AN INVESTIGATION OF SOCIAL FACTORS IMPACTI NG CHILDREN WITH AND
WITHOUT DISABILITIES

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ABSTRACT

EMILY W. KING: An Investigation of Social Factors Impacting Children with and without
Disabilities
(Under the direction of Mary Ruth Coleman, Ph.D.)

With the increasing trend to include children with disabilities in today's classrooms,

educators need to be aware of the individual needs of these students both academically and

socially. This study investigated the differences in social factors among third and fourth

graders in a suburban school district. Students with disabilities (n = 128) were compared to

their non-labeled peers (n = 1281) on the following variables: peer acceptance, victimization,

bullying, reciprocal friendships, total self-concept, popularity self-concept, social self-

efficacy, social outcome expectancy, and social anxiety. Children classified as having a

disability included those with a Learning Disabled (LD), Other Health Impairment (OHI),

Speech/Language Impairment (SLI), and Educable Mental Disability (EMD). Results

demonstrated that when compared to their non-labeled peers, students with disabilities were

more often nominated as "liked least," victimized, and bullying others and reported having

fewer reciprocal friendships and a lower self-concept. Further analyses revealed that male

students with disabilities were most likely to have low peer acceptance and be seen as bullies,

especially those in minority groups.

Among students with disabilities, boys with OHI were more often "liked least" and were

viewed as bullies most often followed by students with LD. Students with LD were seen

most often as victimized by their peers. Students with SLI reported having the most

reciprocal friendships among all children studied and were seldom seen as bullies. Caucasian

girls reported having the highest self-conceptamong students studied while boys in the

minority reported the lowest self-concept scores. Female students in minority groups reported

higher levels of social anxiety than their Caucasian peers. Among children classified as LD

and OHI, being victimized and bullying others was found to significantly contribute to lower

levels of peer acceptance. Among children with OHI, being victimized was found to

contribute to a lower self-concept while bullying others was found to significantly contribute

to a higher social self-efficacy. Implications for developing interventions to improve the

socialization of children with disabilities are discussed.

DEDICATION

To my mother, Judith Purvis Williams, for always sharing her passion for educating others and teaching me to appreciate the joys of helping all children succeed.

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

ADHD – Attention Deficit/Hyperactivity Disorder

EMD – Educable Mental Disability

IDEA – *Individuals with Disabilities Education Act*

LD – Learning Disability

LL – Liked Least

LM – Liked Most

OHI – Other Health Impairment

SLI – Speech/Language Impairment

CHAPTER I

INTRODUCTION

The practice of including children with disabilities in the regular education setting has increasingly become a trend in American schools. Inclusion for students with disabilities has not only been shown to improve academic functioning (Manset & Semmel, 1997), but also to allow these students to socially interact with peers of all ability levels (Giangreco, Dennis, Cloninger, Edelman, & Shattman, 1993, as cited in Pavri & Luftig, 2000). However, students with disabilities have also been shown to demonstrate delays in social development (Odum, McConnell, & Chandler, 1994) and appear to lack skills in initiating and maintaining positive relationships with peers (Gresham, 1997). Researchers continue to explore questions relating to the appropriateness of educating students with disabilities in the regular classroom. For instance, a number of studies have investigated the social and emotional needs of children with Learning Disabilities (LD) in an attempt to advocate for specialized interventions and more appropriate services for these children within the regular education setting (Pavri & Luftig, 2000; Vaughn, Elbaum, & Boardman, 2001; Vaughn, Elbaum, & Schumm, 1996).

While concerns over the negative consequences of including students with disabilities in the regular education classroom have led researchers, educators, and parents to advocate for the special academic needs of these students, less attention has been given to considering the social and emotional needs of children with disabilities in placement decisions (Vaughn, et al., 2001). For instance, Vaughn and colleagues (2001) strongly advocate that the social

needs of students with LD be considered in determining how special education services are provided. Further, Handler (2003) reported that students with LD and Speech/Language Impairments (SLI) were more often included in the regular classroom than students with Mental Retardation. More work is needed in order to ensure we are most appropriately educating, as well as socializing, students with disabilities.

To better understand how children with disabilities function within the regular classroom, many studies have measured the social status of these children in comparison to their non-labeled peers, investigated teacher report of children's functioning (Kavale & Forness, 1996), and analyzed self-reports of children's self-perceptions in social situations. Findings focusing on the largest population of students with a disability, those with LD, suggest that these students have lower social status (i.e., are more rejected and neglected) than their non-LD peers (Siperstein, Bopp, & Bak, 1978; Bryan, 1978; Scranton & Ryckman, 1979; Horowitz, 1981; Gottlieb, Gottlieb, Berkell, & Levy, 1986; Stone & La Greca, 1990; Swanson & Malone, 1992). Children classified as SLI have been shown to have difficulty initiating social interactions (Brinton, Fujiki, Spencer, & Robinson, 1997) and have poor peer acceptance (Jerome, Fujiki, Brinton, & James, 2002). Also, students who are Educable Mentally Disabled (EMD) have been shown to be less socially accepted than their non-labeled peers (Taylor, Asher, & Williams, 1987).

Children with disabilities have also been found to have poor self-perceptions of their success in social situations. For instance, children with LD have been found to have lower self-concept and self-efficacy and higher anxiety than their peers without LD (Cooley & Ayres, 1988; Gans, Kenny, & Ghany, 2003; Margalit & Zak, 1984; Rogers & Sakofske, 1985; Vaughn, et al., 1996). Also, children classified as EMD have been shown to report

high levels of social anxiety (Taylor et al., 1987). These findings clearly suggest that many students with disabilities experience negative social outcomes involving their peer relationships and self-perceptions in social situations.

What is not clear, however, is the relationship between these aforementioned factors and the impact of each on the social functioning of children with disabilities. For instance, do certain social behaviors relate to the peer acceptance of children with disabilities? Do these social behaviors relate to a student's social self-perceptions? Does gender or ethnicity further impact this prediction? In other words, what factors, or interaction of factors, appear to influence the social outcomes for a child with a disability? At the same time, what factors appear to impact positive social outcomes for children with disabilities?

Purpose of Study

The current study investigated the social success of four disability areas recognized by the *Individuals with Disabilities Education Act* (OSEP, 2002): Learning Disability (LD), Other Health Impairment (OHI), Speech/Language Impairment (SLI), and Educable Mental Disability (EMD). This study aimed to explore the social differences between children with disabilities and their non-labeled peers as well as the impact and relationship of potential factors relating to social outcomes of children with disabilities. In this study, social outcomes were defined as the social acceptance, victimization, bullying reciprocal friendships, and social self-perceptions of children with disabilities. Social variables were measured by peer nominations of children's social acceptance (i.e., "liked most" and "liked least"), victimization, bullying, and reciprocal friendships; teacher ratings of children's academic achievement; and self-reports of children's social self-perceptions (i.e., self-concept total score, self-concept popularity, social self-efficacy, social outcome expectancy,

and social anxiety). The following questions investigated the differences in social outcomes between children with and without disabilities as well as explored the effects of certain factors, and interactions of factors, on the social outcomes of children with disabilities.

Research Questions

Question 1:

To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and disability status?

Question 2:

(a)   *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and special education classification?*

(b)   *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of academic achievement and special education classification?*

Question 3:

Among children with disabilities, how do victimization, bullying, and reciprocal friendships of students predict their social acceptance and social self-perceptions?

CHAPTER 2

REVIEW OF THE LITERATURE

The current study looked at a subset of data collected as part of a larger study designed to assess a school system's bullying prevention initiative. In reaction to decades of research on the negative impacts of problematic peer relations, the larger study was designed to investigate the impact of a research-based Social Skills GRoup INtervention (S.S. GRIN), developed by Dr. Melissa DeRosier, for children with peer difficulties. The study was designed not only to identify children who may benefit from participation in the S.S. GRIN curriculum, but to also conduct yearly pre- and post-evaluations to track the efficacy of S.S. GRIN in improving the peer relationships and social behavior of these children. In addition, findings from this study were available for use in summary form for program evaluation, publications, and presentations. The present study expanded the findings of original study to include an investigation of students classified as having a disability.

In the original study, all third and fourth grade students from all nine public elementary schools in the Chapel Hill-Carrboro City Schools in North Carolina were eligible to participate. All third and fourth grade teachers in the Chapel Hill-Carrboro City Schools were also eligible to participate in the teacher portion of the study. No one was excluded from the study on the basis on gender, race, or ethnic background. Parental consent for participation in data collection was obtained for 1,409 students (89%) out of a total of 1,579 third and fourth grade students. Data was collected at two time points: November 2003 and June 2004. Only data collected during the second time point was used in the present study.

The overall sample was approximately evenly distributed across genders (48.6% female and 51.4% male) and racially diverse (61% Caucasian, 13% African America, 8% Latino, 13% Asian, and 5% mixed race). The Chapel Hill-Carrboro City School System serves children from lower to upper middle class families, where approximately 15% of students receive free and reduced lunch. In order to learn more about the peer relationships of the students with disabilities from this larger study, the present study posed three main questions relating to the social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions of this specific subset of children:

1) To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and disability status?

2) (a) To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and special education classification?

(b)To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of academic achievement and special education classification?

3) Among children with disabilities, how do victimization, bullying, and reciprocal friendships of students predict their social acceptance and social self-perceptions?

In order to better understand the disability classifications identified under IDEA studied in the current investigation, the following sections briefly discuss the history of special education law in the United States, present the definitions of each disability, discuss the literature to date on the socialization of children with disabilities, and propose the use of a

risk and resilience model to examine the impact of specific factors on the social outcomes of students with disabilities.

<center>Classification of Students with Disabilities</center>

As the first federal statute regarding the education of children with handicapping conditions, the *Education of All Handicapped Children Act* of 1975 assured that "all handicapped children have available to them…a free appropriate education which emphasizes special education and related services designed to meet their unique needs…" (Public Law 94-142). Renamed in 1990 as the *Individuals with Disabilities Education Act* (IDEA), this law provides funding to each state and local education agency to provide free and appropriate education to children with disabilities (Jacob-Timm & Hartshorne, 1998). In order to receive services under IDEA, children with disabilities must be classified as having one of the following disabilities: Mental Retardation, Hearing Impairment, Speech or Language Impairment, Visual Impairment, Serious Emotional Disturbance, Orthopedic Impairment, Autism, Traumatic Brain Injury, Other Health Impairment, or Specific Learning Disability (Jacob-Timm & Hartshorne, 1998).

The current study investigated the social outcomes of students classified as having a Specific Learning Disability (LD), Other Health Impairment (OHI), Speech/Language Impairment (SLI), or Mental Retardation (defined in North Carolina as an Educable Mental Disability (EMD)). These disability classifications were of most interest due to their substantial sample size and previous findings relating to their difficulty socializing with peers. Students classified as having Autism were omitted from the study due to the social difficulties these students experience as a result of their disability and not necessarily other psychosocial stressors, such as peer acceptance and social self-perceptions. Surprisingly,

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there were no students identified in the current sample as having a Serious Emotional

Disturbance (defined in North Carolina as a Behavioral Emotional Disability). One potential

factor contributing to students with an Emotional Disturbance not being represented in this

sample is the abundance of resources in this upper-middle class school district to provide

successful interventions prior to classifying a child with a Serious Emotional Disturbance.

Defining Learning Disabilities

In America's classrooms today, the term "Learning Disabled" (LD) is the most frequently

used classification of school-age children who experience academic difficulties. Concerns

related to a potential diagnosis of LD comprise a majority of referrals made by teachers and

parents and are the focus of many interventions designed to help children academically as

well as behaviorally and emotionally. Previous research has shown that children with LD not

only struggle academically, but also have difficulties with peer relationships (Bryan, 1997;

Kavale & Forness, 1996; Swanson & Malone, 1992; Tur-Kaspa, Margalit, & Most, 1999).

According to the most recent federal legislation put forth by the reauthorization of IDEA

in 2004, a "Specific Learning Disability" is defined as "a disorder in one or more of the basic

psychological processes involved in understanding or in using language, spoken or written,

which disorder may manifest itself in imperfect ability to listen, think, speak, read, write,

spell, or do mathematic calculations." Given this definition, there are two commonly used

methods of determining a diagnosis of LD. The most widely used method in schools today is

to calculate the discrepancy between a child's cognitive ability score and academic

achievement score as documented by measures of standardized assessment (Joshi, 2003). In

North Carolina, a child is eligible to receive services for a "Specific Learning Disability" if

the child's "achievement measured in age standard score units is 15 or more points below

intellectual functioning" (NCDPI, 2004). However, according to many researchers, the discrepancy model is not the most valid method for diagnosing LD. For instance, children who are poor readers may not qualify to receive special education services until they fall far enough behind to document an IQ-achievement discrepancy, thus "waiting to fail" in school (Lyon, et al., 2001). Cantwell and Baker (1991) explain that an alternative method often used in research is the regression equation model which calculates the expected performance of the child based on correlations in the general population between educational performance, chronological age, and intelligence level. A cut-off score is then set for academic underachievement that is relatively uncommon in the general population. Therefore, children with high IQs are not over-identified and those with low IQs are not under-identified, as tends to be the case when using the discrepancy model (Mayes, Calhoun, & Crowell, 2000).

While the students in the present study were identified as LD using the discrepancy model, the newest initiative in identifying learning disabilities in children warrants some discussion. Current identification practices are looking to the Response to Intervention model (RTI) that focuses on early intervention and monitoring the progress of the individualized needs of students with learning difficulties. The RTI approach is expected to be used more in the future to better meet the needs of these students before they fall further behind. As the field of research surrounding the identification of learning disabilities continues to grow, educators and researchers constantly strive for the most appropriate way to identify and serve children with learning difficulties.

Social Implications of Learning Disabilities

Despite inconsistencies in specific definitions of LD, students with learning difficulties

share characteristics that not only relate to the academic demands of the classroom, but also

to their social environment. In addition to exhibiting academic underachievement, students

with LD often possess difficulties in how they relate to their peers (Bryan, 1997), how they

are perceived by their peers (Kavale & Forness, 1996; Swanson & Malone, 1992; Tur-Kaspa,

et al., 1999), and how they perceive themselves in social situations (Cosden, Brown, & Elliot,

2002; Meadan & Halle, 2004). When compared to their non-LD classmates, children with

LD have been found to play alone more often and to have lower social status (Levy &

Gottlieb, 1984). However, it is important to note that when compared to other students with

disabilities, 45.2% of those with LD are reported by their parents as having "frequent"

interaction (four times per week) with peers, the highest percentage among students with

disabilities (Wagner, Cadwallader, Newman, Garza, & Blackorby, 2002).

Defining Other Health Impairment

An often confusing classification under IDEA, Other Health Impairment (OHI), is

designed to provide services for students who

> have chronic or acute health problems which cause limited strength, vitality or
> alertness, including alertness to environmental stimuli, to such an extent that special
> education services are necessary. The health problems may include heart conditions,
> chronic lung disease, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell
> anemia, hemophilia, epilepsy, lead poisoning, leukemia, diabetes, attention deficit
> disorder or attention deficit hyperactivity disorder, genetic impairments or some other
> illness which may cause a student to have limited strength, vitality or alertness,
> adversely affecting educational performance or developmental progress. (NCDPI,
> 2004, pp. 6-7)

In 1991, the U.S. Department of Education issued a memorandum stating that students with

Attention Deficit/Hyperactivity Disorder (ADHD) may also qualify for special education

services within the IDEA definition of OHI (Jacob-Timm & Hatshorne, 1998). Because students classified as OHI make up such a heterogeneous group of students, it is difficult to study the impact of this disability classification.

Social Implications of Other Health Impairment

There have been no studies to date that have studied specific social outcomes among students classified as OHI when compared to their non-disabled peers. However, Wagner and colleagues (2002) recently investigated the socialization outside of the school day among 11,512 students with disabilities. According to parent report of these students' interaction with friends, this study found that students classified as OHI, along with students with LD and SLI, tended to be the more socially active with peers than those with autism, traumatic brain injury, multiple disabilities, and deaf-blindness (Wagner et al., 2002). Specifically, 35.2% of children with OHI were reported to interact with friends at least four times per week (Wagner et al., 2002). However, no studies have investigated how these reported friendships impact the social self-perceptions of students classified as OHI.

Defining Speech/Language Impairment

Another disability classification documented to have a potential impact on the social skills, peer status, and social self-perceptions of students is Speech/Language Impairment (SLI) (e.g., Fujiki, Brinton, Hart, & Fitzgerald, 1999; Fujiki, Brinton, & Todd, 1996; Jerome, et al., 2002). Students may receive services under IDEA for SLI if they are determined to have "a disorder in articulation, language, voice, and/or fluency" (NCDPI, 2004). One can imagine that students who have difficulty understanding others' language and/or expressing themselves through language might have trouble establishing and maintaining relationships with peers.

Social Implications of Speech/Language Impairment

Children with normally developing language use their language skills to interact with others by sharing information, expressing feelings, directing their behavior, and negotiating misunderstandings (Fujiki et al., 1996). In recent years, speech/language pathologists have become interested in the social functioning of children with SLI in order to better design interventions for these students. Previous research has shown that children with impaired speech and language skills exhibit difficulty with basic social skills, interact differently with their normally developing peers, and are less preferred playmates than their normally developing peers (Gertner, Rice, & Hadley, 1994; Hadley & Rice, 1991; Rice, Sell, & Hadley, 1991). Rice and colleagues (1991) found that starting at the preschool level children appeared to choose conversational partners based on their communication abilities. For instance, children with speech and language delays preferred talking to adults rather than their peers while children with normally developing language abilities preferred to interact with their peers who also had normally developing language skills.

As one can imagine, students with SLI have also been found to be frequently ignored by their peers as well (Hadley & Rice, 1991). Fujiki and colleagues (1996) found that according to teacher ratings, children with SLI were less socially skilled than their typical peers and exhibited more frequent problem behaviors. According to student self-report, students with SLI reported interacting with fewer peers in social activities, such as games, eating lunch, and sports (Fujiki et al., 1996). Fujiki and colleagues (1996) concluded that because students with SLI lack the language skills necessary to interact effectively with their peers, they are likely to experience a high level of rejection and have fewer positive peer relationships. Further, students classified as SLI have also been found to targets of victimization when

compared to their typically developing peers (Conti-Ramsden & Botting, 2004). If these students are not successfully interacting with their peers, they are missing crucial opportunities to practice and learn effective social skills, only putting these children at further risk for poor social outcomes.

Defining Educable Mental Disability

Students may also receive special education services if they are determined to have "significantly sub-average cognitive functioning and a reduced rate of learning (NCDPI, 2004). In addition to exhibiting cognitive deficits, an Educable Mental Disability must "exist concurrently with deficits in adaptive behavior, is manifested during the developmental period, and adversely affects the students educational performance" (NCDPI, 2004). The current study only includes students who meet criteria as a student with an Educable Mental Disability (EMD), specifying that their intelligence quotient is 50-69 plus or minus one standard error of measurement (NCDPI, 2004). Students with an IQ below 50 were excluded from this study due to concerns over these students' ability to accurately report their peer interactions and self-perceptions of social situations.

