, previous studies (e.g., Clark & Drewry, 1985; Mannarino, 1978). Based on current results, this finding appears to be most likely a reflection of the overall finding of no differences in self-concept for children with and without reciprocated classroom friendships.

Hypothesis 2: Friendship and Self-Concept, Interaction Effects

Results did not support the hypothesis that there would be a greater difference between self-concept scores of children with and without classroom friendships for fifth graders than for second graders. Both grade levels exhibited similar (nonsignificant) differences in self-concept scores between friendship groups. These same results were consistent across all three levels of data analysis.

Consistent with findings for Hypothesis 1, results also did not support the secondary hypothesis that there would be an interaction effect for sex and friendship, where the difference between self-concept scores for children with and without friendships would be greater for girls than for boys. Boys and girls at both grade levels exhibited similar (nonsignificant) differences in self-concept scores between friendship groups.

Hypothesis 2 primarily addressed the idea that there are developmental differences in the effect of friendship on self-concept. In large part, this hypothesis was an extension of Hypothesis 1 and was hinged on the expectation that friendship

would be found to have an effect on self-concept. In fact, results indicated that friendship was not an influential variable in determining level of self-concept (see discussion of Hypothesis 1). As a result, the primary explanation for the lack of the expected interaction effects is likely the lack of overall significant differences for the variables of friendship and self-concept, as described in the discussion of Hypothesis 1.

Hypothesis 3: Group Acceptance and Self-Concept

Hypothesis 3 stated that group acceptance would be more strongly correlated with self-concept for second graders than for fifth graders. While, overall, results of the current study supported this hypothesis, there were differences across levels of data analysis.

At the All Data Level, evidence was strongest that grade level differences did exist in the strength of the relationship between group acceptance and self-concept. There was a significant positive correlation between the two variables for second graders, but not for fifth graders. Additionally, there was a statistically significant difference between the correlations. At the 75% Level, grade level differences were supported in that there was a significant correlation between group acceptance and self-concept for second graders, but not for fifth graders. However, there was not a significant difference between these correlations. At the 90% Level, results were similar to the other two levels in that there was a significant positive correlation

between the two variables for second graders. There were no data for fifth graders at the 90% Level, thus grade level differences could not be examined.

A comparison of results using both-sex versus same-sex group acceptance data indicated that results were predominantly the same for both types of data, although all correlations decreased in strength when same-sex data were used. In one case, for the correlation at the 90% Level, this resulted in a non-significant correlation between the variables. At the other two data levels, correlations remained significant for second graders and nonsignificant for fifth graders.

The overall finding of developmental differences in the strength of the association between group acceptance and self-concept is consistent with Sullivan's (1953) theories suggesting that group acceptance has a greater effect on self-concept during the juvenile stage than the preadolescent stage. However, evidence of this relationship is not overwhelming, as correlations between the variables were weak, and significant differences between grade level correlations were not in evidence across all levels of data analysis.

Although not specifically predicted, it was expected that in the current study significant positive correlations between group acceptance and self-concept would be found for both grade levels, although stronger correlations were expected for second graders. To the contrary, there was not evidence that higher levels of group acceptance are associated with increased levels of self-concept among fifth graders. Previous research studies examining the relationship between group acceptance and

self-concept have been inconsistent in their findings, with no clear pattern of association yet demonstrated for these variables. Bradley and Newhouse (1975) found a significant association between these two variables for a preadolescent sample of children, while others have found no such association for adolescent samples (Bishop & Inderbitzen, 1995) and juvenile samples (Vandell & Hembree, 1994). Dunstan and Nieuwoudt (1994) found a moderate positive correlation ($r = .45$) between the variables of self-concept and peer social acceptance ratings in a sample that spanned the juvenile and preadolescent stages (second, fourth, and sixth graders), but unfortunately did not examine group differences between grade levels. Additionally, their sample was drawn from a private school specializing in remediation for children with learning disabilities and consequently did not represent a general population. It is difficult to ascertain how the results of the current study relate to previous findings, especially considering differences in methodology. Of the studies cited, all treated group acceptance as a categorical variable, while the current study treated it as a continuous variable. In addition, the four cited studies do not suggest a particular developmental trend, and differences among their methodologies could account for some of the discrepancies in findings.

Hypothesis 3 also predicted that group acceptance would be more strongly correlated with self-concept for boys than for girls. This prediction received varying support across levels of data analysis. At the All Data Level, there was not evidence of sex differences in the strength of the relationship between group acceptance and

self-concept at either grade level. Significant positive correlations between the two variables were found for both boys and girls at the second grade level, with no significant differences between the correlations. At the fifth grade level, no significant correlations were found for boys or girls, with no significant differences between the correlations. At this level of data analysis, it appeared that grade, rather than sex, was the more important variable in terms of group differences. However, at both the 75% Level and the 90% Level, sex differences were somewhat supported, but for second graders only and in the direction opposite to that predicted. At both the 75% and 90% data analysis levels there was a significant positive correlation between group acceptance and self-concept for girls, but not for boys, at the second grade level, although there was not a significant difference between these correlations. There were no significant correlations between group acceptance and self-concept for boys or girls at the fifth grade level, and no significant difference between the correlations. A comparison of results using both-sex versus same-sex group acceptance data indicated that results were not consistent across both types of data. Correlations decreased in strength across all analyses when same-sex data were used, resulting in a nonsignificant correlation for Grade 2 boys at the All Data Level and a nonsignificant correlation for Grade 2 girls at the 90% Data Level. Findings remained consistent for second graders at the 75% Level and for fifth graders across all levels.

Though not strong, these findings indicate some evidence of sex differences in the strength of the relationship between group acceptance and self-concept for second graders only. The lack of sex differences found for fifth graders is consistent with prior research with a preadolescent age group suggesting no significant sex differences in self-concept when studied in relation to sociometric status (Bradley & Newhouse, 1975). Sex differences were not specifically discussed in the other cited studies.

Though there was a sex difference effect for second graders, it was in the opposite direction to that predicted. Correlations between group acceptance and self-concept were stronger for girls than boys. This finding is discrepant with prior research indicating that the larger peer group is more important to boys than girls during elementary school (Berndt, 1982; Erwin, 1993) and that a larger social network is related to greater social competence among boys, but not girls (Waldrop & Halverson, 1975). It is possible that group acceptance as defined in the current study did not accurately capture the essence of what is important in the larger peer group for boys. Waldrop and Halverson's (1975) study suggests that having a large number of identified friends or playmates is an important factor. Perhaps being the recipient of greater peer liking (part of the definition of group acceptance in the current study) is not as relevant as simply having a greater number of peers willing to associate, irrespective of level of liking. Any interpretation of the current study's results for

these variables, however, should be treated cautiously, as the findings did not suggest a strong or consistent effect in terms of sex differences.

Overall, analysis of Hypothesis 3 provided consistent evidence that group acceptance and self-concept are positively associated for second graders, but not for fifth graders. However, evidence of meaningful grade level differences is meager, as significant differences between grade level correlations were not in evidence across all levels of data analysis. There was some evidence supporting sex differences in the strength of the association between group acceptance and self-concept, but in the opposite direction to that predicted and for second graders only.

Hypothesis 4: Group Acceptance and School Belongingness

The primary hypothesis that group acceptance would be positively correlated with school belongingness scores was partially supported. There was a significant positive correlation between level of group acceptance and sense of school belongingness scores for second graders, but not for fifth graders. Specifically, second graders with higher levels of group acceptance tended to report more feelings of school belonging on the PSSM, but there was no association between higher levels of group acceptance and more feelings of school belonging for fifth graders. This result was consistent across all levels of data analysis and remained the same whether both-sex or same-sex group acceptance data was used in the analyses.

This hypothesis was exploratory in nature, as an examination of the link between sense of school belonging and group acceptance as derived from peer report

has not been reported prior to this study. There were both empirical and theoretical bases for the hypothesis, although empirical studies linking peer status to school belonging were limited to just one. Goodenow (1993b) asked the English teachers of a sample of sixth, seventh, and eighth graders to rate students as having either *high*, *medium*, or *low* social standing with peers in the class. Results indicated that teacher ratings of peer status were linked to differences in PSSM scores. There were significant differences between PSSM scores of students in each category, with higher PSSM scores associated with higher peer status ratings.

