

**Extracurricular Activities in Early Adolescence:  
Links with Peer Group Acceptance and Belongingness**

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## Abstract

One construct that has received a great deal of attention in the literature on adolescent loneliness is that of group acceptance. Past studies have shown that children who are not well-accepted by their peers generally experience more loneliness and more social dissatisfaction than their better-accepted agemates. Previous research, however, has only begun to discern the complexity of the factors assumed to be responsible for the link between peer acceptance and loneliness. For instance, are there different ways in which a child can be lonely? The purpose of the present investigation is to examine the relations among peer acceptance, and friendship status using a multidimensional approach to loneliness. Two different loneliness measures were used. The first assessment tool was an overall measure of loneliness (ILQ). The second measure (RPLQ) included several dimensions of loneliness whereby the two peer subscales were utilized -- intimacy and belongingness. In addition, participation in extracurricular activities was examined to discern its contribution to adolescent loneliness and to investigate whether being involved in activities staves off feelings of loneliness. Accordingly, 419 students (210 girls, 209 boys) in grades 6 and 7 participated in the study. Findings revealed that low-accepted adolescents reported higher levels of loneliness, and lower levels of belongingness and intimacy. Girls reported significantly higher levels of intimacy than did boys. For boys only, participation in extracurricular activities was significantly associated with the three dimensions of loneliness, peer acceptance and friendship status. Findings for girls yielded the same significant results except that girls who were highly-involved in extracurricular activities did not report having more friendships. For both boys and girls, being involved in extracurricular activities predicted feelings of belongingness. Moreover, participation in extracurricular activities predicted higher levels of intimacy for boys but not for girls. Overall, findings suggest that loneliness may be multidimensional in nature and that different types of relationships such as friendship, peer acceptance and group affiliation predicts loneliness outcomes separately.

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## Introduction

Research in the area of peer relationships has enjoyed tremendous growth over the past decade (e.g., Asher & Rose, 1997; Hartup, 1996; Newcomb & Bagwell, 1996; for a review see Rubin, Bukowski, & Parker, 1998). And, with each investigation, the significance of peers is becoming more apparent. For example, research indicates that peer relationships provide a context in which children and adolescents develop important skills essential for their emotional, social, and cognitive development (e.g., Newcomb & Bagwell, 1996). The association between peer relationships and adjustment has been well-documented, with a number of studies suggesting that children with poor peer relationships experience a host of difficulties that effect their emotional well-being and development (see Kupersmidt, Coie, & Dodge, 1990; and Parker & Asher, 1987, for reviews).

One dimension of peer relationships that has received a great deal of attention in the literature is that of group acceptance (Asher & Coie, 1990; Asher & Gazelle, 1999; Parker & Seal, 1997). Group acceptance or popularity refers to the acceptance or rejection of an individual within his/her peer group (Asher, Parker, & Walker, 1996) and has been linked to outcomes such as loneliness, social dissatisfaction, dropping out of school, achievement, (Parker, Asher, Saxon, & Kovacs, 1999; Rubin, et al., 1998) and long term adjustment problems (Bagwell, Newcomb, & Bukowski, 1998). Pertinent to the present investigation is this connection between group acceptance and the outcome of loneliness.

In addition to that of peer relationships, another construct that has received increased research attention in recent years is that of loneliness. In particular, research examining loneliness during the adolescent age-period has grown due to findings that suggest that individuals at this stage report feelings of elevated loneliness (Rotenberg & Hymel, 1999). And, many researchers have examined adolescent loneliness in relation to peer relationships (Asher, Parkhurst, Hymel, & Williams, 1990; Hymel, Tarulli, Hayden-Thomas, & Terrell-Deutsch, 1999; Parker et al., 1999). In

general, research findings indicate that those individuals who are not well-accepted by their peers experience higher levels of loneliness and social dissatisfaction than their well-accepted agemates (Asher, Hymel, & Renshaw, 1984; Asher & Wheeler, 1985; Bukowski, Hoza, & Boivin, 1993; Parker & Asher, 1993a; Parker & Seal, 1997; Parkhurst & Asher, 1992). Previous research, however, has only begun to discern the complexity of the factors assumed to be responsible for the link between peer rejection and loneliness. Questions remain, such as are there different ways in which a child can be lonely?

Most studies to date have examined adolescent loneliness using unidimensional measures (Hayden, 1989). Weiss (1973), however, suggests that loneliness is in fact a multidimensional phenomenon whereby different social experiences influence an individual's well-being in different ways. More specifically, Weiss posits the existence of two dimensions associated with loneliness, which he identifies as intimacy and belongingness. Intimacy refers to the provision provided by a close intimate relationship with a particular individual or individuals. Belongingness refers to the provision provided by social affiliations or group network. Weiss believes that friendship promotes intimacy and, that those individuals who do not have this type of relationship, will develop emotional loneliness. Moreover, according to Weiss, those individuals who are not involved in social affiliations will experience social loneliness. Nevertheless, keeping in mind these assertions, little is known about the relation of peer acceptance to these two distinct dimensions of loneliness - belonging and intimacy.

There exist several investigations that have examined the link between friendship and loneliness (Bukowski, Newcomb, & Hartup, 1996; Parker & Asher, 1993a). Parker and Asher, for instance, found that children without best friends were more lonely than children with best friends, and this was true regardless of their acceptance level. Findings from other studies are in accord with those of Parker and Asher's and results have suggested that children who are not accepted by their peer group, yet report having a friendship, or mutual dyadic relationship, report lower levels of

loneliness when compared to their rejected counterparts who do not have a reciprocal friend (Bukowski et al., 1993; Parker & Asher, 1993a). Taken together, these findings suggest that for some children who are rejected by their peers, friendship provides a buffer against loneliness.

It should be noted, however, that many of the previous investigations exploring connections between peer relations and loneliness have examined the construct of loneliness using an unidimensional measure. That is, in these previous investigations researchers did not examine the links of friendship and peer acceptance to the two dimensions of loneliness as conceptualized by Weiss (1973). Moreover, scant research exists that has examined the relations of group affiliation or social networks to Weiss' dimensions of loneliness. In the present investigation group affiliation was operationalized as extracurricular participation in order to examine Weiss' claim regarding the link between social affiliations and his belongingness dimension of loneliness.

Extracurricular activities are programs, teams or clubs offered to individuals both in the school and community (Eccles & Barber, 1999) and have been associated with several positive outcomes, such as higher levels of self-esteem, more prosocial behaviors, stronger college aspirations, reduced criminal arrests (Mahoney, 2000) and reduction in high school drop out (Holland & Andre, 1987; Mahoney & Cairns, 1997; Schonert-Reichl, Elliot, & Bills, 1992). In addition to being linked to a number of individual and school outcomes, participation in extracurricular activities has also been associated with peer acceptance. For example, Eder and Kinney (1995) found that some extracurricular activities had a positive effect on peer status, and, individuals who were involved in extracurricular activities tended to be better accepted by peers than those who were not. For example, for girls, participating in cheerleading increased their peer status over time. A more recent study echoed these assertions. More specifically, Sandstrom and Coie (1999) examined factors associated with the relative stability of peer rejection among elementary school-aged children. Their results suggested that participation in extracurricular activities positively related to status improvement over time among individuals who were initially rejected by

their peers. Despite these links between participation in extracurricular activities and peer group acceptance, however, little is known about how participation in extracurricular activities influences an individual's feelings of belongingness during adolescence.

One purpose of the present research, therefore, was to begin to explore the relation between extracurricular participation and belongingness. In order to set the stage for the study, the present thesis begins with an outline of the relevant theoretical perspectives on adolescent loneliness. This will be followed by a consideration of how boys and girls differ with regards to their social relationships. Next, empirical studies are reviewed that have examined the relations among group acceptance, friendship, and loneliness. Finally, pertinent literature on extracurricular activities is reviewed in order to establish a rationale for the examination of extracurricular activities as a possible predictor of belongingness.

### Theoretical Background

Sullivan's Theory of Friendship. Many researchers examining the associations between peer relationships and loneliness have conceptualized their studies utilizing a theoretical framework based on the writings of Harry Stack Sullivan (1953). Sullivan described the many phases of an individual's life using a developmental perspective and believed that, unless an individual experienced certain relationships within a given stage, he or she would become lonely. For example, Sullivan posited that preadolescence (grade 5 and 6) is a stage when an individual's relationships become more intimate and provide validation, cooperation, collaboration, and security. Sullivan recognized this stage as very important and suggested that if a child failed to develop these intimate relationships, negative outcomes would emerge, such as loneliness. Sullivan posited that loneliness reaches its full significance during the preadolescent era and precedes relatively unchanged throughout a person's life. Moreover, Sullivan believed that unless a child developed an intimate relationship with a peer, he or she was destined to a life of loneliness. Not only did Sullivan suggest that relationships, such as close friendships or 'chumships', provide a context to learn certain skills,

such as validation, he also believed that they helped an individual overcome trauma that may have manifested from family experiences. Despite his assertions, some of Sullivan's theories have been challenged, especially with regard to his notion as to the age that loneliness can be felt (Asher et al., 1990). For instance, although Sullivan believed that "true" loneliness could only be experienced during adolescence, recent researchers have shown evidence to the contrary (Cassidy & Asher, 1992). Moreover, researchers have not only found that children can experience loneliness, they also have established that young children can articulate what it means to be lonely (Hymel et al., 1999).

Hymel et al. (1999) presented an overview of a study conducted whereby children were directly asked to define and relate what loneliness meant to them. The participants (74 girls, 58 boys) who ranged from 8 to 13 years of age, responded to questions such as "What does loneliness mean?", "What kinds of things make a person feel lonely?", and "What kinds of things have made you feel lonely?". Other inquiries were made to elicit personal recollections of lonely experiences such as "Tell me about a time when you felt lonely". The researchers examined student responses in order to identify recurrent themes in the textual data. Results suggested that children were able to describe what loneliness was (e.g., "It means being sad."), and related personal experiences using emotional words to describe loneliness (e.g., "feeling unneeded", "you feel like everyone is against you and you have no one to turn to"). The authors also noted that although peer relationships were a major focus in children's loneliness explanations, children also referred to relationships with their parents, siblings, and extended family. It is important to note that although children's loneliness experiences encompass different social contexts (Hartup, 1980), in the present investigation, children's relationships with peers in school was the sole focus.

To further examine the notion that children indeed can articulate and report feelings of loneliness, Cassidy and Asher (1992) queried kindergarten and grade one students and concluded that an index of loneliness could be obtained from this age group. Seemingly, regardless of some

inaccuracies in his theory, Sullivan's conceptions on peer relationships and loneliness is still one of the most widely used theoretical perspectives within the literature (Parker & Asher, 1987).

Sullivan's assertions have been categorized as a social needs approach (Terrell-Deutsch, 1999) and others such as Robert S. Weiss (1973), a lesser known theorist, also have conceptualized loneliness based on this approach.

Weiss' Theory of Loneliness. Weiss (1973) suggested that friendships provide 'provisions' or opportunities to develop relationships that prevent an individual from becoming lonely. According to Weiss, "individuals have requirements for well-being which can only be met within relationships" (p. 22, 1973). Moreover, Weiss posited that different types of relationships exist within an individual's life, and without these distinct associations, a person will develop varying emotional outcomes which he identified as intimacy and belongingness. Intimacy refers to the provision provided by a close intimate relationship with a particular individual or individuals. Belongingness refers to the provision provided by social affiliations or group networks. Weiss believed that friendship promotes intimacy and, that those individuals who do not have this type of relationship, will develop emotional loneliness. Moreover, according to Weiss, those individuals who are not involved in social affiliations will experience social loneliness.

Weiss (1973) implied that an individual must develop a number of different relationships in order to maintain a healthy sense of well-being. Weiss' theory has received some empirical support (e.g., Hayden, 1989; Russell, Cutrona, Rose, & Yurko, 1984). For example, Bukowski et al. (1993) utilized Weiss' theories on loneliness in order to establish pathways between relationship constructs and the two types of emotional outcomes described by Weiss -belongingness and intimacy. Bukowski et al. operationalized Weiss' concept of social isolation by examining belongingness, which they defined as the degree to which an individual believes that he or she fits in or is part of a social group. Because social isolation occurs when an individual does not have access to a network of friends, the authors hypothesized that social belongingness, operationalized

by how well a child felt that they were included by their peers, would be closely associated with popularity or group acceptance. The authors posited that because group acceptance is an indication of how well an individual is liked by his or her peers, low status levels (e.g., rejection) would affect an individual's sense of belongingness. Moreover, the authors hypothesized that the presence of a reciprocal friendship along with the quality of that friendship would effect an individual's feelings of loneliness.

In order to test their hypotheses, Bukowski et al. (1993) queried 169 early adolescent boys and girls from grades five and six about their peer relationships. Specifically, data were obtained on adolescents' peer status, feelings of belongingness and loneliness. In addition, the authors examined whether or not each individual had a mutual friendship. If an individual had a friendship, then he or she was also asked to rate the quality of that friendship. Bukowski et al. analyzed their data via Path Analysis in order to establish relations among the variables.

Pertinent to the proposed study are the findings regarding the relation between peer acceptance and the constructs of loneliness and belongingness. Bukowski et al. concluded that group acceptance was directly linked to feelings of belongingness and indirectly linked to loneliness. That is, those individuals who were not well-accepted did not have a strong sense of belongingness and subsequently reported higher levels of loneliness. Other significant direct associations were found between friendship and loneliness. Those individuals who reported that they did not have a reciprocal friendship, reported elevated feelings of loneliness. The authors concluded that, when studying peer relationships, the complex interrelatedness of each construct needs to be considered. For example, the construct of friendship is closely related to that of peer acceptance, even though it contributes to feelings of loneliness separately. Their findings suggest that popularity relates to feelings of loneliness via its relation to belongingness. Because of these connections, the authors argue that variables should be examined together in order to avoid the confounds that result when they are studied separately.

In accord with Weiss' (1973) arguments, Bukowski et al. (1993) also suggested that popularity and friendship were different experiences and were likely to influence different dimensions of adjustment. However it is important to note that Bukowski et al. examined the construct of loneliness in a way that is different from Weiss' concept of emotional loneliness or intimacy. Bukowski et al. assessed belongingness with a measure developed to evaluate loneliness and social dissatisfaction in children (Asher et al., 1984). This measure consists of 24 items in which 16 items are used to compute a total loneliness score and the remaining 8 items are "filler" questions designed to make the respondent feel more at ease with responding to personal questions. In their study, Bukowski et al. modified the questionnaire by utilizing two of the twenty-four items to represent an index of loneliness. The two items used were questions directly associated with loneliness -- "I feel alone" and "I feel lonely". The other 14 items, which referred to feelings of inclusion and isolation such as "I have lots of friends in my class" and "I am well-liked by the kids in my class" was used to establish an index of belongingness. Because the measure was originally utilized to establish levels of loneliness and social dissatisfaction, its use in Bukowski et al.'s study is somewhat inappropriate as it was not conceptually designed to assess both loneliness and belongingness. Although the measure had good psychometric properties ( $\alpha = .68$  and  $.77$  for the loneliness and the social belongingness scores, respectively), a more appropriate way to measure the two conceptually distinct concepts theorized by Weiss, specifically, belongingness and intimacy, would be to utilize a measure conceptually designed to assess both unique outcomes. The present study addressed this issue by using a measure designed to assess both social isolation or belongingness and loneliness created by Hayden (1989).

