The Relationship Between Loneliness and Social Skills in Learning Disabled and Regular Education Populations

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THE RELATIONSHIP BETWEEN LONELINESS AND SOCIAL SKILLS IN LEARNING DISABLED AND REGULAR EDUCATION POPULATIONS

A Thesis

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Western Kentucky University

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Specialist in Education

by

Roberta Diane Miller

August 1999
THE RELATIONSHIP BETWEEN LONELINESS
AND SOCIAL SKILLS IN LEARNING DISABLED
AND REGULAR EDUCATION POPULATIONS

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THE RELATIONSHIP BETWEEN LONELINESS
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AND REGULAR EDUCATION POPULATIONS

Roberta Diane Miller August 1999  62 Pages

Directed by: Elizabeth Jones, Carl Myers, and Ann Ruff

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Loneliness in children has been associated with internalizing symptoms such as
shyness, depression, and low self-esteem (Brage, Meredith, & Woodward, 1993;
Renshaw & Brown, 1993; Rubin, LeMaré, & Lollis, 1990) and externalizing
symptoms such as aggression (Coie, Dodge, & Coppotelli, 1982; Cassidy & Asher,
1992; Dobson, Campbell, & Dobson, 1987). The later outcomes of both of these
types of internalizing and externalizing symptoms include school withdrawal,
criminality, and victimization (Rubin, 1985; Parker & Asher, 1987). We know
that children who rate themselves lonely tend to be rejected by peer groups. We
also know that children who are rejected by peer groups lack social skills. Thus,
one might speculate that there is a relationship between perceived loneliness and
level of social skills. Given the evidence for the implications of loneliness, this
study compared self-reports of loneliness and social skills between learning
disabled students. A sample of 31 learning disabled students was matched with 31
regular education students on gender, age, grade, and ethnicity. The participants
were enrolled in six schools in two small rural Kentucky counties in the United States. As predicted, the learning disabled group showed a higher mean than the regular education group, with a one-tailed independent samples t-test indicating significance between mean group differences on the Illinois Loneliness and Social Dissatisfaction Scale (ILSDS). The second hypothesis explored mean group differences on the Social Skills Rating System (SSRS) and the learning disabled group showed a statistically lower mean on their self-ratings of social skills than the regular education group. Neither group showed a significant correlation between loneliness and social skills. Results were discussed in terms of methodological limitations and the need for additional research.
Chapter I

Introduction

In 1975, P. L. 94-142, the Education for All Handicapped Children Act was first enacted (Education for All Handicapped Children Act, 1975). One purpose of this legislation was to ensure that students with disabilities achieve academic success and equal educational opportunity. Students who achieve academically are provided more opportunities to lead a full life in today's society (Turnbull & Turnbull, 1998). The goal of "full participation" is connected to the principle of the least restrictive environment (LRE) in that receiving an education in the LRE involves full participation in the life of the school, and it is a strategy for learning how to fully participate in other areas of life. Although students with disabilities and students who are not disabled are now integrated in classrooms and social settings within the school, the two groups may be having very different experiences due to differences in their feelings or the emotional climate that is experienced. Previous researchers have found that there is a difference in social skills between learning disabled students (LD) and regular education students (RE), with the LD students having fewer social skills (Gresham, 1992; Gresham & Elliott, 1990; Merrell, Johnson, Merz, & Ring, 1992; Swanson & Malone, 1992).
There is also accumulating research that now suggests that there may be a difference in feelings of loneliness between LD students and RE students (Sabornie, 1994; Tur-Kaspa, Weisel, & Segev, 1998). The question is whether or not there is a connection between loneliness and social skills. If there is a connection, and the LD students experience more loneliness at school and lower self-perceptions of their performance of social skills, perhaps social skills training should be part of the curriculum for learning disabled students. This study compares the perceived feelings of loneliness and social skills deficits of students in both populations to determine whether the LD population experiences more loneliness and has lower self-perceptions of their performance of social skills than the RE population and to determine whether there is a connection between loneliness and social skills in both populations.

What is Loneliness?

Researchers in the adult loneliness literature make a distinction between situational loneliness and chronic loneliness (Beck & Young, 1978; Rook, 1988; Young, 1982). Situational loneliness refers to a short-term loneliness caused by normal changes across the lifespan such as moving to a new area or divorcing a spouse (Asher & Hopmeyer, 1996). In situational loneliness, the feelings of loneliness dissipate as one adapts to the new situation (Rook, 1988). Chronic loneliness, however, is not related to situational forces. Instead it can be described as a deep feeling of emptiness within a person (Davis, 1990). Chronic loneliness
is the focus of the present investigation. Lonely people describe themselves as feeling isolated, sad, alone and having no sense of belonging. Children can be in a classroom surrounded by others and still feel this internal loneliness. Children are very much aware that it is not how many children are present, but whether or not the lonely child feels a connection with the others (Asher & Hopmeyer, 1997).

**Theoretical Explanations of Loneliness**

The focus of most research on the sources of loneliness has been on the effects of “objective” relationship deficits. This focus includes the influence of parents on children’s loneliness as well as children’s peer relationships. However, there is evidence that suggests another possible source of loneliness is children’s “subjective” perceptions of their relationships (Asher & Hopmeyer, 1997).

**Objective relationship deficits.** A well supported view is that objective relationship deficits are the cause of loneliness. This perspective is based on “social needs” theories and states that the cause of loneliness is due to an individual’s current and past relationship history (Maragoni & Ickes, 1989).

Psychodynamic and attachment theorists stress the importance of the parent-infant relationship. Three theorists have proposed potential mechanisms that explain the connection between the parent-infant relationship and the development of loneliness during the school years. Sullivan (1953) suggested that deficits in the parent-infant relationship prevent the child from developing social skills that would allow him/her to have good peer relationships. Second, Bowlby (1969)
suggested that individuals develop internal “working models” based on early experiences with their caregivers. If the caregiver quickly responds to the child’s needs, the child internalizes the message that he or she is worthy and others are dependable. On the other hand, if the caregiver does not respond to the child’s needs, the child internalizes the message that he or she is not worthy and others are not dependable. According to Bowlby (1969), these messages develop gradually throughout the early years, and once developed and integrated into one’s cognitive models, they tend to remain throughout one’s lifetime. Third, Winnicott (1958) suggested that an infant who lacks an intimate relationship with his or her caregiver cannot develop a feeling of being comfortable when alone.

Although some researchers have suggested that the cause of loneliness is a dysfunctional parent-infant relationship, only one longitudinal study has examined this connection. Berlin, Cassidy, and Belsky (1995) examined whether children who had been classified as insecure-ambivalent, using Ainsworth’s Strange Situation at age 12 months, would report feeling more lonely at both ages 5 and 7 than other children. As hypothesized, they found that being classified as insecure-ambivalent was a predictor of children reporting greater loneliness at both age 5 and age 7.

Although the parent-infant relationship has been suggested as a source of loneliness in children, most research on the effect of relationships on loneliness has focused on peer relationships at school (Asher & Hopmeyer, 1997). Research
has found that there are at least four indicators of peer adjustment that are related to children’s loneliness at school. These four indicators are (a) peer acceptance, (b) participation in best friendships, (c) the quality of a child’s closest friendships and (d) victimization by peers.

**Subjective perception relationships.** The second possible source of loneliness is a child’s “subjective” perception of his/her relationships (Asher & Hopmeyer, 1997). This approach explains that individuals who perceive that they lack an appropriate number of peer relationships or that the relationships are lacking in quality will experience feelings of loneliness (Delegara & Margulis, 1982; Jones, 1982).

**Status of Children At Risk**

Students who report the greatest feelings of loneliness are those children who are least accepted by their classmates (Asher, Hymel, & Renshaw, 1984). Research suggests that within this group of unpopular children a distinction must be made between rejected children and neglected children (Asher & Wheeler, 1985). Rejected children are those children who have no friends in school and are disliked by their peers. Neglected children, on the other hand, have no friends in school but are not disliked by their peers. The status of rejected children is more stable across time than the status of neglected children (Coie & Dodge, 1983; Coie & Kupersmidt, 1983). If a neglected child moves to a new neighborhood, it is likely that the child will be able to change his status in a new environment. A
rejected child, however, will keep his status regardless of a change in environment. Previous studies with elementary students indicate that those students who are classified as rejected are found to report higher levels of loneliness (Asher & Wheeler, 1985). Consistent with studies of elementary school students and kindergarten students, middle school students who were classified as rejected were also found to report higher levels of loneliness (Cassidy & Asher, 1992; Parkhurst & Asher, 1992). This pattern was not only found in the classrooms but across settings such as the lunchroom, physical education classes, and the playground (Asher & Wheeler, 1985).