Findings from the current study were consistent with Goodenow's (1993b) result for the second grade sample, but not for the fifth grade sample. Grade level differences were not predicted and, in fact, the lack of a significant finding for fifth graders was particularly unexpected considering that the fifth grade age group was closer to the age groups in Goodenow's sample. However, there were important differences between the two studies in terms of the peer status variable. Goodenow relied on teacher ratings and asked about a student's social standing in the group, while the current study used peer ratings and asked about each student's likability and peer willingness to associate with that student. "Peer status" as examined by Goodenow may be a very different construct than "group acceptance" as examined in the current study, and these differences could account for differences in results. It could be possible for a student to be liked by many peers (group acceptance), but not necessarily be considered to have high social standing (peer status). This distinction

may be what Benenson et al. (1998) were referring to, in part, in their statement that girls appear to be functioning at two levels of peer relations simultaneously: 1) friendship/small group interaction, and 2) the social status dynamics of the larger peer group. If the distinction between these two constructs is valid, it also could be conjectured that group acceptance as measured in the current study might be the form of larger peer group experience that is important at earlier ages, while relative social status/standing might be the form of larger peer group experience that is important at older ages.

Although the empirical results of Goodenow's (1993b) study were considered in the formulation of Hypothesis 4, the primary basis for this hypothesis was theoretical and rooted in the definition of sense of school belonging offered by Goodenow. Specifically, she stated that it is "the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment" (p. 80). Hypothesis 4 reflects the idea that the "others" of the definition include the peer group, and that peer group acceptance as a variable would logically reflect the actual extent to which a student is personally accepted and included by peers. It was predicted that a student's actual state of classroom peer group acceptance, as determined by peer ratings, would affect feelings of school belonging to some degree, and consequently be associated with PSSM scores. However, classroom peer group acceptance is only one component of school belonging as measured by the PSSM. PSSM items ask students about the school environment in

general, rather than the classroom microcosm (e.g., items are worded "Other students in my school care about what I say and think;" "Most teachers at this school are interested in me"). For the current study, it was hypothesized that the homeroom classroom environment would be the most salient environment and representative of "school" in general for students, but that may not have been the case. This may have been particularly true for fifth grade students who, at the schools included in the study, typically had two or three classroom teacher changes per day for academic subjects. Fifth grade students also may have had greater opportunity to develop peer and adult networks outside the homeroom class setting, by virtue of their increased number of years spent at school. The second graders, by contrast, typically remained with the same teacher for all academic subjects.

It is a logical assumption that group acceptance as measured in the current study captured only a part of the overall school experience that influences feelings of belonging. And perhaps the part of the school experience reflected in the group acceptance ratings is more salient and meaningful for second graders than for fifth graders when it comes to its influence on sense of school belonging, thus accounting for the developmental differences in the findings.

Hypothesis 4 also predicted that a stronger association between group acceptance and sense of school belonging might occur for boys than girls, and that this effect would be observed at both grade levels. Results at the All Data and 75% Levels indicated no support for sex differences in the correlation between group

acceptance and sense of school belonging; however, results at the 90% Level did find significant sex differences in the expected direction.

At the All Data and 75% Level, significant positive correlations between group acceptance ratings and PSSM scores were found for both boys and girls at the second grade level, with no significant differences between the correlations. At the fifth grade level, no significant correlations were found for boys or girls, and there were no significant differences between the correlations. At these levels of data analysis, it appeared that grade, rather than sex, appeared to be the more important variable in terms of group differences. However, at the 90% Level, sex differences in the predicted direction were supported. At this level there was a significant positive correlation between group acceptance ratings and PSSM scores for boys, but not for girls. There was a statistically significant difference between the correlations, as well. This finding was considered in terms of the original basis for conducting analyses at three different data levels, namely that the results found at the 90% Level might reflect a finding that was not detected at the All Data and 75% Levels due to less accurate group acceptance data. In this case, perhaps the greater accuracy of the group acceptance data at the 90% Level did allow this finding to be manifested. However, the correlations at the All Data Level and 75% Level are very similar to each other, then become strikingly different at the 90% Level. This pattern was not observed in other analyses involving correlations conducted with group acceptance

data (i.e., Hypothesis 3 analyses). Therefore, it also is possible that this finding is an example of Type I error.

The rationale for the predicted sex differences in the relative strength of the association between group acceptance and school belongingness was based in research suggesting that the larger peer group is more important to boys than girls during elementary school (Berndt, 1982; Erwin, 1993). As argued in the discussion of Hypothesis 3, it is possible that group acceptance as defined in the current study did not accurately capture the essence of what is important in the larger peer group for boys. However, this prediction was exploratory in nature, and a more parsimonious conclusion might be that the hypothesis was simply not supported by the data.

A comparison of results using both-sex versus same-sex group acceptance data indicated that results were generally consistent across both types of data. Correlations decreased in strength across all analyses when same-sex data were used. In one case this resulted in a nonsignificant correlation for Grade 2 girls at the 75% Level (where the correlation had been significant when both-sex data was used), but the overall result of no significant differences in correlations for Grade 2 boys and girls at the 75% Level remained the same.

Hypothesis 5: Friendship and School Belongingness

The hypothesis that there would be no differences in school belongingness scores of children with and without reciprocal classroom friendships at either grade

level was partially supported. There were no significant differences in PSSM scores related to friendship status for fifth graders (as predicted), but there were significant differences for second graders. Specifically, fifth graders with and without reciprocal classroom friendships tended to report similar feelings of school belonging on the PSSM, while second graders with reciprocal friendships reported significantly more feelings of school belonging on the PSSM than those without friendships. This result remained consistent at the 75% Level, but differences were no longer significant for second graders at the 90% Level.

In considering possible explanations for why significant differences for the Grade 2 sample disappeared at the 90% Level, mean PSSM scores were examined. At the 90% level the difference between mean PSSM scores for children with and without friendships (difference = .25) was larger than the difference between mean scores at the All Data (difference = .11) and 75% Level (difference = .22). Despite the larger actual difference in group means at the 90% Level, group differences were nonsignificant, although the differences approached significance ($p < .06$.) It appears probable that the lack of significant findings at the 90% Level was most likely due to the smaller sizes of the two samples at that level of data analysis.

Overall, results for this hypothesis suggest that differences in classroom friendship status are related to feelings of school belonging for students at the juvenile stage, but not for students at the preadolescent stage. The hypothesis that friendship status would not be linked to differences in feelings of school belonging

was based in the premise that group acceptance and friendship might be differentially linked to different outcome variables (Bishop & Inderbitzen, 1995; Bukowski et al., 1993; Vandell & Hembree, 1994), but it was exploratory in nature, as school belonging has not been previously examined in connection with the variables of friendship and peer rated group acceptance. Feelings of school belongingness were hypothesized to be more influenced by peer relationships related to the group (i.e., group acceptance), as opposed to peer relationships more related to intimacy (i.e., friendship).

In sum, it does not appear that friendship status as a variable is unlinked to school belongingness, as hypothesized. Rather, it seems that having a classroom friendship may be connected to greater feelings of school belonging, but only for a younger age group. Developmental differences, rather than a unique linkage with a particular type of peer relationship, appear to be the more important factor when considering sense of school belonging.

Hypothesis 6: Group Acceptance/Friendship and Ethnicity

The hypothesis that there would be no differences among ethnic groups for the group acceptance and friendship variables was predominantly supported. There were no significant differences in the frequencies of friendship status for the variable of ethnicity. Specifically, similar percentages of students in all four ethnic groups reported having and not having reciprocated classroom friendships. There also were no significant differences between group acceptance scores for the variable of

ethnicity at the All Data Level and 75% Level, but there were significant differences between group acceptance scores for the variable of ethnicity at the 90% Level. All results were consistent across all three levels of data analysis and remained the same regardless of whether same-sex or both-sex group acceptance ratings were used in the analyses.

Further analysis of the result found for group acceptance at the 90% Level indicated that significant differences existed between the Asian and Hispanic groups and the Asian and White groups, where students in the Asian group had significantly lower peer group acceptance scores than students in the Hispanic or White groups. In examining this inconsistent result, it was noted that cell size for the Asian group at the 90% Level was small ($n = 4$). As this finding only occurred at the 90% Level, it appears most likely to be reflective of small cell size for the Asian group at this level, rather than evidence of an effect that would be likely to be found in populations outside the current sample.