As part of her doctoral research, Hayden (1989) developed a measure of loneliness based on Weiss' theories. Specifically, because she recognized that most of the measures designed to assess loneliness were not theory driven, Hayden developed the Relationship Provision Loneliness Questionnaire (RPLQ) which assesses children's relationships with their peers and family with



regards to group-integration (belongingness) and personal-intimacy (intimacy). Questions on the Belongingness scale assess individuals' feeling about how well they fit in with a group (e.g., "I feel in tune with other children." and "I feel part of a group of friends that do things together.") and questions on the Intimacy scale asks individuals to respond to queries about their mutual relationships (e.g., "There is someone my age I can turn to." and "There is somebody my age who really understands me.").

In her study examining the reliability and validity of the RPLQ, Hayden (1989) queried 310 third to eighth grade children. In her factor analyses of children's responses, Hayden found good internal consistency (coefficient alphas ranged from .82 to .93) and stability over a two week period (test-retest reliabilities ranged from .67 to .85). Taken together, these findings provide support for the suitability of the RPLQ as a measure in which to assess belongingness and intimacy among adolescents.

Although the study conducted by Bukowski et al. (1993) has increased our understanding of how different dimensions of peer relationships influence various emotional outcomes, another shortcoming of their study was that they did not examine their data by gender. Salient differences between the relationships of boys and girls have been noted across a number of studies (e.g., Berndt, 1988; Buhrmester & Furman, 1987; Daniels-Beirness, 1989; Parker & Asher, 1993a; Parker & Seal, 1997). Thus, in the present investigation, analyses were computed separately for boys and girls.

Summary. In summary, several theories exist concerning adolescent loneliness. Sullivan (1953) believed that individuals, especially adolescents, need to develop intimate relationships with others, such as friendships, in order to stave off feelings of loneliness. Weiss (1973) also posited that relationships provide individuals with the opportunity to develop intimate connections and thus prevent loneliness from occurring. However, Weiss' theory differs from Sullivan's in that he conceptualized that there exists two very distinct types of emotional consequences stemming from

different relationships. Simply put, Weiss believed that social networks or group affiliations, such as a community of friends, provide individuals with a sense of belonging and, without these connections, social loneliness will occur. Moreover, Weiss hypothesized that close relationships provide individuals with the intimate contact necessary to stave off feelings of emotional loneliness. Regardless of the two varying theories on loneliness espoused by Weiss and Sullivan, researchers have tried to tease apart the connections between relationship experiences and loneliness. And another facet of the relationship experiences that researchers have been exploring is the role that gender plays.

#### Gender Differences in Adolescent Peer Relationships

Intimacy. A number of studies exist demonstrating that adolescent boys and girls differ in the way they experience intimacy in their friendships (e.g., Buhrmester & Furman, 1987; Camarena, Sarigiani, & Petersen, 1990). For example, Lansford and Parker (1999) in their investigation of 56 triads of same-sex children, found that triads of girls were more intimate, exchanged more information, and were less aggressive than were triads of boys.

Buhrmester and Furman (1987) queried individuals in grades two ( $n = 63$  girls and 66 boys), five ( $n = 75$  girls,  $n = 78$  boys), and eight ( $n = 64$  girls,  $n = 71$  boys) in order to explore the development of companionship and intimacy during preadolescence and adolescence. The authors examined how frequent and important intimate exchanges were, using three questions. ([a] How much do you share your secrets and private feelings with other people?, [b] How much do you have people to tell everything to? and [c] How much do you have people to talk with about things that you don't want others to know?). Results suggested that girls rated the importance and perceived frequency of intimate exchanges as more important than did boys regardless of grade. Moreover, eighth-grade girls reported that same-sex relationships provided significantly more intimate disclosures and rated these relationships as more important than other relationships (e.g., sibling, parent) than did boys. Hence, it appears that intimacy is not the same for boys and for girls.

The assertion that gender differences exist in intimacy during adolescence is echoed in research conducted by Camarena et al. (1990). These researchers conducted a study examining the different pathways to intimacy in adolescent boys and girls. The authors measured intimacy using three categories of questions which elicited responses regarding emotional closeness (e.g., "Does this person accept you no matter what you do?"), self-disclosure (e.g., "Do you go to this person for advice?"), and shared experience (e.g., "How often do you see or talk with this person at nonschool activities?"). The authors hypothesized that gender differences would emerge when examining intimacy levels as a function of the operational definition of intimacy. Specifically, Camarena et al. posited that including all three dimensions of intimacy (i.e., emotional closeness, self-disclosure, shared experience) would yield significant differences between boys and girls. They argued that boys develop more intimate feelings towards other boys through their shared experiences whereas girls obtain intimacy via emotional closeness and self-disclosure in friendship relationships.

As predicted, when combining all three measures of intimacy, girls reported greater levels of intimacy with close friends than did boys. Of interest to the present study was the separate findings for each measure. A significant positive relation was found between shared experience and emotional closeness for boys, but not for girls. This suggests that, for boys, a pathway to emotional closeness may be through shared experiences. This is an important link for the present study as one of the constructs examined was extracurricular activities which could be considered similar to the dimension of Camarena et al's' (1990) conceptualization of shared experience.

Zarbatany, McDougall, and Hymel (2000) examined claims that gender differences in intimacy result from the "two world" theory (i.e., male and female "worlds"). Pertinent to the present investigation were their findings regarding gender difference in friendship intimacy and perceptions of intimate support. In their inquiry of 188 preadolescents (10 - 12 year olds), grade six girls reported higher levels of friendship intimacy than did boys in grade six.

Friendships. In addition to gender differences in intimate exchanges, boys and girls appear to differ regarding the correlates of their mutual friendships. Benenson (1990) explored gender differences in social networks. She queried 81 boys and 73 girls in grades four and five and examined three hypotheses. Of interest to the present investigation was the question of social networks and peer acceptance. Benenson hypothesized that same-sex social networks would be more highly connected to group acceptance for boys than for girls. Results confirmed her hypothesis. Specifically, she found that boys who were a part of social networks or friendships were found to receive significantly higher peer group acceptance ratings than females who were part of a mutual relationship. Thus, it appears that friendship does not influence acceptance levels for girls but does for boys. This association between acceptance level and friendship has been found in other studies. For example, in a study conducted by Asher and Parker (1993a), the authors found that low-accepted girls (39.5%) had more friendships than did low-accepted boys (18.9%).

One of the questions that Parker and Asher (1993a) explored in their study of 881 children (grades 3 - 5) was that of prevalence of friendships. Their results indicated that girls were more likely than boys to have a friend and low-accepted girls were twice as likely as low-accepted boys to have a mutual best friends. In addition, the quality of boys' relationships, as measured by the Friendship Quality Questionnaire, was different than girl's friendship quality. More specifically, results suggested that boys reported less intimate exchanges, more difficulty resolving conflict, less validation and caring, and less help and guidance in their friendships than did girls.

Studies have suggested that there exists differences in intimacy and friendship between boys and girls. Other differences have emerged in the organization and structure of boys' and girls' peer group in terms of intensity, exclusivity, stability, and reciprocity (Daniels-Beirness, 1989).

Summary. Seemingly, the importance that girls and boys place on different types of relationship experiences is very different. Girls regard intimacy highly whereas boys place a

greater importance on shared experiences. Regardless of these differences, however, research has suggested that relationship experiences such as friendship status and peer acceptance do influence an individual's sense of loneliness for both girls and for boys. These connections are considered in the next section beginning with the association between peer acceptance and loneliness.

### The Relation Between Peer Acceptance and Loneliness

Group acceptance is the relation that an individual has with his or her peers and is a reflection of how well-liked he or she is in a group (Parker & Asher, 1993b). Group acceptance is considered to be a unilateral construct as it is the group that evaluates the child (Parker et al., 1999). Simply put, group acceptance is the collective opinion of a group of children about a targeted individual as to whether or not he or she is liked or disliked. Moreover, group acceptance has been operationalized by asking a class of students to evaluate how much they like or dislike each class member. Although group acceptance can be assessed many ways, the two most popular methods for assessing group acceptance are peer nominations and roster-and-rating scales (Asher, 1990).

In an example of a peer nomination technique developed by Coie, Dodge, and Coppotelli (1982), individuals were asked to respond to both a negative and positive question regarding their peers. With the positive nomination, individuals are asked to record the names of three peers who "they like to play with". Conversely, the students are also asked to list the names of three peers who "they don't like to play with". With the roster-and-rating scale, each child appraises each of his/her classmates using a Likert scale indicating how much they want to play with, work with or be in activities with each classmate (Singleton & Asher, 1977). Individuals are then classified as high, average, or low accepted (Parker & Asher, 1993a) based on their *z* scores. The present investigation utilized the roster-rating procedure to establish group acceptance levels in keeping with the Parker and Asher study (1993a).

Researchers have studied group acceptance and its relation to adjustment outcomes and have concluded that individuals who suffer from low group acceptance experience a host of negative

outcomes, such as early school drop out, later academic adjustment problems, adult criminality and elevated levels of loneliness and social dissatisfaction (for a review see Asher et al., 1990; Parker & Asher, 1987). The connection between group acceptance and loneliness is of particular relevance to the present study. Overall, a number of studies have demonstrated that individuals who are not well-accepted experience elevated levels of loneliness and social dissatisfaction across a variety of different settings (Parker et al., 1999; Parker & Seal, 1996), and grade levels (Cassidy & Asher, 1992; Parkhurst & Asher, 1992).

One of the first studies examining the link between group acceptance and loneliness was conducted by Asher et al. (1984). The main purpose of their study was to develop and test a measure designed to assess loneliness in children because there was not any self-report measure for assessing loneliness in children in existence at the time. The measure they created consisted of 24 items in which 16 items concentrated on feelings of loneliness (e.g., "I'm lonely"), feelings of social adequacy versus inadequacy (e.g., "I'm good at working with other children"), or subjective estimations of peer status (e.g., "I have lots of friends"). The authors also included eight filler items to help children feel more comfortable about responding to the questionnaire. The 16 "loneliness" items were used to compute a total loneliness score for each child. Utilizing their new measure, the authors examined the degrees of loneliness across varying acceptance levels including popular, average, and unpopular categories.

Asher et al. (1984) queried 506 third through sixth grade students from a midwestern city in the United States about their feelings of loneliness and social dissatisfaction. Moreover, the authors asked peers to rate each other in order to determine each individual's group acceptance using both the roster-and-rating scale and the nomination procedure described earlier. Ten percent of the children in the sample reported feelings of elevated social dissatisfaction and loneliness, with low-accepted children reporting higher levels of loneliness and social dissatisfaction than average or high-accepted children. The results were consistent regardless of the measure used to procure an

acceptance level. That is, whether the authors used the peer nomination or roster-and-rating scale to obtain a group acceptance level, the results remained the same. Moreover, the loneliness measure demonstrated good internal consistency and reliability (Cronbach's  $\alpha = .90$ ). Despite these findings, the authors noted that tremendous variability existed within the low-status group and suggested that future research should examine specific classifications of unpopular children, namely those who are rejected versus others who are neglected.

Asher and Wheeler (1985) addressed this particular issue in a subsequent study. The authors used a different approach of classifying group acceptance levels and explored the relation between subgroups of unpopular children and loneliness. They classified the children into several groups of acceptance levels and included two classifications for low-acceptance --rejected and neglected. The authors did this by using two sociometric measures. The first measure was the roster-and-rating scale whereby children rated each of their classmate on a 1 to 5 scale as to how much they like to play with the child in school. The second measure was a nomination procedure (Coie et al., 1982). Individuals were asked to circle the names of the three individuals that they liked best and on a new list of names they were asked to circle the names of three individuals that they liked least. To establish the five different status positions (popular, rejected, neglected, controversial, and average), these nominations from peers were used.

In addition to classifying the participants into the five status groups, the authors revised the loneliness measure by changing some of the wording to the questions so that the questions were directed specifically to the school context. Results from their inquiry of 203 third through sixth grade children indicated that rejected children reported the greatest loneliness in comparison to the other classifications of acceptance levels. Moreover, neglected children were not significantly more lonely than children in the other status groups. It is of importance to note that the rejected group showed the greatest variability than any of the other groups which suggests that peer acceptance is only one factor that contributed to loneliness.

However, it appears that this link between acceptance level and loneliness is an important one whether it be with young children (Cassidy & Asher, 1992), or early and middle adolescents (Parkhurst & Asher, 1993). This association has also been found in different school settings (Parker et al., 1999) and in summer camp situations (Parker & Seal, 1996).

### The Relation Between Friendship and Loneliness

Another relationship experience that has been found to be associated with higher levels of loneliness is friendship. Friendship has been defined as a dyadic experience shared between two individuals that is characterized by a strong mutual liking (Asher & Rose, 1997). Most researchers maintain that, in order for friendships to be verified, they must be reciprocated by the indicated individual (Bukowski & Hoza, 1989; Rubin et al., 1998). Researchers have operationalized the construct of friendship in several ways (Hartup, 1996). The most popular method has been to ask students to indicate the names of three classmates that they consider to be their "best friend" (Bukowski, Hoza, & Newcomb, 1994). A friendship is established if a child's selection is reciprocated. Most authors limit friendship selections to three choices and determine friendship status if either the three nominations is reciprocated (Bukowski et al., 1994; Parker & Asher, 1993a; Renshaw & Brown, 1993). Nevertheless, some authors (D. Buhrmester, personal communication, April 9, 1998) suggest that reciprocity need not be established as it is the evaluation of the individual as to whether or not a person is considered a friend. Despite this assertion, most authors agree that friendship and peer acceptance provide very different social circumstances and experiences (Asher et al., 1996; Bukowski & Hoza, 1989; Bukowski et al., 1993; Furman & Robbins, 1985; Hartup, 1996; Parker & Asher, 1993a 1993b; Renshaw & Brown, 1993; Rubin et al., 1998). Keeping in mind these conceptual distinctions, Parker and Asher (1993a) explored the associations among relationship variables, including group acceptance, the presence of a friendship, and the quality of that friendship in relation to loneliness and social dissatisfaction. These investigators also explored the positive associations that having a friend has on individuals who



experience low group acceptance. One of the main purposes of the study conducted by Parker and Asher was to explore the prevalence of children's relationships among the different status groups, namely high, average and low-accepted children. They queried 881 third through fifth grade students about their friendship status, quality of friendship, friendship satisfaction, and level of loneliness. The authors also established a group acceptance level for each student using the roster-and-rating sociometric procedure. The authors concluded that some low-accepted children had best friends and were satisfied with those relationships. As expected, membership in the low-accepted category decreased the odds of having a friend. In other words, not very many low-accepted students had friends. Nevertheless, females in the low status group were twice as likely to have a mutual best friend than their male counterparts. Moreover, findings suggested that those low-accepted individuals who had a mutual friend had reported lower levels of loneliness when compared to other low-accepted individuals who did not have friends. The authors concluded that those individuals who had a friend, despite their level of acceptance, reported lower levels of loneliness. Thus, it appears that friendship may provide a buffer against loneliness.