Furthermore, rejected children can be divided into two subgroups: the submissive subgroup and the aggressive subgroup (Rubin, 1985; Rubin, LeMare, & Lollis, 1990). The children in the submissive group are unassertive and have few interactions with their peers. Rubin refers to this submissive pattern as social withdrawal. Children in the aggressive group are characterized by an externalizing behavioral style, including “starts fights,” “too bossy,” and “interrupts.” Parkhurst and Asher (1992) found that rejected adolescents could be divided into the same two subgroups as elementary students. The study compared self-reported loneliness in each subgroup to average status students. There was no difference in reports of loneliness between aggressive-rejected and average students. However, there was a significant difference in reports of loneliness between the submissive-rejected and the average students, with feelings of loneliness being higher among
the submissive-rejected group.

This finding of higher levels of loneliness in the submissive-rejected group seems plausible in that submissive-rejected students who are withdrawn, unassertive, and have infrequent interactions with their peers would have higher feelings of loneliness than aggressive-rejected students who have interactions with their peers even though the interactions are negative. Evidence has also found that rejected children are most frequently the victims of bullying (Perry, Kusel, & Perry, 1988). It seems plausible that it would be submissive-rejected children who are more often victimized rather than the aggressive-rejected children.

Implications of Loneliness

The importance of studying loneliness is found in the variables with which loneliness is associated. Researchers have found loneliness to be associated with internalizing symptoms such as shyness, depression, and low self-esteem (Brage, Meredith, & Woodward, 1993; Renshaw & Brown, 1993; Rubin et al., 1990) and externalizing symptoms such as aggression (Cassidy & Asher, 1992; Coie, Dodge, & Coppotelli, 1982; Dobson, Campbell, & Dobson, 1987). The later outcomes of both of these internalizing and externalizing symptoms include school withdrawal, criminality, and psychopathology (Rubin, 1985; Parker & Asher, 1987).

School withdrawal. There is evidence that dropping out of school often follows after children have had problems with peer relationships in earlier years (Parker & Asher, 1987). This evidence comes from retrospective studies where
adults who dropped out of school are compared to adults who did not drop out of school. The school records of the two groups were examined to determine their childhood acceptance and behavioral styles. Parker and Asher (1987) interpreted these studies to indicate that there is a relationship between students who eventually dropped out of school and students who experienced peer relation difficulties (as determined by peer/teacher measures of acceptance, aggression and shyness/withdrawal).

**Criminality.** Studies have found that there is a connection between poor peer relations and later criminality (Parker & Asher, 1987). Retrospective studies found that the background of criminals showed a history of childhood aggression and poor peer relations.

**Adult psychopathology.** Studies suggest that adults with psychopathology experienced childhood peer-relationship difficulties such as low acceptance, aggression or shyness/withdrawal (Parker & Asher, 1987). In fact, 28% to 70% of maladjusted adults showed a history of problems in peer relationships in childhood.

**Additional Variables Associated With Loneliness**

Cassidy and Asher (1992) examined the behavioral characteristics of lonely children. The Illinois Loneliness and Social Dissatisfaction Scale (ILSDS) was administered and those respondents in the top 20% were classified as high-lonely. The remaining children were classified as low-lonely. A teacher assessment
measure and a peer assessment measure were administered to determine which children were considered to be aggressive, shy/withdrawn, or prosocial. The children classified as high-lonely were then compared to the children classified as low-lonely in terms of these three behavioral characteristics. As expected, high-lonely children were found to be less prosocial, more aggressive, and more shy/withdrawn.

Dobson, Campbell, and Dobson (1987) examined the relationships among loneliness and perceptions of school and grade point averages of high school juniors. The students were administered the Revised UCLA Loneliness Scale and the Quality of School Life Scale. They found an inverse correlation between the students' self-reported loneliness and school satisfaction, commitment to classwork, reactions to teachers, and GPA. Those students who indicated a higher degree of loneliness were less satisfied with school, felt less committed to classwork, had more negative feelings about their teachers and had lower GPAs than other students. In light of their findings, Dobson et al. questioned whether feelings of loneliness are so “all consuming” that lonely students cannot concentrate on their studies or get involved in other school activities.

Brage, Meredith, and Woodward (1993) examined the relationships between loneliness, depression, and self-esteem in a group of Midwestern adolescents. It was found that there was a moderate correlation between loneliness and depression ($r = .64$). In addition, a statistically significant inverse relationship
was found between loneliness and self-esteem.

Thus, we can see that loneliness is associated with both internalizing and externalizing symptoms. Internalizing symptoms include shyness, depression, and low self-esteem. The most negative externalizing symptom that is associated with loneliness is aggression. These internalizing and externalizing symptoms can then result in various negative long-term outcomes. These outcomes include school withdrawal, criminality, and adult psychopathology.

Prevalence of Loneliness

Asher et al. (1984) examined feelings of loneliness in 506 children. The ILSDS was administered to students from the third through the sixth grades in two schools in a moderate size midwestern city. The results indicated that more than 10% of children reported feelings of loneliness.

Another study (Luftig, 1987) investigated the extent of children’s loneliness in grades 2, 4, and 6. The ILSDS was administered to 364 students in two rural-suburban, middle class school districts in southwest Ohio and southeast Indiana. Luftig found that a high percentage of second, fourth, and sixth grade students reported feelings of loneliness especially on individual loneliness items. In particular, on the item “I feel alone,” 22% of second graders, 20% of fourth graders, and 12% of sixth graders reported being in strong agreement with that statement.
Other researchers have examined loneliness in adolescents and indicated that adolescence is particularly a time of loneliness (Parkhurst & Asher, 1992; Brage et al., 1993; Brennan, 1982). Consistent with this review, Parkhurst and Asher (1992) found that seventh and eighth graders reported somewhat greater feelings of loneliness overall than elementary school students. Davis (1990) reviewed studies on loneliness in adolescents and found that loneliness in adolescents varied from 10% to 20%.

Schultz and Moore (1988) examined differences in reported loneliness across high school students, college students, and retirees. It was found that high school students reported significantly more feelings of loneliness than college students, but neither group was significantly different from retirees.

Although researchers have investigated the feelings of loneliness in children (Asher et al., 1984; Luftig, 1987) and in adolescents (Brage et al., 1993; Parkhurst & Asher, 1992), only one study compared adolescents to older age groups (Schultz & Moore, 1988). In addition, only two studies have directly compared groups of adolescents within the 10 to 18 age range (Brennan & Auslander, 1979, as cited in Brennan, 1982; Ostrov & Offer, 1978, as cited in Brennan, 1982).

Brennan and Auslander (as cited in Brennan, 1982) examined loneliness in their study in over 9000 adolescents, aged 10 to 18 in 10 U.S. cities. They found that approximately 10% to 15% of the adolescents indicated high scores on a self-
reported loneliness scale, with 54% of the adolescents agreeing with the statement “I often feel lonely.”

Ostrov and Offer (as cited in Brennan, 1982) studied over 5000 adolescents between the ages of 12 and 18. On the item, “I am so very lonely,” it was found that 22% of the boys and 20% of the girls, aged 12 to 16 agreed with the self-reported statement.

In summary, the results of these studies on loneliness in children suggest the prevalence of self-reported loneliness in children varies from 10% to 20% across populations. Due to the many implications of loneliness, 10% to 20% is a significant percentage of students whose feelings of loneliness may result in various long-term negative outcomes.

**Loneliness and Learning Disabled Status**

As discussed, previous research has found loneliness to be associated with negative outcomes and a significant percentage of regular education students have reported feelings of loneliness. The literature on loneliness in the LD population, however, is scarce, but suggests that an even greater percentage of LD students may be reporting feelings of loneliness (Sabornie, 1994; Tur-Kaspa et al., 1998).