Social Implications of Educable Mental Disabilities

Historically, children with mild mental disabilities have been shown to be judged by their label of "mental retardation" instead of their unique strengths and weaknesses. For instance, one study found that children with mental retardation, who showed equal competence during a game activity, were chosen less as a partner than the typically developing child (Bak & Siperstein, 1987). Rothlisberg, Hill, and D'Amato (1992) investigated the decisions of 60 fourth graders to be the "buddy" to one of two new students (one with mental retardation and one without). This study provided descriptions of the interactions the typically developing

peers would have with the new student, such as playing with them at recess, eating lunch with them, and including them in the child's friend group. Results indicated that significantly more typically developing children chose to help out the new student without a disability. Interestingly, girls were more likely than boys to help out students with disabilities (Rothlisberg et al., 1992). These studies show that children with a mental disability classification may have difficulty gaining social acceptance due to perceptions that they are different from other students.

Studies have also found that students with EMD are less likely to be socially accepted by their non-disabled peers (Taylor, et al., 1987), engage in problem behaviors in an attempt to gain social acceptance (Saenz, 2003), and spend more time alone on the playground than their non-disabled peers (Kemp & Carter, 2002). These students' non-disabled friends also spend more time interacting with friends than those with mental disabilities (Kemp & Carter, 2002). The present study further investigated how social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions of these students may have an additional impact of their social outcomes.

<div align="center">Social Status of Children</div>

In order to study the social acceptance of children with disabilities, it is important to understand the literature on the method of sociometric nomination to assess children's social status. Sociometric methodology allows children to nominate their peers as fitting certain descriptive categories that reflect social acceptance (e.g., "like most," "like least") in order to derive groups of social status. It is preferable to ask children for this information a s opposed to a teacher, first because reports from multiple informants (i.e., students) are more reliable than one (i.e., teacher) and secondly, research has shown that children more accurately report

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social status and peer behavior than adults (Cillessen, Terry, Coie, & Lochman, 1992; French & Waas, 1985). Despite controversy concerning the negative effects of asking children to identify the names of classmates who they like or dislike, investigations of children's reactions to such studies suggest that there is no significant evidence of negative effects among children who participate in sociometric data collection (Bell-Dolan & Foster, 1992; Bell-Dolan, Foster, and Sikora, 1989).

Early studies investigating peer relationships used a unidimensional sociometric classification system to derive sociometric status based on the number of nominations received for being a friend or preferred playmate (Newcomb, Bukowski, & Pattee, 1993). However, these nominations yielded only a measure of social acceptance; therefore, researchers added a negative nomination allowing children to identify peers whom they did not like. Using both positive and negative nominations allowed researchers to differentiate between children who were nominated as not being liked (i.e., rejected) from those who were seldom nominated in either category (i.e., neglected) (Coie, Dodge, & Coppotelli, 1982). Using both positive and negative nominations also allowed researchers to analyze differences between social likeability and social visibility (Newcomb et al., 1993). In 1979, Peery (as cited in Coie et al., 1982) initiated a two-dimensional classification system suggesting that adding a child's "liking" score to his or her "disliking" score would yield a new score termed "social impact" (visibility). Also, by subtracting a child's "disliking" score from his or her "liking" score, a "social preference" (likeability) score could be derived (Peery, 1979, as cited in Coie et al., 1982). Coie and colleagues (1982) extended Perry's work by standardizing raw scores of peer nominations across grade level and further defined the dimensions of social impact and social preference (Newcomb et al., 1993). The current study

only looked at peer nominations of social acceptance in order to get an idea of those students who were "liked most" and "liked least" by their peers.

Theoretical Framework for Examining Disabilities

The theoretical framework discussed in this section can be applied to examining students with a Learning Disability, Other Health Impairment, Speech/Language Impairment, or Educable Mental Disability. However, because students with LD make up the largest population of students with disabilities currently receiving special education services, the bulk of the research focuses on students with learning disabilities, and the majority of the disability sample studied here is LD, it makes sense to review in depth the existing literature on students with LD. Therefore, the theoretical framework for examining each disability in this study can best be explained by looking at what has been written about LD.

Deficit Model

Learning Disabilities research has been heavily focused on exploring the differences between students with and without learning problems, thus exploring group differences between these students and the deficits of students with LD. The deficit model has been used to examine the depth of difficulties, causes, and negative outcomes for children with LD in terms of maladjustment and intervention planning (Margalit, 2003). While this model could also be applied to each disability studied here, it would not allow for a comprehensive investigation of the individual differences these children possess With increasing literature supporting the notion that children vary in areas of need across environments, some argue that a more empowering model should be employed to explore factors that put children with disabilities at risk as well as those factors that may protect them from negative outcomes (Margalit, 2003). The following sections will use the abundance of literature focusing on LD

to further explain the importance of using a risk and resilience framework to study children with disabilities.

Although the present study did not investigate concurrent data and thus cannot make any conclusions on the impact of risk and resiliency factors, this theoretical perspective is still helpful to present in terms of viewing the potential impact of factors on the positive and negative social outcomes for children with disabilities.

Disability as a Risk Factor

Aligned with the deficit model of conceptualizing LD, Morrison and Cosden (1997) make the assumption that LD is an internal problem of processing information that generally affects academic performance. In addition to impacting academic performance, research has shown that children with LD have difficulty developing and maintaining satisfying peer relationships (Bryan, 1997). Researchers have begun studying the social cognition of children with disabilities in an effort to explain how these children's social skills differ from their non-LD peers. Studies presenting people's emotions through drawings, photographs, and videos have investigated individuals with learning disabilities' interpretation of emotional displays and social situations (Tur-Kaspa, 2002). These investigations found that children with LD appear to exhibit a unique problem in the encoding of social information (Tur-Kaspa, 2002). The majority of the research on social cognition suggests the difficulties of these children in achieving social acceptance may be attributed to their deficient perception and interpretation of social and emotional cues in social situations (Pearl, 1987).

Due to the individual differences of children with disabilities as well as the various external factors surrounding children in school, home, and the community, it is nearly impossible to study just the independent impact having a disability has on a child. Cairns

and Rodkin (1998) argue that a single variable should not be separated from the personal and social contexts in which they occur; therefore, the current study will also explore the impact of certain factors on the social self-perceptions of children with disabilities. Just as risk factors potentially impact the social outcome of children with disabilities, protective factors also exist in a child's environment. In order to learn more about the positive and negative impact of various factors on children with disabilities, such factors should be studied in conjunction with one another to understand more about each child's functioning within his or her environment.

Deficit Model versus Risk and Resilience Model

Research using the deficit model well conceptualized what factors, or deficits, put children with disabilities at risk for negative outcomes when compared to their peers, yet this model neglected to explore within-group differences of children with disabilities. For instance, the literature strongly supports the claim that students with LD receive fewer peer nominations for positive social behavior and more nominations for negative traits, such as being rejected by their peers, when compared to those without LD (Bryan, 1976; Levy & Gottlieb, 1984; Pavri & Luftig, 2000). However, few studies have explored the reasons why students with LD are more rejected by their peers and what individual characteristics of children with LD make one more or less at risk for negative outcomes. It has recently been suggested that research focus on identifying certain risk and protective factors that may impact outcomes for children with LD (Cosden, 2003). For instance, Donahue and Wong (2002) suggested that an exploration of these factors would be more useful in understanding the developmental outcomes and in planning interventions that minimize negative outcomes for students with LD. Bryan and other researchers have proposed that a risk and resilience model move away

from the deficit model with the intention of examining the interactions of the child and his or her contextual factors within groups of students with disabilities.

Risk and Resilience Model

The concept of risk and resilience was first explored through a research perspective by Werner and Smith (1982) to interpret data collected from 72 individuals among a sample of 698 born in 1955 on the island of Kauai, Hawaii (Wong, 2003). These 72 individuals had perinatal problems, grew up in poverty, and had family histories of alcoholism and/or mental illness (Werner & Smith, 1982). By tracking the cognitive and psychological development of these individuals from birth to age 40, Werner and Smith (2001) discovered different risk and protective factors that appeared to be characteristic of certain outcomes for subgroups of their sample. For instance, the study examined a subgroup of 22 individuals diagnosed with LD by age 10 whose later functioning was closely monitored and compared to the outcomes of those without LD (Wong, 2003). Individuals with LD were more likely to be male, from homes that were very poor, and to have had negative contact with police (Werner & Smith, 2001). Werner (1993) also defined five clusters of protective factors that appeared to influence the success of some individuals with LD from this sample including a positive temperament, problem solving skills, parents with effective parenting skills, supportive adults/mentors, and timely opportunities at crucial life transitions. From this initial investigation of differences between individuals with and without LD, the study suggested that certain factors appeared to either put individuals at risk for negative outcomes or to protect them from negative outcomes (Wong, 2003). Information yielded from this study using a risk and resilience model is more useful for designing interventions and programming than only identifying the deficits in individuals.

Using a risk and resilience framework to study children with disabilities allows researchers to account for individual differences while also being able to identify factors related to both positive and negative outcomes (Morrison & Cosden, 1997). Risk factors have been defined as those factors associated with an increased likelihood that an individual will develop an emotional or behavioral disorder in comparison with the general population (Garmezy, 1983). Other researchers have defined "risk" as a potentially negative condition that impedes normal development (Keogh & Weisner, 1993). Morrison and Cosden (1997) note that "risk" appears to be a catch-all term for various conditions that may lead to negative outcomes, arguing that attention should be given to specifying factors relating to these outcomes.

Resilience can be identified by protective factors, which are variables associated with the outcome of successful adaptation despite challenging circumstances (Garmezy & Masten, 1991). Protective factors have also been viewed as those which reduce a negative trajectory established by risk factors (Morrison & Cosden, 1997). For instance, although many studies have identified various risk and protective factors associated with the outcomes of children with LD, research is unclear as to which factors are directly associated with the development of later problems. While studies that look at correlations between risk and protective factors and outcomes are helpful, exploring the interaction between risk and protective factors seems even more promising. As noted earlier, Morrison and Cosden (1997) hypothesized that the presence of a learning disability may, in and of itself, be a risk factor; however, there are a multitude of other risk and protective factors that affect various outcomes of children with LD.

Interaction of Internal and External Factors

As previously discussed, having a disability is likely accompanied by a multitude of factors that have the potential of impacting students' social success. Use of the risk and resilience model allows researchers to study risk and protective factors, as well as the interaction between such factors and how these variables potentially relate to outcomes of students with disabilities. The major impetus for moving toward a risk and resilience framework was the notion of the range of factors potentially influencing children with disabilities. These factors not only exist within the child, as once argued using the deficit model, but they also exist outside of the child in his or her surroundings. In order to study the underlying causes of certain outcomes (e.g., social self-perceptions) in children with disabilities, it is imperative to focus on the interactions of both the internal and external factors influencing these children.

For instance, Weiner (2003) proposes that we cannot explain the social and emotional functioning of children with LD without understanding the reciprocal relationship between these students' characteristics and the environments in which they function. Sameroff's transactional theory of child-environment interactions illustrates the complexities of the underlying causes of the social and emotional difficulties of children with LD (Weiner, 2003). Sameroff's theory emphasizes that at any point in time there is a reciprocal interaction between children and their environments so that the characteristics of the child influence the environment and the environment influences the child (Weiner, 2003). This pattern can be analyzed in multiple environments including the classroom, the school, the home, and the community and can be applied to children with all types of disabilities. This study will focus on the child-environment interactions that occur in schools between internal

and external factors that impact children with disabilities. All of the proposed factors later discussed in this review can be viewed within an ecological context.

At risk for what?

Children with disabilities are not only at-risk for facing academic challenges, but also for experiencing behavioral, emotional, and social difficulties. For instance, in addition to academic risks, having a learning disability puts students at risk for nonacademic problems at school, at home, and in the community (Morrison & Cosden, 1997). Researchers seem to agree that the best way to study children with LD is through an ecological perspective that investigates the interaction of the learning disability with other risk and protective factors specific to individual children (Koegh & Weisner, 1993; Morrison & Cosden, 1997; Spekman, Goldberg, & Herman, 1993). Potential social outcomes for students with other disabilities can also be viewed through an ecological perspective. However, in order to effectively study children with disabilities through a risk and resilience framework, it is important to clarify what negative outcomes this research aims to minimize. What are the negative outcomes that are "risks" for children with disabilities?

Social Interaction as a Risk Factor

Because peer acceptance, victimization, bullying, friendships, and self-perceptions may impact a child's social functioning simultaneously, it is difficult to parse out which aspect develops first. At school, however, teachers are more likely to witness social interactions, including getting picked on (victimization), bullying others, and making reciprocal friendships, than they are to notice if a child is well-accepted by peers or how that child feels in a social setting. Therefore, the present study investigated social outcomes in terms of how victimization, bullying, and reciprocal friendships impact social acceptance and social self-

perceptions of children in the hope that interventions can be designed around social

interactions teachers can identify on a day to day basis.

In order to identify what behaviors may influence negative social outcomes for students

with disabilities, it is important to explore specific within-group differences. For instance,

children with LD not only differ in terms of social status, but also in terms of bullying others

and/or being picked on in social situations (McConaughy, Mattison, & Peterson, 1994;

Weiner, 2003). Bullying and being picked on (victimization) are hypothesized to negatively

impact children's social interactions and consequently their social acceptance and social self-

perceptions.

Victimization as a Risk Factor

Victimization occurs when one person is chronically harassed by another individual

perceived to have more power (Juvonen & Graham, 2001). Children who are victimized by

their peers have been found to be less well-accepted and more rejected than those who are

not picked on (Perry, Kusel, & Perry, 1988). In fact, one study found peer rejection to have a

.80 correlation with victimization (Hodges, Malone, & Peery, 1997). For instance, among

children with LD, because these students are more likely to be rejected by their peers, these

students are also often picked on by their peers (Weiner, 2003). Peer victimization has also

been found to be associated with low academic achievement, low self-esteem, and anxiety

(Perry, Hodges, & Egan, 2001). Students classified as SLI have been shown to have poor

social competence leading to being targeted more often as victims than their peers without

speech and language delays (Conti-Ramsden & Botting, 2004). Clearly, much concern exists

about the interpersonal outcomes of students with disabilities who are victimized. Although

the literature shows that students with disabilities are at risk for being socially rejected,

studies have not clearly shown what factors make these students more or less at risk for being victimized. This study examined factors that may lead to the victimization of children with disabilities as well as explored the impact that being victimized has on students' social acceptance and social self-perceptions.

Bullying as a Risk Factor

Children who bully others often exhibit aggressive behavior including physical aggression (e.g., kicking, hitting), verbal aggression (e.g., name calling), and relational aggression (e.g., leaving others out from a group) (Weiner, 2003). Such behaviors are concerning because research suggests that aggressive behavior in childhood predicts adolescent delinquency (Miller-Johnson, Coie, Maumary-Gremaud, Lochman, & Terry, 1999). Children with LD have been reported to exhibit more aggressive behaviors than their non-labeled peers (McConaughy, et al., 1994). One study investigating differences among boys with LD found that not only were they more rejected and less popular than boys without LD, but they were considered by their classmates to be aggressive (Landau, Milich, McFarland, 1987). Research using sociometric procedures is especially helpful in identifying students who may be exhibiting verbal of relational aggression, which is often not noticed by teachers (Weiner, 2003). Some children who are picked on are passive, while others may retaliate impulsively or aggressively (Weiner, 2003). Given that students with LD have been shown to have difficulty interpreting social situations (Pearl, 1987), it is possible that those with LD who are victimized may also retaliate with aggressive behavior. However, there are currently no consistent findings that students with LD are more likely to bully others (Mishna, 2003). While there is no research to date on the bullying behavior of students classified as OHI, SLI, or EMD, one can imagine that these students may have the similar social difficulties to those

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with LD in reaction to being victimized by peers. For instance, Taylor and colleagues (1987) explained that among a group of children with a mild mental disability, some appear to externalize and others internalize these social stressors showing high levels of aggressive and/or disruptive behaviors.

More research is also needed concerning how bullying behavior impact social self-perceptions. One study investigating non-disabled boys who bullied others found that these students also reported high self-efficacy due to the perception that "rough-and-tumble" play was to some extent an acceptable form of social interaction among boys (Andreou, 2004). Due to lacking information in this area, this study explored the impact that bullying others has on students' social acceptance and social self-perceptions.

Gender and Ethnicity as a Risk Factor

Several studies have investigated gender differences in social status among children with LD and the interaction between gender and ethnicity. Studies have suggested that girls with LD are more rejected by their peers than boys with LD (Scranton & Ryckman, 1979). Further, one study looking at the social behavior problems of girls with and without LD found that girls with LD differed from their female peers only with respect to exhibiting higher levels of anxiety and withdrawn behavior (Epstein, Cullinan, & Nieminen, 1984). Bryan (1974) discovered that among children with LD who were more rejected than their non-LD peers, white girls were more rejected than boys or African-American girls. In another study, white girls with LD were found to be the most rejected when compared to other children in the sample (Kistner & Gatlin, 1989). Among one study that did not control for LD, results indicate that classroom racial minority status was associated with peer rejection of girls but not of boys (Kistner, Metzler, Gatlin, & Risi, 1993).

Despite a growing number of Hispanic children in the United States, most research to date concerning social acceptance has used samples of white students and, at most, has compared the differences between Caucasian and African-American students. Several studies looking at within-group differences among Mexican-American students with and without LD found that these students with LD received significantly lower sociometric scores than their low-achieving non-LD Mexican-American peers (Ochoa & Palmer, 1995). The Office of Civil Rights recently reported that there has been a dramatic increase in the rate of identifying LD among racial and ethnic groups (National Research Council, 2002). With increasing diversity in America's schools, more research is warranted on differences among ethnicities, especially concerning children with disabilities.

Academic Achievement as a Risk Factor

Students with disabilities who are also low-achieving may be at higher risk than their peers with disabilities who are average/high achieving. Research focusing on the academic difficulties of students with LD consistently documents that children with LD are at risk for negative academic outcomes. Also, as previously discussed, when compared to those without LD, children with LD have lower academic self-concepts (Vaughn et al., 1996). However, does academic achievement appear to impact other areas of social self-perceptions, such as self-efficacy, outcome expectancy, and anxiety? One recent study found that children with LD and their low-achieving peers had more social difficulties than with average to high achieving peers (Nowicki, 2003). Another study reported that high levels of anxiety correlated with lower achievement for student with LD (Bryan, Sonnefeld, & Grabowski, 1983). The current study examined how level of academic achievement among

students with disabilities individually or in concert with other factors impacted social outcomes for these children.

It should be mentioned that while the factors just discussed (i.e., victimization, bullying, reciprocal friendships, gender, and ethnicity) could negatively influence to social outcomes for a student, the inverse of such factors could also positively impact a students' social acceptance and social self-perceptions. For instance, being accepted by peers, not being picked on, or having average to high academic achievement could perhaps positively impact social outcomes or "protect" children with disabilities from negative outcomes.