One question, however, not addressed in the Parker and Asher (1993a) study was whether or not friendship staves off feelings of loneliness over a period of time. This question was addressed in a study conducted by Renshaw and Brown (1993). One of the questions that Renshaw and Brown investigated was whether having a friend buffered the negative effects of low-group acceptance. The authors queried 128 third and fourth grade students on three occasions (beginning of the second school term, 10 weeks later, and 1 year later), as to their levels of loneliness and their friendship status (friend or friendless). The researchers also had classmates evaluate each other in order to obtain children's acceptance level. Renshaw and Brown concluded that, over time, those individuals with no friends were significantly more lonely than children with one or more friends. Moreover, they found that low-status students without friends reported more loneliness than low-status children with two or more friends. Interestingly, another question examined by Renshaw and

Brown was the role that peer acceptance played in buffering the effects of not having a friend. More specifically, the authors examined whether being better-accepted by a peer group buffered the effects of being friendless on feelings of loneliness. Their findings indicated that low-status friendless children reported higher levels of loneliness than those individuals who were friendless but experienced average or high group acceptance. Taken together, the findings from the research conducted by Parker and Asher (1993a) and Renshaw and Brown (1993) provide convincing data regarding the buffering effects that friendship has on feelings of loneliness. However, it remains an open questions as to whether loneliness, when conceptualized as a multidimensional phenomenon, relates differentially to various relationship experiences.

### Measuring Adolescent Loneliness

One issue relevant to the present investigation is the manner in which adolescent loneliness is conceptualized and assessed. As noted earlier, loneliness has been assessed differently across studies. In an attempt to discern the relations among the different measure of loneliness, Terrell-Deutsch (1999) examined three childhood loneliness measures. More specifically, she explored whether the measures were in fact redundant and if any new information about loneliness could be revealed. For the purposes of the present investigation, only her findings regarding the relations between the ILQ (Asher et al., 1984) and the peer subscales of the RPLQ (Hayden, 1989) will be presented in order to provide insights as to how these different measures work.

Terrell-Deutsch (1999) utilized data from a larger project on childhood loneliness. In her study, there were a total of 494 participants from grades four to six. Children were asked to complete each of the three loneliness measures. Correlational analyses were performed and results showed that the ILQ and the two peer subscales of the RPLQ (intimacy and belongingness) were significantly related. Correlation coefficients for the ILQ and the Peer Group-Integration (belongingness) and Peer Personal-Intimacy (intimacy) were .67 and .46 respectively, indicating that the relation between the ILQ and the peer-integration subscale (belongingness) was greater than

the relation between the ILQ and the peer-intimacy subscales (intimacy). According to Terrell-Deutsch, this suggests that lonelier children report feelings of belongingness and intimacy as separate forms of distress. Terrell-Deutsch reflects that "Perhaps a lack of peer integration is overall more painful than the lack of peer intimacy due to its more public nature." (p. 14). Overall, results from this study suggest that while the belonging and the intimacy subscales of the RPLQ do overlap somewhat, they tend to be unique constructs (Terrell-Deutsch, 1999).

Keeping these assertions in mind, the question remains regarding the nature of the relation of the RPLQ to peer acceptance and friendship? The present investigation examined these relations in order to extend our understanding of peer affiliations and included another social connection experienced by some adolescents - extracurricular participation.

In summary, Weiss (1973) postulated that social affiliations or social networks are related to belongingness. The present investigation examined the social network of extracurricular activities in order to examine its connection to belongingness. Extracurricular activities, as defined earlier, are programs, teams or clubs offered to individuals both in the school and community (Eccles & Barber, 1999). It could be hypothesized that participating in these activities may promote a person's feelings of belongingness. Exploring these relationships could contribute to our understanding about activities and their contribution to feelings of belongingness. Indeed, Finn (1989), in his review of research on adolescent drop out, posited that extracurricular activities have the potential for contributing to an individual's sense of inclusion and positive sense of belongingness.

In the next section, the construct of extracurricular activities will be discussed in terms of its measurement and relation to peer acceptance and overall psychological well-being.

### Extracurricular Participation

The Measurement of Extracurricular Participation. For the most part, researchers have focused on examining participation in school-based extracurricular activities, rather than

participation in activities outside of school. Holland and Andre (1987), in their review of thirty studies that investigated participation in extracurricular activities, found that the majority of these investigations concentrated on activities found at school. And of those, many researchers have examined athletics, such as team sports.

Coladarci and Cobb (1996) investigated the role that extracurricular activities played with regard to self-esteem among high school students. They operationalized extracurricular participation by having students report their participation in specific activities related to academics (student government, clubs), sports (baseball, basketball), and the performing arts (drama, choir). Others (Eder & Kinney, 1995; Mahoney & Cairns, 1997) have used school yearbooks or teacher reports to operationalize activity participation. For all of the studies mentioned, participants were dichotomized regarding their extent of participation (i.e., coded as a "1" if they were involved in extracurricular pursuits, and "0" if they were not).

Two issues exist with previous research in the area of extracurricular participations. First, it appears that many studies investigating the construct of extracurricular activities have operationalized it dichotomously -- an individual either participated or did not. Little consideration has been given to the amount of time that individuals spend involved in activities. If being a part of social affiliations is important to the development of belongingness, as suggested by Weiss (1973), examining the relative amount of involvement versus just being involved would be beneficial. For instance, it may be that the amount of time spent in social affiliation or the degree to which an individual is involved is more important in predicting belongingness than is the presence or absence of participation.

The second issue with regards to the assessment of extracurricular activities is that in the majority of the studies, researchers have assessed only those activities that students participate in at school and have not examined those activities in the community in which students participated. Bronfenbrenner's (1979) theory on human functioning suggests that in order to truly understand

human development, several separate, but related, spheres of experiences must be considered. To fully understand the association between involvement in extracurricular activities and adolescent development, researchers must consider the multiple contexts in which development may occur. Thus, in the present investigation the extant research was extended in two ways. First, the degree to which an individual spent their time involved in extracurricular pursuits was measured. Second, a list of activities were generated that included activities offered both in the school and community.

Extracurricular Participation and Adjustment. Regardless of the way in which it has been measured, research suggests a positive linear relation between adjustment and extracurricular participation. Holland and Andre (1987), in their review of the literature on extracurricular activities, examined the relation between extracurricular activities and adolescent development. The authors reviewed several studies and noted positive associations between extracurricular activities and self-esteem, improved race-relations, and prosocial behavior. Coladarci and Cobb (1996) found that the size of the school was the greatest determinant in how many individuals participated in extracurricular activities. That is, students who attended small sized-schools were more involved in extracurricular activities than those students attending large schools. Moreover, results indicated that involvement in extracurricular activities had a positive effect on self-esteem. Others, such as Mahoney and Cairns (1997), have found a connection between extracurricular participation and high school drop out. Specifically, their findings indicated that the school dropout rate among at-risk students was significantly lower for those students who participated in extracurricular activities compared with those who had not participated.

Another study, conducted by Posner and Vandell (1999), found a positive relation between children who spent time in nonsport extracurricular activities over three years and adjustment. More specifically, one of the questions explored by the authors was that of after-school activities and adjustment. Adjustment was operationalized by three types of measures including reports of academic grades, teachers reports of child behavior (Child Adjustment Scale) and parent reports of

child behavior (Antisocial Behavior and Behavior Problem Index). They followed 216 children ( $M$  child age = 9.1 years,  $SD = 0.5$ ) over 3 years and recorded children's reports of their after-school activities. Results suggested that children who spent more time involved in nonsport extracurricular activities over the 3-year period were better emotionally in fifth grade as reported by their teachers.

In a more recent study, Mahoney (2000) examined school extracurricular activity participation and its association with early dropout rates and criminal arrests. In addition, he examined whether being involved in extracurricular activities moderates the development of antisocial patterns. In his longitudinal study of 695 boys and girls who were interviewed annually from childhood to the end of high school and again at ages 20 and 24, Mahoney concluded that individuals who became involved in extracurricular activities were less likely to drop out of school as adolescent or become arrested as young adults. Mahoney also concluded that individuals who were at highest risk for persistent antisocial behavior as measured by a multiproblem profile (i.e., Interpersonal Competence Scale, Aggression Scale, Popularity Factor & Academic Competence Factor) exhibited a reduction in antisocial patterns (i.e., arrests) if more than 50% of their peer social network were involved in the extracurricular activities.

Other researchers have also echoed this assertion that adolescents who drop out of school are less likely to participate in school-based extracurricular activities (e.g., Hymel, Comfort, Schonert-Reichl, & McDougall, 1996). While such assertions have importance for the role that extracurricular participation has on adolescent development, few researchers have examined how involvement in extracurricular activities relates to loneliness, intimacy, and belongingness. In particular, little is known about the relation between adolescent peer relations and extracurricular participation.

Extracurricular Participation and Peer Acceptance. A study conducted by Eder and Kinney (1993) investigated the association among extracurricular activities, students' social status and popularity using both qualitative and quantitative methods. The authors sampled from a middle

school of approximately 750 adolescents in which the majority of extracurricular activities were “athletic” in nature. It is important to note that Eder and Kinney (1993) described extracurricular endeavours as “school-sponsored activities” (p. 300). The authors began by collecting qualitative data whereby three researchers observed extracurricular activities and informal activities, such as lunch period, twice weekly for an entire academic year. Their focus was mainly athletic activities and cheerleading, as these pursuits were previously found to be important for peer status. During observations, notes were made on the importance of the particular activity with regards to popularity and school culture. In order to establish that observational findings were representative of the populations, several cohorts from the first middle school and two other neighbouring schools were given questionnaires to establish common understandings as to which sports were considered to be the most popular as well as how important each activity was to the school’s culture. Finally, the authors collected their quantitative data with respect to two sociometric variables - popularity and peer status. Popularity was operationalized by having students indicate “Which students in your grade are the most popular?”. They could chose as many or as few individuals as they wanted. Peer acceptance was measured by having the students respond to the question “If you could chose any students in your grade to hang around with at school who would they be?”.

Participation in extracurricular activities was measured by both asking coaches to name students who participated in school teams and by examining the school year book. Extracurricular participation was coded: 0 = nonparticipation, 1 = participation. The research was longitudinal in nature (over three years) in order to allow the researchers to examine several relations over time. Although Eder and Kinney (1993) examined participation in several activities such as drama, choir and band, the majority of observations were made of athletic events and practices because the authors believed that those activities were more salient to their study. All analyses were performed separately for males and female because the male activities were much more visible and supported in the school. The only activity that was similar in visibility for females was cheerleading.

Analyses of both qualitative and quantitative data indicated that the male events were the main cultural activities of the school and that male athletics were a central determinant of membership in the elite "popular" peer group. For females, the only activity that was associated with popularity was cheerleading. Besides athletics and cheerleading, no other activity was related to peer status. Regarding the question as to whether being involved in extracurricular activities increased an individual's popularity after controlling for initial popularity, the authors found that certain activities, such as basketball for boys and cheerleading for girls, were associated with increased popularity. Taken together, results from their study suggest a positive relation between extracurricular pursuits and peer acceptance.

Sandstrom and Coie (1999) also found a positive link between participation and peer acceptance. The authors interviewed 44 rejected children over a period of two years and found that some had improved their social status. After inquiring about their social experiences, including their involvement in extracurricular activities, results suggested that, among lower status children, participation in extracurricular pursuits played an imported role in the improvement of their peer status over time.

Despite the findings indicating a link between extracurricular participation and peer acceptance (Eder & Kinney, 1995; Sandstrom & Coie, 1999), little is known about the activity - emotional well-being link. Most relevant to the present investigation is the relation of extracurricular participation to feelings of belongingness, loneliness, and intimacy. If Weiss' (1973) conceptions prove accurate, it could be argued that being involved in extracurricular activities, especially those that involve group affiliations, may influence a person's sense of belongingness. For example, an activity such as a library club or team sport may provide an individual with the needed social affiliation to make them feel a sense of belonging despite their level of acceptance. Zarbatany, Hartmann, and Rankin, (1990) in a study examining peer activities and their psychological functions suggest that it is not only the degree that one participates but the



nature of the activity that influences an individual's sense of belonging.

Zarbatany, et al., (1990) explored the psychological functions of activities identified as important by adolescents. They asked 91 fifth and sixth grade students to keep diaries on their daily activities. The students identified three activities per day for one week and described what they were doing, the gender of those present, their friendship status, and whether or not an adult was present. The students were also asked to indicate one behavior performed by another child that they really liked during the activity and one behavior performed by another child that they really disliked. Children were also asked to indicate the gender and friendships status of the individual who performed the liked and disliked behavior.

After establishing the top 14 activities (e.g., academic-related, noncontact sports, physical games, watching TV or listening to records, playing) in rank order, 13 liked (e.g., invitation to participate, sharing, performing admirably, facilitating achievement helping, being friendly), and 12 disliked behaviors (e.g., physical aggression, annoying or bothersome behavior, unfaithfulness, dishonesty), the authors queried another sample of adolescents  $N = 81$  as to the importance and prevalence of the activities listed and asked them to indicate which behaviors they would most like and dislike with each activity. Results indicated that different activities provided various psychological functions. Simply put, some activities, such as conversing, school travel, and physical games provided a context for social ability, enhancement of relationships and a sense of belonging whereas other activities, such as contact and noncontact sports promoted concern for achievements and integrity of the self, or provided opportunities for instruction. Although Zarbatany et al. suggest a connection between activities and belongingness, they did not examine the constructs of loneliness or intimacy.

Physical Activities and Loneliness. Page and colleagues (Page & Tucker, 1994; Page, Frey, Talbert, & Falk, 1992) have investigated the relation between loneliness and measures of physical activity and physical fitness in school children and adolescents. More specifically, these researchers

have examined whether the relation between an individual's reports of loneliness, on the one hand and that individual's performance on physical fitness tests, on the other. Understanding these connections may prove purposeful for the present investigation due to the physical nature of many extracurricular activities.