Tur-Kaspa et al. (1998) examined the causal attributions of students’ feelings of loneliness in an LD group as compared to a Non-LD (NLD) group. The LD group consisted of 36 eighth grade boys who had been identified as LD. These students were selected from six classrooms in a special school for students
with LD. The NLD group consisted of 34 boys who were not identified as LD. These students were randomly selected from three classes in a regular public school and were matched to the LD group on grade and age. Two of the scales administered were the Revised UCLA Loneliness Scale and the Social Skills Rating System (SSRS). A comparison was made between students' self-reported feelings of loneliness and teachers' ratings of their social skills. It was found that the LD group reported significantly higher levels of loneliness than did their NLD peers. In addition, they found that in the LD group, feelings of loneliness were significantly inversely related to the SSRS subscale of assertion skills. However, two limitations of this study should be noted. First, there may be gender and age differences in the perception of loneliness and this study only included 8th grade boys. Secondly, in the LD group, the boys attended a special education school. There may be differences in self-reported feelings of loneliness in LD students who participate in other settings, such as inclusive classrooms and pull-out resource rooms.

Sabornie (1994) examined social-affective characteristics including loneliness and social competence in groups of LD students as compared to NLD students. They administered the ILSDS to students in the sixth and seventh grades in six suburban middle schools in the southeast. They found that the two groups differed significantly on loneliness, with the LD group expressing more loneliness. The regular education teachers rated the social competence of the two groups of
students using the Walker-McConnell Scale of Social Competence and Social Adjustment (WMC). The two groups differed significantly on the WMC, with the NLD group's social competence being rated higher than the LD group.

The research on loneliness in the LD population is not only limited but also has found inconsistent results. Vaughn, Elbaum, and Schumn (1996) examined the social functioning of three groups of students: LD, low achieving, and average/high achieving. One aspect of the students' social functioning was their self-perceptions of loneliness. Participants in the study were 64 students in the 2nd, 3rd, and 4th grades who participated in inclusive classrooms. They were given the ILSDS. It was found the LD students did not demonstrate significantly higher ratings of loneliness than the other two groups. It should be noted that all of these students participated in inclusive classrooms and no comparison was made with LD students who participated in pull-out resource room settings.

In summary, we still know very little about loneliness and the LD population. The literature is not only scarce but inconsistent as well. Sabornie (1994) and Tur-Kaspa et al. (1998) found that the LD population experiences higher levels of loneliness than the RE population. On the other hand, Vaughn et al. (1996) found no significant differences in students' perceptions of loneliness in the two populations. These studies should be interpreted with caution for several reasons. Tur-Kaspa et al. studied only male participants who attended a special education school in Israel and the results may not generalize to populations in the
United States. Sabornie studied only 6th and 7th graders who participated in pull-out resource rooms. Vaughn et al. (1996) only studied 2nd and 3rd graders who participated in inclusive classrooms.

What are Social Skills and Social Competence?

Social skills are "socially acceptable behaviors that enable a person to interact effectively with others and to avoid socially unacceptable or aversive responses from others" (Gresham, 1997, p. 48). When exhibited, or not exhibited, in school settings, these specific behaviors or behavior patterns can be a predictor of various social outcomes. Some of these social outcomes include (a) peer acceptance, (b) judgments of social competence by teachers, (c) academic achievement, (d) self concept, and (e) appropriate behaviors in the classroom (Gresham, 1983; Gresham, 1997). Social competence, on the other hand, is a term used to evaluate whether or not a person has performed a particular social task in a given situation. These judgments may be based on the opinions of others such as parents or teachers, comparisons to a certain criteria, or comparisons to a normative sample (McFall, 1982). In other words, social skills are specific behaviors that cause others to make judgments about those behaviors. Social skills can then be divided into acquisition deficits and performance deficits (Gresham, 1997). In acquisition deficits, a student lacks the knowledge to perform a particular social task. In performance deficits, a student has the knowledge to perform these social tasks but fails to do so at the appropriate times.
When students enter school, it is expected that they demonstrate the ability to meet the demands of teacher-related and peer-related domains of social competence (Walker, Irvin, Noell, & Singer, 1992). The teacher-related domain includes (a) compliance, (b) following rules, (c) controlling anger, (d) producing acceptable work, and (e) responding to teacher corrections. Meeting these demands will result in teacher acceptance and successful achievement. The peer-related domain includes (a) cooperating with peers, (b) supporting peers, (c) leading peers, (d) defending self in arguments, and (e) complimenting peers. Meeting these demands will result in peer acceptance and friendships. However, failure to meet these demands will result in social rejection.

The many hours children spend at school provide opportunities for students to learn social skills and develop friendships. But children who lack social skills and have problems with peer relations may not take advantage of these opportunities. Eventually it becomes a cycle where a lack of social skills prevents the development of meaningful relationships and a lack of relationships leads to further social withdrawal (Rubin et al., 1990). Children who are socially withdrawn are at a greater risk for developing an increased sense of loneliness (Renshaw & Brown, 1993).

**Social Skills and Regular Education**

As previously discussed, students who are classified as unpopular, can be divided into two subgroups: rejected and neglected. In the loneliness literature,
studies with kindergarten, elementary, and middle school students found that rejected students reported higher levels of loneliness (Asher & Wheeler, 1985; Cassidy & Asher, 1992; Parkhurst & Asher, 1992). In the social skills literature, rejected students have been found to evidence poorer social skills than nonrejected students (Coie & Kupersmidt, 1983; Dodge, 1983; Stuart, Gresham, & Elliott, 1991).

Stuart et al. (1991) contrasted social skills between popular and rejected students in kindergarten through 6th grades. A total of 336 students were first identified as popular or rejected using peer nomination. The final sample consisted of 25 students identified as rejected and 24 students identified as popular who were equally distributed across grade levels. The SSRS teacher-form was administered, and it was found that rejected students were rated as having fewer social skills than the popular children including lower scores on each of the subscales (self-control, cooperation and assertion).

Other studies have consistently found that children classified as rejected demonstrate higher levels of aggression, noncompliance and withdrawal together with lower levels of positive social behaviors (Coie, Dodge, & Kupersmidt, 1990; Newcomb, Bukowski, & Pattee, 1993; Price & Dodge, 1989). The antisocial behaviors such as verbal aggression and physical aggression that children demonstrate and the lack of prosocial behaviors such as social conversation and physical affection during play are an important part in determining their social
status with their peers (Coie & Kupersmidt, 1983; Dodge, 1983).

Coie and Kupersmidt (1983) identified a group of popular, rejected, neglected and average fourth grade boys. Five groups of boys were assembled with each group containing one boy from each social status. One group was selected from each of five schools so that the boys in each group knew each other. These five groups were the familiar groups. The five unfamiliar groups consisted of one boy from each type who attended a different school so the boys did not know each other. The boys participated in play groups. After six weeks, each boy was interviewed and asked to name the boy he liked most and the boy he liked least in his group. Then they were asked to name the boy in his group (including himself) who fit each of five behavior descriptions (Leader, Starts fights, Shy, Disruptive, and Cooperative). It was found that social status was reestablished when the boys were placed in groups with familiar peers and when placed in groups with totally unfamiliar peers. Dodge’s investigation (1983) found consistent results. The social status of rejected boys was reestablished in the familiar groups as well as the unfamiliar groups.

In summary, the status of rejected children was found to be stable across time (Coie & Dodge, 1983; Coie & Kupersmidt, 1983; Dodge, 1983). In other words, once a child is classified as rejected, regardless of whether or not he changes his environment, it is very difficult to escape that label. Therefore, identifying at-risk children as early as kindergarten or even preschool and
providing interventions to change their behaviors to more positive social behaviors could make a difference in how a child is perceived throughout his school years.

Social Skills Deficits and Special Education Status

In the special education population, researchers have found a strong relationship between special education status and difficulties in social skills and peer acceptance (Gresham, 1992; Gresham & Elliott, 1990; Merrell, Johnson, Merz, & Ring, 1992; Swanson & Malone, 1992).

Gresham and Elliott (1990) compared a group of children identified as learning disabled (LD) to a group of children in regular education (RE) using the teacher, parent, and self-report forms of the SSRS. The results indicated significant differences between LD and RE students across all three raters suggesting that LD students demonstrate fewer social skills than RE students. However, the ratings of the teachers indicated fewer social skills for the LD group than did the ratings of either the parents or the children themselves.