Because the ethnic group compositions of School 1 and School 2 differed, where School 1 was more ethnically heterogeneous, additional analyses were conducted to determine whether type of school might play a role in ethnic group differences on the variables of group acceptance and friendship. Results indicated there were not significant ethnic group differences for group acceptance or friendship at either school. These results were consistent across all levels of data analysis.

Overall, results suggested that ethnic group membership is not associated with significant differences in either level of group acceptance or having/not having a reciprocal classroom friendship. Being a member of a particular ethnic group did not appear to be associated with being more or less accepted by peers in the classroom or having a greater or lesser likelihood of having a reciprocated friendship in the classroom. This result supports the hypothesis and is consistent with previous research indicating that there is not a significant relationship between school social status and ethnicity (Bichard et al., 1988; Howes & Wu, 1990; Patterson et al., 1990). The finding of a lack of ethnic group differences remained constant for both the more ethnically homogenous school and the more ethnically heterogeneous school in the current study. This suggests that children in both ethnic majority and minority groups at a school may experience similar levels of classroom group acceptance and reciprocal friendship participation. Even at School 2, where there was a clear White ethnic majority, students of all ethnic groups appeared to experience similar levels of peer group acceptance and friendship.

Discussion of Comparison of Findings at the All Data, 75%, and 90% Data Levels

When initially designing the study, the decision to conduct analyses at three different data levels was based on the premise that analyses conducted using data from classrooms with higher participation levels would be more likely to reflect group acceptance and friendship status accurately, thus more accurate results might be more likely to be found at the highest participation rate level (i.e., 90% Level).

Overall results, however, suggest that differences in classroom participation levels had only a minimal effect on the overall results in the study. Most analyses were consistent across data levels in terms of finding significant versus non-significant results. Across 29 analyses (each conducted at all applicable data analysis levels), 23 resulted in consistent results across data levels. In 6 cases, the results were inconsistent across data levels.

In four of the cases of inconsistency, significant results were manifested for the data levels with higher numbers in the sample (e.g., All Data Level, 75% Level), but disappeared as the sample sizes decreased. It appeared that as sample sizes decreased, power decreased, and differences became no longer statistically significant.

In the remaining two cases, the opposite effect was found, where findings were significant at the 90% Level, but not at the other two data levels. These two cases were examined in light of the original premise, that the results might reflect a finding that was not detected at the All Data and 75% Levels due to less accurate group acceptance and friendship data. In one of the cases, it is possible that this is an accurate interpretation of the result. For Hypothesis 4, the hypothesis that group acceptance would be more strongly correlated with school belongingness for boys than girls was not supported at the All Data or 75% Levels, but was at the 90% Level for Grade 2 students. The differences in the strength of the correlations was notable, with the correlation increasing from $r = .26$ at the 75% Level to $r = .43$ at the 90%

Level for boys, and the correlations decreasing from $r = .23$ at the 75% Level to $r = .04$ at the 90% Level for girls. Perhaps the greater accuracy of the group acceptance data at the 90% Level allowed this finding to be manifested. On the other hand, the correlations were quite congruent at the All Data and 75% Levels, then changed in strength fairly dramatically at the 90% Level. This pattern was not observed across data levels for other correlational analyses in the study. For all other correlational analyses, there were only slight differences between correlations moving across data levels. Consequently, this finding could reflect a Type I error.

In the final case, which occurred as part of the analyses for Hypothesis 6, a significant difference between ethnic groups was found for the variable of group acceptance at the 90% Level. Specifically, group acceptance scores were significantly lower for Asian students than for Hispanic or White students. However, this finding appears most likely to be an artifact of the small cell size for the Asian group at this level ($n = 4$), rather than a reflection of differences that can be generalized to other populations.

Discussion of Comparison of Findings using Both-Sex and Same-Sex Group

Acceptance Ratings

In determining methodology regarding analysis of the group acceptance rating data for the current study, it was noted that some researchers have used ratings based on information gathered from peers of both sexes (e.g., Parker & Asher, 1993), others have used ratings based on information gathered from same-sex peers only (e.g.,

Howes, 1990; Krantz & Burton, 1986), and others have used both methods, finding highly similar results (Asher et al., 1984; Asher & Wheeler, 1985). The current study utilized both-sex ratings as the primary method of analysis, but also calculated group acceptance ratings using same-sex ratings only with the intent that analyses using both types of ratings would be compared.

In all, results suggest that analyses using both-sex and same-sex group acceptance ratings were predominantly similar. Most analyses were consistent in terms of finding significant versus non-significant results (i.e., when testing for significant correlations or group differences) whether both-sex or same-sex ratings were used. Across 43 individual analyses, only 4 resulted in differing results when same-sex data were used.

Inconsistencies were not found for analyses involving testing for group differences, but were found for some correlational analyses. Across 30 correlational analyses, 28 of the correlations slightly decreased in strength when same-sex data were used. The remaining 2 correlations slightly increased in strength. Additionally, the pattern of correlations across data levels (i.e., increasing or decreasing) remained the same whether both-sex or same-sex data were used.

In sum, results of the current study appear to be congruent with previous findings suggesting that analyses conducted with both-sex and same-sex group acceptance ratings are similar (Asher et al., 1984; Asher & Wheeler, 1985). The reader is referred to the discussions of individual hypotheses presented above for

further discussion of individual both-sex versus same-sex results related to specific findings for each hypothesis.

Discussion of Use of the Psychological Sense of School Membership Scale

One of the aims of the study was to explore the validity of the use of the Psychological Sense of School Membership scale (PSSM) with children younger than preadolescents. The scale was developed for use with early- to mid-adolescent students, and its reported use has been with children ranging in age from 9 - 14 years (Goodenow, 1993b). For the purposes of the current study, the measure was slightly modified to increase understanding for the younger children in the sample.

Reliability data were gathered and analyzed in order to provide information regarding the measure's reliability in general, and particularly its usefulness with a younger age group.

Reliability coefficients calculated for Grade 2 ($\alpha = .82$) and Grade 5 ($\alpha = .88$) were similar. These coefficients compared well with previously reported internal consistency reliability coefficients for the PSSM, which have ranged from .79 - .88 (Anderman, 1999; Goodenow, 1993b; Goodenow & Grady, 1993). Test-retest reliability data also were calculated for a two-week interval. Test-retest data were significantly positively correlated for both Grade 2 ($r = .74$) and Grade 5 ($r = .87$).

Notably, the PSSM appeared to retain its internal consistency with the Grade 2 students. This is an interesting finding in that the measure was developed for use with early- to mid-adolescent students, and has not previously been reported to have

been used with children below nine years of age (Goodenow, 1993b). The PSSM also maintained a moderately strong positive reliability coefficient over a two-week interval when used with second grade students. Overall, the PSSM appears to show promise as a reliable measure for use with younger school age groups, as well as for older groups.

Summary of Findings and Implications

Overall, results of the study provided support for the theory that developmental differences in the influence of children's peer relationship variables exist, but not entirely in the manner predicted. As opposed to finding evidence that friendship and group acceptance exerted differential influence on self-concept and sense of school belongingness depending on developmental stage, results suggested that peer relationship status in general was linked to both variables for younger, but not older, students. Additionally, the premise that peer group acceptance and friendship would exert differential influences on the outcome variables of self-concept and sense of school belonging was not supported.

For second graders, there was evidence of a significant association between group acceptance and self-concept, group acceptance and school belongingness, and friendship and school belongingness, although it is important to note that the strengths of the relationships were weak. There was not evidence of a significant association between friendship and self-concept. In contrast, there was not evidence

of a significant association between either of the peer relationship variables and the outcome variables for fifth graders.

The finding that there were not significant differences in self-concept scores of children with and without reciprocated classroom friendships at either grade level was likely the most unexpected result of the study. Theory and prior research have provided convincing evidence that having a friendship is linked to increased self-concept as well as to a variety of other positive personal outcomes (Asher et al., 1984; Asher & Wheeler, 1985; Bishop & Inderbitzen, 1995; Bradley & Newhouse, 1975; Bukowski et al., 1991; Crick & Ladd, 1993; Dunstan & Nieuwoudt, 1994; Fordham, 1995; Frankel, 1990; Ladd, 1990; Ladd & Price, 1987; Mannarino, 1978; O'Neil et al., 1997; Parker & Asher, 1993; Sullivan, 1953; Vandell & Hembree, 1994).