Page et al. (1992) queried 600 students in grades 9 - 12 about the extent of their involvement in physical activity and feelings of loneliness. As well, individuals' physical fitness was assessed via a series of physical fitness tests administered by Physical Education teachers. Many significant relations emerged between the two physical fitness indices and loneliness. Children in grade one who scored high on the loneliness measure ran the mile significantly slower than those who reported less loneliness. This also held true for second graders. Among fourth graders, loneliness was significantly related to the 1-mile run, sit ups, pull-ups, flexed-arm hang and overall physical activity with greater reports of loneliness being associated with poorer performance on the fitness tests. Sixth graders who reported elevated levels of loneliness performed poorly in the shuttle run, sit-ups and overall physical activities. Thus, it appears that children and adolescents who are not involved in physical activities or those who are not physically fit, experience greater feelings of loneliness. These findings were also replicated in a study conducted by Page and Tucker (1994) with a sample of adolescents.

To extend their findings, Page and Tucker (1994) included other emotional well-being measures in their investigation of the relations among adolescent self-reports of physical activity to their loneliness, shyness, and hopelessness. These researchers queried 1,297 grade 9-12 students about their frequency of exercise in which their heart rate had significantly increased for twenty minutes or more. They also collected data on adolescents' self-reports of loneliness, shyness, hopelessness, perceived attractiveness, current height and weight satisfaction. After controlling for body weight, body mass, perceived attractiveness, and satisfaction with body weight, findings revealed that those adolescents who did not exercise or exercised infrequently scored higher on

each measure of loneliness, shyness, and hopelessness. The authors concluded that individuals who were not physically active suffered from greater feelings of loneliness. More specifically, those individuals who reported higher levels of loneliness, shyness and helplessness also reported lower levels of exercise.

In summary, participation in extracurricular activities appears to be beneficial to adolescent development (Eccles & Barber, 1999; Eder & Kinney, 1995; Finn, 1989; Holland & Andre, 1987; Mahoney, 2000; Mahoney & Cairns, 1997). More specifically, those children and adolescents who are involved in extracurricular activities have higher self-esteem, exhibit more prosocial behavior (Holland & Andre, 1987) and less negative behaviors (Eccles & Barber, 1999) than those who are uninvolved in activities. Moreover, some researchers (e.g., Finn, 1989; Furman & Robbins, 1985; Hymel et al., 1996) have suggested that being involved in extracurricular activities enhances an individual's sense of belongingness and inclusion. Nevertheless, to this author's knowledge, no published study exists that has investigated the relation of extracurricular activities to feelings of belongingness, intimacy, and loneliness. Examining these relations will extend our understanding of the link between group affiliations and and psychological adjustment.

#### Overview of the Study and Statement of the Problem

The extant research examining peer relationships has shown that children who are rejected by their peers experience more loneliness and social dissatisfaction than their accepted peers. (e.g., Parker & Asher, 1993a; Renshaw & Brown, 1993). Previous research, however, has only begun to discern the complexity of the factors assumed to be responsible for the link between peers rejection and loneliness. Several questions remain. Are there different ways in which a child can be lonely? To what extent do social affiliations, such extracurricular participation, relate to feelings of belongingness, loneliness and intimacy? To date, these questions remain unanswered.

Because of the overwhelming influence that peer relationships have on an individual's well-being (Parker & Asher, 1987), the need to elucidate possible links between peer relationships and

emotional well-being becomes imperative. In other words, if rejected children experience higher levels of loneliness (Bukowski et al., 1993; Parker & Asher, 1993a; Sullivan, 1953; Weiss, 1973) which is equated with adult adjustment problems and depression (Bagwell et al., 1998; Larson, 1999), researchers must examine possible pathways to these problems. Delineating the ways in which children's peer relations influence their psychological adjustment will assist in the design and implementation of effective interventions. Past studies utilized social skills training programs designed to teach appropriate ways to interact in order to help rejected individuals become more accepted among their peer group as studies have shown that low accepted children exhibit negative patterns of behavior such as aggression, disruption, apprehension, social withdrawal and isolation (Asher et al., 1990). However, the time needed to conduct such programs is both expensive and time consuming which increases the desire to delineate any other possible ways to help these individuals.

The aim of this research was to (a) explore the relation between two measures of loneliness, (2) to examine the relations of peer acceptance, friendship and participation in extracurricular activities to the two dimensions of loneliness posited by Weiss, namely, intimacy, belongingness, as well as the unidimensional measure of loneliness (e.g., the ILQ, Asher et al., 1984) utilized in most previous investigations, and (c) to examine whether an individuals' feelings of loneliness, belongingness, and intimacy can be predicted by their involvement in extracurricular activities after controlling for acceptance levels and friendship.

Early adolescence was the targeted group because of the importance of peer relationships at this age (Parker & Asher, 1993b; Parkhurst & Asher, 1993; Sullivan, 1953). Moreover, early adolescence is the age when individuals are exposed to more extracurricular activities especially in schools (Eder & Kinney, 1995).

Given the findings from previous research, the following hypothesis provided the focus of this investigation

**Participation in extracurricular activities will predict feelings of belongingness for**

**both boys and girls over and above friendship status and peer acceptance.** It has been suggested that both peer acceptance and friendship status uniquely predict feelings of loneliness (Parker & Asher, 1993). Because the two measures of loneliness are strongly associated (Terrell-Deutsch, 1999), it was hypothesized that friendship status and peer acceptance would also significantly and uniquely predict feelings of belongingness and intimacy. In addition, Weiss (1973) asserted that group affiliations related to feelings of inclusion or belongingness. Therefore it was hypothesized that individuals who were involved in extracurricular activities would report higher levels of belongingness over and above friendship status and peer acceptance.

### Method

#### Participants

Participants included 419 students (210 girls, 209 boys) in grades 6 and 7 recruited from five elementary schools in a large-sized Western Canadian city. This age group was selected based upon the availability of school activities. In the district where the students attended school, participation in school activities does not begin until Grade 6. And, although younger students may be involved in community sports, the present investigation examined both activities found in the community and the school. Therefore, the average of the student was 12.12 years ( $SD = .602$ ). Participants were predominantly middle class with English as a first language. With regards to racial background, 58% of the sample were White (of European descent), 19% were Indo Canadian, 11% were Asian, and the remaining 12% comprised of students from Aboriginal, Latin, Black and Filipino backgrounds. Approximately 67% of the participants reported that they lived with both parents. The remaining 33% reported various living conditions, including living with either a single parent (mother or father alone), a combination of one biological parent and one step-parent, or a grandparent/other adult who served as a guardian. Students were approached in their classroom to request their participation (Appendix A). Only students who obtained parental consent (Appendix B) and who themselves agreed to participate (Appendix C) were included in the

present investigation. The overall participation rate was 83%.

### Procedure

In the present investigation, data were collected in the month of February of the school year to ensure that students knew each other well. All data were collected by three trained assistants and the author. Data collection took place during a single session of approximately one hour during school hours. All data were collected in students' classrooms. The students were given a booklet containing the questionnaires (described in detail in the following section) which were designed to obtain demographic as well as other information about their emotional well-being, relationships in the classroom and involvement in extracurricular activities. Research assistants read aloud the instructions and questions. At the start of the session, students were reminded that all responses were considered confidential.

### Measures

Demographic Information (See Appendix D). The participants were asked to provide information on their birth date, racial background, gender, family composition, and parental educational and level of occupation.

Level of Acceptance (See Appendix E). To procure an acceptance level for each participant, a roster-and-rating sociometric procedure (Singleton & Asher, 1977) was utilized. Participants were given a list of their classmates and asked to indicate on a rating scale of 1 to 5 "how much they would like to be with" each of their classmates. A child's level of acceptance was determined by averaging the ratings received for his or her classmates, standardized within gender and within each classroom. Following the guidelines outlined by Parker and Asher (1993a), children were classified as high-accepted ( $n = 20$  boys and  $n = 28$  girls) if their received rating z score was greater than or equal to 1. Children were classified as low-accepted ( $n = 34$  boys and  $n = 28$  girls) if their z score was less than or equal to -1. The remaining children ( $n = 155$  boys and  $n = 154$  girls) were classified as average-accepted (Parker & Asher, 1993a).

Friendship (See Appendix F). Participants' friendships were identified using a two-step sociometric nomination procedure developed by Parker and Asher (1993a). Students were asked to circle their three "best friends" (same sex) using a roster of names of all their classmates who were participating in the study. In the second step, participants were asked to put a check beside one of the three circled names indicating their "very best friend". After examining the nominations provided, participants received a score of "0" if none of their circled names included them on their list of three names. Participants received a score of "1" if at least one of their circled three names were reciprocated and finally, participants received a score of "2" if the individual that they considered to be their "very best friend" (indicated by a check mark) also included them on their list of three names.

Participation in Extracurricular Activities (See Appendix G). Extracurricular participation was assessed using a questionnaire that listed approximately forty activities. This questionnaire was developed by the author who modified two measures assessing extracurricular participation created by Eccles and Barber (1999) and Zarbatany et al. (1990). For instance, the types of activities were generated following a list provided by Eccles and Barber. The list contained many activities and were categorized under five categories -- prosocial activities, performance activities, team sports, academic involvement, and academic clubs. Second, a 5-point scale developed by Zarbatany et al. was provided to indicate how often the students participated in the activity over the past year (never, once a month or less, once every few weeks, once or twice a week, several times a week, every day or more). Higher scores from this measure suggested higher levels of involvement in extracurricular activities whereas lower scores indicated lower levels of involvement. Students were asked to include activities that they had participated in over the past year. In addition, they were instructed to circle the most accurate time interval that best described the amount of time they spent involved in the activity during the season.

Intimacy and Belongingness (See Appendix H). Intimacy and Belongingness were

evaluated using the Relational Provisional Loneliness Questionnaire developed by Hayden (1989).

This self-report measure consists of 28-items that ask individuals to indicate the level of intimacy and belongingness provided by both peers and family. Because the present investigation was concerned with belongingness and intimacy in terms of peer relationships, only the 14-items from the peer subscales were used. Examples of questions found in the belongingness scale were "I feel part of a group of friends that do things together." and "I feel in tune with other children." Sample questions from the intimacy subscale are "There is someone my age I can turn to." and "I have a friend I can tell everything to." Seven of the 14-items were compiled to create an intimacy score and the remaining 7-items were added to create a belongingness score. Higher scores indicated higher levels of perceived belongingness and intimacy. The psychometric properties, as measured by Cronbach's alpha, were found to be adequate in Hayden's study i.e., belongingness = .86; intimacy = .90). In the present study, the internal reliability was found to be comparable (i.e., intimacy, alpha = .85; belongingness, alpha = .88).

Loneliness (See Appendix I). Loneliness was assessed using a measure developed by Asher et al. (1984) and later modified by Asher and Wheeler (1985) to include a school context for assessing loneliness. This questionnaire consists of 16 items focusing on feelings of loneliness and social dissatisfaction in school. The 16 items were statements pertaining to children's feelings of loneliness (e.g., "I'm lonely at school"), appraisal of their current peer relationships (e.g., "I don't have any friends in class"), perception of how well their relationship needs are being met (e.g., "There are no other kids I can go to when I need help at school"), and perception of their social competence (e.g., "I'm good at working with other children in my class"). Children responded on a 5-point scale indicating the degree to which each statement was true for them. Higher scores indicate greater loneliness. This measure has been used in several studies with school aged children and has excellent internal consistency (Cronbach alpha .90). The internal reliability in the present sample was the same (alpha = .90).



## Results

### General Overview of Analyses

Recall that the purposes of the present investigation were threefold. First, dimensions of loneliness were examined to investigate the associations among the unidimensional measure of loneliness and the multidimensional tool developed by Hayden (1989), namely, intimacy and belongingness. Second, the connections among the three dimensions of loneliness and peer acceptance, friendship status and participation in extracurricular activities were examined. Finally, the present investigation explored whether being involved in extracurricular activities adds significantly to the prediction of belongingness, intimacy and loneliness after considering a child's level of acceptance and friendship. The results section is divided into three parts describing analyses conducted in the areas of (1) preliminary analyses, (2) the relations of dimensions of loneliness to participants' acceptance level, friendship status and involvement in extracurricular activities, (3) prediction of extracurricular participation

### Preliminary Analyses

Several preliminary analyses were conducted. First, to determine whether grade was significantly associated with any of the dependent variables under consideration (i.e., loneliness, belongingness, intimacy) ANOVAs were computed. Findings revealed that grade was not a factor. Therefore, data were collapsed across grades and will be reported accordingly. In addition, scatterplots were examined on the dependent measures to determine the linearity of the data. Because the data displayed little by way of linearity, transformations were considered (i.e., squaring or square root functions). However, no transformation changed the distribution of scores as the relationships of these measures are not linear, therefore all analyses were performed using the original data.

Gender and Participation in Extracurricular Activities. Another set of analyses were conducted to examine the differences between boys and girls regarding the amount of time spent

participating in extracurricular activities. Independent t tests revealed that boys and girls did not differ significantly on their level of participation ( $t[415] = -.145$ , NS).

Correlations Among Measures of Loneliness. Prior to examining dimensions of loneliness and relationship variables, correlations were computed to investigate relations among the loneliness variables (see Table 1) as well as friendship and acceptance. Terrell-Deutsch (1999) in her investigation of several loneliness measures used in adolescent research found significant correlations among all measures. Therefore, examining these relations using the present data would prove important to determine if the results tell the same story. Correlations were initially examined according to gender but results showed the same pattern for boys and girls. Therefore, correlations were presented for the the total sample. As can be seen, significant and positive relations were found between intimacy and belongingness. And, significant and negative relations were found among loneliness and intimacy, and belongingness. However, it is of importance to note that although the correlations are significant, the r values are not 1.00 indicating some level of difference. Correlations found in the present investigation showed a similar pattern as Terrell-Deutsch (1999) even though r values were slightly different. Terrell-Deutsch r values among loneliness and belongingness and intimacy were .67 and .46 respectively.

Finally, correlational analyses of the five categories of extracurricular activities (i.e., prosocial activities, team sports, academic clubs) were performed in order to determine their associations (see Table 2). Low correlations among these domains suggest little in the way of additional explanatory power and defend the creation of a composite score for participation in extracurricular activities. In addition, involvement in one type of activity is not as important as being involved in many activities (Fletcher, Eder, & Mekos, 2000). This assertion is also suggested by Weiss who hypothesized that being involved in group affiliations was important to a person's sense of belongingness. He did not posit that one type of group affiliation was more important than another. Therefore a composite score was created because in the present investigation, overall

Table 1

Intercorrelations Among Dimensions of Loneliness, Friendship Status and Peer Acceptance

Variable	1	2	3	4	5
(N = 419)					
1. Loneliness	--	-.80***	-.51***	-.22***	-.38***
2. Belonging		--	.61***	.19***	.34***
3. Intimacy			--	.20***	.21***
4. Friendship Status				--	.21***
5. Peer Acceptance					--

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

Table 2

Intercorrelations Among Domains of Extracurricular Activities

Variable	1	2	3	4	5
(N = 419)					
1. Academic	--	.13**	.17***	.08	.04
2. School Involvement		--	.08	.02	.18***
3. Sports			--	.14**	.14**
4. Performance				--	.15**
5. Prosocial					--

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

levels of participation was more meaningful than examining the different types of activities individuals were involved in. In other words, it was not important that you were involved in academic versus athletic pursuits but rather whether you were more involved versus less involved in extracurricular activities.