Merrell et al. (1992) examined social skills deficits across categories of disabilities. Specifically, a comparison was made of social skills deficits among learning disabled (LD), mentally retarded (MR), and behavior disordered (BD) students. Students with disabilities demonstrated greater social skills deficits than students without a disability. Furthermore, no difference in the social skills ratings among the groups of students with LD or MR disabilities was found. However, there was a significant difference in the social skills ratings of BD students, with
the BD students demonstrating poorer social skills.

Swanson and Malone (1992) conducted a meta-analysis of studies that compared learning disabled students to average achieving students on measures of social skills and peer acceptance. The authors only included studies that directly compared children with learning disabilities to average achieving students on at least one measure of social acceptance or social skills. Thirty-nine studies were identified and included in the analysis which concluded that students with learning disabilities have fewer social skills and are more poorly accepted than students without learning disabilities.

Gresham (1992) reviewed evidence regarding the social competence of learning disabled students. Three hypotheses for the explanation of social skills deficits in LD students have been discussed in the literature: (a) causal, suggesting the social skills deficits are caused by the central nervous system; (b) concomitant, where social skills deficits are the result of academic deficits, and (c) correlational, where social skills and academic skills are correlated but there is no cause and effect relationship between them. Gresham found very little evidence that social skills deficits are caused by central nervous system dysfunction or are the result of academic deficits. Gresham suggests that the research reviewed in his study supports the correlational hypothesis in explaining the relationship between social skills deficits and LD students.
In summary, there appears to be a strong relationship between level of social skills and special education status. In addition, the studies suggest that there is no difference in the social skills deficits ratings among groups of mentally retarded and learning disabled students.

Purpose of Current Study

Given the evidence for the implications of loneliness, it is important to further the understanding of loneliness in LD children and RE children. The previous review of the literature indicated that loneliness is experienced by significant numbers of school-aged children and that loneliness has been associated with a variety of negative outcomes. We know that children who rate themselves lonely tend to be rejected by peer groups. We also know that children who are rejected by peer groups lack social skills. Thus, one might speculate that there is a relationship between perceived loneliness and level of social skills.

There is a need to know more about children who perceive themselves as lonely and who perceive themselves as lacking social skills. If one can establish that loneliness and social skills are related, then one possible avenue for treatment may be to utilize a social skills intervention. If there are developmental differences with regard to loneliness, and loneliness is prevalent in elementary children, social skills interventions can be implemented at an early age to negate the negative outcomes. If not, the implications of experiencing loneliness may continue to adversely affect these children for the rest of their lives.
The purpose of this study is to compare self-reports of loneliness and social skills between learning disabled students and regular education students.

Specifically, it is hypothesized that

1. When comparing a group of learning disabled children and their peers in regular education matched on gender, age, grade, and ethnicity, learning disabled children will show a statistically higher mean on their self-ratings of loneliness than the regular education children.

2. When comparing a group of learning disabled children and their matched peers in regular education, learning disabled children will show a statistically lower mean on their self-ratings of social skills than the regular education children.

3. The correlation between self-ratings of social skills and self-ratings of loneliness will be significantly stronger for the learning disabled group than for the regular education group.
Chapter II

Method

Subjects

Participation in the study involved a sample of Learning Disabled (LD) and Regular Education (RE) students in third through sixth grades. The RE students were randomly drawn from three classrooms in each grade level and matched to the LD group on gender, age, grade, and ethnicity. The students in the LD group were classified as learning disabled in accordance with Kentucky state guidelines and participated in pull-out resource room settings rather than inclusive classrooms. Each group was comprised of 24 males and 7 females (see Table 1). Age of the LD sample ranged from 120 to 162 months, with a mean of 137.71 months. Age of the RE sample ranged from 114 to 157 months, with a mean of 134.35 months. All participants were Caucasian. The participants were enrolled in six schools in two small rural Kentucky counties in the United States.

A consent form (see Appendix A), approved by the Western Kentucky University Human Subjects Review Board (see Appendix B), was sent home with each child. The children were informed that they would receive a reward if they returned the signed form. If the students returned the signed form, regardless of
Table 1

Demographic Characteristics of the Sample Population

<table>
<thead>
<tr>
<th>Group</th>
<th>LD (n=31)</th>
<th>RE (n=31)</th>
<th>Total (n=62)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>24</td>
<td>24</td>
<td>48</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>31</td>
<td>31</td>
<td>62</td>
</tr>
<tr>
<td>Non-Caucasian</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grade Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 3</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Grade 4</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Grade 5</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Grade 6</td>
<td>9</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Mean Age (in months)</td>
<td>137.71</td>
<td>134.35</td>
<td>136.03</td>
</tr>
</tbody>
</table>

*Note. LD = Learning Disabled; RE = Regular Education.*
whether or not the parent gave consent, the reward of a pencil was given.

Measures

The Illinois Loneliness and Social Dissatisfaction Scale (ILSDS) -- a 24-item, self-report questionnaire -- was developed by Asher et al. (1984) to assess children's feelings of loneliness (see Appendix C). The ILSDS is the most widely used scale for measuring loneliness in children (Asher & Hopmeyer, 1997). Permission was obtained by the author of the ILSDS for duplication for research purposes (see Appendix D). There are sixteen items on the scale which focus on identifying feelings of loneliness (e.g., “I feel alone”), feelings of social inadequacy (e.g., “I get don’t get along with other kids”) or subjective estimations of peer status (e.g., “I don’t have any friends”). The other eight items on the scale focus on activities that children enjoy. These items included statements such as “I like to read.” The purpose of these other eight items was to make children feel more comfortable about disclosing information about their feelings on various subjects. The students responded to each of the 24 items on the ILSDS using a five-point scale to describe themselves. The scale is on a continuum with scores ranging from 1 to 5 (i.e., always true, true most of the time, true sometimes, hardly ever true and not true at all). Some of the items are reversed items.

Responses for each of the 16 items on the scale are summed to create a total loneliness score for each child. For the purposes of this study, a mean of 32.51 and a standard deviation of 11.82 will be used. These measures are based on
Asher, Hymel, and Renshaw's (1984) figure obtained in a sample of 506 children. Total scores can range from a low loneliness score of 16 to a high loneliness score of 80. Scores falling below one standard deviation from the mean of the entire sample are considered in the low loneliness range. Scores falling within one standard deviation of the mean are considered in the average range. Scores falling above one standard deviation of the mean are considered in the high loneliness range.

Asher et al. (1984) reported the scale to be internally consistent (Cronbach’s alpha = .90) and internally reliable (split-half correlation between forms = .83; Spearman-Brown reliability coefficient = .91; Guttman split-half reliability coefficient = .91). Luftig (1987) found the reliability of the scale to range from .84 (second grade) to .93 (sixth grade). Asher and Wheeler (1985) modified the scale to be explicitly school focused on each item (i.e., “I feel alone” was changed to “I feel alone at school”). Because they modified the scale, they replicated the original reliability test. The modified scale was found to still be internally consistent (Cronbach’s alpha = .90). Asher and Wheeler concluded that modifying the scale to be school-focused did not jeopardize the psychometric properties of the scale.

Asher et al. (1984) and Luftig (1987) have provided adequate data to confirm the high reliability of the scale. Luftig also investigated the validity of the scale. A sample of five teachers were asked to nominate children in their
classrooms who appeared to be lonely. These ratings were then correlated with self-ratings of the children in the classrooms during a pilot study. The correlation between teacher ratings and self-ratings was .81, which indicated substantial concurrent validity. However, this finding must be viewed cautiously because of the small sample size.