Potential Protective Factors

Following a risk and resilience framework, it is crucial to investigate not only the risk factors, but also factors that may protect children with disabilities from negative social outcomes. Spekman, Herman, and Vogel (1993) defined protective factors as those that increase the likelihood of a positive developmental outcome despite exposure to risk. However, protection is not necessarily the flipside of risk and risk is not necessarily the flipside of protection (Spekman et al., 1993). For instance, it is not clear whether the absence of protective factors puts an individual at increased risk for negative outcomes (Spekman et al., 1993). What is clear is that both risk and protective factors must be taken into consideration in the diagnosis of and intervention planning for children with disabilities (Keogh & Weisner, 1993). Potential protective factors explored in this study include reciprocal friendships, average/high average achievement, gender, and ethnicity. The question explored was: How do these factors appear to minimize the poor peer acceptance or negative social self-perceptions of children with disabilities?

Reciprocal Friendships as a Protective Factor

Friendships are a critical component of a child's social development. Reciprocal

friendships occur when two children report each other as a friend, thus both confirming

mutual friendship. Reciprocal friendships represent reciprocated attachment, affection,

companionship, and support between two children (Bukowski & Hoza, 1989). As previously

discussed, students with LD are often not well accepted by their peers (Bryan, 1997;

Gresham, 1982; Stone & LaGreca, 1990). Therefore, it is reasonable to hypothesize that

having one or more reciprocal friendships may contribute to more positive social outcomes

for children with LD. One study explaining the prevalence of reciprocal friendships

discovered that the number of students with LD who had at least one reciprocal friendship

grew from 26% in the fall to 53% by the spring of one school year (Vaughn et al., 1996).

Positive outcomes for having reciprocal friendships include more intense social activity,

improved conflict resolution, increased sharing and cooperation, improved expression of

emotions, and support for future interpersonal relationships (Vaughn et al., 2001). Research

has also shown that children who report having friends score higher than those without

friends on measures of self-concept (Mannarino, 1978) and general self-worth (Bukowski &

Newcomb, 1987). Several studies have found that among students with LD, having at least

one reciprocal friend correlates with higher self-perceptions of social status (Bear, Juvonen,

& McInerney, 1993; Juvonen & Bear, 1992) and more positive perceptions by one's peers

(Newcomb & Bagwell, 1995).   These studies clearly show that having reciprocal friendships

may act as a protective factor against negative social outcomes for students with disabilities.

The present study investigated whether or not having reciprocal friendships appeared to

positively impact the social acceptance and social self-perceptions of children with disabilities.

Academic Achievement as a Protective Factor

Another potential protective factor mentioned in LD research concerns the impact of varying levels of academic achievement on the outcomes of children with LD. By definition students with LD achieve significantly below their cognitive ability level; however, these students' achievement levels vary. In other words, children whose achievement may be in the average to high average range, while their cognitive ability is in the above average range may still be underachieving. As previously discussed, having a learning disability puts students at increased risk for low academic self-concept (Vaughn et al., 1996). Therefore, it could be hypothesized that having average to high average achievement may positively impact one's self-concept. Therefore, this study asked the question: Does having average to high average academic achievement positively impact the social acceptance or social self-perceptions of children with disabilities?

Gender and Ethnicity as Protective Factors

While gender and ethnicity were previously discussed as potentially negative factors, these variables could also positively impact the social outcome of children with disabilities. For instance, since girls appear to be less accepted by their peers, perhaps being male is a protective factor against negative social outcomes. Also, several studies have only investigated differences between Caucasian and African-American students with disabilities. Perhaps being of the minority group could minimize the impact of negative social outcomes for children with other disabilities. Research studying potentially positive and negative

factors warrants an exploration of the potential effect of gender and ethnicity on the social acceptance and social self-perceptions of children with disabilities.

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Social Acceptance of Students with Disabilities

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Although there is some debate over the directionality of the relationship between social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions, the current study assumed that victimization, bullying, and friendships impact social acceptance and social self-perceptions. Using this model, the present study assumed that being picked on by others, bullying others, or having few reciprocal friendships, may negatively impact peer acceptance as well as the way students feel about themselves socially. The following sections will review literature on the social acceptance and social self-perceptions of children with disabilities.

Social Acceptance of Students with Learning Disabilities

With the increased popularity of the inclusion of students with LD in the regular classroom over the past several decades, investigators have become more interested in how students with disabilities adjust, especially socially, to this inclusive environment. Findings examining the effects of inclusive education on children with LD have been mixed. While some studies have found that students with LD are less accepted by their peers without disabilities (Bryan, 1997), Vaughn and colleagues (1996) discovered that inclusive classrooms have a positive effect on the peer relationships and self-concept of students with LD. One study hypothesizing that inclusive education would have a positive effect on the social functioning of students with LD found the contrary: Students with LD were less "popular" and more "controversial" in their social status and reported more feelings of loneliness than their non-LD peers (Pavri & Luftig, 2000). While many studies have

determined that students with LD are more rejected than their non-LD peers, few have explored the relationship between social behaviors and the social acceptance of children with LD. Specifically, this study looked at factors including victimization, bullying, reciprocal friendships, academic achievement, gender, and ethnicity in order to determine the impact of specific factors on the social acceptance of children with LD.

Social Acceptance of Students with Other Health Impairments

There have been no studies to date investigating the social acceptance of students classified as Other Health Impaired. The current study investigated the potential influence of positive and negative factors with the social acceptance of students classified as OHI.

Social Acceptance of Students with Speech/Language Impairments

In order to maintain social relationships, children must be able to resolve conflicts, listen to others, and disclose feelings (Fujiki et al., 1999). Children with SLI have difficulty developing and maintaining the social competence to establish and maintain social relationships with peers (Fujiki et al., 1996). These social relationships impact the way a child is perceived in the classroom by his or her peers. Thus, a child's social skills often influence his or her social acceptance. Previous research has shown that children with SLI have difficulty with negotiation (Brinton, Fijuki, & McKee, 1998), group decision making (Fijuki, Brinton, Robinson, & Watson, 1997), conflict resolution (Stevens & Bliss, 1995), and initiating social interactions (Brinton, Fujiki, Spencer, & Robinson, 1997). One study concluded that there is a clear need to incorporate social functioning in the intervention programming for students with SLI (Fujiki et al., 1999). The current study may add evidence to this argument by examining what factors may be impacting the social acceptance of children with SLI.

Social Acceptance of Students with Educable Mental Disabilities

The bulk of the literature in this area has shown students with mild mental disabilities to be less socially accepted and more socially rejected than their non-disabled peers (Taylor et al., 1987). However, this research has been clouded with the variation of educational placements, and thus social environments, for children with an Educable Mental Disability (EMD). The inclusion of children with disabilities in the regular classroom has certainly changed the way children with mental disabilities interact with their non-disabled peers. In the regular education classroom, students with EMD and their typically developing peers are exposed to each other's differences, both academically and socially. Many studies in this area have focused on the argument of whether inclusive settings best support the social success of children with EMD. While, this issue is outside the realm of the present study, it is important to note that many studies have shown that despite the setting (i.e., general education versus special education) students with EMD are not as socially accepted as their typically developing peers (Freeman, 2000). Therefore, the setting alone is not enough intervention to provide social success for these students. The current study looked at the relationship between victimization, bullying, and reciprocal friendships and other factors that may be impacting the social acceptance of students with EMD.

Social Self-perceptions of Students with Disabilities

A bulk of research focusing on the self-perceptions of children with disabilities has looked at those with LD. Few studies have examined the self-perceptions of children with OHI, SLI or EMD. However, there has been an increased interest over the last decade due to empirical support linking high self-esteem with strong social functioning among children (Jerome, et al., 2002). Therefore, it would make sense to investigate the self-perceptions of

those students who exhibit poor social functioning.   The following sections will review the literature to date on the social self-perceptions of students with disabilities.

Social Self-Perceptions of Students with Learning Disabilities

Research examining the distinct differences between children with LD compared to their peers without LD has identified several negative outcomes for children in the former group. While the specifics of underlying causes are still unclear, research indicates that serious problems including loneliness, depression, suicide, and delinquency are common among individuals with LD (Bender & Wall, 1994). In addition to these negative outcomes, children with LD appear have lower self-concepts (Gans, et al., 2003; Rogers & Saklofske, 1985), lower self-efficacy, and higher anxiety (Epstein, Bursuck, & Cullinan, 1985) than their peers without LD. Research on the long-term outcomes of individuals with LD includes reports of an increased risk of high school dropout, underemployment, on-going self-esteem and emotional difficulties, and high rates of dissatisfaction with life (Spekman, et al., 1993). Of critical importance here is the potential for these negative self-perceptions to lead to long-term negative outcomes for these children as adults. For the purposes of this study, the self-perceptions of children included an investigation of social self-concept, social self-efficacy, social outcomes expectancy, and social anxiety.

Self-Concept of Students with Learning Disabilities.

Although there is a lack of consensus in the literature regarding definitions of self-concept, self-perceptions, self-understanding, and self-esteem, the majority of the research, defines self-concept as domain-specific self-perceptions, while self-esteem describes an individual's overall sense of self-worth (Cosden, et al, 2002).   Depending on how high or low it is, self-concept could potentially act as either a risk or protective factor in mitigating long-term

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outcomes of individuals with LD (Cosden et al., 2002). For children, perceptions of self span

domains and include scholastic competence, peer social acceptance, athletic skill, physical

appearance, and behavioral conduct. Additionally, children ages 8-12 also have the ability to

perceive themselves globally whereas younger children have not yet achieved this

perspective (Harter, 1990). Numerous studies have found that students with LD differ

significantly on measures of self-concept from their typically achieving peers (Bender &

Wall, 1994; Kistner, Haskett, White, & Robinns, 1987).

When measuring self-concept, separation of academic and non-academic competencies

allows investigators to see that although children with LD may have a lower academic self-

concept than their non-LD peers, children with LD do not necessarily have lower perceptions

of their non-academic abilities (Cosden et al., 2002). In fact, some studies have found that

students with LD only differ from their non-LD peers on academic self-concept whereas their

non-academic self-concepts are almost equivalent (Chapman, 1988; Harter, Whitesell, &

Junkin, 1988; Vaughn, et al., 1996).

The *Piers-Harris Self-Concept Scale*, a common measure of self-concept, yields multiple

domains of self-concept: Physical Appearance and Attributes, Behavioral Adjustment,

Happiness and Satisfaction, Popularity, Freedom from Anxiety, and Intellectual and School

Status (Piers & Herzberg, 2002). Using a scale such as the *Piers-Harris* allows researchers

to focus on one or more domains of self-concept separately. For instance, Gans and

colleagues (2003) found that children with and without LD differed on the Intellectual and

School Status and Behavior subscales; students without LD scored higher, but no differences

between groups on global self-concept were evident. This study attributed the fact that

students' global self-concept is not affected by certain specific self-concepts perhaps to

students' positive self-perceptions in other areas (e.g., physical appearance, popularity) (Gans et al., 2003). Another study suggests no differences in global self-concepts, concluding that these positive non-academic perceptions act as protective factors for the long-term development of children's self-worth (Cosden et al., 2002). Much of this literature, however, focuses on the independent "risk" of having a learning disability and does not account for individual differences and/or external factors that may negatively impact one's self concept. The current study focused only on the social self-concept of children.

Self-Efficacy of Students with Learning Disabilities.

Bandura used social cognitive theory to conceptualize self-efficacy as personal beliefs about one's capabilities to organize and implement actions necessary to attain designated levels of performance (Bandura, 1982). In other words, self-efficacy is the degree to which a child believes that he or she can perform a certain task. Students' actual performance on given tasks convey information to them about how well they are learning (Schunk, 1989). Individuals assess their self-efficacy through information they acquire from their actual performance, vicarious experiences (observing others succeed or fail), forms of persuasion, and physiological indices (Schunk, 1989). Therefore, one's successes raise self-efficacy while one's failures lower it; however, once one's self-efficacy is high an occasional failure may only have a minimal overall impact (Schunk, 1989).

Self-efficacy beliefs can apply to both academic and social situations where students have opportunities for potential successes and failures. Research has shown that students with LD differ from their non-LD peers in self-efficacy beliefs (Schunk, 1985). Tabassam and Grainger (2002) found that students with LD, who usually have a lower academic self-concept, also demonstrated lower academic self-efficacy beliefs than their typically

achieving peers. To date, no studies have looked at the social self-efficacy of students with

LD. The present study investigated the social self-efficacy of students with LD as well as

certain factors impacting social self-efficacy.

Outcome Expectancy of Students with Learning Disabilities.

Outcome expectations, which are closely related to self-efficacy, are beliefs concerning the

outcomes of one's actions (Schunk, 1989). Outcome expectancy, like self-efficacy, can be

applied to both academic and social situations. Socialy, o utcome expectancy is defined as

the degree to which a child believes that his or her social attempts will be successful

(Schunk, 1989). Students are generally not motivated to behave in ways they believe will

result in negative outcomes (Schunk, 1989). For instance, if a child has continuously been

turned down when asking another child to be his friend, he will likely become less motivated

to continue asking, expecting that he will receive the outcome he previously had so many

times; thus, he will stop trying to ask others to be his friend. No studies have explored the

outcome expectancy of children with LD in social situations. This study looked at how

certain factors may impact students' outcome expectancy in social situations.

Anxiety of Students with Learning Disabilities.

In addition to being at risk for a low self-concept and low self-efficacy, studies have

shown that individuals with LD scored higher on scales of anxiety than those without LD

(Epstein, et al., 1985; Margalit & Zak, 1984). In a study examining girls with and without

LD, findings suggested that those diagnosed with LD by age seven showed more severe signs

of anxiety than their same-age non-LD peers (Epstein, et al., 1984). Hypotheses explaining

higher levels of anxiety in the LD population state that perhaps individuals with LD

experience high levels of frustration and lack of control as compared to their non-LD

counterparts (Cohen, 1986). However, few studies have investigated what factors may explain the higher likelihood that students with LD will develop symptoms of anxiety. One such study reported that high levels of anxiety correlated with lower achievement for student with LD (Bryan, et al., 1983). However, no studies have looked at the social anxiety of children with LD.

Social Self-Perceptions of Students with Other Health Impairments

To date, there have been no studies investigating the social self-perceptions of students classified as Other Health Impaired. The current study investigated the relationship of social acceptance with the social self-concept, social self-efficacy, social outcome expectancy, and social anxiety of students with OHI.

Social Self-Perceptions of Students with Speech/Language Impairments

Self-esteem has been described to develop according to what an individual imagines others' opinions are of him or her (Jerome et al., 2002). These perceptions are gathered through social exchanges and internalized to form one's self-esteem (Jerome et al., 2002). Therefore, children with SLI may have difficulty developing a healthy self-esteem due to difficulties with linguistic exchanges with others. Jerome and her colleagues (2002) noted that beginning in mid to late childhood (ages 8-11) children start to think of themselves in comparison to their peers, forming generalizations of both positive and negative perceptions of their attributes. Piers and Harris (1984) found that children with a language impairment showed significantly lower self-esteem than their typically developing peers on intellectual and school status subscales.

Jerome and colleagues (2002) is the only study to date that has investigated the social self-perceptions of children with SLI. This study noted that positive self-esteem could potentially

be an influencing factor in motivating children with SLI to regulate their behavior and persist when faced with difficult tasks. Using the Self-Perception Profile for Children (SPPC), findings showed that children with SLI reported significantly lower scholastic competence, social acceptance, and behavior conduct (Jerome et al., 2002). Specifically, the social acceptance scales used in this study examined the degree to which children felt popular or accepted by peers and did not measure perceptions of their social skills (Jerome et al., 2002). This study concluded that poor self-perceptions may weaken a student's perseverance during difficult tasks and promote further withdrawal from peers (Jerome et al., 2002). The current study investigated the relationship between peer acceptance and social self-perceptions of these students. Findings may shed light on how much children with SLI and other disabilities are emotionally impacted by their social difficulties.

Social Self-Perceptions of Students with Educable Mental Disabilities

Students classified as EMD have been shown to be less social accepted by their peers (Taylor, et al., 1987). Few studies to date have investigated how this peer rejection impacts the social self-perceptions of students with mild mental disabilities. Taylor and colleagues (1987) explained that among a group of children with a mild mental disability, some appear to externalize and others internalize these social stressors. Children with EMD in the externalizing group were perceived as showing high levels of aggressive and/or disruptive behaviors while those in the internalizing group were perceived as exhibiting high levels of shy/avoidant behaviors and reported higher social anxiety. The current study looked at the relationship between these students' social behaviors and their peer acceptance and social self-perceptions, in the hope of designing interventions that better prepare students with EMD to socially succeed in the classroom.

Summary

Empirical research concerning children with disabilities supports the statement that children classified as having a Learning Disability, Other Health Impairment, Speech Language Impairment, or Educable Mental Disability potentially experience a host of negative social outcomes. When compared to their non-labeled peers, findings suggest that children with learning disabilities are less accepted by peers, are victimized, have fewer friendships, and have a lower self-concept than their typically developing peers. The present study aimed to expand these findings to include an investigation of other disability groups.

Research over the past several decades has used a deficit model to explore differences among children with disabilities focusing on what these children lack, both academically and socially, when compared to their non-disabled peers. More recent views have shifted from a deficit model to a risk and resilience model, looking at both factors that hinder the development of children with disabilities as well as factors that positively impact these children's social development. While the present study did not investigate concurrent data and thus cannot make specific conclusions relating to risk and resilience, conclusions regarding the positive or negative impact of factors on social outcomes will be discussed. Factors explored in this study include social acceptance, victimization, bullying, reciprocal friendships, academic achievement, gender, ethnicity and special education classification . While several studies have investigated the relationship of specific factors with the social functioning of children with disabilities, few have investigated the impact of these factors on multiple groups of children identified by IDEA classifications. Furthermore, no studies to date have compared the effects of these specific factors on the social acceptance and social self-perceptions of multiple disabilities. This study explored the impact of both positive and

negative factors on the social outcomes of students with disabilities compared to their non-disabled peers as well as investigated differences in social outcomes between areas of disability.

CHAPTER 3

METHOD

Purpose of Study and Questions

The purpose of this study was to explore the potential impact of certain factors on the

social outcomes of children with disabilities. In this study potential factors were measured

by peer nominations of children's social acceptance (i.e., liked most or liked least),

victimization, bullying, and reciprocal friendships; teacher ratings of children's academic

achievement; and self-report of children's social self-perceptions (i.e., total self-concept,

popularity self-concept, social self-efficacy, social outcome expectancy, and social anxiety).

This study asked three main questions relating to the social outcomes of children classified

under IDEA as having a Learning Disability, Other Health Impairment, Speech Language

Impairment, or Educable Mental Disability:

   1) *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and*

social self-perceptions differ as a function of gender, ethnicity, and disability status?

   2) *(a) To what extent do social acceptance, victimization, bullying, reciprocal friendships,*

and social self-perceptions differ as a function of gender, ethnicity, and special education

classification?

   (b) To what extent do social acceptance, victimization, bullying, reciprocal friendships,

and social self-perceptions differ as a function of academic achievement and special

education classification?

3) Among children with disabilities, how do victimization, bullying, and reciprocal friendships of students predict their social acceptance and social self-perceptions?

