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# Patterns of Physical Activity Participation, Sources of Social Support and Friendship Dynamics among Children with Low Vision

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Patterns of Physical Activity Participation,  
Sources of Social Support and Friendship Dynamics  
Among Children with Low Vision

by

Janet Mary MacVicar

June 25, 2007

A thesis submitted to the Department of Physical Education and Sport,  
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Patterns of Physical Activity Participation, Sources of Social Support  
and Friendship Dynamics Among Children with Low Vision

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## Table of Contents

Acknowledgments .....	i
List of Tables .....	iv
Abstract .....	v
 Chapter I - Introduction	
Background of the Study .....	1
Statement of the Problem .....	5
Research Questions .....	6
Operational Definitions	
Acceptance .....	6
Active Participation .....	6
Friendships .....	6
Itinerant Vision Teacher .....	6
Low vision .....	7
Peer Acceptance .....	7
Peer Group .....	7
Peer Relationships .....	7
Recreational Sport .....	7
Social support .....	7
Sports .....	7
Visually Impaired .....	8
Assumptions .....	8
Delimitations .....	8
Limitations .....	8
Significance of the Study .....	9
 Chapter II - Literature Review	
Social Supports and Friendship Development .....	11
Children with Low Vision .....	15
Participation in Sport and Recreation .....	18
Empowerment through Sport .....	23
 Chapter III - Methods and Procedures	
Participants .....	27
Permission .....	28
Instruments .....	28
Procedures .....	30
Design and Analysis	
Participants .....	31

Method of Analysis.....	31
Chapter IV - Results	
Participants.....	35
PATTERNS OF PARTICIPANT INVOLVEMENT	
IN SPORT AND RECREATIONAL ACTIVITIES.....	35
How Much Time They Spend Participating in	
Sport and Recreational Activities.....	36
Where They Participate in Physical Activity.....	37
Activities In Which Participants Are Involved.....	38
Level of Satisfaction with Physical Activity.....	40
FINDINGS RELEVANT TO FRIENDSHIP DYNAMICS.....	41
Time Spent with Friends.....	42
With Whom They Spend Their Time.....	42
Where They Develop Friendships.....	43
SOCIAL SUPPORTS.....	44
Perceived Social Support from People in Their Lives.....	44
Chapter V - Discussion.....	48
Conclusion.....	56
Implications for Further Research.....	57
Appendices	
A - Human Subjects Research Form.....	59
B - APSEA Permission for Research Project.....	60
C - APSEA Research Support Request.....	61
D - Parent/Guardian Consent Form.....	62
E - Statement of Informed Consent.....	63
F - Principal's Research Consent Form.....	64
G - Itinerant Cover Letter.....	65
H - Itinerant Vision Teacher Form.....	66
I - Student Questionnaire.....	68
J - Administration and Instruction for Harter Social Support Scale	
for Children.....	71
K - Social Support Scale for Children.....	72
L - Suggestions for Participants Who Might Want to Participate	
in Sport and Recreational Activities.....	74
References.....	75

## List of Tables

Table 1 - <i>Description of Participants</i> .....	36
Table 2 - <i>Participation in Sport and Recreation</i> .....	37
Table 3 - <i>Place of Physical Activity</i> .....	38
Table 4 - <i>Activities in Which Most Participants Say They are Involved</i> .....	39
Table 5 - <i>Activities in Which Participants Would Like To Be Involved</i> .....	40
Table 6 - <i>Satisfaction With Level of Physical Activity</i> .....	41
Table 7 - <i>Play Time with Friends</i> .....	42
Table 8 - <i>With Whom They Spend Their Time - Age</i> .....	43
Table 9 - <i>With Whom They Spend Their Time - Level of Vision.</i> .....	45
Table 10 - <i>Where Participants Make Friends.</i> .....	45
Table 11 - <i>Degree of Social Support</i> .....	46

## Abstract

Research was conducted to assess the patterns of physical activity participation, sources of social support and friendship dynamics among children with low vision. Twenty-four male and female children between the ages of 8 and 14 years with low vision (20/70 to 20/400) completed a questionnaire related to their participation in physical activity. Results indicate that the children are active at school in physical education classes, at home and in community recreation programs. The research shows that they also have significant social supports and their friendship dynamics are positive.



## Chapter I

### Introduction

#### Background of the Study

For school children with visual impairments, social interactions with their normally sighted peers are often hindered by a variety of factors. These include the physical space required for large-print or braille textbooks and equipment, the presence of a teacher assistant, the use of a cane when traveling between classes, and the need for extra time between completing work and beginning the next task. MacCuspie (1996) found that if students with visual impairments are unable to complete tasks within the assigned time, they had fewer opportunities to participate in the social interaction which routinely occurs among other students when they complete one task and prepare for the next. When these students are routinely unavailable to participate in such "between task socializing," they may have difficulty joining in on occasions when they are available.

In physical education classes, children with visual impairments are often found sitting on the sidelines watching others play, or working independently of their classmates. They are sometimes removed from these classes to catch up on other school work or, if they do participate, they are often paired with a teacher assistant rather than with a classmate. On the playground, children with low vision often miss out on socializing with others because they are unable to visually locate playmates or

have difficulty keeping up with them during games, despite the fact that they are physically capable of participating.