However, the current study's results were consistent with the one study finding no significant differences in self-concept for children with and without friendships (Clark & Drewry, 1985). Several possible explanations for this finding were offered, including developmental differences in the influence of friendship that were outside the range of the current study, differences in the definition (e.g., level of intimacy) of friendship, and/or failure to measure friendship in terms of quantity. It was speculated that if some or all of these factors were taken into account, the expected differences in self-concept related to friendship would be manifested.

Although developmental differences in the influence of friendship on self-concept were not supported in the context of the current study, the theoretical

construct behind the hypothesis may still be valid. The current study did not so much disprove the idea that there are developmental differences in the influence of friendship on self-concept, as it was unable to address the question adequately. Evidence remains that suggests developmental differences exist for the effect of classroom friendships on socioemotional outcomes in terms of both the presence/absence of a friendship (Bishop & Inderbitzen, 1995; Clark & Drewry, 1985) and the quantity of classroom friendships (Bishop & Inderbitzen, 1995; Vandell & Hembree, 1994.)

The overall finding of developmental differences in the strength of the association between group acceptance and self-concept is consistent with Sullivan's (1953) theories suggesting that group acceptance has a greater effect on self-concept during the juvenile stage than the preadolescent stage. Surprisingly, however, group acceptance was not found to be related to self-concept for students in the preadolescent stage. A review of research addressing these variables indicated that studies have not yet demonstrated a clear pattern of results, with some finding a significant association between the variables (Bradley & Newhouse, 1975; Dunstan & Nieuwoudt, 1994), others not (Bishop & Inderbitzen, 1995; Vandell & Hembree, 1994), and with no clear developmental trend apparent. However, interpretation of the current finding in comparison to the previous studies is difficult in light of the methodological differences among the studies.

Findings regarding the relationship between group acceptance and sense of school belonging were consistent with a previous finding by Goodenow (1993b), but only for the juvenile sample. The lack of a significant relationship finding for the preadolescent sample was unexpected as this age group was closest to the age groups in Goodenow's sample. However, it was noted that Goodenow's variable of "peer status" may not parallel the variable of "group acceptance" as examined in the current study, and these differences could account for differences in results. It also was noted that classroom peer group acceptance is only one component of school belonging as measured by the PSSM, and that perhaps the part of the school experience reflected in the group acceptance ratings is more salient and meaningful for second graders than for fifth graders when it comes to its influence on sense of school belonging, thus accounting for the developmental differences in the findings.

Like the relationship between group acceptance and sense of school belonging, the relationship between friendship and sense of school belonging was established only for the juvenile sample. This finding was contrary to expected results, as it was hypothesized (in an exploratory vein) that friendship status as a variable would not be associated with school belongingness at either developmental stage. Overall, developmental differences, rather than a unique linkage with a particular type of peer relationship, appear to be the more important factor when considering sense of school belonging.

Finally, both preliminary analyses and specific hypothesis testing related to ethnicity indicated that being a member of a particular ethnic group did not appear to be associated with being more or less accepted by peers in the classroom, having a greater or lesser likelihood of having a reciprocated friendship in the classroom, differences in self-concept, or differences in feelings of school belongingness. These findings were consistent despite differences in the demographic compositions of the two schools in the sample. These findings were not unexpected, but they are promising in the sense that they provide some evidence that the ethnic and socioeconomic composition of a school may not meaningfully influence children's level of group acceptance, likelihood of establishing a reciprocal classroom friendship, overall self-concept, or ability to establish a sense of school belonging.

Though less of a focus, the study also sought to determine whether sex differences were evident in the context of the hypotheses addressing developmental differences. In general, results suggested that relationships among the variables tended to be similar for both boys and girls. There was some evidence supporting sex differences in the strength of the association between group acceptance and self-concept, but in the opposite direction from that predicted and for second graders only. Overall, grade level differences, rather than sex differences, were the prevailing trend in the results.

Methodologically, the effects of including only classrooms with higher levels of classroom participation in the analyses were compared. Overall, level of

classroom participation did not appear to have a consistent or meaningful effect on finding significant versus nonsignificant results in the analyses conducted for the current study. This is not meant to suggest, however, that level of classroom participation is not a relevant factor in sociometric research. Research addressing this issue suggests that indeed it is relevant (Crick & Ladd, 1989; Hamilton et al., 2000). However, this factor did not appear to have a meaningful effect on overall findings in the current study. Similarly, the effects of using both-sex versus same-sex group acceptance data in the analyses were compared, with little evidence of significant differences in the overall results. This finding was consistent with some prior research utilizing both types of ratings (Asher et al., 1984; Asher & Wheeler, 1985).

A final area of exploration for the current study was the use of the PSSM with juvenile stage children. Promisingly, the PSSM retained its internal consistency with the second grade sample, as well as a moderately strong two-week test-retest reliability coefficient. These results suggest that the PSSM may be a reliable measure for use with younger school age groups, as well as for older age groups.

As part of the original intent of the current study, it was hoped that findings might provide a better understanding of the influences of children's peer group acceptance and friendship in order to assist in the effective selection of interventions for children at-risk of being alienated at school. While results do not support the idea of targeting different forms of peer relationship experiences for intervention at different ages, the findings may have some relevant implications.

First, targeting juvenile stage children for peer relationship development would appear reasonable. Providing specific guidance in friendship-making skills and group cooperation may be appropriate. In practice, many elementary schools in the district in which the study took place target younger student age groups for these types of interventions in the form of classroom guidance by the school counselor. Additionally, counselor-led "friendship groups" targeting social skills and friendship-making skills are not uncommon in elementary school intervention models, and group members are typically students nominated by teachers or parents due to specific concerns or deficits in these areas. The current study also would suggest that boys and girls are both worth targeting for these types of interventions, as no significant sex differences in the relationship of the variables were found.

Although current findings suggest that both types of peer group experiences matter for younger children, group acceptance may be more worth targeting for intervention, since group acceptance was found to be linked to both self-concept and sense of school belonging for juvenile stage children, while friendship was only linked to sense of school belonging. In discussing intervention, however, it is important to remember that the directionality of the relationship between these variables has not been established, only some evidence of a linkage. It has been presumed that peer group acceptance promotes a greater sense of school belonging, but perhaps an increased sense of school belonging helps promote positive peer group connections and/or friendships, which are then linked to other positive outcomes.

Schools might consider whether actively promoting a strong sense of school belonging among younger age groups of students might be worthwhile. While younger age students' individual classrooms are often nurturing and promote the idea of a "classroom community," younger students often are not targeted for participation in some of the more specialized activities and groups that bring students into connection with the greater school arena, such as participation in book clubs, student leadership teams, or school safety patrol. While some of these specific activities may not be developmentally appropriate for younger students in their current form at the schools implementing them, developmental adaptations conceivably could be made that would allow these students to participate meaningfully and still have the opportunity for increased contact with adults and peers outside the immediate classroom. This connection with the school-at-large, rather than just a classroom, may be an important component of feelings of school belonging.

Limitations

Findings are limited in their generalizability outside school populations with characteristics similar to those of the sample (i.e., suburban, predominantly Hispanic and White, lower to middle income). Findings that were exploratory in nature, such as those based on the use of the PSSM with the second grade sample, should be interpreted especially cautiously, as there currently are no corroborating studies to assist in establishing generalizability or determining whether these results are replicable.

While efforts were made to maximize return of consent forms and participation rates, not all students invited to take part in the study returned consent forms or were given parental consent. Consequently, sampling bias may have occurred due to parent- or self-selection. Systematic differences in the level of parent education (Severson & Ary, 1983), ethnicity (Kearney, Hopkins, Mauss, & Weisheir, 1983), child achievement levels (Frame & Strauss, 1987), and child aggression and sociability (Noll et al., 1997) have been found to occur between children who do and do not return consent forms. Studies investigating the effects of sampling bias often have found that students without consent exhibit higher levels of the negative characteristics being examined. Severson and Ary (1983) reported that middle school students without consent were more likely to self-report using tobacco and marijuana than those with consent. Frame and Strauss (1987) found that grade school children without consent were rated by peers as more withdrawn, more aggressive, and less physically attractive. The authors also found a difference for sociometric status. Socially rejected and neglected children were less likely to have parent consent to participate than were socially accepted children. This latter finding is particularly applicable to the current study, as it suggests that there may be a relationship between poor peer relationships and lack of parental consent to participate in research. The current study's sample groups may have contained a disproportionate number of students with healthier peer relationships, thus limiting variability, limiting ability to

detect real differences between groups, and negatively affecting the representativeness of the sample.