Participants

Parental consent was obtained for 1,409 third and fourth grade students in the Chapel Hill-Carrboro School System. Among these students, 128 were receiving services as a student with a disability in the following areas: Learning Disability (n=66), Other Health Impaired (n=37), Speech/Language Impairment (n=19), and Educable Mentally Disabled (n=6). The Chapel Hill-Carrboro School System serves children from lower to upper middle class families, where approximately 15% of students receive free and reduced lunch. The subset of students with disabilities was unevenly distributed by gender (29% female, 71% male) and ethnicity (0.8% American-Indian, 0.8% Asian Pacific Islander, 4.7% Hispanic, 4.7% Multi-Racial, 24% African-American, and 65% Caucasian). Therefore, for analyses of ethnic differences, participants were coded as either Caucasian or minority (i.e., American-Indian, Asian Pacific Islander, Hispanic, Multi-Racial and African-American), which served as covariates within the model used.

Procedures

The present study was conducted using data collected from a larger study directed by Dr. Melissa DeRosier. The following procedures were conducted prior to the current investigation. Parental consent for participation in the larger study was obtained through parent letters, which described the purpose of the study. These letters were sent to the homes of all third and fourth graders in each elementary school in the district. The consent form explained that participants would be assured that participation was voluntary, that responses would be kept confidential, and that students may choose not to participate at any time

without negative consequences. Parents indicated in writing whether or not their child could participate in the data collection procedures and consent forms were returned to each classroom teacher.

In the data collection sessions, peer relationship and self-report surveys were administered to students as a group in their home classroom by a trained staff member (see Appendices for all measures). Each trained staff member read the same script of instructions to the class explaining how each student was to complete each section of the survey (see Appendices for script). As a part of the directions read aloud, the survey administrator also emphasized the confidentiality of the students' responses on the peer and self-report measures. Students were reminded of the importance of keeping their answers to themselves and that their specific answers would remain confidential. At times, especially when administering surveys to classrooms with various reading levels, the survey administrator would read each question aloud to avoid confusion of survey items. When appropriate, the survey administrator also helped the classroom teacher or teacher's aide with classroom management to keep students on task in order to complete the surveys in a timely manner. Survey administration sessions lasted approximately one hour. Students received identical packets containing surveys coded with an identification number and were required to use a folder as a shield to hide their work from others. Students who completed surveys (as well as those without parental consent who left the classroom during data collection) received a small prize (e.g., colorful pencil, bouncy ball, temporary tattoos) for participating.

Procedures for Peer-Reported Data Collection

Participating students first completed sociometric peer-report surveys, administered to all participants as a group, which asked students to nominate peers who met certain descriptions.

Participants were given a roster of all students in their grade at their elementary school. Students in each class were listed in alphabetical order by first name under their respective classroom teacher's name. Students were asked to circle the number next to the name of the students who met various behavioral descriptions. Participants were allowed unlimited nominations (i.e., they were instructed and reminded to circle as many names as they felt fit the descriptive question being asked and reminded that they could circle any names in any class in their grade, including their own). Using unlimited nominations has been found to be a good method of incorporating the perceptions of students during the sociometric rating process (Terry, 2000). The number of nominations each student received was summed and standardized within their grade. The predictive and concurrent validity of Coie and colleagues' (1982) sociometric procedures has been well-documented in the literature (e.g., Cillessen, Bukowsi, & Haselager, 2000) and has been shown to be a valid way of measuring peer acceptance and peer perceptions of social behavior.

Using Coie and colleagues' (1982) algorithm for classifying children into different social status groups, "liked most" (LM) and "liked least" (LL) z-scores were derived by summing raw scores (number of nominations) and standardizing them by grade level (Mean = 0, Standard Deviation = 1). Figure 1 illustrates where students who are "liked most" and "liked least" fall in the context of social status.

Figure 1. Dimensions of social preference, social impact, and five types of social status (Coie, Dodge, & Coppotelli, 1982).
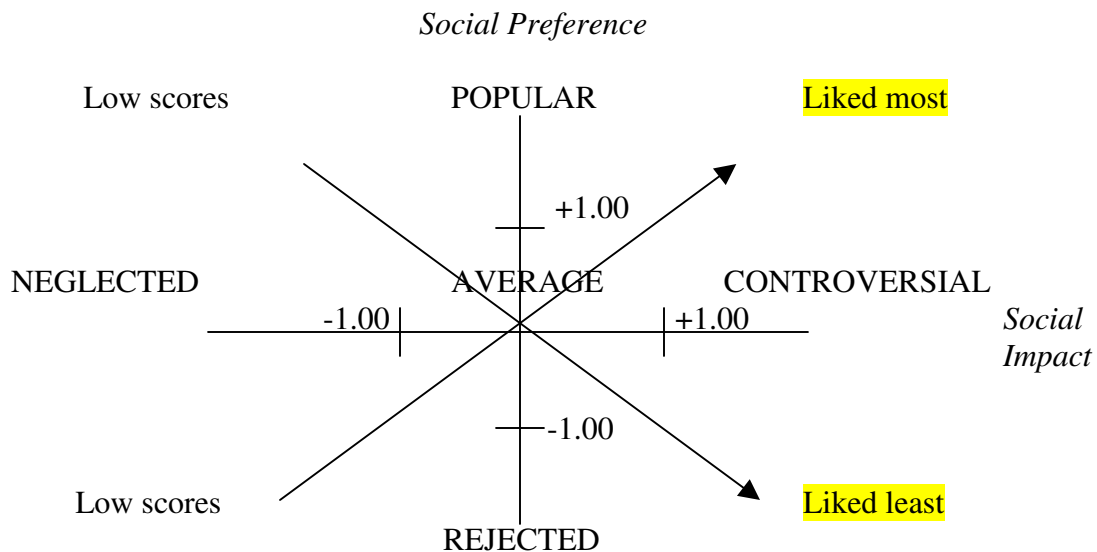
level (Mean = 0, SD = 1). These z-scores are continuous variables where a child with a z-score over 1 is considered to be victimized, a bully, or to have a significant number of reciprocal friendships.

Procedures for Self Reported Data Collection

After completing the peer-nomination measures, students completed four brief self-report measures. Each student completed these pencil and paper self-report surveys independently. The same folder shields were used to hide each student's responses from others. Staff members were present to answer questions. Each self-report measure yielded T-scores.

Procedures for Teacher-Reported Data Collection

While students completed surveys, each classroom teacher completed a pencil and paper questionnaire which asked questions about each student's academic functioning at school. Most teachers finished these surveys in the time that students took to finish. Any teacher surveys not collected at the time of data collection were collected by the school counselor

and returned in a confidential envelope to the data collectors. Data regarding gender,

ethnicity, and special education classification were obtained through school records at the

central office.

<div align="center">Measures</div>

Three types of measures were used for data collection: peer-report, student self-report, and

teacher-report.

<div align="center">*Measures of Peer-Report*</div>

Peer nominations of students' social behavior were collected using traditional sociometric

methodology (Coie et al., 1982). Students were asked to circle the number next to the name

of the student(s) who meet the following behavioral descriptions: (1) children whom they

like the most (popular), (2) children whom they like the least (rejected), (3) children who act

like a bully (aggression), (4) children who are picked on a lot (victimization), and (5)

children who are their friend(s).

<div align="center">*Measures of Self-Report*</div>

Self-report data were collected from each student through four paper and pencil surveys:

the *Piers-Harris Self-Concept Scale – 2* (Piers & Herzberg, 2002), the *Self Efficacy Scale*

(Ollendick & Schmidt, 1987), the *Outcome Expectancy Scale* (Ollendick & Schmidt, 1987),

and the *Revised Children's Manifest Anxiety Scale* (RCMAS; Reynolds & Richmond, 2000).

Self concept Measure

In this study, self-concept was measured by the 60-item *Piers-Harris Self-Concept Scale*,

which generates an overall self-concept score as well as six cluster scores: (1) Physical

Appearance and Attributes, (2) Behavioral Adjustment, (3) Happiness and Satisfaction, (4)

Popularity, (5) Freedom from Anxiety, and (6) Intellectual and School Status (Piers &

Herzberg, 2002). Because the current study focused on the social success of students, results only looked at the Piers-Harris Total Self-Concept T-score and the Popularity T-score. The *Piers-Harris Self-Concept Scale* consists of simple descriptive statements written at a third-grade reading level, which asks students to answer "Yes" or "No" in response to whether or not each statement describes him or her. In this study, responses to the *Piers-Harris* were coded as "1" and "0" indicating positive and negative self-concept, respectively. A mean score of each student's responses was calculated with a score closer to 1 indicating a more positive self-concept on cluster and overall self-concept scores. Research investigating the reliability of each cluster suggests that the cluster scales show adequate reliabilities with coefficients ranging from .74 to .83 (Cooley & Ayres, 1988). Both the subscale and total scores on the *Piers-Harris* have moderate to high internal consistency (alphas ranging from .62 to .89) (Piers & Herzberg, 2002). Piers and Herzberg (2002) reported no new reliabilities for the revised version of the *Piers-Harris Self-Concept Scale* used in this study citing that minimal changes were made in the revision. The first version of the *Piers-Harris*, from which this version is designed, has excellent test-retest reliability (.72) (Piers & Herzberg, 2002).

Table 3.1.

Sample Items from the Piers-Harris Self-Concept Scale 2 (Piers & Herzberg, 2002)

"The Way I Feel About Myself"	Yes	No
It is hard for me to make friends.		
I am unpopular.		
My friends like my ideas.		

Self efficacy Measure

Self-efficacy data were collected using the *Self-Efficacy Scale* developed by Ollendick and

Schmidt (1987). This scale was designed to measure Bandura's (1982) notion of self-

efficacy. The *Self-Efficacy Scale* asks questions relating to ten social tasks and then asks

students to indicate how sure they are that they could perform each task on a 5-point Likert

scale ranging from "Not sure at all" (1) to "Really Sure" (5). Based on participants'

responses, a scaled score was calculated for each student by averaging answers to the 10

question items, with a higher score (i.e., closer to 5) indicating a more positive perception of

self-efficacy for specific social tasks. Reliability measures for the *Self Efficacy Scale* were

taken with a sample of 86 children ages 6 to 12 years old (Ollendick & Schmidt, 1987).

Findings suggest that the *Self Efficacy Scale* has good internal consistency (alpha = .87) and

a test-retest reliability coefficient of .75 over a 3-month period (Ollendick & Schmidt, 1987).

Table 3.2.

Sample Items from the Self-Efficacy Scale (Ollendick & Schmidt, 1987)

"Doing Things With Others"	Not At All 1	Not Really 2	Maybe 3	Pretty Sure 4	Really Sure 5
How sure are you that you could start talking with a kid your age who you just met?					
When a kid your age says something nice about you, how sure are you that you could accept what they say and say "thanks"?					
How sure are you that you could get other kids your age to be your friend?					

Outcome Expectancy Measure

Outcome expectancy was assessed by the *Outcome Expectancy Scale* (Ollendick &

Schmidt, 1987), which presents 10 social tasks paralleling those of the *Self Efficacy Scale*.

The *Outcome Expectancy Scale*, however, asks students to rate themselves on how sure they

are that performing each social task will result in a desired response (e.g., a peer agreeing to

play with them). Students rank themselves using a 5-point Likert scale from "Not sure at all"

(1) to "Really sure" (5). Participants' responses from these 10 items were also averaged to

calculate scaled scores for which a higher score (i.e., closer to 5) indicates more positive

perceptions of outcome expectancy for certain social tasks. Reliability measures for the

Outcome Expectancy Scale were taken with a sample of 86 children ages 6 to 12 years

(Ollendick & Schmidt, 1987). The *Outcome Expectancy Scale* was found to have good test-

retest reliability (.78) and internal consistency (alpha = .85) Also, Ollendick and Schmidt

(1987) reported a moderate correlation between the *Self Efficacy Scale* and *Outcome*

Expectancy Scale ($r = .38$).

Table 3.3.

Sample Items from the Outcome Expectancy Scale (Ollendick & Schmidt, 1987)

"Doing Things With Others"	Not At All 1	Not Really 2	Maybe 3	Pretty Sure 4	Really Sure 5
If you went up to a kid your age who you didn't know and said "Hi," will that kid start to talk with you?					
If a kid your age tells you that you did a good job, do you believe then and feel good about what they said?					
If you ask a kid to be your friend, will they?					

Anxiety Measure

The *Revised Children's Manifest Anxiety Scale* (RCMAS; Reynolds & Richmond, 2000) is a 37-item self-report measure designed to be completed by children and adolescents ages 6 to 19 that assesses the level and nature of anxiety symptoms. The RCMAS is one of the most commonly used self-report inventory assessing anxiety symptoms of children and adolescents. The test-retest reliability of the RCMAS was examined by administering the scale to 534 children in 4th through 6th grades at the beginning of the academic year and again 9 months later. The total Anxiety score showed reasonable stability over time with a correlation of .68 across the 9-month period (Reynolds & Paget, 1981). The RCMAS asks youth to indicate whether each statement is true about themselves by answering "Yes" or "No" to statements designed to reflect symptoms of anxiety. In this study, responses to the RCMAS were coded as "1" and "0" indicating higher and lower levels of anxiety, respectively. A mean score of each student's responses was calculated with a score closer to 1 indicating a higher level of anxiety on three clinical scale scores: Physiological Anxiety, Worry/Oversensitivity, and Social Concerns. Because this study was only concerned with anxiety relating to social concerns, only results for the Social Concerns scale score were used. T-scores were also derived for each of these scales according to norms by gender and age.

Table 3.4.

Sample Items from the Revised Children's Manifest Anxiety Scale *(RCMAS; Reynolds & Richmond, 2000)*

"What I Think and Feel"	Yes	No
My feelings get hurt easily.		
I feel alone even when there are people with me.		
I am always nice to everyone.		

Measure of Teacher-Report

Classroom teachers of participants in this study completed the *Teacher Report of Student School Behavior*, which was developed at the 3-C Institute for Social Development. This 16-item questionnaire assesses teachers' perceptions of students' school-based adjustment by asking them to rate students' behavior on a 5-point Likert scale ranging from "Never True" to "Always True." (See Appendices for complete questionnaire) Teacher responses are then used to form five subscales: (1) Prosocial behavior, (2) Aggression with peers, (3) Rejected peer relationships, and (4) Academic performance. This study only focused on teachers' perceptions of students' academic performance in order to compare achievement with students' social success. Limitations to using the *Teacher Report of Student School Behavior* include the lack of specific statistics concerning the reliability and validity of the measure. However, Table 3.5 displays the factor loadings of each question included in the *Teacher Report*.

Table 3.5.

Factor Loadings per Item on the Teacher Report of Student School Behavior

Item	Aggression	Academic Achievement	Prosocial	Rejected
Treats other students kindly.	-0.671	0.209	**0.434**	-0.051
Breaks school and classroom rules.	**0.609**	-0.304	-0.309	-0.026
Is polite to teachers.	-0.347	0.198	**0.705**	0.159
Is disliked or rejected by most other students.	0.404	-0.192	-0.396	**0.524**
Tells the truth about something even if it will get him/her in trouble.	-0.584	0.292	**0.303**	-0.051
Performs well on tests.	-0.142	**0.897**	0.076	-0.136
Yells, shouts, or hits when angry.	**0.682**	-0.099	-0.108	--
Performs well on homework.	-0.221	**0.841**	0.090	-0.066
Acts like a bully; picks on, beats up, or teases others.	**0.821**	-0.107	-0.199	0.061
Is mean behind other students' backs; spreads rumor or tells others not to be friends with someone.	**0.754**	-0.083	-0.221	0.054
Gets along well with same sex peers.	-0.295	0.103	**0.805**	-0.160
Gets along well with opposite sex peers.	-0.233	0.096	**0.824**	-0.111
Uses physical force to dominate others and get his/her own way.	**0.782**	-0.086	-0.067	0.117
Is the victim of bullies; gets picked on.	0.046	-0.083	-0.252	**0.803**
Performs well on schoolwork in class.	-0.155	**0.905**	0.121	-0.126
Is seen as a role model by other children.	-0.126	**0.501**	0.369	-0.240
Is frequently absent from school.	0.085	-0.147	0.155	**0.509**

* Factor loadings for each subscale are indicated in **BOLD**

Data Analysis

Preliminary Data Analyses

The present study investigated the social outcomes of children with and without

disabilities. Students with disabilities included those classified as having a Learning

Disability, Other Health Impairment, Speech/Language Impairment, or Educable Mental

Disability. In this study, positive social outcomes were defined as having positive social

acceptance among peers (i.e., being well liked), having reciprocal friendships, and/or having

positive social self-perceptions. Preliminary analyses included an investigation of the

descriptive statistics of students with and withoutdisabilities, including gender, ethnicity

(Caucasian/minority), grade level, and academic achievement (low/average/high) as rated by

each participant's classroom teacher. These initial analyses also identified two peer-

nominated social acceptance groups: "liked most" and "liked least," as defined by Coie and

colleagues (1982). Participants were also identified as belonging to groups according to peer

nominations of victimization, bullying, and reciprocal friendships by assigning dummy codes

to each variable which assigned "1" to a z-score greater than or equal to 1.0 and "0" to a z-

score less than 1.0. Dummy codes were also assigned to social self-perception variables

based on percentile scores on the *Piers-Harris Self-Concept Rating Scale* and the *Revised*

Children's Manifest Anxiety Scale. Dummy coding for the *Self Efficacy Scale* and the

Outcome Expectancy Scale were based on Likert-type scores ranging from 1 to 5. Chi-square

analyses were then run to determine if significant differences existed between students with

and without disabilities on each social variable. Further analyses explored group differences

in social outcomes between children with disabilities and their non-labeled peers as well as

within-group differences in social outcomes among children with disabilities.

Question 1: *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and disability status?*

Statistical Analysis for Question 1

A multivariate analysis of variance (MANOVA) was performed to examine the relationships between students' gender, ethnicity, and disability status and their social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions (i.e., self concept total, self-concept popularity cluster, social self-efficacy, social outcome expectancy, and social anxiety). Independent variables included gender, ethnicity (Caucasian/minority), and disability status (labeled/non-labeled). Dependent variables included peer nominations of social acceptance (i.e., "liked most," "liked least"); being victimized, bullying others, and having reciprocal friendships; and self -report rating of social self-concept, social self-efficacy, social outcome expectancy, and social anxiety. Each dependent variable was continuous allowing analyses to compare differences between those students with lower or higher levels of social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions. In the following hypotheses, negative social self-perceptions were defined as having a lower self-concept, lower self-efficacy, lower outcome expectancy, and higher anxiety while positive self-perceptions were defined as having higher self-concept, higher self-efficacy, higher outcome expectancy, and lower levels of anxiety.

Hypotheses for Question 1

1) **Gender.**

a. **Male students with disabilities were hypothesized to bully others significantly more than male students without disabilities.** One study investigating differences among boys with LD found that not only were they more rejected and less popular than boys without LD, but they were considered by their classmates to be aggressive (Landau, et al., 1987). Due to such studies showing boys' tendency to externalize frustrations, the current study predicted that being male will correlate with bullying behavior.

b. **Female students with disabilities were hypothesized to have significantly more negative social self perceptions than their non-labeled female counterparts.** One study looking at the social behavior problems of girls with and without LD found that girls with LD differed from their female peers only with respect to exhibiting higher levels of anxiety and withdrawn behavior (Epstein et al., 1984).