The SSRS was developed by Frank M. Gresham and Stephen N. Elliott (1990) to assess children’s feelings of their own social behavior problems. The SSRS consists of teacher, parent, and student forms; however, this study and review will use the student form that assesses children in grades 3 through 6. The student form of the scale consists of 34 items, and students are asked to rate the frequency of a specified behavior on a 3-point scale (0 = Never, 1 = Sometimes, 2 = Very Often). The student form yields scores for a total social skills scale which has four subscales: Cooperation, Assertion, Self-Control, and Empathy. Cooperation items include behaviors such as helping others and sharing materials. Assertion items include behaviors such as asking others for information and introducing oneself. Self-control items include behaviors such as responding appropriately to teasing and taking turns. Empathy items include behaviors that show concern and respect for others’ feelings and viewpoints. The raw scores of each subscale and the total are then interpreted according to behavior levels. Behavior levels (i.e. fewer, average, more) are description methods for interpreting social skills in comparison to the standardization sample. In general, raw scores
within one standard deviation of the mean are considered to be in the Average range. Raw scores above one standard deviation of the mean are considered to be More. Raw scores below one standard deviation of the mean are considered to be Fewer. The words Fewer, Average, and More can be interpreted as referring to amounts or frequencies of behavior. Thus, a Behavior Level of Fewer can be interpreted as meaning the student exhibits fewer positive social skills than the average for the standardization group. The subscale scores are then added together for a total score which is converted into a standard score.

Across all forms (teacher, parent, and student) and all scales (cooperation, assertion, responsibility, empathy, and self-control), the median coefficient alpha reliability for the Social Skills Scale was .90. The internal consistency estimates for all forms ranged from .83 to .94 for the Social Skills total overall score. The internal consistency estimate for the elementary student form was .83. Overall, these coefficients indicate a relatively high degree of scale homogeneity (Benes, 1995). However, Furlong and Karno (1995) suggested that only the total score of the elementary student form has adequate reliability.

The authors addressed content validity by indicating the SSRS items were developed based on extensive empirical research of children's social behaviors. A major source of content validity involved the use of importance ratings to provide meaningful content validation in terms of the social significance for items included in the scale. Teachers rated social skills according to each behavior's importance
for classroom success.

Criterion-related validity was established by correlating the SSRS Student form with the Child Behavior Checklist-Youth Self-Report form (YSR). The YSR is designed for students between 11 and 18 years of age and measures Externalizing Syndromes, Internalizing Syndromes, and Total Behavior Problems. It also provides a total social competence score and scores for subscales within the Social Competence domains of Activities, Social Functioning, and School Functioning. Low to moderate correlations (−.48−.03), were found between the SSRS and subscale scores and the YSR Externalizing, Internalizing, and Total Problem scores. Virtually all correlations between SSRS Student Subscale scores and the YSR Social competence subscale scores were near zero and nonsignificant. However, Cooperation and Assertion on the SSRS Subscale and the YSR Total Social Competence scores had low but significant correlations.

Several studies have examined the construct validity of the SSRS. The consistent findings offer evidence in support of the construct validity of the SSRS. The studies include the following:

**Gender differences.** Differences in the ratings of male and female students were substantial for the total SSRS. Teachers, parents, and students consistently gave higher ratings to female students at almost every grade level. Consistent gender differences were also found for the Problem Behaviors scale. Teachers and parents rated males as more frequently exhibiting problem behaviors than females.
The observed patterns of gender differences - boys higher in disruptive problem behaviors and girls higher in social skills - is consistent with the underlying theory of the SSRS that exhibiting problem behaviors may serve to inhibit the development or performance of social skills.

**Internal consistency.** The SSRS median coefficient alpha reliability for the Social Skills Scale was .90. The high intercorrelation of the items indicates that the items assess unitary underlying constructs.

**Factor analyses.** One set of analyses was made for each form of the SSRS. A separate factor analysis was made for each of the domains. Factor analyses were conducted on the items within the social skills domain. Items with factor loadings of .30 or greater were considered to load on a given factor. On the elementary student form, there are ten subscale items with factor loadings below .30. Nine of the items are on the Cooperation and Assertion subscales which suggests that independent interpretation of these two subscales should be done cautiously (Furlong & Karno, 1995).

The SSRS has been evaluated to be a psychometrically sound means of measuring the perceived social skills of elementary age students (Benes, 1995). However, the limitations cited above should be taken into consideration when interpreting the SSRS.

**Procedure**

The researcher explained the procedure to the students in each classroom
(see protocol in Appendix E). The students were assured that their responses would be strictly confidential and anonymous, and they were asked to answer the questions as accurately as possible. Students first completed a demographic survey that included information regarding their gender, race, grade, and ethnicity (see Appendix F). The demographic survey was then collected by the researcher to insure that no personal data was connected to the scale. A coding system was implemented where each sheet in a packet of information was assigned the same number so that a matching for purposes of analysis could be obtained. Then instructions were given to the students before administering the ILSDS to all students in the classroom. Instructions included example items (e.g., I like volleyball) to train the children in using the rating scale. After giving the instructions, the researcher read each item to the students and waited until each student had written a response before moving on to the next item. The children, as a group, were administered the scale in their regular classroom by this researcher. The scale was collected when all of the students had completed the scale.

Next, instructions were given for the SSRS. After giving the instructions, this researcher read each item to the students and waited until each student had written a response before moving on to the next item.

In order to control for order of administration, one-half of the classrooms were given the demographics survey, the ILSDS, and the SSRS. The other half of the classrooms were given the demographics survey, the SSRS, and the ILSDS.
Participants needed approximately 30 minutes to complete the demographic survey, the ILSDS and the SSRS.

Analysis

Descriptive statistics for the sample were obtained including frequencies, means, and ranges for matching variables.

To address Hypothesis 1 (learning disabled children will show a statistically higher mean on their self-ratings of loneliness on the ILSDS than the regular education children), independent samples t-tests were computed to test for the significance between the regular education and learning disabled groups on the ILSDS.

To address Hypothesis 2 (learning disabled children will show a statistically lower mean on their self-ratings of social skills on the SSRS than the regular education children), independent samples t-tests were computed to test for the significance between the regular education and learning disabled groups on the SSRS.

The Pearson r correlation coefficient was used to determine the strength of the relationship between the ILSDS and the SSRS for the learning disabled sample and again for the regular education sample.
Chapter III

Results

Preliminary Analysis

An internal reliability analysis was performed on the ILSDS for the LD group in order to establish the scale's reliability for use with LD students. The corrected item-total correlations, along with the means and standard deviations, are shown in Table 2. With few exceptions, these are moderately strong and positive. The internal reliability coefficient (alpha) was .84. These results show that the scale possesses adequate internal reliability for the LD group, as well as confirms the scale measures one construct - loneliness. Consistent with previous findings, the internal reliability coefficient (alpha) for the RE group was .90 (Asher et al., 1984).

Primary Analyses

Group descriptive statistics for the ILSDS and the SSRS can be found in Table 3. To examine differences between the LD and RE groups on self-ratings of loneliness, mean scores on the ILSDS were compared. The first hypothesis predicted that the LD group would exhibit a statistically higher mean than the RE group on the ILSDS. As predicted, the LD group (M=30.97) showed a
Table 2

Means, Standard Deviations and Item-Total Correlations for the Learning Disabled
Group on the Illinois Loneliness and Social Dissatisfaction Scale

<table>
<thead>
<tr>
<th>Scale item</th>
<th>M</th>
<th>SD</th>
<th>Item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It's easy for me to make new friends at school.</td>
<td>2.23</td>
<td>1.02</td>
<td>.57</td>
</tr>
<tr>
<td>3. I have nobody to talk to in class.</td>
<td>2.06</td>
<td>1.53</td>
<td>.42</td>
</tr>
<tr>
<td>4. I'm good at working with other children in class.</td>
<td>2.06</td>
<td>1.15</td>
<td>.27</td>
</tr>
<tr>
<td>6. It's hard for me to make friends at school.</td>
<td>2.16</td>
<td>1.44</td>
<td>.61</td>
</tr>
<tr>
<td>8. I have lots of friends in my class.</td>
<td>1.87</td>
<td>1.26</td>
<td>.60</td>
</tr>
<tr>
<td>9. I feel alone at school.</td>
<td>2.03</td>
<td>1.52</td>
<td>.69</td>
</tr>
<tr>
<td>10. I can find a friend in my class when I need one.</td>
<td>1.65</td>
<td>1.08</td>
<td>.32</td>
</tr>
<tr>
<td>12. It's hard to get kids in school to like me.</td>
<td>2.26</td>
<td>1.46</td>
<td>.53</td>
</tr>
<tr>
<td>14. I don't have anyone to play with at school.</td>
<td>1.97</td>
<td>1.45</td>
<td>.34</td>
</tr>
<tr>
<td>16. I get along with my classmates.</td>
<td>1.90</td>
<td>1.16</td>
<td>.38</td>
</tr>
<tr>
<td>17. I feel left out of things at school.</td>
<td>2.06</td>
<td>1.29</td>
<td>.43</td>
</tr>
<tr>
<td>18. There's no other kids I can go to when I need help at school.</td>
<td>1.74</td>
<td>1.18</td>
<td>.50</td>
</tr>
<tr>
<td>20. I don't get along with other children in school.</td>
<td>1.84</td>
<td>1.34</td>
<td>.40</td>
</tr>
<tr>
<td>21. I'm lonely at school.</td>
<td>1.74</td>
<td>1.24</td>
<td>.47</td>
</tr>
<tr>
<td>22. I am well liked by the kids in my class.</td>
<td>2.16</td>
<td>1.29</td>
<td>.40</td>
</tr>
<tr>
<td>24. I don't have any friends in class.</td>
<td>1.23</td>
<td>.62</td>
<td>.53</td>
</tr>
</tbody>
</table>
Table 3