Researchers have estimated that 60 to 80 percent of our learning is through information received visually (MacCuspie, 1996). Therefore, non-verbal feedback typically available to sighted children is often inaccessible to those who are visually impaired. They may not respond to hand gestures beckoning them to be a partner. Many cannot imitate new games or activities popular among their classmates, or respond to a friendly wave or smile from another. This makes it difficult for them to develop and refine their social interaction skills. The consequence of limited participation is frequently exclusion from the peer group (MacCuspie, 1996).

Researchers have been able to identify a number of factors that contribute to a child's social adjustment. Friendships offer a set of dispositions such as trust, goodwill, sympathy and understanding. Personal networks are critical to healthy social development (Jones, 2001). A child's social adjustment is characterized by the sharing of feelings, self-disclosure, trust, and loyalty (MacCuspie, 1990). Contributing factors include the number of mutual friends and one's peer social standing (Hundley & Cohen, 1999). Kef (1997) found that the size and range of personal networks of adolescents who are blind or visually impaired are smaller than those of adolescents who are sighted. Also, the physical and emotional supports provided by friends are essential to a child's willingness to try unfamiliar activities or meet new challenges (MacCuspie, 1990).

According to Tripp, French and Sherrill (1995), contact between individuals with and without disabilities must be direct and personal to produce positive results. Friendships can arise in virtually any context where individuals come together with shared interests. A shared interest in some activity brings potential friends together (Jones, 2001). To this end, sport and recreation is a natural vehicle for making friends. Jones (2001) found sport to be especially conducive to forming friendships.

However, children with low vision often do not get involved in sport and recreational activities because of parental restrictions and reduced independence (Kef, 1997), lack of instructor knowledge, or lack of prior experience participating in physical activities (Lieberman, Houston-Wilson, & Kozub, 2002). This leads to poor physical development, reduced stamina and poor muscle tone and posture (DePauw, 1981; Short & Winnick, 1986; Winnick, 2000 ). Consequently, this population is generally less adept at such things as throwing, catching, balancing, striking, and body and spatial awareness (Lieberman & Houston-Wilson, 1999; MacCuspie, 1996; Steadward, Watkinson, & Wheeler, 2000; Winnick, 2000). Therefore, sighted children often view children with visual impairments as less capable and less desirable social partners (Rosenblum, 1997). Classmates' perceptions that the student with a visual impairment cannot do many of the things they themselves can do is a significant deterrent to being sought out as a "best friend" (MacCuspie, 1996). For students with visual impairments, their level of physical ability must be comparable to that of their peers if they are to be routinely included in class activities (MacCuspie,

1996). Adequate physical development and skill levels make it easier for students to form friendships with others.

Through interaction with others, children learn to listen, share and empathize. They develop relationship histories through personal interactions with others as well as through observing each other's actions (Hundley & Cohen, 1999). Early friendships and shared play interests provide the foundation for stable, more complex relationships later in life (MacCuspie, 1996). Participation in sport and recreational activities has the potential to increase the frequency of interactions between children with low vision and their peers. Such interactions and broader social experiences can enhance perceptions of the social self (Blinde & McClung, 1997).

There are many advantages associated with participation in recreational activities. Sport and physical fitness activities provide opportunities to bond with others, develop social skills and broaden one's social experiences which can lead to "social acceptability" and enhance the public perception of the disabled (Blinde & Taub, 1999). Further, the physical, social and psychological benefits of physical activity can lead to greater independence and an improved quality of life (Lieberman & Houston-Wilson, 1999). Health Canada (2005) states that physical activity improves health and well-being. It reduces stress, strengthens the heart and lungs, increases energy levels, helps achieve and maintain a healthy body weight and improves one's outlook on life.

Social comparison processes are especially salient when discussing sport and physical activity. Inherent in sport competition is the comparison of one's skills with others (Shapiro & Ulrich, 2001). People with disabilities frequently mention how participation leads to a redefinition of their abilities and aspirations. Self perceptions are often changed as a result of participation in sport and physical activity (Blinde & Taub, 1999).

### Statement of the Problem

There is very little information on the needs of this population in terms of physical activity, ability and adaptations although they make up the majority of children and youth with visual impairments who receive support services. Children with low vision have restricted opportunities to develop shared interests and common experiences typical of their peers who are fully sighted (Kef, 1997; Kroksmark & Nordell, 2001). They are often left out of physical activities at school, in their neighborhoods and in the community (Lieberman & Houston-Wilson, 1999; Zeijl, te Poel, du Bois-Reymond, Ravesloot & Meulman, 2000). Due to their restricted participation, individuals with sensory impairments have been overlooked as potential respondents in research studies (Sherrill & Williams, 1996) and, as a result, there is limited knowledge concerning the impact of participation in physical activity on this population. This research addresses the patterns of physical activity participation, sources of social support and friendship dynamics among children with low vision.