2) **Ethnicity.**

a. **Students with disabilities were hypothesized to not differ significantly from their non-labeled peers in social acceptance, victimization, bullying, and reciprocal friendships.** One study focusing on non-disabled children found no variation across ethnicities among peer nominations of social acceptance or behaviors such as bullying others (Fireman, Hutcherson, Chilton, & Wang, 2002). A recent study found that those victimized were disproportionately Asian (Mouttapa, Valente, Gallaher, Rohrbach, & Unger, 2004). However, no differences due to Asian ethnicity were expected in this study due to small sample size.

b. **Students with disabilities werehypothesized to not differ significantly from their non-labeled peers in social self-perceptions.** Although one may assume that students in the minority group may have a lower self-worth due to identifying with the societal struggles of belonging to a minority group, one study concluded that the self-concept of African American children is not influenced by their perception of their racial group (Bonvillian & Huston, 2000). In fact, African American children were found to develop a positive self-esteem earlier than developing attitudes toward their racial group and therefore feelings of self-worth appeared to not be impacted (Bonvillian & Huston, 2000).

3) **Disability Status.**

a. **Students with disabilities were hypothesized to be less well accepted than their non-disabled peers.** Previous research has shown that students with LD were less "popular" and more "controversial" in their social status and reported more feelings of loneliness than their non-LD peers (Pavri & Luftig, 2000). Also, children with SLI have difficulty with negotiation (Brinton, et al., 1997), group decision making (Fujiki, et al, 1997), conflict resolution (Stevens & Bliss, 1995), and initiating social interactions (Brinton, et al., 1997). Studies have found that students with EMD are less likely to be socially accepted by their non-disabled peers (Taylor, et al., 1987). Therefore, significant group differences in peer acceptance were expected between disabled and non-labeled peers.

b. **Students with a disability were hypothesized to be victimized more than their non-labeled peers.** Students with LD have been found to be less

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"popular" in their social status and reported to have more feelings of loneliness than their non-LD peers (Pavri & Luftig, 2000). One study found peer rejection to be significantly correlated with victimization among children with LD (Hodges, et al., 1997). Much of the literature in this area of mental retardation has shown students with mild mental disabilities to be less socially accepted and more socially rejected than their non-disabled peers (Taylor et al., 1987).

c. **Students with a disability were hypothesized to receive more ratings as bullies than their non-labeled peers.** Children with LD have been reported to exhibit more aggressive behaviors than their non-labeled peers (McConaughly, et al., 1994). Children with EMD who tend to express their frustration through externalizing behavior were perceived as showing high levels of aggressive and/or disruptive behaviors (Taylor et al., 1987).

d. **Students with disabilities were hypothesized to have fewer reciprocal friendships than their non-labeled peers.** As previously discussed, students with LD are often not well accepted by their peers (Bryan, 1997; Gresham, 1982; Stone & LaGreca, 1990). Also, non-disabled peers of students who are EMD have been found to spend more time interacting with friends than their disabled counterparts (Kemp & Carter, 2002).

e. **Students with disabilities were hypothesized to report significantly lower social self-perceptions than their non-labeled peers.** Children with LD appear have lower self-concepts (Gans, et al., 2003; Rogers & Saklofske, 1985), lower self-efficacy, and higher anxiety (Epstein, et al., 1985) than their peers without LD. Findings have shown that children with SLI reported significantly lower

scholastic competence, social acceptance, and behavior conduct (Jerome et al.,

2002). Children with EMD who internalize social stressors were perceived as

exhibiting high levels of shy/avoidant behaviors and reported higher social

anxiety (Taylor et al., 1987).

Question 2a: *To what extent do social acceptance, victimization, bullying, reciprocal*

friendships, and social self-perceptions differ as a function of gender, ethnicity, and special

education classification?

Statistical Analysis for Question 2a

A multivariate analysis of variance (MANOVA) was performed in order to examine the

relationships between children's gender, ethnicity, and disability classification, and their

social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions.

Independent variables included gender (male/female), ethnicity (Caucasian/minority), and

disability status (LD/OHI/SLI/non-labeled). Due to a small cell size, students with EMD

were excluded from this research question. Dependent variables included peer report of

social acceptance (i.e., being "liked most" or "liked least"); peer report of victimization,

bullying, and reciprocal friendships; and self-report of total self-concept, self-concept

popularity cluster, social self-efficacy, social outcomes expectancy, and social anxiety. Each

dependent variable was continuous allowing analyses to compare differences between those

students with lower or higher social acceptance, social behaviors, and social self-perceptions.

Hypotheses for Question 2a

1) **Gender.** (See hypotheses for Question1)

2) **Ethnicity.** (See hypotheses for Question 1)

3) **Special Education Classification**

a. **Non-labeled students were hypothesized to be the most socially accepted by peers followed by those with LD, OHI, and SLI, respectively.** Several studies have found that among students with LD, having at least one reciprocal friend correlates with higher self-perceptions of social status (Bear, et al., 1993; Juvonen & Bear, 1992). When compared to students with disabilities, 45.2% of those with LD are reported by their parents as having "frequent" interaction (four times per week) with peers, the highest percentage among students with disabilities (Wagner, et al., 2002).

b. **Students with disabilities were hypothesized to be nominated as being victimized more than their non-labeled peers.** One study found peer rejection to be significantly correlated with victimization among children with LD (Hodges, et al., 1997).

c. **Non-labeled students were hypothesized to bully others less than their peers with disabilities.** Children with LD have been reported to exhibit more aggressive behaviors than their non-labeled peers (McConaughy, et al., 1994). One study investigating differences among boys with LD found that not only were they more rejected and less popular than boys without LD, but they were considered by their classmates to be aggressive (Landau, et al., 1987). Also, because the diagnosis of ADHD falls under the category of OHI, it was expected that this group of children may have difficulty regulating their social behaviors and may be viewed by their peers as impulsive and aggressive. Previous research has also shown that children with SLI have difficulty with negotiation (Brinton, et al., 1997), group decision making (Fujiki, et al.,

1997), conflict resolution (Stevens & Bliss, 1995), and initiating social interactions (Brinton, et al., 1997).

d. **Non-labeled peers were hypothesized to have significantly more reciprocal friendships than students with disabilities. Students classified as LD will have more reciprocal friendships followed by those with OHI and SLI, respectively.** Again, when compared to students with disabilities, 45.2% of those with LD are reported by their parents as having "frequent" interaction with peers, the highest percentage among students with disabilities (Wagner, et al., 2002). Of children with OHI 35.2% were reported to interact with friends at least four times per week (Wagner et al., 2002). According to parent report of these students' interaction with friends, this study found that students classified as OHI, LD, and SLI, tended to be the more socially active with peers than those with autism, traumatic brain injury, multiple disabilities, and deaf-blindness (Wagner et al., 2002).

e. **Non-labeled students were hypothesized to have significantly more positive social self-perceptions followed by students with LD, OHI, and SLI, respectively.** Research has shown that children who report having friends score higher than those without friends on measures of self-concept (Mannario, 1978) and general self-worth (Bukowski & Newcomb, 1987). Forty five percent of students with LD are reported by their parents as having "frequent" interaction with peers, (Wagner, et al., 2002).

Question 2b: *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of academic achievement and special education classification?*

Statistical Analysis for Question 2b

A multivariate analysis of variance (MANOVA) was performed in order to examine the relationships between children's academic achievement and disability classification, and their social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions. Independent variables included academic achievement (low/mid/high) and disability status (LD/OHI/SLI/non-labeled). Due to a small cell size, students with EMD were excluded from this research question. Dependent variables included peer report of social acceptance (i.e., being "liked most" or "liked least"); peer report of victimization, bullying, and reciprocal friendships; and self-report of total self-concept, self-concept popularity cluster, social self-efficacy, social outcomes expectancy, and social anxiety. Each dependent variable was continuous allowing analyses to compare differences between those students with lower or higher social acceptance, social behaviors, and social self-perceptions.

Hypotheses for Question 2b

1) **Academic Achievement**

   a. **Students with disabilities who were also low achieving were hypothesized to have poorer social acceptance than their higher achieving peers with disabilities.** One recent study found that children with LD and their low-achieving peers had more social difficulties than with average to high achieving peers (Nowicki, 2003). Therefore, this study hypothesized that

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level of academic achievement would impact the social acceptance of children with disabilities.

b. **Students with disabilities who also had low academic achievement were hypothesized to report significantly more negative social self-perceptions than their peers with disabilities who had average to high academic achievement.**One study reported that high levels of anxiety correlated with lower achievement for student with LD (Bryan, et al., 1983). Therefore, level of academic achievement was expected to impact the level of social self-perceptions reported by students with disabilities.

2) **Special Education Classification** (See hypotheses for Question 2a)

Question 3: *Among children with disabilities, how do victimization, bullying, and reciprocal friendships of students predict their social acceptance and social self-perceptions?*

Statistical Analysis for Question 3

A series of standard multiple regressions were run in order to examine the relationship between victimization, bullying, reciprocal friendships, and social acceptance. A second series of standards multiple regressions investigated the relationship between victimization, bullying, and reciprocal friendships and social self-perceptions of children with disabilities. Again, due to small cell sizes, students classified as EMD were not included in the analysis for Question 3. Independent variables included peer report of victimization, bullying, and reciprocal friendships. Dependent variables were peer nominations of social acceptance and self-report of total self-concept, self-concept popularity cluster, social self-efficacy, social outcome expectancy, and social anxiety. These analyses investigated the contribution of

victimization, bullying, and reciprocal friendships to the social acceptance and social self-perceptions of children with disabilities.

Hypotheses for Question 3

A) **Victimization.**

1) **Students with disabilities who were victimized were hypothesized to have significantly lower social acceptance.** Children who are victimized by their peers have been found to be less well-accepted and more rejected than those who are not picked on (Perry, et al., 1988). In fact, one study found peer rejection to have a .80 correlation with victimization (Hodges, et al., 1997). Because students with LD are more likely to be rejected by their peers, frequently it is the case that these are the children who are often picked on by their peers (Weiner, 2003). Thus, children with disabilities who were victimized in the present study were also expected to be reported as being "liked least" by their peers.

2) **Students with disabilities who were victimized were hypothesized to report significantly more negative social self-perceptions.** Peer victimization has also been found to be associated with low academic achievement, low self-esteem, and anxiety (Perry, et al., 2001). Therefore, it was hypothesized that children with disabilities who were victimized would report more negative social self-perceptions than those who were not picked on by their peers.

B) **Bullying.**

1) **Students with disabilities who bully others were hypothesized to have lower social acceptance.** Previous research has shown that children with SLI have difficulty with negotiation (Brinton, et al., 1997), group decision making (Fujiki,

et al., 1997), conflict resolution (Stevens & Bliss, 1995), and initiating social interactions (Brinton, et al., 1997). Therefore, it was hypothesized that students who bully others would also not be socially accepted by their peers.

2) **Students with disabilities who bully others were hypothesized to report more negative social self-perceptions, with the exception of social self-efficacy and outcome expectancy.** Children with LD have been reported to exhibit more aggressive behaviors than their non-labeled peers (McConaughy, et al., 1994). Students with LD have also been shown to be less "popular" and more "controversial" in their social status and reported more feelings of loneliness than their non-LD peers (Pavri & Luftig, 2000). The current study hypothesized that children who bully others had poor social self-concept and social anxiety.

   However, among a non-disabled sample, one study found that boys who bullied others also scored high on measures of self-efficacy. This study concluded that physical behaviors, commonly associated with bullying in boys, could be seen as acceptable in boys' peer groups (Andreou, 2004). Since self-efficacy and outcome expectancy are closely related, it was hypothesized that students who bully others, especially boys, would have a more positive sense of social self-efficacy and social outcome expectancy.

C) **Reciprocal Friendships.**

1) **Students with disabilities who reported more reciprocal friendships were hypothesized to be more socially accepted.** Positive outcomes for having reciprocal friendships include more intense social activity, improved conflict resolution, increased sharing and cooperation, improved expression of emotions,

and support for future interpersonal relationships (Vaughn et al., 2001). Several

studies have found that among students with LD, having at least one reciprocal

friend correlates with higher self-perceptions of social status (Bear, et al., 1993;

Juvonen & Bear, 1992) and more positive perceptions by one's peers (Newcomb

& Bagwell, 1995).

2) **Students with disabilities who reported having more reciprocal friendships**
   were hypothesized to report more positive social self-perceptions. Research

   has also shown that children who report having friends score higher than those

   without friends on measures of self-concept (Mannario, 1978) and general self-

   worth (Bukowski & Newcomb, 1987). Therefore, the current study hypothesized

   that having reciprocal friends would relate to reports of more positive social self-

   perceptions.

CHAPTER 4

RESULTS

Overview

The results are presented in the following sections in the order of the analyses proposed in the Method section. The first section reports the preliminary analyses run on this dataset. Further analyses explored differences on social variables between children with disabilities and their non-labeled peers, potential factors impacting social outcomes of children with disabilities, and within-group differences in social outcomes among children with disabilities.

Preliminary Analyses

Table 4.1 presents differences in gender, ethnicity, grade level, and academic achievement of the total sample and the subset of students with disabilities. Although the total sample was approximately evenly distributed by gender (51.2% male, 48.8% female), the disability sample contains more males (71.4%) than females (28.6%). Also, according to teacher ratings of academic performance, 13.6% of non-labeled peers were reported to have low academic achievement while 21.1% of students with disabilities were rated as having low academic achievement.

Chi-square analyses were run in order to determine if a significant relationship existed between students with and without a disability in terms of gender, ethnicity, and academic achievement. Significant differences ($p<.05$) were found between students with and without disabilities in the areas of gender and academic achievement but not ethnicity (see Table 4.1).

The next set of preliminary analyses was run to identify two peer-nominated social

Table 4.1.

*Descriptive Statistics for Total and Disability Sample (*significant difference, p<.05)*

	Non-labeled peers	Disability Sample					Total Sample
		LD	OHI	SLI	EMD	Total	
Gender							
Male*	629	46	28	12	4	90	719
Female*	649	18	9	7	2	36	685
Missing Data	3	2	0	0	0	2	5
Ethnicity							
Caucasian	773	44	21	15	2	82	855
African American	152	13	11	2	4	30	182
Hispanic	107	6	0	0	0	6	113
Multi-racial	64	0	4	2	0	6	70
Asian/Pacific Islander	174	0	1	0	0	1	175
American Indian	8	1	0	0	0	1	9
Missing Data	3	2	0	0	0	2	5
Grade							
Third	710	33	18	11	1	63	773
Fourth	611	33	19	8	5	65	676
Missing Data	0	0	0	0	0	0	0
Academic Achievement							
Low	175	12	10	4	1	27	302
Average	273	37	15	1	5	58	331
High *	833	17	12	14	0	43	876
Missing Data	0	0	0	0	0	0	0
Total							
	1281	66	37	19	6	128	1409

acceptance groups: "liked most" and "liked least," as defined by Coie and colleagues (1982).

Participants were also identified as being victimized or bullying others significantly more

often than their peers and as having significantly more reciprocated friendships than others.

Chi-square analyses were run in order to determine the frequency that having a disability coincided with social acceptance, bullying, victimization, and reciprocal friendships. Significant differences ($p<.05$) were found between students with and without disabilities in the areas of social acceptance, victimization, bullying, and reciprocal friendships (see Figure 2).

Finally, chi-square analyses were run in order to determine if significant differences in social self-perceptions existed between those with and without disabilities. Significant differences ($p<.05$) were found between students with and without disabilities in the areas of total self-concept score (see Figure 2). No significant differences were found for other areas of social self-perception studied.

Research Question 1: *To what extent do social acceptance, victimization, bullying, reciprocal friendships and social self-perceptions differ as a function of gender, ethnicity, and disability status?*

Results from preliminary analyses indicated significant discrepancies between students with disabilities and their non-labeled peers on several variables studied. In order to further explore the social differences between children with and without disabilities, a multivariate analysis of variance (MANOVA) was performed. The MANOVA examined the differences between children's social acceptance (i.e., "liked most," "liked least"), victimization, bullying, reciprocal friendships, and social self-perceptions (i.e., total self-concept, self-concept popularity cluster score, social self-efficacy, social outcome expectancy, and social anxiety) as a function of gender, ethnicity (i.e., Caucasian and minority), and disability status (labeled and non-labeled). When an effect was significant at the MANOVA level, univariate

Figure 2.

Significant Differences in Social Variables (p<.05)
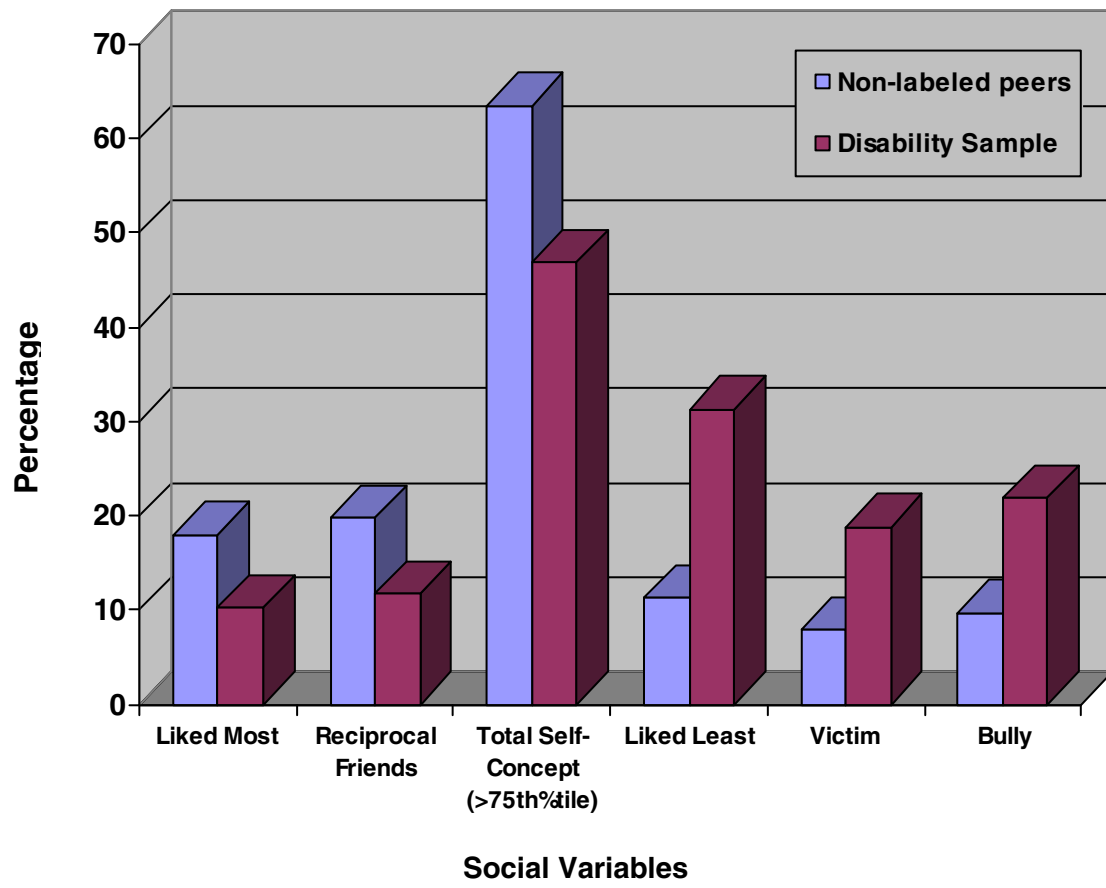
analyses were examined to determine for which areas the effects held. For significant

univariate effects, effect sizes were calculated and post-hoc mean comparison tests (Student-

Newman-Keuls) were conducted to determine the direction of the effect.