#### Relations of Acceptance, Friendship and Extracurricular Participation to Dimensions of Loneliness

It has been suggested that individuals who are identified as low-accepted suffer from elevated feelings of loneliness (Asher et al., 1984; Parker & Seal, 1997; Parkhurst & Asher, 1992). The present investigation examined this link and extended findings by including other dimensions of loneliness, namely belonging and intimacy. In order to explore the relations among friendship constructs and multidimensions of loneliness, multivariate statistics were used.

Dimensions of Loneliness and Acceptance. The focus of this analysis was on whether acceptance level relates to loneliness, belongingness, and intimacy. This was examined using a 2 (gender) x 3 (level of acceptance) multivariate analysis of variance (MANOVA), with the three dimensions of loneliness serving as the dependent variables (see Table 3).

The results of this analysis yielded a significant multivariate effect for gender,  $F(3, 411) = 6.77, p < .0001$ ; a significant multivariate effect for level of acceptance,  $F(6, 822) = 14.41, p < .0001$ ; and a nonsignificant multivariate Gender x Level of Acceptance interaction,  $F(6, 822) = .54, p = NS$ . Follow-up univariate analyses revealed gender differences for one of the dimensions of loneliness, namely intimacy. Girls reported significantly higher levels of intimacy than did boys,  $F(1, 416) = 15.71, p < .0001$ . Univariate analyses indicated that all dimensions of loneliness were significantly related to levels of acceptance  $F(2, 416) = 43.68, p < .0001$ . More specifically, post hoc (Tukey) comparisons indicated that low-accepted children reported higher levels of loneliness than their average, and high-accepted peers. There were no significant differences found with respect to loneliness between the average and high-accepted groups.

With regards to belongingness and acceptance, there were significant differences found

Table 3

Comparisons of Dimensions of Loneliness and Acceptance

Variable	Low-Accepted			Average-Accepted			High-Accepted			df	F
	n	M	SD	n	M	SD	n	M	SD		
Loneliness	62	37.05 <sub>a</sub>	13.75	309	25.91 <sub>a</sub>	8.51	48	22.83 <sub>a</sub>	5.81	2, 416	43.68***
Belonging	62	24.40 <sub>a</sub>	6.36	309	29.36 <sub>ab</sub>	4.96	48	31.42 <sub>ab</sub>	3.50	2, 416	31.75***
Intimacy	62	27.73 <sub>a</sub>	7.00	309	30.15 <sub>ab</sub>	5.23	48	32.27 <sub>ab</sub>	4.00	2, 416	9.85***

Note. Means with common subscripts differ from one another at  $p < .05$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

among all levels,  $F(2,416) = 9.85, p < .0001$ . Post Hoc (Tukey) comparisons indicated that low-accepted children reported significantly lower levels of belongingness than did average-accepted children, who in turn reported significantly lower levels of belongingness than did the high-accepted children.

Finally, when comparing acceptance levels and intimacy, Post Hoc (Tukey) comparisons suggested that the low-accepted children reported significantly lower levels of intimacy than their average-accepted agemates who also reported significantly lower levels of intimacy than the high-accepted group of individuals. In summary, low-accepted individuals reported significantly lower levels of intimacy and belongingness and higher levels of loneliness. Significant differences were also found between average and high-accepted groups on only two of the loneliness domains - intimacy and belongingness. In other words, the two subscales of the RPLQ found significant differences among all acceptance groups whereas the unidimensional measure (ILQ) of loneliness did not yield significant differences between the average and high-accepted groups. It is noteworthy to mention that low-accepted children showed the greatest variability of any group on every dimension of loneliness (see the standard deviations in Table 3).

Dimensions of Loneliness and Friendship Status. Next the relations of friendship status to the three dimensions of loneliness was examined. A 2 (gender) x 2 (friend or friendless) MANOVA, with the three dimensions of loneliness serving as the dependent variables, was conducted.

The results of this analysis yielded a significant multivariate effect for gender  $F(3, 413) = 3.65, p < .05$ ; a significant multivariate effect for friendship status  $F(3, 413) = 6.93, p < .0001$ ; and a nonsignificant multivariate Gender x Friendship Status interaction  $F(3, 413) = .90, p = NS$ . As can be seen in Table 4, follow-up univariate analyses suggested that individuals without friends reported higher levels of loneliness, lower levels of belongingness, and intimacy than did individuals with friends. These differences were all statistically significant.

Table 4

Comparisons of Friendship Status and Dimensions of Loneliness

Variable	Friended			Friendless			df	F
	n	M	SD	n	M	SD		
Loneliness	357	26.27	9.06	62	32.56	13.79	1, 417	21.40***
Belonging	357	29.25	5.13	62	26.65	6.42	1, 417	12.55***
Intimacy	357	30.39	5.03	62	28.00	7.48	1, 417	10.11***

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .



Dimensions of Loneliness and Participation in Extracurricular Activities. To examine the relation among the three dimensions of loneliness to extracurricular participation, a median split was used to categorize individual's participation levels. Two categories were created - high and low involvement (Herman-Stahl, Stemmler, & Petersen, 1995). Those individuals who were above the median were classified as high participation ( $n = 205$ ) and those below the median were classified as low participation ( $n = 214$ ). This extends findings because it considers the amount of involvement and not just whether or not an individual is in extracurricular activities or not as most research has done.

To analyze whether being involved in extracurricular activities related to loneliness, belongingness, and intimacy, a 2 (gender) x 2 (high or low) MANOVA was conducted, with the three dimensions of loneliness serving as the dependent variables. This analyses yielded a significant multivariate effect for gender,  $F(3, 413) = 9.84, p < .0001$ ; a significant multivariate effect for participation level,  $F(3, 413) = 5.46, p < .001$ ; and a nonsignificant Gender x Participation level interaction,  $F(3, 413) = .21, p = NS$ . Follow-up univariate analyses revealed significant differences for involvement in extracurricular activities across all three measures of loneliness (see Table 5). Seemingly, those adolescents categorized as highly involved in extracurricular activities reported less loneliness, and stronger feelings of belongingness and intimacy than did individuals categorized as low participation. These relations were all significant.

#### Extracurricular Participation and Dimensions of Loneliness.

In order to examine relations among dimensions of loneliness, peer relationships, and participation in extracurricular activities, a series of Pearson product -moment correlations were computed (see Table 6). These correlations were conducted separately for boys and for girls. For boys, being involved in extracurricular activities was significantly related to all dimensions of loneliness, with participation and loneliness being negatively related. These findings suggest that boys who are involved in extracurricular activities, report higher levels of belongingness and

Table 5

Comparisons of Extracurricular Activities and Dimensions of Loneliness

Variable	High Involvement			Low Involvement			df	F
	n	M	SD	n	M	SD		
Loneliness	205	25.38	9.33	214	28.96	10.57	1, 415	13.48***
Belonging	205	29.90	4.92	214	27.87	5.70	1, 415	15.16***
Intimacy	205	30.79	5.26	214	29.31	5.67	1, 415	8.41**

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

Table 6

Correlation Coefficients Between Extracurricular Participation and Dimensions of Loneliness

	Intimacy	Belonging	Loneliness	Friendship Status	Acceptance
	Girls (Boys)				
Participation	.17* (.23**)	.21** (.30***)	-.20** (-.24***)	-.00 (.17* )	.23** (.18**)

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

intimacy and lower levels of loneliness. In addition, those boys who were more involved in activities had more friends and were better accepted. The same is also true for girls except with regards to friendship. Specifically, girls who were more involved extracurricular activities reported higher levels of intimacy, and belongingness and were better acceptance. There was no relationship found between being involved in extracurricular activities and having friends for girls.

#### Predicting Loneliness, Belongingness and Intimacy From Participation in Extracurricular Activities.

One of the primary questions in the present study was to examine whether being involved in extracurricular activities predicts loneliness, belongingness, and intimacy among early adolescents. This question was examined using hierarchical regression analysis. As established by previous research (Parker and Asher, 1993a), both friendship and acceptance levels individually contribute to the prediction of loneliness. Keeping this in mind, acceptance and friendship were entered first in these analyses in order to control for their variance. Again, analyses were conducted separately for boys and girls.

The first set of hierarchical regression analyses were computed with loneliness serving as the dependent variable (see Table 7). Results from these analyses indicated that extracurricular activities do not significantly predict feelings of loneliness in both boys and girls.

A second set of hierarchical regressions were computed using belongingness as a dependent variable (see Table 8). Results indicated that extracurricular participation was a significant predictor of belongingness for both boys and for girls. That is, only after statistically controlling for friendship and acceptance, participating in extracurricular activities was a significant predictor of boys' and girls' feelings of belongingness.

Finally the last set of hierarchical regressions were performed on both genders with intimacy as the dependent variable (see Table 9). Results indicated that for boys being involved in extracurricular activities predicted feelings of intimacy, after controlling for friendship and acceptance. This finding was not replicated for girls.

Table 7

Results of Hierarchical Regressions Analyses Predicting Loneliness From Friendship, Acceptance, and Extracurricular Participation for Boys and Girls

Variables Entered	<i>r</i>	<i>B</i>	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i> <sub>change</sub>
<b>Boys</b>					
Step 1			.51	.26	36.90***
Acceptance	-.39***	-.12			
Mutual Friendship	-.28***	-.46			
Step 2			.52	.27	2.86
Extracurricular (Total)	-.24***	-.11			
<b>Girls</b>					
Step 1			.49	.24	31.80***
Acceptance	-.37***	-.47			
Mutual Friendship	-.14*	-.08			
Step 2			.49	.24	2.19
Extracurricular (Total)	-.20**	0.09			

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

Table 8

Results of Hierarchical Regressions Analyses Predicting Belonging From Friendship, Acceptance, and Extracurricular Participation for Boys and Girls

Variables Entered	r	B	R	R <sup>2</sup>	F <sub>change</sub>
<b>Boys</b>					
Step 1			.46	.21	27.59***
Acceptance	.37***	.41			
Mutual Friendship	.25***	.10			
Step 2			.49	.24	8.51**
Extracurricular (Total)	.30***	.19			
<b>Girls</b>					
Step 1			.44	.19	24.63***
Acceptance	.32**	.43			
Mutual Friendship	.12	.06			
Step 2			.45	.21	3.68*
Extracurricular (Total)	.21**	.12			

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

Table 9

Results of Hierarchical Regressions Analyses Predicting Intimacy From Friendship, Acceptance, and Extracurricular Participation for Boys and Girls

Variables Entered	r	B	R	R <sup>2</sup>	F <sub>change</sub>
<b>Boys</b>					
Step 1			.27	.07	8.01***
Acceptance	.19**	.18			
Mutual Friendship	.21**	.15			
Step 2			.32	.10	6.72**
Extracurricular (Total)	.23**	.18			
<b>Girls</b>					
Step 1			.29	.08	9.44***
Acceptance	.22**	.23			
Mutual Friendship	.17*	.14			
Step 2			.31	.10	3.15
Extracurricular (Total)	.17*	.12			

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

In summary, results from regression analyses indicate that being involved in extracurricular activities predicts a boys' level of belongingness and intimacy after controlling for acceptance level and friendship status. The same analyses for girls indicated that involvement predicts level of belongingness.

### Discussion

There were three purposes to the present investigation. The results section will be presented according to these aims. In addition, sections concerning future direction, strengths and limitations of the project, as well as the educational implications, will be discussed.

#### Dimensions of Loneliness

One of the purposes of the present study was to investigate the relations among three dimensions of loneliness. Most studies exploring the construct of loneliness have used a unidimensional measure of loneliness (Hayden, 1989). However, as suggested by Weiss (1973), loneliness may be a multidimensional phenomenon. The present investigation explored this notion by including three measures of adolescent loneliness and examining their relations to several types of peer relationships namely, peer acceptance, mutual friendship, and group affiliation.

Correlational analyses were first conducted for the three dimensions of loneliness to analyze their associations. The results of these analyses suggested that the measures were strongly associated. It is of importance to note that the correlation coefficients were similar to those presented in a study conducted by Terrell-Deutsch (1999). She examined the associations among the three measures of childhood loneliness examined in the present investigation. She found that the ILQ loneliness measure developed by Asher et al. (1984) was closely associated to both the social integration (belonging) and emotional integration (intimacy) peer subscales from Hayden's RPLQ (1989) with belongingness and loneliness being the stronger connection of the two. Terrell-Deutsch went on to suggest that quite possibly the higher correlation between the ILQ and the belongingness scale (as measured by the RPLQ) relates to the notion that individuals who experience higher levels of loneliness feel less satisfied with their acceptance among their peers



rather than their intimate relationship with their peers (as measured by the RPLQ). She concluded that although the measures may overlap, the intimacy subscale and belonging subscale tend to be rather unique instruments when focusing on peer intimacy differentiated from peer group integration. Despite their strong associations, results from the regression analyses conducted in the present investigation suggest that the three dimensions of loneliness do appear to be measuring different things.

### Dimensions of Loneliness and Peer Acceptance

The second aim of the study was to examine the relation of dimensions of loneliness to relationship experiences, namely peer acceptance, friendship status, and participation in extracurricular activities. Already established in previous research is the relation among peer group acceptance to friendship and loneliness (Parker et al., 1999; Rubin et al., 1998). It was of interest to see how the other measures of loneliness would relate to peer experience constructs.

Recall that children who experience low-acceptance among their peers report greater feelings of loneliness (Renshaw & Brown, 1993) as measured by the unidimensional tool developed by Asher et al. (1984). The present investigation replicated these findings. Those individuals who were classified as low-accepted reported higher levels of loneliness. However, in their study, Parker and Asher (1993a) found that children who were low-accepted reported higher levels of loneliness than did average-accepted children who in turn reported greater levels of loneliness than did high-accepted individuals. This finding was not replicated in the present investigation. No significant differences were found among average and high-accepted adolescents with respect to loneliness measured by the ILQ. It could be hypothesized that the participants' age may have produced the different results between the present study and the one conducted by Parker and Asher. Their data were collected from children in grade three- through five whereas the present investigation queried early adolescents in grade six and seven. However, it is of additional interest to note that in a study conducted by Cassidy and Asher (1992) there were no significant differences

found among average and high-accepted kindergarten and grade one students regarding reports of loneliness (ILQ). Clearly, further research is needed to discern the complex relation between acceptance and loneliness.

Our understanding of adolescent loneliness is extended in the present investigation because of the inclusion of two other dimensions of loneliness as measured by the RPLQ, namely, belongingness and intimacy. And, results suggest that those individuals who experience low-acceptance also report lower levels of belongingness and intimacy. Seemingly, if an individual is not well-accepted by their peers, they report higher levels of loneliness, and lower feelings of belongingness and intimacy.