Group Descriptive Statistics for the Sample on Total Scores of the Illinois Loneliness and Social Dissatisfaction Scale and the Social Skills Rating System Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILSDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>30.97</td>
<td>11.11</td>
<td>16-60</td>
</tr>
<tr>
<td>RE</td>
<td>26.23</td>
<td>9.42</td>
<td>16-55</td>
</tr>
<tr>
<td>SSRS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>50.74</td>
<td>12.99</td>
<td>25-74</td>
</tr>
<tr>
<td>RE</td>
<td>63.87</td>
<td>6.32</td>
<td>47-72</td>
</tr>
</tbody>
</table>

Note. LD = Learning Disabled; RE = Regular Education
significantly higher mean than the RE group ($M=26.23$), with a one-tailed independent samples t-test indicating significance between mean group differences ($t = 1.81$, df = 60, $p < .05$).

The second hypothesis explored mean group differences on the SSRS. It was predicted that the LD group would show a statistically lower mean on their self-ratings of social skills than the RE group. A one-tailed independent samples t-test supported the prediction by establishing significance between mean group differences, ($t = -5.06$, df = 60, $p < .000$).

The third hypothesis addressed the strength of the correlation between the ILSDS and SSRS for each group. It was hypothesized that the LD group would exhibit a significantly stronger correlation between the ILSDS and the SSRS than the RE group. A Pearson r correlation coefficient was computed for each group using the total raw scores for each measure. Neither group showed a significant correlation between loneliness and social skills (see Table 4). However, when both groups were combined, a significant negative correlation was found ($r = -.29$, $p < .01$). Because there was no significant correlation between loneliness and social skills for either individual group, the Fisher r to z transformation to determine significance between group correlations was not necessary.

In order to examine these findings more closely, a correlational analysis of the ILSDS and the SSRS subscales (cooperation, assertion, empathy, and self-control) was performed. The results of this analysis (see Table 5) revealed
Table 4

Correlations Between the Raw Scores on the Illinois Loneliness and Social Dissatisfaction Scale and the Social Skills Rating System Scale

<table>
<thead>
<tr>
<th>ILSDS</th>
<th>SSRS</th>
<th>LD</th>
<th>RE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD</td>
<td></td>
<td>-.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE</td>
<td>--</td>
<td></td>
<td>-.28</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td>--</td>
<td></td>
<td>-.29*</td>
</tr>
</tbody>
</table>

*Note. LD = Learning Disabled; RE = Regular Education; Total = LD and RE combined.

*p < .01.
Table 5

Correlations Between the Raw Scores on the Illinois Loneliness and Social Dissatisfaction Scale and the Social Skills Rating System Subscales

<table>
<thead>
<tr>
<th>SSRS</th>
<th>ILSDS</th>
<th>LD</th>
<th>RE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>-.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE</td>
<td>--</td>
<td>-.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td></td>
<td>--</td>
<td>-.21*</td>
</tr>
<tr>
<td>Assertion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>-.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE</td>
<td>--</td>
<td>-.46**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td></td>
<td>--</td>
<td>-.38**</td>
</tr>
<tr>
<td>Empathy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>-.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE</td>
<td>--</td>
<td>-.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td></td>
<td>--</td>
<td>-.27*</td>
</tr>
<tr>
<td>Self-control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>-.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE</td>
<td>--</td>
<td>-.32*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td></td>
<td>--</td>
<td>-.27*</td>
</tr>
</tbody>
</table>

Note. LD = Learning Disabled; RE = Regular Education; Total = LD & RE groups.

*p < .05.

**p < .01.
significant negative correlations for the RE group on the assertion and self-control subscales ($r = -.46, p < .01$ and $r = -.32, p < .05$, respectively). Additionally, combined group correlations for each subscale and the ILSDS yielded significant negative results for all subscales.
Chapter IV
Discussion

Experimental Findings

Prior to addressing the specific research questions of this study, an internal reliability analysis was conducted on the ILSDS for the learning disabled students (LD). The purpose behind this analysis was to establish the scale’s use with LD students. Asher et al. (1984) reported that the scale was internally consistent for use with regular education students (RE), finding Cronbach’s alpha to equal .90. The present study replicated these findings for the RE students (alpha = .90) as well as established internal reliability for the scale’s use with LD students (alpha = .84).

Many LD students have been found to not only have poor peer relationships but also to be less accepted by their peers (Gresham, 1992; Gresham & Elliott, 1990; Merrell et al., 1992; Swanson & Malone, 1992). More recent investigations have begun to support that LD students experience significantly higher levels of loneliness as compared to students without learning disabilities (Sabornie, 1996; Tur-Kaspa et al., 1998). In an attempt to support this contention, the first objective of this study was to compare mean scores on the ILSDS between a group
of LD students and a group of RE students. As with the previous research, the LD
group exhibited a statistically higher mean than the RE group. Even with a
relatively small sample, self-ratings of loneliness were significantly higher for LD
students. However, the mean for the LD group was lower than the mean for the
ILSDS indicating that the overall group score was slightly lower than average. An
examination of individual scores revealed that only 4 LD students were high in
loneliness.

With regard to social skills, it has been supported in the literature and
generally accepted that the majority of LD students have significantly lower social
skills than RE students (Gresham, 1992; Gresham & Elliott, 1990; Merrell et al.,
1992; Swanson & Malone, 1992). Therefore, the second objective of the current
study was to replicate these findings. As expected, significantly lower social skills
were found for the LD students than the RE students. When converted to standard
scores, the mean for LD girls was 96 and the mean for the LD boys was 98 as
compared to the SSRS mean of 100. These findings indicate that for this sample
most LD girls and LD boys rated themselves to be average in their self-perceptions
of social skills.

The final objective and main goal of the present study was to examine the
relationship between loneliness and social skills for children at school. Although
limited, past research has found some support for a connection between loneliness
and social skills (Tur-Kaspa et al., 1998) The importance of making this
connection centers around the development of interventions designed to prevent increased levels of loneliness. Social skills deficits in students who report moderate levels of loneliness may not be easily detected by classroom teachers. For example, a moderately lonely student may exhibit deficits in initiating and maintaining a conversation, while a non-lonely student with deficits may exhibit more obvious behaviors such as poor anger management. In this example, a classroom teacher is more likely to attend to the more obvious deficits of the non-lonely student. It is the contention of this author that early identification is imperative in preventing higher levels of loneliness, which may then lead to long-term negative outcomes.

The present investigation found no significant correlations between the ILSDS and the SSRS or between the ILSDS and the SSRS subscales for the LD students. This finding is consistent with the results found by Vaughn et al. (1996). Vaughn et al. compared self-reports of loneliness among groups of LD, Low Achieving (LA) and Average/High Achieving (AHA) students who participated in inclusive classrooms in the 3rd and 4th grades. The LD group did not demonstrate significantly higher self-ratings of loneliness than the LA or AHA groups.

Additional analyses found significant negative correlations for the RE group between loneliness and two of the social skills subscales (assertion and self-control). The negative correlation between loneliness and the assertion subscale is
expected and supported by research. Many lonely children are less assertive (Rubin, 1985; Rubin et al., 1990; Tur-Kapsa et al., 1998). This inverse relationship between loneliness and assertiveness is consistent with the results found by Tur-Kapsa et al. However, Tur-Kapsa et al. found that self-ratings of loneliness was negatively related to the assertion subscale on the SSRS in the LD group but not in the NLD group.