Significant multivariate main effects were found for gender [$F_{(10, 1220)}$=6.71, $p<.0001$],

ethnicity [$F_{(10, 1220)}$=4.82, $p<.0001$], and disability status [$F_{(10, 1220)}$=5.20, $p<.0001$].

Significant multivariate interactions were also found for gender/ethnicity [$F_{(10, 1220)}$=2.42,

$p<.01$], gender/disability status [$F_{(10, 1220)}$=3.38, $p<.001$], and gender/ethnicity/disability

status [$F_{(10, 1220)}$=2.04, $p<.05$].

Among the total sample studied, univariate analyses demonstrated significant differences

between genders in terms of bullying others [$F_{(1, 1229)}$=39.33, $p<.0001$, effect size d=.37].

Follow-up post-hoc means comparisons indicated that boys were nominated as "bullies"

significantly more than their female classmates. Gender was not found to significantly impact

social acceptance, victimization, reciprocal friendships, or any social self-perceptions

studied. Univarite analyses also revealed significant differences between students who were

Caucasian and their peers in minority groups in terms of bullying others [$F_{(1, 1229)}$=12.38,

$p<.001$; effect size d=.33] and being "liked most" [$F_{(1, 1229)}$=13.36, $p<.001$; effect size d=.33].

Follow-up post-hoc means comparisons indicated that students in the minority were

nominated significantly more often as bullying others than their Caucasian peers. Caucasian

students also received significantly more "liked most" nominations than their classmates in

minority groups. Ethnicity was not found to significantly impact victimization, reciprocal

friendships, or any social self-perception studied.

Univariate analyses demonstrated significant differences between students classified as

having a disability and those without a special education label in terms of victimization [$F_{(1,}$

$_{1229)}$=20.29, p<.0001; effect size d=.46], bullying [$F_{(1, 1229)}$=11.19, p<.001; effect size d=.50],

reciprocal friendships [$F_{(1, 1229)}$=24.10, p<.0001; effect size d=.62], "liked most" [$F_{(1, 1229)}$=23.75, p<.0001; effect size d=.50], "liked least" [$F_{(1, 1229)}$=29.09, p<.0001; effect size d=.66], total self-concept [$F_{(1, 1229)}$=6.40, p<.05; effect size d=.42], and self-concept

popularity cluster score [$F_{(1, 1229)}$=6.45, p<.05; effect size d=.36]. Follow-up post-hoc means

comparisons indicated that students classified as having a disability received fewer

nominations as "liked most," more nominations as "liked least," were victimized more, were

viewed as bullies more often, had fewer reciprocal friendships, and reported lower total self-

concept and self-concept popularity cluster score than their non-labeled peers. Disability

status was not found to significantly impact any other areas of social self-perception studied.

Significant multivariate interaction effects were found between gender/ethnicity,

gender/disability, and between gender/ethnicity/disability. Gender/ethnicity interaction

effects held for bullying [$F_{(1,1229)}$=9.76, p<.01] as did gender/disability interaction effects for

bullying [$F_{(1, 1229)}$=14.24, p<.001]. Post hoc means comparison tests indicated that boys in

minority groups received the most peer nominations for bullying followed by Caucasian boys

and girls in minority groups, respectively. Caucasian girls received the fewest nominations

for being perceived as a bully. Boys with disabilities were also nominated most by their peers

as bullies followed by boys without disabilities and girls with a disability classification,

respectively. Girls without disabilities received the fewest "bully" nominations.

Gender/ethnicity/disability interaction effects held for bullying [$F_{(1, 1229)}$=7.47, p<.01]. Post

hoc means comparison tests indicated that boys in minority groups who were also classified

as having a disability received the most nominations as a "bully" followed by Caucasian boys

with disabilities, and boys in minority groups without disabilities, respectively. Caucasian

girls without disabilities and girls in minority groups with disabilities were seldom nominated as "bullies."

Question 2a: *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and special education classification?*

A multivariate analysis of variance (MANOVA) was performed in order to examine the differences between children's social acceptance (i.e., "liked most," "liked least"), victimization, bullying, reciprocal friendships, and social self-perceptions (i.e., total self-concept, self-concept popularity cluster, social self-efficacy, social outcome expectancy, and social anxiety) and gender, ethnicity (i.e., Caucasian and minority), and special education classification (i.e., non-labeled, LD, OHI, and SLI). Due to a prohibitively small sample size, students with EMD were excluded from this analysis. When an effect was significant at the MANOVA level, univarite analyses were examined to determine for which areas the effects held. For significant univarite effects, effect sizes were calculated and post-hoc mean comparison tests (Student-Newman-Keuls) were conducted to determine the direction of the effect. Despite low cell sizes for students with SLI, interaction effects will still be reported for the purpose of observation.

Significant multivariate main effects were found for gender [$F_{(10,1206)}$=3.15, *p*<.001], ethnicity [$F_{(10,1206)}$=2.38, *p*<.01], and special education classification [$F_{(10,1208)}$=3.86, *p*<.0001]. Multivariate interaction effects were found between gender and special education classification [$F_{(10,1208)}$=5.26, *p*<.0001] and between gender and race [$F_{(10,1206)}$=2.13), *p*<.05].

Univariate analyses demonstrated significant relationships between gender and bullying [$F_{(1, 1215)}$=12.99, *p* < .001; effect size *d*=.37]. Follow-up post-hoc means comparisons indicated

that male students were nominated as bullies significantly more often than their female peers. Univariate effects for ethnicity held for "liked most" [$F_{(1,1215)}$=5.57, $p<.05$; effect size d=.33]. Post-hoc means comparisons indicated that Caucasian children received more nominations as being "liked most" by their peers than students in minority groups. Univariate effects for special education classification held for bullying [$F_{(1,1215)}$=4.51, $p<.01$; effect size d=.50], victimization [$F_{(1,1215)}$=6.53, $p<.001$; effect size d=.46], reciprocal friendships [$F_{(1,1215)}$=7.50, $p<.0001$; effect size d=.62], "liked most" [$F_{(1,1215)}$=6.09, $p<.001$; effect size d=.50] and "liked least" [$F_{(1,1215)}$=6.87, $p=.0001$; effect size d=.66]. Follow-up post-hoc means comparisons indicated that students classified as OHI had the highest mean score for bullying followed by students with LD. Students classified as SLI and non-labeled students had the lowest means scores for bullying. Students with LD received the highest score for victimization and the lowest mean score for reciprocal friendships. Students with OHI also received a lower mean score for reciprocal friendships while students with SLI had the highest reciprocal friendship score followed by those without a disability. Students with OHI also received the lowest "liked most" mean score while non-labeled students and those with SLI had higher "liked most" scores. Students with OHI had the highest "liked least" mean scores followed by students with LD, while non-labeled students and students with SLI received lower "liked least" scores.

Examination of interaction effect means suggested that Caucasian girls reported the highest total self-concept followed by girls in minority groups and Caucasian boys, respectively, while boys in minority groups reported the lowest total self-concept. Caucasian girls also reported the highest self-concept popularity score followed by boys in minority groups and Caucasian boys, respectively, while girls in minority groups reported the lowest

self-concept popularity score. Girls in minority groups also reported the highest social anxiety score followed by boys in minority groups and Caucasian boys, while Caucasian girls reported the lowest level of social anxiety. Also, boys with OHI received the highest mean score for bullying followed by boys with LD and non-labeled boys, respectively. All girls studied and boys with SLI were seldom nominated as bullies. Boys with OHI also received the highest mean score for being "liked least" followed by boys with LD and girls with LD, respectively. Boys with SLI, girls with OHI, and non-labeled girls were seldom nominated as being "liked least" by their peers.

Question 2b: *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of academic achievement and special education classification?*

A multivariate analysis of variance (MANOVA) was performed in order to examine the relationships between children's social acceptance (i.e., "liked most," "liked least"), victimization, bullying, reciprocal friendships, and social self-perceptions (i.e., total self-concept, self-concept popularity cluster, social self-efficacy, social outcome expectancy, and social anxiety) and their academic achievement and special education classification (i.e., non-labeled, LD, OHI, and SLI). Due to a prohibitively small sample size, students with EMD were excluded from this analysis. When an effect was significant at the MANOVA level, univarite analyses were examined to determine for which areas the effects held. For significant univarite effects, post-hoc mean comparison tests (Student-Newman-Keuls) were conducted to determine the direction of the effect. Effect size estimates were not calculated for this analysis due to the degrees of freedom being greater than 1 for each variable studied

(McCartney & Rosenthal, 2000). Again, despite low cell sizes for students with SLI, interaction effects will still be reported for the purpose of observation.

Significant multivariate main effects were found for both academic achievement [$F_{(10,1215)}=2.67$, $p<.01$] and special education classification [$F_{(10,1216)}=6.03$, $p<.0001$]. Multivariate interaction effects were found between academic achievement/special education classification [$F_{(10,1219)}=4.17$, $p<.0001$].

Univariate analyses found a significant relationship between teacher report of academic achievement and being "liked least" by one's peers [$F_{(2,1223)}=3.45$, $p<.05$], total self-concept score [$F_{(2,1223)}=3.65$, $p<.05$], and social anxiety score [$F_{(2,1223)}=3.85$, $p<.05$]. Follow-up post-hoc means comparisons indicated that students reported to have average academic achievement received the highest "liked least" mean scores followed by those with low academic achievement. Students with high academic achievement received the lowest mean scores for being "liked least" (see Table 4.2). Students reported to have high academic achievement reported the highest mean scores for total self-concept followed by students with low academic achievement and average achievement, respectively. And, students rated by their teachers as having average academic achievement reported the highest mean scores for social anxiety followed by their low and high achieving peers, respectively (see Table 4.2). Univariate effects for special education classification held for bullying [$F_{(3,1223)}=11.43$, $p<.0001$], victimization [$F_{(3,1223)}=4.50$, $p<.01$], reciprocal friendships [$F_{(3,1223)}=5.73$, $p<.001$], "liked most" [$F_{(3,1223)}=3.99$, $p<.01$], "liked least" [$F_{(3,1223)}=11.23$, $p<.0001$], and total self-concept score [$F_{(3,1223)}=3.17$, $p<.05$]. Follow-up post-hoc means comparisons indicated that students with OHI had the highest mean scores for bullying while students with SLI had the lowest. Students with LD received the highest victimization scores and non-labeled peers the

lowest. Non-labeled students and those with SLI had higher reciprocal friendship and "liked most" scores and lower "liked least" scores than students with LD and OHI. Also, students with LD reported that lowest total-self-concept mean scores while students with SLI reported the highest self-concept total scores of all disability classifications studied, including non-labeled peers (see Table 4.2).

Examination of interaction effect means suggested that students with LD who were reported to have average academic achievement received the highest mean scores for victimization followed by low-achieving students with SLI, high-achieving students with LD, respectively. Average and high-achieving students with OHI as well as average-achieving non-labeled students also had elevated mean scores for victimization. Average achieving students with SLI received the lowest mean scores for victimization (see Table 4.2).

Question 3: *Among children with disabilities, how do victimization, bullying, and reciprocal friendships of students predict their social acceptance and social self-perceptions?*

A series of standard multiple regressions was performed in order to examine the relationship between victimization, bullying, reciprocal friendships and social acceptance and social self-perceptions among children with disabilities (i.e., LD, OHI, and SLI). Due to a prohibitively small sample size, students with EMD were excluded from this analysis. Prior to running regression analyses, correlation procedures were run in order to determine the Pearson correlation coefficients between independent and dependent variables. Independent variables used in each regression were victimization, bullying, and reciprocal friendships while dependent variables, run in separate regression statements, included social acceptance

Table 4.2.

Group Means on Social Variables among Sample Studied (* indicates significant difference)

Variables	Liked Most	Liked Least	Bullying	Victimization	Reciprocal Friendships	Total Self-Concept	Self-Concept Popularity	Social Self-Efficacy	Social Outcome Expectancy	Social Anxiety
Male	.120	.123	.135*	.090	6.361	.789	.700	3.972	3.640	.242
Female	.260	-.201	-.194*	-.132	6.950	.806	.716	3.951	3.702	.253
Caucasian	.260	-.052	.164	.006	6.860	.813	.717	3.986	3.664	.238
Minority	-.056	-.007	-.140	-.058	6.300	.771	.693	3.921	3.680	.263
Low Achievement	.099	.053*	.158	-.027	6.460	.789*	.725	3.974	3.680	.258
Average Achievement	-.251	.331*	.308	.243	5.690	.733*	.643	3.857	3.577	.334*
High Achievement	.280	-.179*	-.173	-.111	7.007	.821*	.728	3.994	3.702	.215
LD	-.308	.597*	.323*	.865*	4.164*	.715*	.621	3.885	3.496	.301
OHI	-.449*	.848*	.867*	.127	4.323*	.739	.610	3.874	3.760	.355
SLI	.148*	-.141*	-.263*	-.064	6.947*	.840*	.746	3.976	3.895	.218
Non-labeled	-.174*	-.089*	.064	-.066	6.822*	.802	.714	3.965	3.696	.242

(i.e., "liked most" and "liked least") and social self-perceptions (i.e., total self-concept, self-concept popularity cluster, social self-efficacy, social outcome expectancy, and social anxiety). Results from regression analyses investigated the impact of victimization, bullying, and reciprocal friendships on the social acceptance and social self-perceptions of children with disabilities. Table 4.3 displays the intercorrelations between variables among children with disabilities. Intercorrelations between social variables among children in each disability classification are displayed in Tables 4.4 through 4.6.

Impact of Variables on Social Acceptance among Children with Disabilities

A significant relationship was found between victimization, bullying, reciprocal friendships and social acceptance for children identified as LD and OHI but not for those identified as SLI. Specifically, results showed that for students with LD, victimization, bullying, and reciprocal friendships accounted for 41% of the variance in being nominated as "liked most" (R^2=.4102, p<.0001) (see Table 4.7). Further, victimization and reciprocal friendships were found to contribute significantly to being nominated as "liked most." Correlation procedures indicated a significant negative correlation coefficient for victimization and "liked most" (r=.451, p<.05) demonstrating that more nominations of being victimized correlated with fewer nominations of being "liked most" by one's peers. A significant positive correlation was found between reciprocal friendships and being nominated as "liked most" (r=.517, p<.0001) indicating that having more reciprocal friendships correlated with also being nominated as "liked most."

The same was true for students classified as OHI, where results indicated that victimization, bullying, and reciprocal friendships accounted for 62% of the variance in being

Table 4.3. *Intercorrelations between Variables among Disability Population Studied* (*p < .05)

Variables	"Liked Most"	"Liked Least"	Self-Concept Total	Self-Concept Popular	Social Self-Efficacy	Social Outcome Expectancy	Social Anxiety	Victimization	Bullying	Reciprocal Friendships
"Liked Most"	---	-.450*	.276*	.347*	.242*	.217*	-.110	-.366*	-.128	.590*
"Liked Least"		---	-.347*	-.372*	-.106	-.194*	.175*	.487*	.489*	-.347*
Self-Concept Total			---	.752*	.607*	.547*	-.468*	-.228*	-.070	.346*
Self-Concept Popular				---	.430*	.423*	-.534*	-.304*	.012	.311*
Self-Efficacy					---	.513*	-.223*	.157	.114	.261*
Outcome Expectancy						---	-.158	-.236*	.077	.157
Anxiety							---	.127	-.008	-.206*
Victimization								---	-.029	-.160
Bullying									---	-.126

Table 4.4. *Intercorrelations between Variables among Children with LD (* p < .05)*

Variables	"Liked Most"	"Liked Least"	Self-Concept Total	Self-Concept Popular	Social Self-Efficacy	Social Outcome Expectancy	Social Anxiety	Victimization	Bullying	Reciprocal Friendships
"Liked Most"	---	-.506*	.153	.273*	.154	.161	-.015	-.0451*	-.094	.517*
"Liked Least"		---	-.190	-.305*	-.063	-.121	.125	.676*	.284*	-.028*
Self-Concept Total			---	.774*	.630*	.586*	-.520*	-.177	.001	.315*
Self-Concept Popular				---	.463*	.485*	-.598*	-.325*	.107	.327*
Self-Efficacy					---	.469*	-.249	-.082	.014	.225
Outcome Expectancy						---	-.267*	-.213	-.050	.117
Anxiety							---	.154	-.033	-.286*
Victimization								---	.008	-.016
Bullying									---	-.079

Table 4.5. *Intercorrelations between Variables among Children with OHI (* p < .05)*

Variables	"Liked Most"	"Liked Least"	Self-Concept Total	Self-Concept Popular	Social Self-Efficacy	Social Outcome Expectancy	Social Anxiety	Victimization	Bullying	Reciprocal Friendships
"Liked Most"	---	-.449*	.410*	.430*	.486*	.361*	-.037	-.356*	-.054	.742*
"Liked Least"		---	-.538*	-.504*	-.254	-.407*	.115	.312	.623*	-.218
Self-Concept Total			---	.663*	.639*	.507*	-.344*	-.312	-.026	.333
Self-Concept Popular				---	.400*	.412*	-.372*	-.375*	.034	.321
Self-Efficacy					---	.721*	-.027	-.238	.351*	.311
Outcome Expectancy						---	-.048	-.166	.232	.124
Anxiety							---	.079	-.076	-.052
Victimization								---	-.149	-.150
Bullying									---	-.002

Table 4.6. *Intercorrelations between Variables among Children with SLI (* p < .05)*

Variables	"Liked Most"	"Liked Least"	Self-Concept Total	Self-Concept Popular	Social Self-Efficacy	Social Outcome Expectancy	Social Anxiety	Victimization	Bullying	Reciprocal Friendships
"Liked Most"	---	-.363	.213	.245	.027	.036	-.422	.332	-.015	.442
"Liked Least"		---	-.044	.049	.256	.328	.314	-.245	.525*	-.158
Self-Concept Total			---	.835*	.492*	.191	-.536*	-.102	-.081	.014
Self-Concept Popular				---	.334	.036	-.637*	-.027	.049	-.093
Self-Efficacy					---	.273	.048	-.020	-.050	.252
Outcome Expectancy						---	.083	-.084	.492*	.024
Anxiety							---	-.005	.055	-.043
Victimization								---	.016	.347
Bullying									---	-.143

nominated as "liked most" by peers (R^2=.6202, p<.0001). Again, victimization and reciprocal

friendships were found to significantly contribute to also being "liked most" among the

population studied (see Table 4.7). Correlation procedures indicated a significant negative

correlation between victimization and "liked most" (r=-.356, p<.05) while a significant

positive correlation was found between reciprocal friendships and "liked most" (r=.742,

p<.0001).

Table 4.7.