Although the present investigation did not yield significant differences between average and high-accepted groups on reports of loneliness as measured by the ILQ, significant differences were found among all acceptance groups on reports of belongingness and intimacy as measured by the RPLQ. For example high-accepted adolescents reported significantly higher levels of intimacy and belongingness than did both average and low-accepted adolescents. It may be possible that those differences may be a function of the two measures (belongingness and intimacy). Individuals who are in the high-accepted group experience the strongest feelings of belonging and intimacy. However, when looking at loneliness (ILQ) these differences were not significant.

Being highly-accepted is a function of how much a person is liked among their peers. The more popular the student, the more highly the student is regarded. It would seem plausible to suggest then that those individuals who experience high group acceptance feel like they belong more because they know that they are liked by their classmates. In addition, those individuals who are well-accepted are perceived as people who others would "like to be with". Therefore the well-accepted students have more classmates to choose from when developing friendships. It could be concluded that those individuals who are well-accepted have more friends and therefore a greater chance of developing intimate relationships.

In summary, those boys and girls who experienced low acceptance reported higher levels of loneliness than did their average and high-accepted agemates. On the measures of belongingness and intimacy, significant differences were found among all levels of acceptance which may suggest that the loneliness measure (ILQ) and the two subscales (RPLQ) may be assessing different phenomenon.

### Dimensions of Loneliness and Friendship

As discussed earlier, having a mutual friend is indeed a different social experience than being accepted by a peer group (Asher et al., 1996; Bukowski & Hoza, 1989; Furman & Robbins, 1985). Moreover, friendship status (having a friend versus not having a friend) has been linked to feelings of loneliness (Renshaw & Brown, 1993). Previous studies have suggested that those individuals who do not have a mutual friend experience elevated levels of loneliness (Parker & Asher, 1993a). The present investigation replicated these findings. Those individuals who did not have a mutual friend reported higher levels of loneliness. The present study also extended findings by including other dimensions of loneliness

Both the ILQ and the RPLQ yielded significant results regarding friendship status. In other words, those individuals who do not have a friend not only feel lonely, but they also report feeling as if they do not belong and experience less intimacy. This connection further supports the distinction between friendship status and group acceptance as it recognizes the unique contribution that friendship status has on dimensions of loneliness. Little research exists that has examined the constructs of belongingness and intimacy in relation to friendship status and peer acceptance. Bukowski et al. (1993) examined the construct of belongingness and tried to discern some of the complex pathways that lead to children's feelings of loneliness and belongingness. However, the authors operationalized belongingness by using a measure designed as a unidimensional assessment tool (ILQ). Therefore, the present investigation extends findings by including two subscales of the RPLQ which is specifically designed to measure the construct of belongingness as

theorized by Weiss (1973).

Regarding friendship status, it is important to note the significant differences that gender plays on the three dimensions of loneliness. Previous research suggested that all is not the same for girls and boys when examining relationship constructs. For example, Buhrmester and Furman (1987) concluded that girls rated the importance and perceived frequency of intimate exchanges as more important than did boys. Girls also reported that same-sex relationships provided significantly more intimate disclosures than other relationships. Camarena et al. (1990) concluded from their study of boys and girls relationships that girls report greater levels of intimacy with close friends than did boys. The present investigation echoes these assertions that girls place greater importance on intimacy. Girls reported stronger feelings of intimacy than did boys and this difference was significant. No significant differences were found regarding gender and belongingness and loneliness.

Although results of the present study support the distinction between group acceptance and friendship status for boys and girls, the extent of the connection between children's emotional well-being and the two relationship constructs should be interpreted with caution, especially for boys because being in the low-accepted groups decreased the odds of a boy having a friend. Therefore, it is not surprising that girls' reports of intimacy were higher than boys' as their chances for intimate exchanges are greater. The data suggest that girls are more likely than not to have a friend. Only twenty-seven of a possible two hundred and ten girls were not included on at least one of their three choices of friends' lists. In comparison, the number of individuals who do not have a friend rose to thirty-five for boys. This disparity between the number of boys and girls who do not have friends especially among the low-accepted groups (47% of boys and 14% of girls) forces one to assume that girls experience greater intimacy because they have more opportunities for intimate connections because more low-accepted girls had friends than did low-accepted boys. This assertion also begs the question as to why low-accepted girls are able to establish more reciprocal

friendships than low-accepted boys? Again maybe the shared experience-emotional closeness link that Camarena et al. (1990) posited explains this phenomenon. It could be hypothesized that school provides few opportunities for boys to be involved in shared experiences, thus not enabling them to develop mutual relationships whereas girls create intimate relationships regardless of the situation.

In summary, the three dimensions of loneliness as the correlational analyses suggest are highly related with the strongest correlation between the belongingness and loneliness measure. This supports Terrell-Deutsch's (1999) assertion that lonelier children distinguish between belongingness and intimacy difficulties as unique forms of suffering.

In addition, the belongingness and intimacy subscales picked out significant differences among the different acceptance groups (low, average and highly-accepted) whereas the loneliness measure did not. For example, all three levels of acceptance showed significant differences on measures of belongingness and intimacy. That is, low-accepted children reported lower levels of intimacy and belongingness than average-accepted individuals who reported significantly lower levels of intimacy and belongingness than did highly-accepted adolescents. This suggests that possibly the two subscales (RPLQ) are measuring different dimensions of the loneliness experience as suggested by Weiss (1973). The unidimensional measure of loneliness (ILQ) did not pick up these finer distinctions.

#### Dimensions of Loneliness and Extracurricular Participation

In addition to exploring the relations among the two measures of loneliness and peer acceptance and friendship status, the present investigation included a third relationship construct - group affiliation. As stated earlier, Weiss (1973) believed that social networks or group affiliations influences a person's sense of social integration or belongingness. The present study examined the social affiliation, operationalized as extracurricular activities, in order to investigate its relation with reports of loneliness, belongingness and intimacy. Because very little research exists concerning these constructs, most of the analyses were exploratory in nature.

In general, the results of these analyses are in accord with previous research linking participation in extracurricular activities to positive outcomes (Mahoney, 2000). For boys, being highly-involved in extracurricular activities was positively associated with belongingness and intimacy and negatively associated with loneliness. In other words, boys who were highly-involved experienced greater feelings of loneliness and intimacy and lower levels of loneliness. In addition, results suggest that involved boys had more friendships and were better-accepted than their less-involved agemates. Some similar connections were also found for girls. Highly-involved girls reported greater intimacy and belongingness and less loneliness than did their less-involved peers. Regarding peer acceptance, there was a positive correlation found between being involved and acceptance. This is in keeping with previous research which suggested that boys and girls who were involved in activities were more popular (Eder & Kinney, 1993). However, there was no significant relations found between participation in extracurricular activities and friendship status for girls. Those girls who were highly-involved in activities were not found to have significantly more friends.

One possible explanation for this finding may be due to the nature of girls' friendship. It has been suggested that girls' relationships tend to be associated with academic activities and socializing (Posner & Vandell, 1999) whereas boys are more likely to play coached sports. In addition, Camarena et al. (1990) suggested that the pathway to relationships for girls tends to be via social interactions and the interactions produced by the activities may not directly promote friendships. It is important to recognize that the design of the study is correlational and therefore causality cannot be determined. In other words, it cannot be said that being involved in extracurricular activities causes a person to be less lonely, feel like they belong and have high intimate relationships. Thus, understanding why highly-involved girls do not report significantly more friendship than girls who are not involved is a question that could be examined in future research.

The significant findings among participation and dimensions of loneliness extends the research in extracurricular activities. Most of the studies examining participation used measures that were only school-based. Including activities offered at the community as well as the school creates a more inclusive index of involvement as many children are active outside of the school setting. The present study also extended findings by incorporating a time frame to the measure. For each activity, a time allotment was established which put a broader perspective into the analyses. In previous investigations, researchers have generally categorized individuals' involvement in extracurricular activities by classifying them as either being involved or not being involved (Holland & Andre, 1987). In the present study, the amount of time spent involved became a factor. By including a time factor a broader understanding of involvement could be examined. And indeed it did. The students were classified as either high or low involvement and those adolescents who were more involved in extracurricular activities reported more intimacy and belongingness and less loneliness than those who were not as involved. The association among extracurricular activities, dimensions of loneliness and peer relationships appears to be a significant one and deserving of greater attention when working with or helping low-accepted individuals' adjustment.

The main purpose of the present investigation was to examine whether participating in extracurricular activities can significantly predict an individual's feelings of loneliness, belongingness and intimacy beyond levels of acceptance. Past studies (Parker & Asher, 1993a) concluded that peer acceptance and friendship both contribute separately to feelings of loneliness in early adolescence. Keeping this in mind, the present study examined the predictive nature of extracurricular activities while controlling for the acceptance level and friendship status.

Results suggested that participating in extracurricular activities significantly contributed to the prediction of belongingness for both boys and girls. This finding supports Weiss' (1973) assertions that group affiliation relates to feelings of belongingness. Moreover it extends findings by the inclusion of adolescents. Weiss' theories were based on his own personal work with adults.

Results from the present investigation suggest that participation in extracurricular activities predicts boys' feelings of intimacy. As suggested by Camarena, et al (1990) shared experience is a pathway to intimate disclosures for boys. It could be hypothesized that extracurricular activities are a kind of shared experience which encourages intimate disclosures for boys. Boys may feel more intimate with their peers after experience an "exciting game" or a particularly "exhilarating run" on the ski hill. So when responding to the question "There is someone my age I can turn to", a boy could respond with a strong "YES" because they just shared an experience with a classmate and they feel close enough to talk to them. However, as the present investigation is correlational in design, interpretation must be made with caution.

### Summary

Many studies examining adolescent loneliness have focused on the relation of peer acceptance and friendship status and feelings of loneliness. The measure typically used to assess adolescent loneliness (ILQ) reports individuals' feelings in a one dimensional way. The present investigation examined the construct of adolescent loneliness using a multidimensional approach. Two other dimensions of loneliness were discussed and measured - belongingness and intimacy. Previous research suggests that peer acceptance and friendship contribute separately to adolescent loneliness (Bukowski et al., 1993 Parker & Asher, 1993a) and the present investigation replicates and extends these findings. Boys and girls who are not well-accepted not only report higher levels of loneliness, than their average and high-accepted agemates, they also report lower levels of belongingness and intimacy when compared to their average and high-accepted agemates. In addition, the present investigation extended findings by including another relationship experience - extracurricular activities. And findings suggest that for both boys and girls, involvement in extracurricular activities predicted feelings of belongingness after controlling for acceptance levels and friendship status. Participating in extracurricular activities also predicted boys' level of intimacy. These connections extend our understanding of the relation between group affiliations



such as extracurricular activities and adolescents feelings of loneliness, belongingness and intimacy.

### Strengths and Limitations of the Project

There are several strengths of the present investigation. First the sample size was substantial (N=419) and included a range of socioeconomic groups and diverse cultures. The sample was representative of the populations as 83% of these students asked to participate, received parental permission. In addition, the measures used to assess the different dimensions of loneliness had comparable validity and reliability as other studies that utilized the assessment tools. The replication of previous findings also suggests that the study has some validity.

Nevertheless, one element of the study that may have been improved upon is that of the extracurricular measure. Although the participation measure included both community and school-based activities and provided a time element, some pragmatic issues arose with its use. Guidance was given by the researcher and her assistance to the students as to what constituted an extracurricular activity. Then, participants were asked to indicate on a scale of 0 (never) to 5 (every day or more) as to how often they participated in the listed activity over the past year. For example if a person was involved in baseball during the spring and summer (data were collected in winter) of the previous year twice a week, he/she would indicate their involvement by circling a 3 (once or twice a week). This was problematic for the participants. Even after a considerable amount of time was spent reviewing what an extracurricular activity was (activity that an adult supervised or was in charge of such as a coach), students still wanted to circle more activities than they were actually involved in. For example, some participants wanted to circle that they played basketball every day, yet they were not a part of a school or community team. Future researchers examining extracurricular participation may choose to modify the measure by having the students list the activities that they have been directly involved rather than presenting them with a list of activities. This would encourage them to think specifically of their involvement. Another modification can be made by asking the teachers for a list of names of all those students who have been involved in the

activities offered at the school. This again limits the examination of extracurricular activities to the school however, and many students are involved in activities in the community. A more accurate account of involvement could come from the parents reporting their child's involvement. Or a list could be created by both the parents and the students. The present investigation used only self-report measures and including other types of assessment tools such as parent reports would prove beneficial.

Another limitation to the present investigation has to do with the design. Correlational studies provide weak evidence for causation and therefore all interpretations must be made with caution.

### Educational Implications

So what does this mean for adolescents? The current investigation replicated many findings already established in the literature. Seemingly, peer acceptance and mutual friendships appear to be significant contributors to dimensions of loneliness. Those individuals who are not well-accepted and do not have mutual friendships report greater feelings of loneliness, and a decreased sense of belongingness and intimacy. These findings suggest the importance of increasing an individuals' acceptance among their peers as well as helping in them establish relationships. But how?

Results of the present investigation suggest that involvement in group affiliations, such as extracurricular activities could play a role in increasing a person's sense of belongingness. Indeed, analyses propose that those individuals who are involved in extracurricular activities report greater feelings of belongingness for both boys and girls. Maybe involving individuals in extracurricular activities may improve their sense of belonging.

As an educator, I have always believed in the importance of involving children in extracurricular activities whether it be of an athletic nature or a club. My belief in the value of extracurricular activities can best be summed up in a story about a girl named Nadine.

Nadine is a thirteen-year-old, grade seven student. She is one year older than her peers and has no friends to speak of. Her social skills can be best described as poor. She comes from a low income family and she is the first born and only female child. Nadine helps her mother with the day to day functions of raising her two younger siblings. Nadine has been to eight schools, has weak academic skills and spends her recess and lunch time walking around by herself. Is Nadine lonely? Probably. Does she wish for a friend? Absolutely. And I know this because I have asked her. But for some reason, Nadine feels connected to the school, is never away and smiles regularly. I believe her resiliency has to do with her involvement in a club called the Global Awareness and Human Rights Club.

Nadine gets together on a weekly basis with several students ranging in ages from 7 to 13. Together they have brought the unicef program to our school, championed a clothing drive and sponsored a family in a third world country. Nadine belongs to something. She anxiously waits for the meetings, participates in the activities and is visibly proud of her involvement. Does it make her school experience better? I think so. Her peers may not include her but Nadine has found a way to be included. She belongs!

I cannot emphatically say Nadine's involvement in the Global Awareness and Human's Rights Club has increased her sense of belonging. But I can say that it has made her become involved. And maybe that is significant.

As educators, the results from the present investigation should not be ignored. Causal relationships can not be implied however, results suggest that a relation exists among variables. Those boys and girls who are highly involved in extracurricular activities report greater feelings of belongingness than those who are not. Maybe one way of helping students feel a stronger sense of belongingness is to involve them in activities at the school and community level. For educators this means creating the opportunities.