The study also may have been influenced by systematic differences between classrooms. Classroom participation rates ranged somewhat widely, even within grade levels at the same school. It is possible that some classroom-based variable or variables may have been associated with these differences in participation rates, such as individual classroom teacher characteristics or classroom climate. Some individual classroom teachers promoted participation in the study more enthusiastically than others, and some individual classroom teachers were more persistent in pursuing the return of consent forms than others. This may have introduced another form of sampling bias to the study, as students in classrooms with teachers who promoted participation in the study may have been more likely to return consent forms and participate. Classroom climate also may have influenced students' decisions regarding participation in the study. Students and teachers were aware of the nature of the study prior to consent forms being distributed, including the fact that group acceptance and sense of school belongingness were variables being explored. Perhaps students in classrooms with higher levels of cohesiveness, belonging, or warmth were more likely to feel comfortable or interested in reporting feelings related to school belongingness. If so, systematic differences in participation rates between classrooms may have occurred. Relatedly, classroom climate may have not only

influenced the study in terms of causing sampling bias, but also may have been a confounding variable.

The definition of friendship as used in the context of the study is another limitation. The investigation was purposely focused on examining the influences of classroom friendships, but this restriction of the definition of friendship weakens a study's capacity to explore fully the effects of friendship at the whole-school level, and in general (Yugar & Shapiro, 2001). Some children who participated in the study may have had a friend at school that offered a positive influence on their self-concept or feelings of school belonging, but if that friend was outside the homeroom classroom the relationship was not detectable. The current results are limited to providing information only about the effects of having or not having at least one reciprocated classroom friendship.

A final limitation of the study could be that it was static in its measurement. All scores were a snapshot of a student's status at one point in time. Especially for the variable of friendship, it was impossible to know anything about the duration or quality of the relationship, which could have influenced outcomes. It also is possible that variables such as friendship and group acceptance influence the individual over time, rendering some effects not immediately apparent. In this case, using current peer relationship status may not be the best predictor of current self-concept and sense of belonging.

Future Research

The call for more research addressing developmental differences in the influence of children's peer relationships has been a recurring theme in the literature in this area. Despite a lack of full support for many of the hypothesized relationships in the current study, one of the clear patterns that emerged was differences between findings for the younger and older children in the sample. The continued consideration of developmental differences in future children's peer relationship research would appear to be broadly important.

Specific results from the current study suggest several possible areas for further exploration. The hypotheses addressing friendship yielded few significant findings, but many questions. Several possible explanations were offered for the lack of differences on the variable of self-concept for friendship status, including possible developmental differences in the influence of friendship that were outside the range of the current study, differences in the definition (e.g., level of intimacy) of friendship, and/or failure to measure friendship in terms of quantity. Continued research in the area of friendship might explore some of these areas. In particular, broadening assessment of the friendship variable to include friendships beyond those in the primary classroom may be important. Researchers also have indicated that the issue of the quality of the friendship must be considered (Aboud & Mendelson, 1996). Intimacy may be one aspect of quality of friendship that is particularly important. Burhmester (1990) reported that the strength of the association between

friendship intimacy and psychosocial adjustment increased with age (from a preadolescent to an adolescent sample). Certainly, friendship is an important relationship with influence across the lifespan and worthy of further attention, especially in terms of how it relates to the school experience and outcomes.

Recent and ongoing research examining popularity in the school setting suggests that major changes in the conceptualization of this construct are underway. While the current study utilized the traditional definition of popularity as reflecting level of group acceptance or liking, researchers are now asserting that popularity is actually a multifaceted construct and that measurement techniques need to differentiate between types of popularity (Babad, 2001; Chan & Mpofu, 2001). In a recent and comprehensive article, Babad (2001) stated that the traditional use of the term "sociometric popularity" on the basis of liking nominations has been misleading. She argued that traditional sociometric research, which typically asks children to provide ratings or nominations on the basis of liking, reflects "affective sociometry," or the measure of a child's attractiveness for intimate friendship to another. This is different from "judgmental sociometry," or the measure of a child's social status as perceived by peers within the group. Babad's research provided consistent evidence that these two forms of popularity are overlapping, but distinct. Some preliminary evidence of a developmental trend also was presented, where the level of distinctiveness between the two constructs appears to increase with age. Further

investigation of the distinction between these constructs and their relative influences on children's functioning at school appears warranted.

Finally, the construct of school belonging appears to be promising and most relevant for those interested in how relationships affect children in the context of the school environment. Thus far, research on school belongingness has focused on preadolescent and adolescent age groups, but the results of the current study suggest that neglecting younger age groups in this type of research may be a mistake.

Evidence for a relationship between peer group experiences and sense of school belongingness was apparent for the juvenile stage students in this study. Researchers have reported that a sense of school belonging is connected to school motivation (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993), academic achievement (Goodenow, 1993b; Roeser et al., 1996), and school effort and involvement (Goodenow, 1993b), among other positive outcomes. Future research efforts might focus on whether these same connections exist for younger age groups of students.

Appendix A

Peer Group Acceptance Measure Directions

DIRECTIONS:

- 1) Find your name on the list below and CIRCLE your name.
- 2) Look at the list below of people in your class at school. Next to each name is a row of faces. Think about each person on the list and mark the face that shows how much you like to play with or do activities at school with that person. Be sure to mark one face for each name on the list.

Appendix B

Friendship Nomination Measure Directions

DIRECTIONS:

Look at the list below of people in your homeroom class at school. Circle the names of your three best friends in your homeroom class. You can circle as many as three, but you do not have to circle three if you have fewer than three best friends on this list.

Appendix C

Psychological Sense of School Membership Scale Directions and Items

PSSM Directions

DIRECTIONS:

These questions are to find out what you really think about your school. Read each sentence below and mark the face that says how true it is about you. There are no right or wrong answers. Just choose the answer that tells how you feel.

PSSM Items as Used in the Current Study

- * 1. I feel like an important part of this school.
(Original: I feel like a real part of [name of school].)
- 2. People here notice when I'm good at something
- 3. It is hard for people like me to be accepted here. (*reverse scored item*)
- * 4. Other students in my school care about what I say and think.
(Original: Other students in this school take my opinions seriously.)
- 5. Most teachers at this school are interested in me.
- 6. Sometimes I feel as if I don't belong here. (*reverse scored item*)
- 7. There's at least one teacher or other adult in this school I can talk to if I have a problem.
- 8. People at this school are friendly to me.
- 9. Teachers here are not interested in people like me. (*reverse scored item*)
- 10. I am included in lots of activities at this school.
- 11. I am treated with as much respect as other students.
- 12. I feel very different from most other students here. (*reverse scored item*)
- 13. I can really be myself at this school.
- 14. The teachers here respect me.
- 15. People here know I can do good work.
- 16. I wish I were in a different school. (*reverse scored item*)
- 17. I feel proud belonging to this school.
- 18. Other students here like me the way I am.

*modified from original PSSM item

Appendix D

Cover Letter Text

Dear Parents,

The more we know about children, the better we can help them be successful at school and in life. [*Name of school*] Elementary has agreed to be a part of a research project that Valerie Morgan, from The University of Texas at Austin, is doing as part of her dissertation study. Ms. Morgan was a Psychology Intern for [*name of school district*] last year and currently works in our district as a substitute counselor. She hopes to learn about children's relationships with their classmates and how they affect children's feelings about themselves and being an important part of their school.

All the children in your child's grade level are being asked to join in. Children who participate will be asked to fill out confidential questionnaires asking them about:

- their friendships at school
- how much they like to play or do things with other kids in their class
- how they feel about themselves
- how much they feel they belong and are an important part of their school

Everything will be completed as a group in your child's classroom. It will take a total of 60-70 minutes of time, over 2 or 3 meetings with Ms. Morgan. All information will be kept completely confidential. Your child's name will not be on any of the questionnaires. Also, it will be your child's choice to take part--he or she can decide not to answer the questions at any time.