Regression Analyses for Variables Predicting "Liked Most" (p < .05)*

Variable	OHI (n = 37)			LD (n = 65)			SLI (n = 19)		
	B	SE	B	B	SE	β	B	SE	B
Victimization	-.182	.076	-.264*	-.199	.052	-.379*	.238	.288	.200
Bullying	-.050	.059	-.092	-.050	.086	-.057	.076	.491	.035
Reciprocal Friendships	.210	.033	.702*	.140	.031	.453*	.115	.074	.378

Among students classified as LD, results indicated that victimization, bullying, and

reciprocal friendships accounted for 56% of the variance in being "liked least" (R^2=.5607,

p<.0001). Further, victimization and bullying were found to significantly contribute to being

nominated as "liked least" by one's peers. Correlation procedures found significant positive

correlations between victimization and "liked least" (r=.676, p<.0001) and between bullying

and "liked least" (r=.284, p<.05). Again, similar results were found for student classified as

OHI, where victimization, bullying, and reciprocal friendships accounted for 58% of the

variance in being "liked least" (R^2=.5811, p<.0001). Specifically, among students classified

as OHI, victimization and bullying significantly contributed to being nominated as "liked

least" by one's peers (see Table 4.8). Correlation procedures found a positive, yet not significant, correlation between victimization and being "liked least" (*r*=312, *p*>.05) indicating that more nominations of being victimized by one's peers correlated with more nominations of being "liked least." Results indicated a significant positive correlation between bullying and being "liked least" (*r*=.623, *p*<.0001) demonstrating that more nominations of bullying others correlated with more nominations for being "liked least" by one's peers.

Table 4.8.

Regression Analyses for Variables Predicting "Liked Least" (p < .05)*

Variable	OHI (n = 33)			LD (n = 55)			SLI (n = 19)		
	B	SE	B	B	SE	β	B	SE	B
Victimization	.365	.108	.390*	.347	.046	.651*	-.289	.254	-.255
Bullying	.502	.084	.681*	.240	.075	.271*	1.079	.432	.530
Reciprocal Friendships	-.065	.046	-.159	-.049	.027	-.156	.002	.065	.007

Impact of Variables on Social Self-Perceptions among Children with Disabilities

Among students with disabilities, significant relationships were found between victimization, bullying, and reciprocal friendships and self-concept popularity cluster and social self-efficacy. The significant relationship between victimization, bullying, and reciprocal friendships and self-concept popularity cluster score was only found for children classified as LD and OHI and not SLI (see Table 4.9). Specifically, among students classified as LD, victimization, bullying, and reciprocal friendships accounted for 18% of the variance in reporting lower self-concept popularity cluster score (R^2=.1802, *p*=.0167). It should be

noted that none of the variables was independently found to contribute significantly to the self-concept score; however, in combination, a significant relationship was found between victimization, bullying, and reciprocal friendships and the self-concept popularity cluster score. Similar results were found for students classified as OHI, where victimization, bullying, and reciprocal friendships accounted for 24% of the variance in reporting lower self-concept popularity cluster score (R^2=.2366, p=.0469). Further, victimization was found to significantly contribute to one's popularity self-concept score among students classified as OHI. Correlation procedures found a significant negative correlation between victimization and self-concept popularity cluster score (r=-.375, p<.05) demonstrating that higher ratings of being victimized by others correlated with lower self-ratings of self-concept popularity cluster score.

Table 4.9.

Regression Analyses for Variables Predicting Self-Concept Popularity Cluster (p < .05)*

	OHI (n = 33)			LD (n = 55)			SLI (n = 19)		
Variable	B	SE	B	B	SE	β	B	SE	B
Victimization	.106	.047	-.365*	-.030	.015	-.264	.001	.070	.004
Bullying	.002	.026	.014	.025	.028	.112	.014	.119	.030
Reciprocal Friendships	.025	.013	.309	.018	.009	.253	-.006	.018	-.090

Results indicated that a significant relationship existed between victimization, bullying, and reciprocal friendships and social self-efficacy for students with OHI, but not for those classified as LD or SLI (see Table 4.10). Specifically, results found that victimization, bullying, and reciprocal friendships accounted for 27% of the variance in reporting social

self-efficacy (R^2=.2654, p=.0323). Further, bullying was found to significantly contribute to social self-efficacy among students classified as OHI. Correlation procedures indicated a significant positive correlation between bullying and social self-efficacy score (r=.351, p<.05) demonstrating that more nominations of bullying others significantly correlated with higher self-ratings of social self-efficacy.

Table 4.10.

Regression Analyses for Variables Predicting Social Self-Efficacy (p < .05)*

	OHI (n = 33)			LD (n = 55)			SLI (n = 19)		
Variable	B	SE	β	B	SE	β	B	SE	B
Victimization	-.014	.109	-.212	-.007	.042	-.025	-.081	.175	-.122
Bullying	.127	.060	.345*	.004	.080	.007	-.007	.299	-.006
Reciprocal Friendships	.059	.032	.302	.041	.026	.218	.050	.045	.294

Overall, results from the present study demonstrated significant differences in social variables between student with and without disabilities. When further examined, certain areas of social functioning for students with disabilities were found to be impacted by gender, ethnicity, achievement, and special education classification. Victimization, bullying, and reciprocal friendships were also found to impact both the social acceptance and social self-perceptions of students with disabilities. The following section will discuss these findings, present current limitations, and look forward to future studies needed in this area of research.

CHAPTER 5

DISCUSSION

The current study investigated factors that may influence the social outcomes of third and fourth grade students with and without disabilities. Analyses investigated differences between children with disabilities and their non-labeled peers as well as examined differences among children with disabilities. Social outcomes were defined as students' social acceptance (i.e., "liked most" and "liked least"), victimization, bullying, reciprocal friendships, and social self-perceptions (i.e., social self-concept, social self-efficacy, social outcome expectancy, and social anxiety). This study was conducted to identify the factors contributing to the socialization of children with disabilities in order to design more successful interventions and thus improve the social interactions of students with disabilities.

Differences between Children with and without Disabilities

Preliminary analyses revealed that while the total sample examined in this study was evenly distributed by gender, the disability sample was predominately male. This finding is consistent with the most recent *Report to Congress on the Implementation of the Individuals with Disabilities Education Act* from the Office of Special Education Programs which stated that among children with disabilities ages 6-12, 67% are male while 33% are female (OSEP, 2002). In the present study, a larger portion of students with disabilities were rated by their teachers as having low academic achievement than their non-labeled peers. While these differences in achievement may in fact be accurate, of most importance here is that overall, teachers viewed students with disabilities as less successful academically than their non-

labeled peers. It should be noted that teacher report of academic achievement may have limited the accuracy of the academic achievement variable. For instance, teachers may have been influenced by a student's overall success when rating academic success. Future studies should include an analysis of specific grades for each child in order to gain a more accurate comparison between academic achievement and social outcomes.

Preliminary analyses also found that when compared to their non-labeled peers, a significantly smaller percentage of students with disabilities were "liked most" by their peers while a significantly larger percentage of these students were "liked least." This finding is consistent with previous research conducted on students with Learning Disabilities (Pavri & Luftig, 2000) and Mental Retardation (Taylor, et al., 1987) both of which found these groups to be less socially accepted than their non-disabled peers. Based on results from previous studies demonstrating that students with LD, SLI, or MR have difficulty with social interactions, it makes sense that students with disabilities in the present study would also differ in terms of social acceptance when compared to non-labeled children.

Children with disabilities were also found to be victimized significantly more often, bully others more often, and have fewer reciprocal friendships than their non-labeled peers. These findings are consistent with previous studies indicating that children who are victimized by their peers are also less well-accepted and more rejected than those who are not picked on (Perry, Kusel, & Perry, 1988; Weiner, 2003). Results related to students with disabilities more often bullying others were also in line with previous findings which demonstrated that children with LD have been reported to exhibit more aggressive behaviors than their non-labeled peers (McConaughy, et al., 1994). Findings regarding fewer reciprocal friendships among students with disabilities were expected given previous findings indicating that

students with LD are often not well accepted by their peers (Bryan, 1997; Gresham, 1982; Stone & LaGreca, 1990). Also, significantly more non-labeled students reported having a high total self-concept than their peers with disabilities. This finding was consistent with numerous studies which found that students with LD differ significantly on measures of self-concept from their typically achieving peers (Bender & Wall, 1994; Kistner, Haskett, White, & Robinns, 1987). Based on preliminary findings, children with disabilities appear to be at a disadvantage in social situations, especially with respect to initiating and maintaining appropriate peer interactions.

Research Question 1: *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and disability status?*

Further results demonstrated significant differences in regards to gender, ethnicity, and disability status for the social variables studied. Specifically, boys were more likely to bully others than girls among all students studied, although only small effect sizes were demonstrated for gender in terms of bullying scores. These findings are consistent with previous research showing that boys with LD were not only more rejected and less popular than boys without LD, but they were considered by their classmates to be aggressive (Landau, et al., 1987). Current findings demonstrating that being male impacts bullying behavior not only among those with LD but the total group of students with disabilities studied adds to the existing literature for bullying among students with disabilities. Students in the minority group were also named more often as bullies and less often as being "liked most" than Caucasian students. Small effect sizes were found for ethnicity both on bullying and "liked most" scores. Findings relating to ethnicity were surprising only when compared

to one previous study focusing on non-disabled children which found no variation across ethnicities among peer nominations of social acceptance or behaviors such as bullying others (Fireman, Hutcherson, Chilton, & Wang, 2002). The present sample, however, included both children with disabilities as well as non-labeled students. Therefore, ethnicity appears to be an important factor when investigating social outcomes for children with disabilities.

When compared to their non-labeled peers, students with a disability classification were more often nominated as being "liked least," victimized, bullies, having fewer reciprocal friendships, and reported having a lower self-concept. Moderate effect sizes were found for special education status on "liked least," victimization, bullying, reciprocal friendship, and total self-concept scores, while self-concept popularity cluster score demonstrated a small effect size. These findings were in line with preliminary results as well as previous findings which have shown that students with LD, for instance, are often not well accepted by their peers (Bryan, 1997; Gresham, 1982; Stone & LaGreca, 1990), are rejected and victimized by others (Hodges, et al., 1997), exhibit more aggressive behaviors than their non-labeled peers (McConaughly, et al., 1994), and appear to have lower self-concepts (Gans, et al., 2003; Rogers & Saklofske, 1985). Current findings suggest that special education status appears to impact students' socialization more than other variables studied.

Findings also suggested that boys in minority groups were viewed as bullies most often followed by Caucasian boys and girls in minority groups, respectively. Boys with a disability were more often seen as bullies than their non-labeled peers followed by non-labeled boys and girls with a disability, respectively. Further, boys in minority groups who also had a disability were named as bullies most frequently. Caucasian girls without disabilities were seldom nominated as bullies. These findings taken together demonstrate for instance that

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male students in the minority who also have a disability appear to be negatively viewed by their peers which may in turn have a negative impact on these students' social interactions. The second research question further investigated the impact of factors on social outcomes for children with disabilities by looking at the influence of each disability label studied.

Research Question 2a: *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of gender, ethnicity, and special education classification?*

Gender and Ethnicity

Findings demonstrated that Caucasian girls reported the highest total self-concept and popularity self-concept while boys in minority groups reported the lowest total self-concept and girls in the minority reported the lowest popularity self-concept. Also, girls in minority groups reported the highest level of social anxiety while Caucasian girls reported the lowest levels of social anxiety among those studied. This finding was consistent with studies targeting non-disabled children which found elevated levels of social anxiety among minority groups (LeSure-Lester & King, 2005; Storch, Zelman, Sweeney, Danner & Dove, 2002).

Special Education Classification

Specific disability classification (i.e., non-labeled, LD, OHI, SLI) was found to be the most influential among variables studied. Findings demonstrated that students, especially boys, classified as OHI were often seen as "liked least" and were seldom viewed as "liked most." Conversely, girls with OHI were seldom "liked least" by their peers. Boys with LD followed boys with OHI in receiving "liked least" nominations by their peers. Students with OHI were also most often seen as bullies followed by students with LD. Further, boys classified as OHI were seen most often as bullies followed by boys with LD and non-labeled

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boys, respectively. Those with SLI and non-labeled peers were seldom recognized by their

classmates as bullies. These findings indicate that students viewed as bullies, most likely

those classified as OHI, were also least liked among peers. Assuming that a large portion of

students classified as OHI have a diagnosis of ADHD, it would make sense that these

students may act impulsively in bullying others without thinking through the social

consequences of their actions (e.g., not being well-liked by others). Students with LD were

most often viewed as being victimized and reported the fewest number of reciprocal

friendships among all students studied. These findings add to previous studies which have

shown that children with LD not only differ in terms of social status, but also in terms of

being picked on in social situations (McConaughy, et al., 1994; Weiner, 2003). One previous

finding focusing on students with LD suggested that having at least one reciprocal friend

correlated with more positive perceptions by one's peers (Newcomb & Bagwell, 1995) and

higher self-perceptions of social status (Bear, et al., 1993; Juvonen & Bear, 1992). This

previous finding taken together with current results indicating that students with LD reported

the lowest number of reciprocal friendships points to a much needed intervention focusing on

building the social skills for these students to initiate and maintain social relationships.

Students with SLI reported the highest number of reciprocal friendships, even more than

those students without a disability classification. This finding is surprising considering the

communication difficulties of children served under this classification and should be

interpreted with caution due to the small sample size of students with SLI in this study.

Nevertheless, this finding may suggest that students with SLI are least likely to be perceived

as having a disability and may be in a position to initiate more friendships than children with

other disabilities. Thus, when compared to other students with disabilities, social outcomes for students with SLI appear to be the least negatively impacted by factors studied.

Research Question 2b: *To what extent do social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions differ as a function of academic achievement and special education classification?*

Findings demonstrated that students rated as having average academic achievement by their teachers were most often viewed as "liked least" followed by those who were low-achieving when compared to their higher achieving peers. While the finding that average-achieving students were least liked by peers is surprising, the finding that low-achieving students were liked least is consistent with previous research among populations of students with LD that found these children and their low-achieving peers to have more social difficulties than their average to high achieving peers (Nowicki, 2003). Findings related to academic achievement were unexpected likely because it is difficult to compare teachers' perceptions of students' academic achievement with students' perspectives of their peers' social acceptance. Also, students with LD who were reported to have average achievement were also the most victimized. Average-achieving students with SLI were seldom viewed as being victimized by others. These findings are in line with those previously discussed outlining that students with LD appear to be more susceptible to being picked on than other students studied (McConaughy, et al., 1994; Weiner, 2003).

High-achieving students also reported having the highest total self-concept. This finding indicated that those viewed by their teachers as academically successful also viewed themselves with an overall positive self-worth. Academic achievement was also found to significantly impact students' report of social anxiety. Specifically, average-achieving

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students reported the highest levels social anxiety followed by their low-achieving peers. While it is somewhat surprising that average-achieving students reported to experience the highest level of social anxiety, the finding relating to low-achieving students adds to one study's research that found high levels of anxiety correlated with lower achievement for students with LD (Bryan, et al., 1983). Students with LD also reported the lowest total self-concept score while students with SLI reported the highest. In fact, students with LD were found to have the lowest total self-concept than other disability groups studied. This finding adds to previous research which found that children with LD appear have lower self-concepts than their non-labeled peers (Gans, et al., 2003; Rogers & Saklofske, 1985).

Current findings suggest that high academic achievement appears to positively impact a student's self-concept and feelings of social anxiety. Perhaps students who perform well in the classroom gain confidence that translates to their social interactions with others. Again, these analyses may have been limited by teacher report of academic achievement. Future studies should investigate the relationship between students' grades and social self-perceptions in order to obtain a more precise comparison.

<div align="center">Differences among Children with Disabilities</div>

Results have shown that gender, ethnicity, academic achievement, and special education classification in some way appear to significantly impact the socialization of children with disabilities. However, classroom teachers are more likely to witness a student being picked on or making friends than witness how well that child is liked or how that child feels about their social interactions. Therefore, the third research question asked how victimization, bullying, and reciprocal friendships impact the social acceptance and social self-perceptions of students with disabilities.

Research Question 3: *Among children with disabilities, how do victimization, bullying, and reciprocal friends of students predict their social acceptance and social self-perceptions?*

Victimization, bullying, and reciprocal friendships were shown to be related to students' social acceptance among students classified as LD and OHI but not those classified as SLI. For instance, findings showed that among students with LD and OHI, victimization, bullying, and reciprocal friendships significantly related to also being nominated as "liked most." Specifically, fewer nominations of being victimized were found to correlate with more nominations of being "liked most," while having more reciprocal friendships correlated with having more "liked most" nominations. This finding was consistent with previous research indicating positive outcomes for having reciprocal friendships including more intense social activity, improved conflict resolution, increased sharing and cooperation, improved expression of emotions, and support for future interpersonal relationships (Vaughn et al., 2001). Thus, based on current findings, social acceptance appears to be negatively impacted by factors such as being picked on by others and having few reciprocal friendships among children with LD and OHI.

Results also indicated a significant relationship between victimization, bullying, and reciprocal friendships and being nominated as "liked least" among children with LD and OHI, but not SLI. For instance, being victimized by one's peers or bullying others correlated with more nominations of being "liked least." These results make sense given that both getting picked on and bullying others is associated with engaging in a negative peer interaction. Findings relating to victimization are consistent with previous research demonstrating that children who are victimized by their peers are also less well-accepted and more rejected than those who are not picked on (Hodges, et al., 1997; Perry, et al., 1988).

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Findings related to bullying others was expected due to previous research indicating that children with LD exhibit more aggressive behaviors than their non-labeled peers (McConaughy, et al., 1994). Also, because the diagnosis of ADHD is included under the classification of OHI, it was expected that this group of children may have difficulty regulating their social behaviors and may be viewed by their peers as impulsive and at times aggressive.

Among children with disabilities, a significant relationship was found between victimization, bullying, and reciprocal friendships and self-concept popularity only for students classified as LD and OHI, and not those labeled SLI. Further, among students classified as OHI, being victimized by one's peers was found to correlate with lower self-concept popularity cluster scores. These results are consistent with findings demonstrating that children who are victimized by their peers are also at-risk for experiencing feelings of low self-worth (Perry, et al., 2001). Findings suggest that perhaps students classified as LD or OHI experience more negative social interactions than their peers with SLI, who may not be experiencing negative social interactions significant enough to impact their self-perceptions.

For students classified as OHI, but not those labeled LD or SLI, findings demonstrated that bullying others was correlated with a higher report of social self-efficacy. This finding is interesting and perhaps implies that students classified as OHI feel positively about their social interactions although they are viewed by their peers as "bullies." This finding adds to the literature on bullying indicating that perhaps students with OHI who bully others either do not accurately perceive their social behaviors or perceive their social interactions as acceptable even when negative toward others.

For students classified as SLI, no relationship was found between victimization, bullying, and reciprocal friendships and social acceptance or self-perceptions. Lack of significant findings for students with SLI may likely be attributed to the small sample size used in this study. However, findings may also be due to results previously discussed indicating that students with SLI do not appear to be experiencing negative social outcomes. For instance, among students classified as SLI, 26% received nominations for "liked most," the most among those with disabilities studied. Students with SLI also received the highest percentage of nominations for reciprocal friendships (16%) among students with disabilities, and the lowest percentage and victimization (5%) and bullying (none). These results show that among students with disabilities, students with speech/language impairments seems to be the least likely to experience negative social interactions when compared to other students with disabilities studied.