The significant negative correlation with self-control, on the other hand, is not necessarily expected. Previous research, although limited, suggests that self-controlling behaviors may not be linked to loneliness (Tur-Kapsa et al., 1998). The negative correlation found here is otherwise suggestive. When we refer to the previous literature on loneliness in children, we find that rejected children report the highest levels of loneliness (Asher & Wheeler, 1985). However, rejected children can be divided into the two subgroups of aggressive-rejected and submissive-rejected, with the submissive-rejected reporting the most loneliness (Parkhurst & Asher, 1992; Rubin, 1985; Rubin et al., 1990). In general, we tend to think of self-controlling behaviors as related to aggressive behavior. Since it is not the aggressive children that are the loneliest, but rather the submissive children, we might expect a negative correlation between loneliness and the other subscales of assertion, empathy and cooperation rather than a negative correlation with self-control. However, on the SSRS, the self-control subscale includes some items on which rejected-submissive students might report low scores. Some of
these items include:

1. I tell new people my name without being asked to tell it.

2. I ask friends for help with my problems.

3. I ask adults for help when other children try to hit me or push me around.

4. I talk things over with classmates when there is a problem.

Based on previous research, submissive-rejected students tend to be withdrawn, unassertive, and have infrequent interactions with peers (Rubin, 1985; Rubin et al., 1990). It is plausible that these submissive-rejected students who report high levels of loneliness might score themselves low on these types of social skills which involve talking to new people, asking friends and adults for help, and talking things over with classmates.

To date, there is not enough existing information on self-control and loneliness to fully explain this discrepancy. However, a relationship between loneliness and the subscales of Assertion and Self-control may indicate that increasing assertion and self-control skills may be a plausible intervention to protect or inoculate students against loneliness. Thus, it would be logical for social skills interventions for the RE population to focus on teaching skills in these two particular areas. It should be noted, however, that when analyzing data at the subscale level, results should be interpreted cautiously. As previously noted, Furlong and Karko (1995) indicated that only the total score for the student form has adequate reliability and due to low factor loadings on certain items, the
Cooperation and Assertion subscales should be cautiously interpreted independently.

When the LD and RE student groups were combined, the correlation between the ILSDS and both the SSRS and subscales were all significant. Given the initial findings reported above, this result is a curious occurrence. One plausible explanation relates to the size of the sample. The size of the sample was doubled when the ILSDS and the SSRS were correlated for the whole group. Therefore, the lack of significance found for each individual group may be due in part to a small sample size and therefore lack of statistical power.

In looking at these findings, where the LD group did not show any significant correlation between loneliness and social skills, we must consider the number of students who actually reported loneliness in the sample. In this LD sample, only 4 students out of 31 students reported high levels of loneliness. The mean score for the LD group was 30.97. Scores above 32.51 are considered high. As would be expected, the RE group reported an even lower number of students with high loneliness. These findings are consistent with previous research which indicates loneliness is estimated to affect 10% to 20% of all students. Based on this estimate, in our LD sample of 31, it would be expected that only 3-6 students would report feelings of high loneliness. It is possible that these low numbers of reported loneliness may be a contributing factor to finding no significant correlation between loneliness and social skills for the LD and RE groups.
Limitations

Variables have been identified that can be considered threats to the internal and external validity of a study (Bracht & Glass, 1968; Campbell & Stanley, 1963; Cook & Campbell, 1979). Of those variables identified, the following limitations are related to this particular study.

**Internal Validity.** The first limitation involves the use of a 5-point Likert scale such as that used by the ILSDS. Because this scale requires the students to choose among five choices, this type of scale may not be the most appropriate method of obtaining information for younger students.

Secondly, there could be some sample bias in that some students who were eligible for the LD group did not grant permission. However, all of the LD students whose parents signed the consent, indicating permission to participate, were included in the study.

**External Validity.** The first limitation that may have affected the external validity of this study involves the sample population. In addition to its small size, the sample was comprised of Caucasian children from rural, mid-southern communities. Also, participants were predominantly male. The restrictive sampling process with regard to size, gender, ethnicity, and geographic location may have been a contributing factor in the results obtained.

Another limitation involves the use of self-report measures. The use of these types of scales raises questions about the possibility of socially desirable
Although two self-report scales were administered, it is not believed that there were any multiple treatment interferences. In order to control for order, administration of the ILSDS and SSRS was counterbalanced with one-half of the classrooms given the demographics survey, the ILSDS and the SSRS. The other half of the classrooms were given the demographics survey, the SSRS and the ILSDS.

Future Research

The findings of the present investigation lead to further questions and therefore recommendations for future investigations. Considering the restrictive nature of this sample, it would be desirable to replicate this investigation with larger and more heterogeneous samples that will more appropriately represent the national population. This larger sample will lead to an increase in the statistical power and generalizability of the results.

Furthermore, it is suggested that future research first identify a group of LD students who either score high on the ILSDS or score low on the SSRS. This approach will ensure that an adequate number of students in the sample are either experiencing feelings of loneliness or are lacking social skills, respectively. Then a comparison could be made between feelings of loneliness and the group’s self-reported social skills to determine if there is a significant correlation.
In addition, given the limitations of self-report measures and the need for validation of these ratings, future researchers may want to include peer and teacher ratings to further compare and investigate relationships.

Overall, the results of this study suggest that there is a need for future research in the area of loneliness and social skills in children. Children who are experiencing loneliness may suffer from symptoms such as shyness, depression and low self-esteem. These kinds of internalizing symptoms can result in later outcomes such as school withdrawal, criminality and victimization. If loneliness can be assessed through self-report instruments, early interventions may then be implemented. If there is a connection between loneliness and social skills, interventions that teach specific social skills could play an important role in alleviating these symptoms and preventing the later negative outcomes of loneliness.
References


Appendix A

Consent Form
Parent Consent Form

Dear Parents:

Your child is invited to participate in a study concerning children's feelings about their relationship with their peers. This study is being conducted by Diane Miller, School Psychologist Intern of Hancock County Public Schools, in conjunction with Dr. Libby Jones, Professor of School Psychology at Western Kentucky University. Results of this study may help school psychologists to design more effective interventions for children who are having difficulties with their peers.

This study will be conducted during one 30 minute session at your child's school. The entire class will participate at one time. Each student will fill out a questionnaire on loneliness and a questionnaire on social skills. It will be explained to the students that there are no right or wrong answers to these questions and to just say what they think or feel.

We emphasize that your child's participation in this project is entirely voluntary. If you or your child decide not to participate, it will have no negative outcome for you or your child in any way. Your child may refuse to answer any question and may withdraw from the study at any time. All information collected in this study will be strictly confidential. No names or identifying data will be available on any individual basis.

The procedures in this study have been reviewed and approved by the Western Kentucky University Committee for the Protection of Human Research Participants. The University has filed a form called "Assurance of Compliance with OPRR regulations for the Protection of Human Subjects" with the Department of Health and Human Services. If you have questions about the study, you may contact Diane Miller, School Psychologist Intern at the Hancock County Board of Education at (502) 927-6914 or Dr. Libby Jones, Committee Chairperson for this project at (502) 745-4414. We urge you to call if you have any questions. We will be happy to hear from you.

Thank you for your help.

Sincerely,

Diane Miller
School Psychologist Intern
Participant Consent Form

Child’s name: ___________________________________________ Date of birth: __________

Teacher’s name: ____________________________________________________________

Please mark “yes” or “no” and return this form to your child’s teacher so that we won’t continue to send you extra consent forms.

{ } “Yes” I have read the information provided about this study and give my consent for my child to participate in the group study conducted by Diane Miller of Hancock County Public Schools.

{ } “No” I do not give my consent for my child to participate in the group study.