The district where the present participants were sampled from is committed to providing

opportunities for students. The current teachers' contract strongly and resoundingly emphasizes that teachers cannot be hired based on their willingness to sponsor extracurricular activities, and any involvement is voluntary in nature. Regardless of these assertions, schools are providing students with many opportunities to become involved. Athletic teams, academic clubs and prosocial activities are continuously being offered and promoted in schools. In light of the present findings suggested by the present study, these organizations should continue to thrive in our schools. In addition, encouraging all types of students to participate especially those who may not be as socially accepted may prove beneficial.

### Future Directions

Loneliness continues to be a phenomenon experienced by adolescents. The present investigation suggests that quite possibly loneliness is multidimensional in nature. The subtle differences that the two measures picked up are of value as they suggest that adolescent loneliness is not a one shot condition. Future research should continue the search for effective ways of assessing adolescent loneliness. If loneliness indeed leads to later maladjustment (Bagwell et al., 1998), then understanding it further is of importance. Thus future researchers may want to consider a multidimensional approach when examining adolescent loneliness. And investigating links to adolescent loneliness is also of importance.

Moreover, the whole concept of extracurricular participation and adolescents should also be explored further. If being involved predicts feelings of belongingness then creating an experiment to test this hypothesis would be of value. Can involving adolescents in extracurricular pursuits improve their sense of belong?

## References

- Asher, S.R. (1990). Recent advances in the study of peer rejection. In S.R. Asher and J.D. Coie (eds.), Peer Rejection in Childhood. Cambridge: Cambridge University Press.
- Asher, S.R. & Coie, J.D. (Eds)(1990). Peer rejection in childhood. New York: Cambridge University Press.
- Asher, S. R., & Gazelle, H. (1999). Loneliness, peer relations, and language disorder in childhood. Topics in Language Disorders, 19, 16-33.
- Asher, S.R., Hymel, S., & Renshaw, P.D. (1984). Loneliness in children. Child Development, 55, 1456-1464.
- Asher S.R., Parker, J.G., & Walker, D.L. (1996). Distinguishing friendship from acceptance: Implications for intervention and assessment. In W. M. Bukowski, A.F. Newcomb, & W. W. Hartup (Eds.), The company they keep: Friendship during childhood and adolescence. New York: Cambridge University Press.
- Asher, S.R., Parkhurst, J.T., Hymel, S., & Williams, G.A. (1990). Peer rejection and loneliness in childhood. In S.R. Asher and J.D. Coie (eds.), Peer Rejection in Childhood. Cambridge: Cambridge University Press.
- Asher, S. R., & Rose, A.J. (1997). Promoting children's social-emotional adjustment with peers. In P. Salovey & D.J. Sluyter (Eds.), Emotional development and emotional intelligence. New York: Harper Collins Publishers.
- 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, 500-505.
- Bagwell, C.L., Newcomb, A.F., & Bukowski, W.M. (1998). Preadolescent friendship and peer rejection as predictors of adult adjustment. Child Development, 69, 140-153.
- Benenson, J.F. (1990). Gender differences in social networks. Journal of Early Adolescence, 4, 472-495.
- Berndt, T.J. (1988). The nature and significance of children's friendships. Annals of child development, 5, 155-186.
- Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press.
- Buhrmester, D. & Furman, W. (1987). The development of companionship and intimacy. Child Development, 58, 1101-1113.
- Bukowski, W.M., & Hoza, B. (1989). Popularity and friendship: Issues in theory, measurement, and outcome. In T.J. Berndt & G.W. Ladd (Eds.), Peer relations in child development (pp. 15-45). New York: Wiley.
- Bukowski, W.M., Hoza, B., & Boivin, M. (1993). Popularity, friendship, and emotional adjustment during early adolescence. In B. Laursen (ed.), Close Friendships in Adolescence. San

Francisco: Jossey-Bass Publishers.

Bukowski, W.M., Hoza, B., & Newcomb, A.F. (1994). Using rating scale and nomination techniques to measure friendship and popularity. Journal of social and personal relationships, 11, 485-488.

Bukowski, W.M., Newcomb, A.F. & Hartup, W.W. (1996). The company they keep: Friendship in childhood and adolescence. New York: Cambridge University Press.

Camarena, P.M., Sarigiani, P.A., & Petersen, A.C. (1990). Gender-specific pathways to intimacy in early adolescence. Journal of Youth and Adolescence, 19, 19-32.

Coie, J. D., Dodge, K., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. Developmental Psychology, 18, 557-570.

Coladarci, T. & Cobb, C.D. (1996). Extracurricular participation, school size, and achievement and self-esteem among high school students: A national look. Journal of Research in Rural Education, 12, 92-103.

Cassidy, J. & Asher, S.R. (1992). Loneliness and peer relations in young children. Child Development, 63, 350-365.

Daniels-Beirness, T. (1989). Measuring peer status in boys and girls: A problem of apples and oranges? In B. H. Schneider, G. Attili, J. Nadel, & R.P. Weissberg (Eds.), Social competence in developmental perspective. Kluwer Academic Publishers: Boston.

Eccles, J.S., & Barber, B.L. (1999). Student council, volunteering, basketball, or matching band: What kind of extracurricular involvement matters? Journal of Adolescent Research, 14, 10-34.

Eder, D. & Kinney, D.A. (1995). The effect of middle school extracurricular activities on adolescents' popularity and peer status. Youth & Society, 26, 298-324.

Finn, J. D. (1989). Withdrawing from school. Review of Educational Research, 59, 117-142.

Fletcher, A.C., Elder, G.H., & Mekos, D. (2000). Parental influences on adolescent involvement in community activities. Journal of Research on Adolescence, 10, 29-48.

Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. Child development, 63, 103-115.

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.

Hartup, W.W. (1996). The company they keep: Friendships and their developmental significance. Child Development, 67, 1-13.

Hayden, L.K. (1989). The development of the relational provision loneliness questionnaire for children. Unpublished doctoral dissertation, University of Waterloo, Ontario.

Herman-Stahl, M.A., Stemmler, M., & Petersen, A.C. (1995) Approach and avoidant coping: Implications for adolescent mental health. Journal of Youth and Adolescence, 24, 649-665.

Holland, A. & Andre, T. (1987). Participation in extracurricular activities in secondary school: What is known, what needs to be known? Review of Educational Research, 57, 437-466.

Hymel, S., Comfort, C., Schonert-Reichl, K., & McDougall, P. (1996). Academic failure and school dropout: The influence of peers. In K. Wentzel & J. Jukonen (Eds.), Social motivation: Understanding children's school adjustment. Cambridge University Press.

Hymel, S., Tarulli, D., Hayden, L., & Terrell-Deutsch. (1999). Loneliness through the eyes of children. In K. J. Rotenberg, & S. Hymel (Eds.), Loneliness in childhood and adolescence. New York: Cambridge University Press.

Kupersmidt, B.J., Coie, J.D., & Dodge, K. A. (1990). The role of poor peer relationships in the development of disorder. In S.R. Asher and J.D. Coie (eds.), Peer Rejection in Childhood. Cambridge: Cambridge University Press.

Lansford, J.E., & Parker, J.G. (1999). Children's interaction in triads: Behavioral profiles and effects of gender and patterns of friendships among members. Developmental Psychology, 35, 80-93.

Larson, R.W. (1999). On the uses of loneliness in adolescence. In K. J. Rotenberg, & S. Hymel (Eds.), Loneliness in childhood and adolescence. New York: Cambridge University Press.

Mahoney, J.L. (2000). School extracurricular activity participation as a moderator in the development of antisocial patterns. Child Development, 71, 502-516.

Mahoney, J. L. & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? Developmental Psychology, 33, 241-253.

Newcomb, A.R., & Bagwell, D.L. (1996). The developmental significance of children friendship relations. In W. M. Bukowski, A.F. Newcomb, & W. W. Hartup (Eds.), The company they keep: Friendship in childhood and adolescence. New York: Cambridge University Press.

Page, R.M., Frey, J., Talbert, R., & Falk, C. (1992). children's feelings of loneliness and social dissatisfaction: Relationship to measures of physical fitness and activity. Journal of Teaching in Physical Education, 11, 211-219.

Page, R.M., & Tucker, L.A. (1994). Psychosocial discomfort and exercise frequency: An epidemiological study of adolescents. Adolescence, 29, 183-191.

Parker, J. G., & Asher, S.R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? Psychological Bulletin, 102, 357-389.

Parker, J. G., & Asher, S.R. (1993a). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. Developmental Psychology, 29, 611-621.

Parker, J. G., & Asher, S.R. (1993b). Beyond group acceptance: Friendship and

friendship quality as distinct dimensions of children's peer adjustment. In Advances in Personal Relationships (vol 4., pp. 261-294).

Parker, J. G., Asher, S.R., & Saxon, J.L., & Kovacs, D.M. (1999). The friendship experience in middle childhood and adolescence: Implications for understanding loneliness. In K. J. Rotenberg, & S.Hymel (Eds.), Loneliness in childhood an adolescence. New York: Cambridge University Press.

Parker, J. G., & Seal, J. (1997). Forming, losing, renewing, and replacing friendship: Applying temporal parameters to the assessment of children's friendship experiences. Child Development, 67, 2248-2268.

Parkhurst, J.T., & Asher, S.R. (1992). Peer rejection in middle school: Subgroups differences in behavior, loneliness, and interpersonal concerns. Developmental Psychology, 28, 231-241.

Posner, J.K., & Vandell, D.L. (1999). After-school activities and the development of low-income urban children: A longitudinal study. Developmental Psychology, 35, 868-879.

Renshaw, P.D., & Brown, P.J. (1993). Loneliness in middle childhood: Concurrent and Longitudinal Predictors. Child Development, 64, 1271-1284.

Rotenberg, K., & Hymel, S. (1999). Loneliness in childhood and adolescence. New York: Cambridge University Press.

Rubin, K. H., Bukowski, W.M., & Parker, J. G. (1998). Peer interactions, relationships, and groups. In N. Eisenberg (vol. ed.), Handbook of Child Psychology: Social and Personality Development.

Russell, D., Cutrona, J.R., Rose, J., & Yurko, K. (1984). Social and emotional loneliness: An examination of Weiss's typology of loneliness. Journal of personality and social psychology, 46, 1313-1321.

Sandstrom, M.J., & Coie, J.D. (1999). A developmental perspective on peer rejection: Mechanisms of stability and change. Child development, 70, 955-966.

Schonert-Reichl, K.A., Elliott, J.P., & Bills, D.B. (1991). Rural Iowa youth: A descriptive summary of post secondary persistence five years after high school. Research in Higher Education, 32, 269-288.

Singleton, L.C., & Asher, S. R. (1977). Peer preferences and social interaction among third-grade children in an integrated school district. Journal of educational psychology, 69, 330-336.

Sullivan, H.S. (1953). The interpersonal theory of psychiatry. New York: Norton.

Terrell-Deutsch, B. (1999). The conceptualization and measurement of childhood loneliness. In K. J. Rotenberg, & S.Hymel (Eds.), Loneliness in childhood an adolescence. New York: Cambridge University Press.

Weiss, R.S. (1973). Loneliness: The experience of emotional and social isolation. Cambridge: MIT Press.



Zarbatany, L., Hartmann, D.P., & Rankin, D.B. (1990). The psychological functions of preadolescent peer activities. Child Development, 61, 1067 - 1080.

Zarbatany, L., McDougall, P., & Hymel, S. (2000). Gender-differentiated experience in the peer culture: Links to intimacy in preadolescence. Social Development, 9, 62-79.

## Appendix A

### Student Recruitment Letter

Dear Students:

You have been selected to be a participant in a research project that we are conducting at your school entitled **"Promoting Positive Social Experiences in Elementary School"**. This study is being organized by Ms. Connor (a Surrey School teacher) and her advisor from the University of British Columbia, Dr. Kim Schonert-Reichl. Part of the data collected will be for Ms. Connor's graduate thesis. The purpose of this study is to investigate the influence that social experiences such as extracurricular activities have on an individual's well-being. It is not a test and there are **no right or wrong answers - just your answers**. There is very little research about Canadian students. More research is needed and you can help us understand students better by being a participant in this research study. It is hoped that the results of this study will help teachers and parents better understand the way that students think and improve education for all.

If you decide to participate in this study, you will be asked to fill out 4 sets of questionnaires in your classroom. One set of questionnaires asks questions about your background. A second set of questionnaires asks you about your emotional well-being. The third set of questionnaires asks you to assess the acceptance level of your classmates. Finally, the fourth set of questionnaires will ask you about what extracurricular activities you participate in both at the school and in your community. If you do not participate in any extracurricular activities, you can still be an important participant in the study. **Your name will NOT be kept with your answers so that no one but the researchers will know who answered the questions. All of your answers will be completely confidential. If you choose not to participate, you will be given something else to do in class related to your regular classroom instruction.** Participation in the study is entirely voluntary and withdrawal from the research study or refusal to participate will not jeopardize your class standing in any way.

In order for you to participate in the study, you need to take home the attached permission slip and give it to your parents so that they may sign it. Please do your best to return the permission slip to your teacher by **tomorrow**. Thank you for considering this request. We hope you agree to participate.

Sincerely,

Kimberly A. Schonert-Reichl, Ph.D.  
Assistant Professor  
University of British Columbia

Judy Connor, B.Ed.  
Graduate Student  
Classroom Teacher, Berkshire Park Elementary School

**Parent Consent Form**

**Study Title:** "Promoting Positive Social Experiences in Elementary School"

**Researchers:** Kim A. Schonert-Reichl, Ph.D.  
Assistant Professor  
Department of Educational Psychology and Special Education  
University of British Columbia  
2125 Main Mall  
Vancouver, B.C. V6T 1Z4

Judy Connor, B.Ed.  
Graduate Student  
University of British Columbia  
Classroom Teacher  
Berkshire Park Elementary School

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I have read and understand the attached letter regarding the study entitled "Promoting Positive Social Experiences in Elementary School".

I have also kept copies of both the letter describing the study and this permission slip.

\_\_\_\_\_ Yes, my son/daughter has my permission to participate.

\_\_\_\_\_ No, my son/daughter does not have my permission to participate.

**Parent's Signature** \_\_\_\_\_

**Son or Daughter's Name** \_\_\_\_\_

**Date** \_\_\_\_\_

### Appendix C Student Consent Form

The purpose of this form is to give you the information you need in order to decide whether or not you want to participate in this research study which is entitled **“Promoting Positive Social Experiences in Elementary School”**. You may choose not to participate in this study now or at any point during the study and there will be no penalty. If you choose not to participate, that choice will not in any way effect your class standing or your marks. Students who do not participate will be given something else to do in their class related to regular classroom instruction.