Your child's viewpoint is important! We want to know how every child feels, not just a few. So, please consider giving your child permission to participate in this project. Please read the attached "Consent Form" for full information about this project. To say "thank you" for your time and interest, your child will get a chance to win a prize, just for returning the completed form, whether you give permission or not. You can call Ms. Morgan with any questions about this project at [*phone number*].

Sincerely,

[*School Principal's Name*]

Appendix E

Consent Form Text

Peer Group Acceptance and a Sense of School Belonging

My name is Valerie Morgan and I am a doctoral student in the School Psychology program at The University of Texas at Austin, Department of Educational Psychology, working under the supervision of Deborah Tharinger, Ph.D. I also worked with [*name of district*] students last year as a Psychology Intern and am currently employed as a substitute counselor for the district. I am asking your consent for your child to participate in a research study on elementary students' relationships with their classmates. The purpose of the study is to learn more about how these relationships affect children's self-concept and feelings of belonging at school. This study is part of my dissertation research requirement.

Specifically, I am asking permission for your child to fill out four questionnaires in his or her classroom. This will take about 60-70 minutes, spread out over 2 or 3 meetings. All children in your child's classroom, as well as other elementary school classrooms, are being asked to complete these questionnaires. The questionnaires ask about children's friendships in the classroom, how much students like to play with or do things with other students in their class, self-concept (how a child feels about him or herself), and sense of school belonging (how much a child feels an important part of his or her class and school). Your child will be one of approximately 500 second and fifth graders invited to participate.

Your child's answers will be anonymous and confidential. That is, your child would not put his or her name on the questionnaires and no information will be linked to your child by name. Your child may skip any question he or she chooses, and may choose to not participate or to stop participating at any time with no penalty. No specific information about any child will be shared with any person, although the overall results of the study will be made available to your child's school and school district.

There are no known major risks associated with your child's participation. To minimize the possible risk of social discomfort or loss of privacy if students ask each other about their responses, children will be asked to keep their answers private and not to discuss them with classmates. Most children, however, report enjoying completing measures such as these, and children may experience satisfaction from being able to express their feelings.

I hope very much that your child will be able to participate. Every child's point of view is important. In this study, especially, it is very important that all or most of the students in a classroom participate. Otherwise, the information will not be a true picture of how all the students feel. Hopefully, the information gathered in this study will help us learn more about how to help all children succeed at school. We especially hope to learn how to better help those children who have a hard time making friends or being a part of the group at school.

In thanks for your time and interest in the study, your child will be entered into a drawing for the chance to win a prize (a gift certificate for a family night at the movies or Toys R Us) just for returning this completed consent form. Your child will have an equal chance to win a prize whether you consent or do not consent to your child's participation.

Please complete the form below, indicating whether or not you give permission for your child to participate. Your signature indicates that you have read the information provided and made your decision accordingly. Your decision whether or not to participate will not affect your future relations with The University of Texas at Austin, [*name of school*] Elementary School, or the [*name of school district*] School District. If you give permission, you may withdraw your child from the study at any time after signing this form by contacting me or my supervisor in writing or at the telephone numbers below. If you have any questions, please contact me at [*phone number*], or my supervisor, Deborah Tharinger, Ph.D. at [*phone number*], The University of Texas at Austin, Department of Educational Psychology, Sanchez Building 504, Austin, TX 78712. We would be happy to answer any questions you may have. You may keep this copy of this form for your own reference.

Thank you very much for taking the time to consider this invitation! Your child's perspectives and participation in this study will be greatly valued.

Sincerely,

Valerie Morgan, M.A.

PARENTS: PLEASE COMPLETE THE FORM BELOW AND RETURN TO YOUR CHILD'S TEACHER AS SOON AS POSSIBLE. THANK YOU!

Certificate of Consent

I have read and understand the explanation provided to me of the study entitled "Peer Group Acceptance and a Sense of School Belonging," under the direction of Valerie Morgan, M.A., and the supervision of Deborah Tharinger, Ph.D. Regarding my child's participation in the study:

_____ YES, I give my consent for my child to participate in this study.

_____ NO, I do not wish my child to participate.

Parent Name (please print): _____

Child's Name: _____ Grade: _____

Child's Homeroom Teacher: _____

Parent/Guardian Signature: _____ Date: _____

(ATTENTION SCHOOL PERSONNEL: PLEASE RETURN THIS FORM TO VALERIE MORGAN. THANK YOU.)

Appendix F

Assent Form Text

Peer Group Acceptance and a Sense of School Belonging

I agree to take part in a research project that is interested in children, their friends, and how they get along as a group at school. I understand that my parent (or guardian) knows about this project and has given permission for me to be in it. I understand that if I don't want to take part in this research project, I don't have to. And if I change my mind at any time and want to stop, I can. I understand that all the answers to questions I give as part of the project will be kept private--no one else will get to see them except the researcher.

I understand that I will be asked questions about my friends at school and how much I like to do things with the other kids in my class at school. I will also be asked questions about how I feel about myself and how much I feel a part of things at school. I also understand that it is all right if I do not want to answer questions for the project or I decide to stop answering questions at any time--it is my choice.

When I sign my name on this paper, it means this page was read to me and that I am agreeing to take part in this research project. It also means I know what I will be asked to do, and I know that I can stop anytime I want.

Student Signature: _____

Date: _____

Researcher Signature: _____

Date: _____

References

- About, F. E. (1987). The development of ethnic self-identification and attitudes. In J. S. Phinney & M. J. Rotheram (Eds.), *Children's ethnic socialization: Pluralism and development* (pp. 32-55). Newbury Park, CA: Sage Publications.
- About, F. E., & Mendelson, M. J. (1996). Determinants of friendship selection and quality: Developmental perspectives. In Bukowski, Newcomb, & Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 87-112). Cambridge University Press.
- Anderman, L. H. (1999). Classroom goal orientation, school belonging and social goals as predictors of students' positive and negative affect following the transition to middle school. *Journal of Research and Development in Education*, 32(2), 89-103.
- Anderman, L. H., & Anderman, E. M. (1999). Social predictors of changes in students' achievement goal orientations. *Contemporary Educational Psychology*, 25, 21-37.
- Asher, S. R., & Dodge, K. A. (1986). Identifying children who are rejected by their peers. *Developmental Psychology*, 22, 444-449.
- Asher, S. R., Hymel, S., & Renshaw, P. D. (1984). Loneliness in children. *Child Development*, 55, 1456-1464.

- Asher, S. R., & Wheeler, V. A. (1985). Children's loneliness: A comparison of rejected and neglected peer status. *Journal of Consulting and Clinical Psychology, 53*(4), 500-505.
- Babad, E. (2001). On the conception and measurement of popularity: More facts and some straight conclusions. *Social Psychology of Education, 5*(1), 3-30.
- Bachar, E., Canetti, L., Bonne, O., De-Nour, A. K., & Shalev, A. Y. (1997). Pre-adolescent chumship as a buffer against psychopathology in adolescents with weak family support and weak parental bonding. *Child Psychiatry and Human Development, 27*(4), 209-220.
- Bagwell, C. L., Newcomb, A. F., & Bukowski, W. M. (1998). Preadolescent friendship and peer rejection as predictors of adult adjustment. *Child Development, 69*(1), 140-153.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.
- Bell-Dolan, D. J., Foster, S. L., & Sikora, D. M. (1989). Effects of sociometric testing on children's behavior and loneliness in school. *Developmental Psychology, 25*(2), 306-311.
- Benenson, J. F. (1990). Gender differences in social networks. *Journal of Early Adolescence, 10*, 472-495.