Limitations of the Present Study

The most substantial limitation to the present study was the classification system currently used to identify students with disabilities in public schools. Although a student receives special education services as a student with a Learning Disability, for example, this student may have much different needs than another student with the same disability classification. This challenge was especially true for students classified as OHI, which included a wide range of medical diagnoses including ADHD. Also, while many students may have multiple disability classifications, the current study only looked at students' primary disability classification. The needs of each child are likely very different; thus, group differences can only be attributed to the label of each child, not necessarily their specific diagnoses. Another limitation to the present study was the small effect sizes demonstrated for several of the

variables studied. Further research is needed in this area to clarify the impact of gender and ethnicity, for instance, on the social socialization of children with disabilities. The small sample size of students classified as SLI also warrants caution. Despite the small sample size, conclusions were still discussed regarding students with SLI for observation. A larger number of students with SLI should be studied in order to more accurately compare this population to other students with disabilities.

<div align="center">Conclusion</div>

Overall, findings from this study suggest that students with disabilities are more likely than their non-labeled peers to experience negative social interactions, including poor social acceptance, victimization, bullying behavior, fewer reciprocal friendships, and poor self-perceptions relating to social situations. Further, among children with disabilities, special education classification appeared to have the greatest impact on social outcomes, with those classified as OHI and LD experiencing the most social difficulties among groups studied. However, social acceptance, victimization, bullying, reciprocal friendships, and social self-perceptions were also impacted to some extent by gender, ethnicity, and academic achievement. Specifically, male students were found to bully more often than females. More specifically, male students who were classified as OHI were viewed as bullies most often by their peers. Students in the minority, especially girls, also reported higher levels of social anxiety than their Caucasian peers. Also, high academic achievement appeared to positively impact social acceptance and self-perceptions in students with and without disabilities. Finally, victimization, bullying, and reciprocal friendships, were found to significantly impact students' social acceptance and social self-perceptions among children with disabilities, especially for those with OHI and LD.

These findings are important in terms of educating teachers to recognize not only the academic difficulties of children with disabilities but their social struggles as well. It has been shown that students with disabilities appear to be more likely than their non-labeled peers to experiencing negative social interactions. Further, students classified as LD and OHI appeared to be the most emotionally impacted by being victimized, bullying others, and having reciprocal friendships, reporting lower self-perceptions than their non-labeled peers or those with SLI. Therefore, interventions and program planning should target these students and include services designed to help them cope with feelings of low self-worth and anxiety in social situations as well as training to promote problem-solving strategies that encourages more appropriate decision-making during social conflicts with peers. If we can provide these children with coping strategies to manage feelings of frustration, anger, and anxiety, we can hopefully promote friendships that will lead to overall positive social outcomes and confidence for these children. Such a sense of confidence will support children's effort and performance both inside and outside of the classroom.

Future Research

Based on the conclusions of the present study, additional research is needed to investigate the specific needs of children with disabilities. For instance, future studies should consider co-morbidity as a factor among students with disabilities. For instance, how does a student classified as both LD and OHI compare to those labeled only as LD. Also, future studies should parse out the OHI sample into more specific disability categories, such as ADHD, Tourette's Syndrome, Asthma, and so on in order to get clearer results indicating which of these disabilities may be more or less likely to experience negative social interactions. Also of interest to study in the future would be how the severity of each student's disability relates

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to socialization. For instance, could students classified as LD who have more severe learning problems experience more negative social outcomes than those with LD who have less severe deficits? Also, how does lower cognitive ability further impact social outcomes for students classified as EMD? Future studies focusing on more specific classifications of students with disabilities would be beneficial in designing more appropriate interventions for these students.

Each child is different. No one child is like another. Therefore, as we move forward with the inclusion of children with disabilities in American classrooms, we must do our best to define what leads to experiencing negative outcomes for children both academically and socially. We must design interventions tailored to each student's needs that include goals to improve socialization as well as academic success. If we incorporate both academic and social goals into intervention plans for children with disabilities, we can redefine inclusion to encompass not only academic success but also social success for all children.

Data Collection Script

<u>INTRODUCTION</u>: Hello. My name is Ms.___ and this is Mr.___. We're here today to ask you to answer some questions for us about you and your friendships with other kids here at "Name of School". We need to ask you this information because you are the best people to ask–you're the ones who really know what goes on with each other here at school.

We want you to know that everything you answer on these questionnaires is completely confidential. Who knows what that means? (get responses--reinforce correct ones) It means that everything you say on these pages is private and **no one** will know exactly what you say, not your parents, not your teachers, and not any other students. So, you can be completely honest. We will share, with the principal and others, what kids say in general, but no one's exact answers will be shared. The main reason we need to know this information is so that we can plan how to use our time and resources to help kids here at "Name of School". If we know what is going on, we can use that information to help decrease problems and help kids get along with one another better.

Now, just like we're not going to share your answers with other people, you are NOT to talk with any other students about what you say on these pages. You need to keep you answers private from other kids just like we're going to keep them private. What we are asking about today is very important and we need to know it, but it's also important to keep your answers to yourself so that no one's feelings get hurt. You can tell your parents about what you did today and what you answered, but remember to keep it private from other kids. OK?

If you feel uncomfortable or upset about any question, you can skip it, but try to answer as many of the questions as you can. If you would like to talk about any question with one of us, just raise your hand. We really appreciate your filling out these questions, but, if you chose to, you can stop at any time without anything bad happening to you. OK? OK, let's get started.

Pull out your pages in your packet, but keep them in order. Everyone is getting their own packet and every packet is just the same. We have some extra copies of the packets in Spanish, because some people feel more comfortable reading Spanish than English. Who would like to complete these questions on Spanish? **(Pass out Spanish versions to children who raise their hands.)** Please use one or two folders or books to keep your answers more private, like this (DEMONSTRATE). We have lots to do, so it's very important that you be as quiet as possible, pay attention, and keep working so that we can finish up. But if you have any questions as we go along, raise your hand and one of us will come talk with you.

(4)   CONTINUALLY walk around the room and monitor their progress as non-intrusively as possible. If it looks like a child doesn't understand a question or questionnaire, stop and help him/her--**DON'T WAIT FOR THE CHILD TO ASK FOR HELP**;
(5)   Ensure quiet and privacy-- use glances, stand behind or near a disruptive child, separate children, or quietly ask them to get back on task, as needed.

<u>**SOCIOMETRIC QUESTIONNAIRE**</u>
For each question, there is a separate page containing a list of all the names of the children in their grade at their school. There will be a number next to each name, their ID number. Children nominate another child by circling the number next to a name. They may nominate as many children as they like from 0 to all children in the grade.

> Throughout administration:
> (1) Remind students to take their time and look through all lists so that they don't accidentally miss someone.
> (2) Remind students that they can nominate anyone from any class–they are **not** limited to nominating only within their own class.

We've given you a list of the names of all the kids in your GRADE here at "Name of School". Find your teacher's name and then look for your own name on the list for your class. If your name is not on the list, raise your hand. Also, if other kids know you by a name other than the one written here, raise your hand.

If there is someone whose name is not on the list, put his/her name on the board and make up a four-digit number to put next to it. Ask the class to add this person to the bottom of the correct teacher's list for every page, so they can nominate this child if they want. Note any name changes on the board as well and announce these to the class.

Demonstrate how to complete the pages on the board. Use sesame street or cartoon characters. Put fake numbers next to each name and demonstrate circling the numbers. State that they **may** nominate themselves for any question. Remind them that as they are going through the pages, to think of themselves as well and to circle the ID number next to their own name when they feel the questions describes something about them. Is everybody ready to begin?

Page 1: Like Most. Good. Here's the first one. **Everybody likes some people more than they like others. Are there some boys or girls in your grade who you like more than others? Look at the names on this page and circle the number next to the names of <u>ALL</u> the kids who you like the <u>very </u>most**. Make sure to look at all the names in all the classrooms so you don't miss anyone. You can circle anyone's name in any classroom, not just your own. When you're done with this page, turn to the next page and look up at me, so I'll know you're ready to go on. Don't complete the next page until everyone is ready.

> **Make sure that everyone is filling this question out correctly before moving on!** Throughout administration, if a few children are lagging behind, instruct them to keep working on their current page and go on at their own pace. Then, give instructions to the rest of the class for the next item. Do not wait for the entire class to finish before moving on.

Page 2: Like Least. Good. Now let's go on to the next question. At the upper left hand corner of the page, you should see a '2'. **Just like there are some kids who you like the very most, there are probably some boys or girls who you like less than other kids. This does not mean that you hate them. It simply means that you like them less than you like**

other kids. Circle the number next to the names of <u>ALL</u> the kids in your grade who you like the <u>very</u> least. Turn the page and look up at me when you're done.

> If any child seems uncomfortable about this question, reiterate that it doesn't mean they hate anybody; it just means that they like them less than other kids. Remember, children are free not to answer this or any other question, as they choose.

<u>Page 3: Relational Aggression</u>. OK, let's go on to question three. **Now, this kid tells other kids not to be friends with someone. They may try to keep others out of their group of friends. This kid may not talk to someone when they are mad at them or don't like them. Who is most like this in your grade? Circle the number next to the names of <u>ALL</u> the kids in your grade who try to leave other kids out a lot.** Turn the page and look up at me when you're done.

<u>Page 4: Bully</u>. OK, let's go on to question four. You should see a '4' at the top left. **This kid acts like a bully a lot. They may pick on, tease, or call other kids names a lot. They may hit, kick, punch, or do other things to beat up on other kids. They may say mean or nasty things to hurt other kids' feelings. Who is most like this in your grade? Circle the number next to the names of <u>ALL</u> the kids in your grade who act like a bully a lot.** Turn the page and look up at me when you're done.

<u>Page 5: Victim</u>. OK, good. Let's all move on to number 5. **Now, this kid gets picked on, beat up, or called names a lot or laughed at a lot by other kids. Other kids make fun of them or say mean or nasty things <u>to</u> them. Circle the number next to the names of <u>ALL</u> the kids in your grade who get picked on or called names a lot.** Look up at me when you're done.

<u>Page 6: Immature.</u> OK, good. Let's all move on to number 6. **Now, this kid says or does weird or strange things a lot. They may make weird noises or odd sounds. They might do things you think are weird, that most other kids don't do. Circle the number next to the names of <u>ALL</u> the kids in your grade who act strange or weird a lot.** Look up at me when you're done.

<u>Page 7: Perceived Popularity.</u> **"**OK, let's go on to question 7. **Now, this kid is popular with other students. Everyone seems to know this kid. This kid seems to have a lot of friends. Other kids really want this kid to like them and be their friend. Circle the names of <u>ALL </u>the kids in your grade who are popular.** Circle everyone you consider to be popular. Look up at me when you're done.**"**

<u>Page 8: Friend</u>. OK, let's go on to question 8. **Now, circle the names of <u>ALL</u> the kids in your grade who are your friend. Circle everyone who you consider to be your friend.** Look up at me when you're done.

<u>Page 9: Leader</u>. OK, let's move on to question 9. **Now, this kid gets chosen by other kids as the leader a lot. They are good at organizing or running a group or team. Other kids like to have this person in charge. Circle the number next to the names of <u>ALL</u> the**

kids in your grade who are good leaders. Look up at me when you're done.

When you're all done, turn the pages over on your desk or put them back in your packet. Thank you so much for all your hard work. Remember to keep your answers to yourself and not talk about them with any other children.

Continue with the next questionnaire, if applicable. At the end of all questionnaires, pass out the prizes and encourage trading with one another for a short time-period.

APPENDIX B

Self-Report Measures

Doing Things With Others

Directions: Mark how sure you are that **you would be able to do** each thing **if you tried your best**.

	Not At All 1	Not Really 2	Maybe 3	Pretty Sure 4	Really Sure 5
1. How sure are you that you could start talking with a kid your age who you just met?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
2. When a kid your age wants you to do something that you don't want to do, how sure are you that you could tell them no?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
3. How sure are you that you could go up to a group of kids your age who are playing a game and ask them if you can play with them?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
4. When a kid your age does a good job at something, how sure are you that you could tell them they did a good job?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
5. When a kid your age does something you don't like, how sure are you that you could tell them you don't like it and ask them to change what they are doing?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
6. When a kid your age says something nice about you, how sure are you that you could accept what they said and say "thanks"?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
7. When a kid your age is playing with something and you want to play with it too, how sure are you that you could ask them to play with it?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
8. How sure are you that you could get other kids your age to play with you when you want them to?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5
9. How sure are you that you could get other kids your age to work with you on a class project when you want them to?	**Not At All** 1	**Not Really** 2	**Maybe** 3	**Pretty Sure** 4	**Really Sure** 5

Directions: Mark how sure you are that the **other kid would do what you wanted** or expected them to do.

	Not At All 1	Not Really 2	Maybe 3	Pretty Sure 4	Really Sure 5
10. How sure are you that you could get other kids your age to be your friend?					
11. If you went up to a kid your age who you didn't know and said "Hi," will that kid start to talk with you?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
12. If a kid your age asks you to do something but you don't want to do it. If you say "no," will that kid stop asking you and leave you alone?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
13. If you went up to a group of kids your age who were playing a game and you asked if you could play with them, will they say "sure" and let you play with them?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
14. If you tell a kid your age they did a good job, will they accept what you said and say "thanks"?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
15. If you tell a kid your age to stop doing something you don't like and to change what they are doing, will they stop doing it and do what you ask?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
16. If a kid your age tells you that you did a good job, do you believe them and feel good about what they said?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
17. If a kid your age is playing with a toy that you would like to play with and you ask them for it, will they give it to you?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
18. If you ask a kid your age to play with you, will they?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
19. If you ask a kid your age to work with you on a class project, will they?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5
20. If you ask a kid your age to be your friend, will they?	No 1	Don't Think So 2	Maybe 3	Think So 4	Yes 5

The Way I Feel About Myself

Instructions: Circle one answer for each sentence.

1. My classmates make fun of me.	Yes	No
2. I am a happy person.	Yes	No
3. It is hard for me to make friends.	Yes	No
4. I am often sad.	Yes	No
5. I am smart.	Yes	No
6. I am shy.	Yes	No
7. I get nervous when the teacher calls on me.	Yes	No
8. My looks bother me.	Yes	No
9. I am a leader in games and sports.	Yes	No
10. I get worried when we have tests in school	Yes	No
11. I am unpopular.	Yes	No
12. I am well behaved in school.	Yes	No
13. It is usually my fault when something goes wrong.	Yes	No
14. I cause trouble to my family.	Yes	No
15. I am strong.	Yes	No
16. I am an important member of my family.	Yes	No
17. I give up easily.	Yes	No
18. I am good in my schoolwork.	Yes	No
19. I do many bad things.	Yes	No
20. I behave badly at home.	Yes	No
21. I am slow in finishing my schoolwork.	Yes	No
22. I am an important member of my class.	Yes	No
23. I am nervous.	Yes	No
24. I can give a good report in front of the class.	Yes	No
25. In school I am a dreamer.	Yes	No
26. My friends like my ideas.	Yes	No
27. I often get into trouble.	Yes	No
28. I am lucky.	Yes	No
29. I worry a lot.	Yes	No
30. My parents expect too much of me.	Yes	No
31. I like being the way I am.	Yes	No

32. I feel left out of things.	**Yes**	**No**
33. I have nice hair.	**Yes**	**No**
34. I often volunteer in school.	Yes	No
35. I wish I were different.	**Yes**	**No**
36. I hate school.	Yes	No
37. I am among the last to be chosen for games and sports.	**Yes**	**No**
38. I am often mean to other people.	Yes	No
39. My classmates in school think I have good ideas.	Yes	No
40. I am unhappy.	Yes	No
41. I have many friends.	Yes	No
42. I am cheerful.	Yes	No
43. I am dumb about most things.	Yes	No
44. I am good-looking.	Yes	No
45. I get into a lot of fights.	Yes	No
46. I am popular with boys.	Yes	No
47. People pick on me.	Yes	No
48. My family is disappointed in me.	Yes	No
49. I have a pleasant face.	Yes	No
50. When I grow up, I will be an important person.	Yes	No
51. In games and sports, I watch instead of play.	Yes	No
52. I forget what I learn.	Yes	No
53. I am easy to get along with.	Yes	No
54. I am popular with girls.	Yes	No
55. I am a good reader.	Yes	No
56. I am often afraid.	Yes	No
57. I am different from other people.	Yes	No
58. I think bad thoughts.	Yes	No
59. I cry easily.	Yes	No
60. I am a good person.	Yes	No

What I Think and Feel - Instructions: Circle one answer for each sentence.

	Yes	No
1. I have trouble making up my mind.	Yes	No
2. I get nervous when things do not go the right way for me.	Yes	No
3. Others seem to do things easier than I can.	Yes	No
4. I like everyone I know.	Yes	No
5. Often I have trouble getting my breath.	Yes	No
6. I worry a lot of the time.	Yes	No
7. I am afraid of a lot of things.	Yes	No
8. I am always kind.	Yes	No
9. I get mad easily.	Yes	No
10. I worry about what my parents will say to me.	Yes	No
11. I feel that others do not like the way I do things.	Yes	No
12. I always have good manners.	Yes	No
13. It is hard for me to get to sleep at night.	Yes	No
14. I worry about what other people think about me.	Yes	No
15. I feel alone even when there are people with me.	Yes	No
16. I am always good.	Yes	No
17. Often I feel sick in my stomach.	Yes	No
18. My feelings get hurt easily.	Yes	No
19. My hands feel sweaty.	Yes	No
20. I am always nice to everyone.	Yes	No
21. I am tired a lot.	Yes	No
22. I worry about what is going to happen.	Yes	No
23. Other people are happier than I.	Yes	No
24. I tell the truth every single time.	Yes	No
25. I have bad dreams.	Yes	No
26. My feelings get hurt easily when I am fussed at.	Yes	No
27. I feel someone will tell me I do things the wrong way.	Yes	No
28. I never get angry.	Yes	No
29. I wake up scared some of the time.	Yes	No
30. I worry when I go to bed at night.	Yes	No
31. It is hard for me to keep my mind on my schoolwork.	Yes	No
32. I never say things I shouldn't.	Yes	No
33. I wiggle in my seat a lot.	Yes	No
34. I am nervous.	Yes	No
35. A lot of people are against me.	Yes	No
36. I never lie.	Yes	No
37. I often worry about something bad happening to me.	Yes	No

Teacher-Report Measure

Student Name													
Student ID Number													
Is frequently absent from school.													
Is seen as a role model by other children.													
Performs well on schoolwork in class.													
Is the victim of bullies; gets picked on.													
Uses physical force to dominate others and get his/her own way.													
Gets along well with opposite sex peers.													
Gets along well with same sex peers.													
Is mean behind other students' backs; spreads rumor or tells others not to be friends with someone.													
Acts like a bully; picks on, beats up, or teases others.													
Performs well on homework.													
Yells, shouts, or hits when angry.													
Performs well on tests.													
Tells the truth about something even if it will get him/her in trouble.													
Is disliked or rejected by most other students.													
Is polite to teachers.													
Breaks school and classroom rules.													
Treats other students kindly.													

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