The purpose of this study is to find out about your views of your classmates, your feelings, and your participation in extracurricular activities. This study is being organized by Mrs. Connor and her advisor from the University of British Columbia, Dr. Kim Schonert-Reichl. The data collected will be for Mrs. Connor’s graduate thesis. It is hoped that the results of this study will help parents and teachers better understand students and therefore be able to improve education for all. In order to accomplish this purpose, you will be asked to fill out four sets of questionnaires during one class period. One set of questionnaires asks you questions about your background. A second set of questionnaires asks you about how you feel about yourself. A third set of questionnaires asks you about your classmates. Finally, the fourth set of questionnaires asks you about the extracurricular activities that you participate in at the school and in your community.

**This is not a test. There are no right or wrong answers - just what you think.**  
**Please answer all questions if you can. Do your best to answer truthfully and honestly.**

**Your name will NOT be kept with your answers so no one but the researcher will know who answered the questions. All answers are completely confidential. No one at your school or in your community (not even your parents) will ever see your answers, so please answer honestly.**

I will be happy to answer any questions you have before signing or later. Please indicate that you have read this form by signing your name on the line below. You may keep a copy of this consent form for you records.

Thank you for your help.

\_\_\_\_\_  
DATE

\_\_\_\_\_  
NAME (please print)

\_\_\_\_\_  
SIGNATURE

## Appendix D

### Demographic Information

## TELL ME ABOUT YOURSELF

We are interested in learning about your background. Please follow the directions carefully, and answer all of the questions. REMEMBER, YOUR ANSWERS WILL REMAIN PRIVATE AND WILL BE SEEN ONLY BY THE RESEARCHERS.

1. Are you male or female? (Check one) \_\_\_\_\_ male \_\_\_\_\_ female

2. How old are you? \_\_\_\_\_ (years)

3. What is your birthdate? \_\_\_\_\_  
(Month) (Day) (Year you were born)

4. What GRADE are you in this year? (**check one**)

\_\_\_\_\_ 6th

\_\_\_\_\_ 7th

5. Which of these adults do you live with **MOST OF THE TIME**? (Check all the adults that you live with)

\_\_\_\_\_ Both of my parents

\_\_\_\_\_ My mother only

\_\_\_\_\_ My father only

\_\_\_\_\_ My mother and a stepfather

\_\_\_\_\_ My father and a stepmother

\_\_\_\_\_ Grandparents

\_\_\_\_\_ Other adults (EXPLAIN, for example, aunt uncle, mom's boyfriend,  
friend's parents, etc.)

6. How much education does you father (stepfather or male guardian) have? **(Check one)**

-----	Some high school
-----	Graduated from high school
-----	Vocational school or technical school
-----	Some college
-----	Graduated from university
-----	Attended graduate or professional school (for example, to be a doctor lawyer, or teacher)
-----	Don't know

7. What is your father's occupation (**describe the kind of work he does: BE SPECIFIC**)

\_\_\_\_\_

8. How much education does you mother (stepmother female guardian) have? (Check one)

- |       |  |
|-------|--|
| _____ | Some high school   |
| _____ | Graduated from high school   |
| _____ | Vocational school or technical school  |
| _____ | Some college   |
| _____ | Graduated from university  |
| _____ | Attended graduate or professional school (for example, to be a doctor<br>lawyer, or teacher) |
| _____ | Don't know   |

9. What is your mother's occupation (**describe the kind of work she does: BE SPECIFIC**)

\_\_\_\_\_

10. How do you describe yourself in terms of ethnic or cultural heritage? (Check one)

- \_\_\_\_\_ White (Anglo, Caucasian, etc.)
- \_\_\_\_\_ Black (African, Haitian, Jamaican, etc.)
- \_\_\_\_\_ Aboriginal
- \_\_\_\_\_ Asian (Oriental, Chinese, Japanese, Korean, etc.)
- \_\_\_\_\_ East Indian
- \_\_\_\_\_ Latin (Spanish, Mexican, South American, etc.)
- \_\_\_\_\_ Other (if you would describe your ethnic or cultural heritage in some way  
that is not listed above, please describe your heritage in the  
space below)

---

**Appendix E**  
**Level of Acceptance Measure**

## **MY RELATIONSHIPS WITH OTHER PEOPLE**

ON THE NEXT PAGE THERE IS A LIST OF ALL OF YOUR CLASSMATES. FOR EACH CLASSMATE, CIRCLE THE NUMBER THAT BEST DESCRIBES HOW MUCH YOU WOULD LIKE TO BE WITH THEM AT SCHOOL.

- 1 I WOULD NOT LIKE TO BE WITH THEM AT ALL
- 2 I WOULD NOT LIKE TO BE WITH THEM MOST OF THE TIME BUT SOMETIMES I DO
- 3 RIGHT IN THE MIDDLE - SOMETIMES I LIKE TO BE WITH THEM AND SOMETIMES I DON'T LIKE TO BE WITH THEM
- 4 MOST OF THE TIME I WOULD LIKE TO BE WITH THEM
- 5 I WOULD REALLY LIKE TO BE WITH THEM

HERE IS A SAMPLE QUESTION TO TRY

- |                    |   |   |   |   |   |
|--------------------|---|---|---|---|---|
| A. I LIKE PIZZA    | 1 | 2 | 3 | 4 | 5 |
| B. I LIKE BROCCOLI | 1 | 2 | 3 | 4 | 5 |

THERE ARE NO RIGHT OR WRONG ANSWERS, JUST WHAT YOU THINK. PLEASE BE HONEST.

	<u>WOULD NOT</u> <u>LIKE TO BE WITH</u> THIS PERSON AT ALL				<u>I WOULD</u> <u>REALLY LIKE</u> TO BE WITH THIS PERSON
Aman	1	2	3	4	5
Alana	1	2	3	4	5
Sunny	1	2	3	4	5
Ryan C.	1	2	3	4	5
Sarah	1	2	3	4	5
Sheanthi	1	2	3	4	5
Kevin	1	2	3	4	5
Alison	1	2	3	4	5
Christina	1	2	3	4	5
Diana	1	2	3	4	5
Carmen	1	2	3	4	5
Justin	1	2	3	4	5
Chris	1	2	3	4	5
Chavon	1	2	3	4	5
Brandon	1	2	3	4	5
Taryn	1	2	3	4	5
Kristen	1	2	3	4	5
Kyle	1	2	3	4	5
Kenji	1	2	3	4	5
Braden	1	2	3	4	5
Randy	1	2	3	4	5
Ryan T	1	2	3	4	5
Brian	1	2	3	4	5
Paul	1	2	3	4	5
Shivan	1	2	3	4	5



**Appendix F**  
**Friendship Measure**

PLEASE CIRCLE YOUR THREE BEST FRIENDS IN THE CLASS. MAKE SURE THAT THEY ARE THE SAME GENDER. THEN PUT A CHECK MARK BESIDE YOUR VERY BEST FRIEND.

Aman  
Alana  
Sunny  
Ryan C.  
Sarah  
Sheanthi  
Kevin  
Alison  
Christina  
Diana  
Carmen  
Justin  
Chris  
Chavon  
Brandon  
Taryn  
Kristen  
Kyle  
Kenji  
Braden  
Randy  
Ryan T  
Brian  
Paul  
Shivan  
Nigel  
Yuka

**Appendix G**  
**Participation in Extracurricular Activities Measure**

**PARTICIPATION IN EXTRACURRICULAR ACTIVITIES**

In this survey, we are interested in learning about the kinds of extracurricular activities that you participate in. Extracurricular activities are any activities that you participate in voluntarily which have been organized by adults in your community or school. We know that some of the activities won't be a part of your life, but others will, and that's okay. For each extracurricular activity, we would like you to tell us HOW OFTEN you do each activity. To tell us this, you will mark one number for each activity on the list that tells us how often you do the activity. The numbers you will use go from 0, which tells us that you never do this activity, to 5, which tells us that you usually do the activity once a day or more. You can see what each of the numbers mean below. Please only include activities that you participated in within the last year.

- |   |   |
|---|---|
| 0 | <b><u>never</u> participate in the activity</b> |
| 1 | <b>participate <u>once a month or less</u></b>  |
| 2 | <b>participate <u>once every few weeks</u></b>  |
| 3 | <b>participate <u>once or twice a week</u></b>  |
| 4 | <b>participate <u>several times a week</u></b>  |
| 5 | <b>participate <u>every day or more</u></b>     |

**What would you score if you were involved in volleyball and you had two practices a week and one game a week?**

0    1    2    3    4    5

**What would you score if you took piano lessons and you met with your teacher twice a month?**

0    1    2    3    4    5

For each activity, circle one number that tells us HOW OFTEN you do the activity. Remember that these extracurricular activities are organized by adults in either you school or community. (P.E. is not included as well as unorganized activities)

**You must have participated in the activity between Feb. 1998 - Feb. 1999**

### HOW OFTEN

	Never	Once a month or less	Once every few weeks	Once or twice a week	Several times a week	Every day or more
1. Baseball	0	1	2	3	4	5
2. Gymnastics	0	1	2	3	4	5
3. Softball	0	1	2	3	4	5
4. Football	0	1	2	3	4	5
5. Ice Hockey	0	1	2	3	4	5
6. Ringette	0	1	2	3	4	5
7. Volleyball	0	1	2	3	4	5
8. Tennis	0	1	2	3	4	5
9. Basketball	0	1	2	3	4	5
10. Intramurals	0	1	2	3	4	5
11. Wrestling	0	1	2	3	4	5
12. Track/Cross Country	0	1	2	3	4	5
13. Swimming/Diving	0	1	2	3	4	5
14. Soccer	0	1	2	3	4	5
15. Golf	0	1	2	3	4	5
16. Field Hockey	0	1	2	3	4	5
17. Figure Skating	0	1	2	3	4	5
18. Martial Arts	0	1	2	3	4	5
19. Dance Classes	0	1	2	3	4	5
20. Skiing	0	1	2	3	4	5
21. Horseback Riding	0	1	2	3	4	5

	Never	Once a month or less	Once every few weeks	Once or twice a week	Several times a week	Every day or more
22. Student Council	0	1	2	3	4	5
23. Band/Orchestra	0	1	2	3	4	5
24. Crosswalk	0	1	2	3	4	5
25. Peer Mediation	0	1	2	3	4	5
26. Service Clubs	0	1	2	3	4	5
27. Chess Club	0	1	2	3	4	5
28. Computer Club	0	1	2	3	4	5
29. Library Club	0	1	2	3	4	5
30. Math Club	0	1	2	3	4	5
31. Peer Tutoring	0	1	2	3	4	5
32. Boys/ Girls Clubs	0	1	2	3	4	5
33. Church Group	0	1	2	3	4	5
34. Youth Group	0	1	2	3	4	5
35. Volunteer/Service	0	1	2	3	4	5
36. Music Lessons	0	1	2	3	4	5
37. Drama Club	0	1	2	3	4	5
38. School Play	0	1	2	3	4	5
39. Art Club	0	1	2	3	4	5

40. Are you involved in any other extracurricular activities outside or at your school that have not been mentioned. Please specify which one(s) and indicate how often.

_____	0	1	2	3	4	5
_____	0	1	2	3	4	5
_____	0	1	2	3	4	5
_____	0	1	2	3	4	5
_____	0	1	2	3	4	5

## Appendix H Intimacy and Belongingness Measure

### MY RELATIONSHIPS WITH OTHER PEOPLE

Here are some statements which may be true or not about you.  
Read each sentence and decide whether or not it is true about you.

Circle the big "YES" if the sentence is REALLY TRUE for you.  
Circle the little "yes" if the sentence is SORT OF TRUE for you.  
Circle "sometimes" if the sentence is true for you only SOME OF THE TIME.  
Circle the little "no" if the sentence is SORT OF NOT TRUE for you.  
Circle the big "NO" if the sentence is REALLY NOT TRUE for you.

**THERE ARE NO RIGHT OR WRONG ANSWERS, JUST WHAT YOU THINK.  
PLEASE BE HONEST.  
YOUR NAME WILL NEVER APPEAR ON THIS FORM.**

### HERE ARE A FEW EXAMPLES TO TRY:

- |                                      |     |     |           |    |    |
|--------------------------------------|-----|-----|-----------|----|----|
| A. I like roller blading.            | YES | yes | sometimes | no | NO |
| B. I don't like going to the movies. | YES | yes | sometimes | no | NO |
| C. I like to do homework.            | YES | yes | sometimes | no | NO |
| D. I don't like to ride bikes.       | YES | yes | sometimes | no | NO |

**THERE ARE NO RIGHT OR WRONG ANSWERS, JUST WHAT YOU THINK.  
PLEASE BE HONEST.  
YOUR NAME WILL NEVER APPEAR ON THIS FORM.**

**FOR THE FOLLOWING SENTENCES, THINK ABOUT YOURSELF AND PEOPLE  
YOUR OWN AGE WHEN YOU ANSWER**

1. I feel part of a group of friends that do things together.	YES	yes	sometimes	no	NO
2. There is someone my age I can turn to.	YES	yes	sometimes	no	NO
3. I have a lot in common with other students.	YES	yes	sometimes	no	NO
4. There is someone my age I could go to if I were feeling down.	YES	yes	sometimes	no	NO
5. I feel in tune with other students.	YES	yes	sometimes	no	NO
6. I have at least one really good friend I can talk to when something is bothering me.	YES	yes	sometimes	no	NO
7. I feel other students want to be with me.	YES	yes	sometimes	no	NO
8. I have a friend who is really interested in hearing about my private thoughts and feelings.	YES	yes	sometimes	no	NO
9. I feel that I usually fit in with other students around me.	YES	yes	sometimes	no	NO
10. I have a friend I can tell everything to.	YES	yes	sometimes	no	NO
11. When I want something to do for fun, I can usually find friends to join me.	YES	yes	sometimes	no	NO
12. There is somebody my age who really understands me.	YES	yes	sometimes	no	NO
13. When I am with other students, I feel like I belong.	YES	yes	sometimes	no	NO
14. There is a friend I feel close to.	YES	yes	sometimes	no	NO

### Appendix I Loneliness Measure

1. It's easy for me to make new friends at school.	YES	yes	sometimes	no	NO
2. I have nobody to talk to.	YES	yes	sometimes	no	NO
3. I'm good at working with other students.	YES	yes	sometimes	no	NO
4. It's hard for me to make friends.	YES	yes	sometimes	no	NO
5. I have lots of friends.	YES	yes	sometimes	no	NO
6. I feel alone.	YES	yes	sometimes	no	NO
7. I can find a friend when I need one.	YES	yes	sometimes	no	NO
8. It's hard to get other students to like me.	YES	yes	sometimes	no	NO
9. I don't have anyone to hang around with.	YES	yes	sometimes	no	NO
10. I get along with other students.	YES	yes	sometimes	no	NO
11. I feel left out of things.	YES	yes	sometimes	no	NO
12. There's nobody I can go to when I need help.	YES	yes	sometimes	no	NO
13. I don't get along well with other students.	YES	yes	sometimes	no	NO
14. I'm lonely.	YES	yes	sometimes	no	NO
15. I am well liked by the students in my class.	YES	yes	sometimes	no	NO
16. I don't have any friends.	YES	yes	sometimes	no	NO