- Benenson, J., Apostoleris, N., & Parnass, J. (1998). The organization of children's same-sex peer relationships. In W. M. Bukowski & A. H. Cillessen (Eds.), *Sociometry then and now: Building on six decades of measuring children's experiences with the peer group* (pp. 5-23). San Francisco: Jossey-Bass Publishers.
- Berndt, T. J. (1982). The features and effects of friendship in early adolescence. *Child Development, 53*, 1447-1460.
- Berndt, T. J. (1989). Contributions of peer relationships to children's development. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 407-416). New York: John Wiley & Sons.
- Berndt, T. J., & Perry, T. B. (1986). Children's perceptions of friendships as supportive relationships. *Developmental Psychology, 22*(5), 640-648.
- Richard, S. L., Alden, L., Walker, L. J., & McMahon, R. J. (1988). Friendship understanding in socially accepted, rejected, and neglected children. *Merrill-Palmer Quarterly, 34*, 33-46.
- Bishop, J. A., & Inderbitzen, H. M. (1995). Peer acceptance and friendship: An investigation of their relation to self-esteem. *Journal of Early Adolescence, 15*, 476-489.
- Bradley, F. O., & Newhouse, R. C. (1975). Sociometric choice and self perceptions of upper elementary school children. *Psychology in the Schools 12*(2), 219-222.

- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Buhrmester, D. (1990). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child Development, 61*, 1101-1111.
- Bukowski, W. M., & Hoza, B. (1989). Popularity and friendship: Issues in theory, measurement, and outcome. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 15-45). New York: John Wiley & Sons.
- Bukowski, W. M., Hoza, B., & Boivin, M. (1993). Popularity, friendship, and emotional adjustment during early adolescence. In B. Laursen (Ed.), *Close friendships in adolescence (New directions in child development, no. 60)* (pp. 23-37). San Francisco: Jossey-Bass.
- Bukowski, W. M., Hoza, B., & Newcomb, A. F. (1991). Friendship, popularity, and the 'self' during early adolescence. Unpublished manuscript. Concordia University: Department of Psychology.
- Bukowski, W. M., Newcomb, A. F., & Hartup, W. (1996). Friendship and its significance in childhood and adolescence: Introduction and comment. In W. M. Bukowski, A. F. Newcomb, & W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 1-15). Cambridge University Press.

- Bukowski, W. M., Newcomb, A. F., & Hoza, B. (1992). The association between rating scale and nomination-based popularity measures and an index of mutual friendship. Unpublished manuscript. Concordia University: Department of Psychology.
- Bukowski, W. M., Pizzamiglio, M. T., Newcomb, A. F., & Hoza, B. (1996). Popularity as an affordance for friendship: The link between group and dyadic experience. *Social Development, 5*, 189-202.
- Cairns, R. B., Perrin, J. E., & Cairns, B. D. (1985). Social cognition in early adolescence: Affiliative patterns. *Journal of Early Adolescence, 5*, 339-355.
- Carnegie Council on Adolescent Development (1989). *Turning points: Preparing American youth for the 21st century*. Washington, D.C.: Author.
- Chan, S., & Mpofu, E. (2001). Children's peer status in school settings: Current and prospective assessment procedures. *School Psychology International, 22*(1), 43-52.
- Clark, M. L., & Drewry, D. L. (1985). Similarity and reciprocity in the friendships of elementary school children. *Child Study Journal, 15*(4), 251-264.
- Coie, J. D., & Dodge, K. A. (1983). Continuities and changes in children's social status: A five year longitudinal study. *Merrill-Palmer Quarterly, 29*, 261-282.
- Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18*, 557-571.

- Cowan, G., & Hoffman, C. D. (1986). Gender stereotypes in young children: Evidence to support a concept learning approach. *Sex Roles, 14*, 211-224.
- Cowen, E. L., Pederson, A., Babijian, H., Izzo, L. D., & Trost, M. A. (1973). Long term follow-up of early detected vulnerable children. *Journal of Consulting and Clinical Psychology, 41*, 438-446.
- Crick, N. R., & Ladd, G. W. (1989). Nominator attrition: Does it affect the accuracy of children's sociometric classification? *Merrill-Palmer Quarterly, 35*, 197-207.
- Crick, N. R., & Ladd, G. W. (1993). Children's perceptions of their peer experiences: Attributions, loneliness, social anxiety, and social avoidance. *Developmental Psychology, 29*(2), 244-254.
- Diehl, D. S., Lemerise, E. A., Caverly, S. L., Ramsay, S., & Roberts, J. (1998). Peer relations and school adjustment in ungraded primary children. *Journal of Educational Psychology, 90*(3), 506-515.
- Doll, B. (1996). Children without friends: Implications for practice and policy. *School Psychology Review, 25*(2), 165-183.
- DuBois, D. L., & Hirsch, B. J. (1990). School and neighborhood friendship patterns of blacks and whites in early adolescence. *Child Development, 90*, 524-536.
- Dunstan, L. V., & Nieuwoudt, J. (1994). The relationship between indexes of childhood friendship and biographical, personality, and behavioral variables. *Journal of Genetic Psychology, 155*(3), 303-312.

- Eder, D. (1985). The cycle of popularity: Interpersonal relations among female adolescents. *Sociology of Education*, 58, 154-165.
- Erwin, P. (1993). *Friendship and peer relations in children*. New York: John Wiley & Sons.
- Finn, J. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117-142.
- Fordham, K. (1995). *The protective role of friendship for socially anxious children*. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Indianapolis, Indiana.
- Foster, S. L., Martinez, Jr., C. R., & Kulberg, A. M. (1996). Race, ethnicity, and children's peer relations. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in Clinical Child Psychology, Volume 18* (pp. 133-172). New York: Plenum Press.
- Frame, C. L., & Strauss, C. C. (1987). Parental informed consent and sample bias in grade-school children. *Journal of Social and Clinical Psychology*, 5, 227-236.
- Frankel, K. A. (1990). Girls' perceptions of peer relationship support and stress. *Journal of Early Adolescence*, 10(1), 69-88.
- Furman, W. (1993). Theory is not a four-letter word: Needed directions in the study of adolescent friendships. In B. Laursen (Ed.), *Close friendships in adolescence (New directions in child development, no. 60)* (pp. 89-103). San Francisco: Jossey-Bass.

- Furman, W., & Robbins, P. (1985). What's the point? Issues in the selection of treatment objectives. In B. H. Schneider, K. H. Rubin, & J. E. Ledingham (Eds.), *Children's peer relations: Issues in assessment and intervention* (pp. 41-54). New York: Springer-Verlag.
- George, T. P., & Hartmann, D. P. (1996). Friendship networks of unpopular, average, and popular children. *Child Development, 67*, 2301-2316.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Goodenow, C. (1992). Strengthening the links between educational psychology and the study of social contexts. *Educational Psychologist, 27*(2), 177-196.
- Goodenow, C. (1993a). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence, 13*(1), 21-43.
- Goodenow, C. (1993b). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools, 30*, 79-90.
- Goodenow, C., & Grady, K. E. (1993). The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *Journal of Experimental Education, 62*(1), 60-71.

- Gottman, J. M. (1986). The world of coordinated play: Same- and cross-sex friendship in young children. In J. M. Gottman & J. G. Parker (Eds.), *Conversation of friends* (pp. 139-191). Cambridge, England: Cambridge University Press.
- Gottman, J. M., & Mettetal, G. (1986). Speculations about social and affective development: Friendship and acquaintanceship through adolescence. In J. M. Gottman & J. G. Parker (Eds.), *Conversations of friends: Speculations on affective development* (pp. 192-240). New York: Cambridge University Press.
- Graham, J. A., Cohen, R., Zbikowski, S. M., & Secrist, M. E. (1998). A longitudinal investigation of race and sex as factors in children's classroom friendship choices. *Child Study Journal*, 28(4), 245-265.
- Hallinan, M. T., & Teixeira, R. A. (1987). Opportunities and constraints: Black-white differences in the formation of interracial friendships. *Child Development*, 58, 1358-1371.
- Hamilton, C., Fuchs, D., Fuchs, L. S., & Roberts, H. (2000). Rates of classroom participation and the validity of sociometry. *School Psychology Review*, 29, 251-266.
- Hartup, W. W. (1993). Adolescents and their friends. In B. Laursen (Ed.), *Close friendships in adolescence (New directions in child development, no. 60)* (pp. 3-22). San Francisco: Jossey-Bass.