Parent/Guardian’s signature: __________________________________________
Date: ______________

Your child’s class was informed that each child who returns the consent form will receive a small reward. If the students return the form, marked {yes} or {no} and signed, the reward will be given regardless of whether or not the parents give consent.
Appendix B

Human Subjects Review Board Approval
In future correspondence please refer to HS9918, January 13, 1999

Diane Miller
C/o Dr. Elizabeth Jones
Department of Psychology
Western Kentucky University

Dear Ms. Miller:

1. Your research project "Loneliness and Social Skills in Children: A Comparison of the Relationship Between Loneliness and Social Skills in Regular Education and Special Education Populations," has undergone review by the Western Kentucky University IRB for human subjects of research; and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects’ welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

2. In addition, the IRB found that: (1) informed consent will be sought and documented from each prospective subject; (2) provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data; and (3) that appropriate safeguards are included to protect the rights and welfare of the subjects. Please store all data securely at an on campus location for a minimum of three years following project completion.

3. Your research therefore meets the criteria of Full Board Review under the institutional human subjects protocol and is approved. Please note that the institution is not responsible for any actions regarding this protocol before approval. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. A Continuing Review protocol will be sent to you in the future but no less than a year from now to determine the status of the project.

Kindest regards.

Sincerely,

Phillip E. Myers, Ph.D.
Director, Office of Sponsored Programs and
Human Subjects Coordinator

c: Human Subjects File 9918
   Dr. Elizabeth Jones

HSMillerApproval9918
Appendix C

Illinois Loneliness and Social Dissatisfaction Scale
Loneliness and Social Dissatisfaction Scale

Please read each statement carefully. Select the number that best describes you and circle it.

1-Always True  2-True Most Of The Time  3-True Sometimes  4-Hardly Ever True  5-Not True At All

1. It's easy for me to make new friends at school...................... 1  2  3  4  5
2. I like to read................................................................. 1  2  3  4  5
3. I have nobody to talk to in class........................................ 1  2  3  4  5
4. I'm good at working with other children in my class............... 1  2  3  4  5
5. I watch TV a lot.............................................................. 1  2  3  4  5
6. It's hard for me to make friends at school............................ 1  2  3  4  5
7. I like school................................................................. 1  2  3  4  5
8. I have lots of friends in my class........................................ 1  2  3  4  5
9. I feel alone at school..................................................... 1  2  3  4  5
10. I can find a friend in my class when I need one.................... 1  2  3  4  5
11. I play sports a lot.......................................................... 1  2  3  4  5
12. It's hard to get kids in school to like me............................. 1  2  3  4  5
13. I like science............................................................... 1  2  3  4  5
14. I don't have anyone to play with at school......................... 1  2  3  4  5
15. I like music................................................................. 1  2  3  4  5
16. I get along with my classmates....................................... 1  2  3  4  5
17. I feel left out of things at school.................................... 1  2  3  4  5
18. There's no other kids I can go to when I need help at school... 1  2  3  4  5
19. I like to paint and draw................................................ 1  2  3  4  5
20. I don't get along with other children in school.................... 1  2  3  4  5
21. I'm lonely at school..................................................... 1  2  3  4  5
22. I am well-liked by the kids in my class............................. 1  2  3  4  5
23. I like playing board games a lot..................................... 1  2  3  4  5
24. I don't have any friends in class.................................... 1  2  3  4  5
Appendix D

Permission from author of Illinois

Loneliness and Social Dissatisfaction Scale
Dear Ms. Miller:

Your letter was forwarded to me at Duke University where I am a visiting professor in psychology this semester. You have my permission to use the Loneliness and Social Dissatisfaction Questionnaire and I will ask my secretary at Illinois to send you the measure and the instructions for their administration. Do you want the version that we used in our 1984 Child Development article, or the version that we used in our 1985 Journal of Consulting and Clinical Psychology article, or one of the adaptations we used in subsequent research (e.g., Cassidy & Asher, 1992; Parkhurst & Asher, 1992; Williams & Asher, 1992)? Please let me know after you have read these articles which one you prefer. Hopefully the information you need about psychometric properties is contained in the articles and in other articles by Shelley Hymel and Peter Renshaw.

As for the forthcoming book on children's loneliness, it is probably not going to be out for another year but my understanding is that it is now off to the publisher. You might want to contact the editor to see if you can get a table of contents. Then you could write a few of the authors for preprints for their chapter. Professor Ken Rotenberg's e-mail address is: kjrotenb@flash.Lakeheadu.ca. In the mean time, I will ask my secretary at Illinois to send you a copy of our chapter in the book.

Good luck with your literature review.

Sincerely,

Steven Asher
Appendix E

Protocol of Introductory Dialogue
**Introductory Researcher Dialogue**

**pass out packet to each student**

My name is Diane Miller. I am school psychologist intern in Hancock County. I am conducting research on how children feel about themselves, and I need to get some information from you.

Your name is not put on the form so I can’t tell who completes each form so your answers are completely private. If you have a problem with filling out this form, just come up and see me or raise your hand.

Please look at the first page of your packet which is an information sheet. Please complete the information requested. If you are a boy, check male. If you are a girl, check female. Check which race you are, what grade you are in, what your age is and the month and day of your birthday.

**allow one minute for the students to complete**

**collect demographics sheet**

This next page is one of the questionnaires that I would like you to complete. There are no right or wrong answers. You just answer the statement according to how you feel. Follow along with me. I'll read each statement to you and give you time to respond using the scale that is printed at the top of the page. Let's look at that five-point scale. No. 1 says Always True. If you read a statement and you feel that way all of the time, then you would circle the (1) for Always True. No. 2 says True Most Of The Time. If you read a statement and you feel that way most of the time, but not all of the time, then you would circle the (2) for True Most of The Time. No. 3 says True Sometimes. If you read a statement and you feel that sometimes that statement is true about you, then you would circle the (3) for True Sometimes. No. 4 says Hardly Ever True. If you read a statement and you feel that is hardly ever true then you would circle (4) for Hardly Ever True. No. 5 says Not True At All. If you read a statement and you feel that it is never true for you, then you circle (5) for Not True At All.

Let’s do a couple of examples. If the statement said, “I like volleyball,” you would look at your five choices. If this statement is always true for you, you would circle the (1). If this statement is true most of the time for you, you would circle the (2). If this statement is true sometimes for you, you would circle the (3). If this statement is hardly ever true for you, you would circle the (4). Or if this statement is not true at all for you, you would circle the (5).

Let’s do another example. If the statement said, “I like bowling,” you would again look at your five choices. Are there any questions?

**pause for questions**

When you have answered the last statement, turn your page over. When everyone has finished, I will give you instructions on completing the second questionnaire. Are there any questions?

**pause for questions**

Let’s begin. (Read the first statement.)

**allow students time to finish each statement**
Let's look at the second questionnaire. Again, there are no right or wrong answers. You just answer the statement according to how you feel. Follow along with me. I'll read each statement to you and give you time to respond using the scale that is printed at the top of the page. When I read each statement to you, I want you to think about how often you do the behavior described. If you never do this behavior, circle the 0. If you sometimes do this behavior, circle the 1. If you very often do this behavior circle the 2.

Let's look at the two examples on the questionnaire.

"I start conversations with classmates." The student in this example decided that he or she very often starts conversations with classmates so he or she circled the 2 under Very Often.

"I keep my desk clean and neat." The student in this example decided that he or she keeps his or her desk clean and neat sometimes so he or she circled the 1 for Sometimes.

I'll read each statement to you and give you time to respond. When you have finished, turn the paper over on your desk. Do not pass anything to the front. I will collect your papers and pencils individually. Thank you for your participation!

Let's begin.

**collect materials**
Appendix F

Demographic Form
DEMOGRAPHIC INFORMATION

Instructions: Please check all items that apply to you.

Gender:
_____ (1) Female
_____ (2) Male

Race:
_____ (1) African-American
_____ (2) American Indian
_____ (3) Asian
_____ (4) Caucasian/White
_____ (5) Hispanic
_____ (6) Other

Grade:
_____ (1) 3rd
_____ (2) 4th
_____ (3) 5th
_____ (4) 6th

Age:
_____ (1) 7
_____ (2) 8
_____ (3) 9
_____ (4) 10
_____ (5) 11
_____ (6) 12
_____ (7) 13

Month and day you were born in:
_____ (1) January ___
_____ (2) February ___
_____ (3) March ___
_____ (4) April ___
_____ (5) May ___
_____ (6) June ___
_____ (7) July ___
_____ (8) August ___
_____ (9) September ___
_____ (10) October ___
_____ (11) November ___
_____ (12) December ___