- Hayvren, M., & Hymel, S. (1984). Ethical issues in sociometric testing: Impact of sociometric measures on interaction behavior. *Developmental Psychology*, 20(5), 844-849.
- Howes, C. (1990). Social status and friendship from kindergarten to third grade. *Journal of Applied Developmental Psychology*, 11, 321-330.
- Howes, C., & Wu, F. (1990). Peer interactions and friendships in an ethnically diverse school setting. *Child Development*, 61, 537-541.
- Iverson, A. M., Barton, E. A., & Iverson, G. L. (1997). Analysis of risk to children participating in a sociometric task. *Developmental Psychology*, 33(1), 104-112.
- Johnson, D. W. (1980). Group process: Influences of student-student interaction on school outcomes. In J. H. McMillan (Ed.), *Social psychology of learning* (pp. 123-168). New York: Academic Press.
- Kearney, K. A., Hopkins, R. H., Mauss, A. L., & Weisheir, R. A. (1983). Sample bias resulting from a requirement for written parental consent. *Public Opinion Quarterly*, 47, 96-102.
- Krantz, M., & Burton, C. (1986). The development of the social cognition of social status. *The Journal of Genetic Psychology*, 147(1), 89-95.
- Kupersmidt, J. B., & Coie, J. D. (1990). Preadolescent peer status, aggression, and school adjustment as predictors of externalizing problems in adolescence. *Child Development*, 61, 1350-1362.

- Ladd, G. W. (1983). Social networks of popular, average, and rejected children in school settings. *Merrill-Palmer Quarterly*, 29(3), 283-307.
- Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development*, 61, 1081-1100.
- Ladd, G. W. (1999). Peer relationships and social competence during early and middle childhood. In J. T. Spence, J. M. Darley, & D. J. Foss (Eds.), *Annual Review of Psychology, Volume 50* (pp. 333-359). Palo Alto, CA: Annual Reviews.
- Ladd, G. W., & Coleman, C. C. (1997). Children's classroom peer relationships and early school attitudes: Concurrent and longitudinal associations. *Early Education and Development*, 8(1), 52-66.
- Ladd, G. W., Kochendorfer, B. J., & Coleman, C. C. (1997). Classroom peer acceptance, friendship, and victimization: Distinct relational systems that contribute uniquely to children's school adjustment? *Child Development*, 68(6), 1181-1197.
- Ladd, G. W., & Price, J. M. (1987). Predicting children's social and school adjustment following the transition from preschool to kindergarten. *Child Development*, 58, 1168-1189.
- Mannarino, A.P. (1978). Friendship patterns and self-concept development in preadolescent males. *Journal of Genetic Psychology*, 133, 105-110.

- Maslow, A. (1962). *Toward a psychology of being*. Princeton: New Jersey: Van Nostrand.
- McGuire, K. D., & Weisz, J. R. (1982). Social cognition and behavioral correlates of preadolescent chumship. *Child Development, 53*, 1478-1484.
- Moreno, J. L. (1934). *Who shall survive? A new approach to the problem of human interrelations*. Washington D.C.: Nervous and Mental Disease Publishing.
- Newcomb, A. F., & Bukowski, W. M. (1983). Social impact and social preference as determinants of children's peer group status. *Developmental Psychology, 19*, 856-867.
- Noll, R. B., Zeller, M. H., Vannatta, K., Bukowski, W. M., & Davies, W. H. (1997). Potential bias in classroom research: Comparison of children with permission and those who do not receive permission to participate. *Journal of Clinical Child Psychology, 26*(1), 36-42.
- Ollendick, T. H., Weist, M. D., Borden, M. C., & Greene, R. W. (1992). Sociometric status and academic, behavioral, and psychological adjustment: A five-year longitudinal study. *Journal of Consulting and Clinical Psychology, 60*, 80-87.
- O'Neil, R., Welsh, M., Parke, R. D., Wang, S., & Strand, C. (1997). A longitudinal assessment of the academic correlates of early peer acceptance and rejection. *Journal of Clinical Child Psychology, 26*(3), 290-303.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*(3), 357-389.

- Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology, 29*(4), 611-621.
- Parker, J., & Gottman, J. M. (1989). Social and emotional development in relational context: Friendship interaction from early childhood to adolescence. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 95-131). New York: John Wiley and Sons.
- Patterson, C. J., Kupersmidt, J. B., & Vaden, N. A. (1990). Income level, gender, ethnicity, and household composition as predictors of children's school-based competence. *Child Development, 61*, 485-494.
- Piers, E. V. (1984). *Piers-Harris Children's Self-Concept Scale: Revised Manual 1984*. Los Angeles, CA: Western Psychological Services.
- Platten, M. R., & Williams, L. R. (1981). Replication of a test-retest factorial validity study with the Piers Harris Children's Self Concept Scale. *Educational and Psychological Measurement, 41*, 453-461.
- Ray, G. E., Cohen, R., & Secrist, M. E. (1995). Best friend networks of children across settings. *Child Study Journal, 25*(3), 169-187.
- Renshaw, P. E., & Brown, P. J. (1993). Loneliness in middle childhood: Concurrent and longitudinal predictors. *Child Development, 64*, 1271-1284.
- Rizzo, T. A. (1988). The relationship between friendship and sociometric judgments of peer acceptance and rejection. *Child Study Journal, 18*(3), 161-191.

- Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology, 88*(3), 408-422.
- Roff, J. D. (1990). Childhood peer rejection as a predictor of young adults' mental health. *Psychological Reports, 67*(3), 1263-1266.
- Roff, M. (1963). Childhood social interactions and young adult psychosis. *Journal of Clinical Psychology, 19*, 152-157.
- Roff, M., Sells, S. B., & Golden, M. M. (1972). *Social adjustment and personality development in children*. Minneapolis: University of Minnesota Press.
- Rose, A. J., & Asher, S. R. (1999). Children's goals and strategies in response to conflicts within a friendship. *Developmental Psychology, 35*(1), 69-79.
- Salvia, J., & Ysseldyke, J. E. (1998). *Assessment (seventh edition)*. Boston: Houghton Mifflin.
- Sanderson, J. A., & Siegal, M. (1995). Loneliness and stable friendship in rejected and nonrejected preschoolers. *Journal of Applied Developmental Psychology, 16*, 555-567.
- Severson, H. H., & Ary, D. V. (1983). Sampling bias due to consent procedures with adolescents. *Addictive Behaviors, 8*, 433-437.
- Shrum, W., Cheek, N. H., & Hunter, S. M. (1988). Friendship in school: Gender and racial homophily. *Sociology of Education, 61*, 227-239.

- Spencer, M. B., & Markstrom-Adams, C. (1990). Identity processes among racial and ethnic minority children in America. *Child Development, 61*, 290-310.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.
- Thompson, S. K. (1975). Gender labels and early sex role development. *Child Development, 46*, 339-347.
- Vandell, D. L., & Hembree, S. E. (1994). Peer social status and friendship: Independent contributors to children's social and academic adjustment. *Merrill-Palmer Quarterly, 40*(4), 461-477.
- Waldrop, M. F., & Halverson, C. F. (1975). Intensive and extensive peer behavior: Longitudinal and cross-sectional analyses. *Child Development, 46*, 19-26.
- Wentzel, K. R. (1991). Relations between social competence and academic achievement in early adolescence. *Child Development, 62*, 1066-1078.
- Wentzel, K. R., & Caldwell, K. (1997). Friendships, peer acceptance, and group membership: Relations to academic achievement in middle school. *Child Development, 68*(6), 1198-1209.
- Woodward, L. J., & Fergusson, D. M. (1999). Childhood peer relationship problems and psychosocial adjustment in late adolescence. *Journal of Abnormal Child Psychology, 27*(1), 87-104.
- Yugar, J. M., & Shapiro, E. S. (2001). Elementary children's school friendship: A comparison of peer assessment methodologies. *School Psychology Review, 30*(4), 568-585.

VITA

Valerie René Morgan was born in Santa Rosa, California on May 11, 1971, the daughter of Rose Marie Poncia and Alvin Monroe Morgan, Jr. After completing her work at Ursuline High School, Santa Rosa, California in 1989, she entered the University of California at Santa Barbara in Santa Barbara, California. She received the degree of Bachelor of Arts in Psychology and Anthropology from the University of California at Santa Barbara in June 1993. In August 1993 she entered the Graduate School of The University of Texas. She married Robert Albert Hartye, III on August 6, 1995. She received the degree of Master of Arts in Educational Psychology from The University of Texas in August 1996. In August 2000 she began employment as a Licensed Specialist in School Psychology with Humble Independent School District.

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This dissertation was typed by the author.