### Research Questions

1. Does degree of visual impairment affect participation in sport and recreational activities for children with low vision?
2. Do children with low vision who are involved in sport and recreational activities have greater friendship dynamics than children with low vision not involved in sport and recreational activities?
3. Do positive social supports affect involvement in sport and recreational activities in children with low vision?

### Operational Definitions

Acceptance - a relationship between a child and her/his peer group which is characterized by active and spontaneous interaction. It is reflected in the perception by the group that the child is an appropriate playmate or workmate, one who could be routinely included in classroom and playground activities. An accepted child is infrequently discouraged from participating in the typical group events of the school day (MacCuspie, 1990).

Active Participation - being involved in sport and recreational activities a minimum of one hour per day, three or more days a week (Health Canada, 2005).

Friendships - characterized by the sharing of feelings, self-disclosure, trust, and loyalty (MacCuspie, 1990).

Itinerant Vision Teacher - a teacher specializing in the field of education for the visually impaired and assigned a caseload of visually impaired students within a

specific geographical area, thereby, requiring travel from school to school.

Low vision - having a significant visual impairment but also having some useable vision; moderate low vision is acuity 20/70 to 20/160 in the better eye with the best possible correction; severe low vision is acuity 20/200 to 20/400 or a visual field of 20 degrees or less (Levack, 1991).

Peer Acceptance - is one's degree of social acceptance, liking or status within the peer group (Smith, 2003).

Peer group - a group of same-age individuals. Inclusion by one's peers results in positive social interactions and healthy social-emotional or affective development (MacCuspie, 1990).

Peer Relationships - a relationship is comprised of individuals familiar to one another, and has a history characterized by successive interactions (Rubin, Bukowski & Parker, 1998)

Recreational sport - physical activity on one's own terms, primarily for fun or health. Rules and equipment are modified according to personal motivations for participation (Pensgaard & Sorensen, 2002).

Social support - the form of positive regard from others which includes the degree to which others treat an individual like a person, like them the way they are, care about their feelings, understand them and listen to their problems (Harter, 1985).

Sports - organized interactions...in competitive and/or cooperative team or individual enjoyable physical activity (Humphrey, 1993).

Visually Impaired - any structural or functional defect of the eye which results in a loss of visual acuity or field, ranging from a slight loss to total blindness

(MacCuspie, 1990).

#### Assumptions

1. Participants in this study are representative of the population of children with low vision.
2. Children with low vision want to participate in sport and recreation activities with their sighted peers.

#### Delimitations

The participants in the study are male and female elementary to middle school students aged 8 to 14 years, who are classified as having low vision (i.e. having a visual acuity of 20/70 to 20/400 in the better eye with the best possible correction or a visual field of 20 degrees or less) and are considered by their itinerant vision teacher to be capable of participating in sport and recreational activities. All participants were drawn from the Atlantic Provinces Special Education Authority (APSEA) student data base.

#### Limitations

Research involving children with low vision is restricted by the relatively small population from which to draw. Gaining access to participants and matching them on specific variables (e.g., visual acuity, visual efficiency, IQ, achievement) is an onerous undertaking. Compounding this problem is the absence of a standard



definition of visual impairment. For the present study, low vision, as defined by Levack (1991), refers to having a significant visual impairment but also having some useable vision; moderate low vision is an acuity of 20/70 to 20/160 in the better eye with the best possible correction; severe low vision is an acuity of 20/200 to 20/400 or a visual field of 20 degrees or less.

Another confounding factor is the diverse nature of school-age populations who are visually impaired. Variables such as the severity of loss, total or partial; age of onset; cause of loss; and presence of associated physical and sensory impairments contribute to the group's extreme heterogeneity. This makes it especially difficult for researchers to generalize their findings (MacCuspie, 1996).

#### Significance of the Study

Children with low vision have restricted opportunities to develop shared interests and common experiences typical of their peers who are fully sighted (Kef, 1997; Kroksmark & Nordell, 2001). They are often left out of physical activities at school, in their neighborhoods and in the community (Lieberman & Houston-Wilson, 1999; Zeijl, te Poel, du Bois-Reymond, Ravesloot & Meulman, 2000). Involvement in sport and physical activity can improve self-esteem, self-concept and promote friendship development among people with physical and sensory impairments (Blinde & Taub, 1999). Making friends can increase self-esteem and help children with low vision become more outgoing and confident individuals (Blinde & McClung, 1997; Blinde & Taub, 1999; Jones, 2001).

Societal attitudes about physical ability often preclude this group from gaining access to the socially valued arena of sport and physical activity (Nixon, 1989). Due to their restricted participation, individuals with sensory impairments have been overlooked as potential respondents in research studies (Sherrill & Williams, 1996) and, as a result, there is limited knowledge concerning the impact of participation in physical activity on this population. Investigating the patterns of physical activity participation, sources of social support and friendship dynamics among children with low vision has important implications for social skills programming and developing quality physical education experiences.

## Chapter II

### Literature Review

This chapter presents a review of the literature relevant to participation in sport and recreational activities and peer interaction and perceptions of self among children with low vision. The review includes discussion of the effects of social support on children's self-esteem and independence; personal networks and how they impact the development of friendships; the leisure activities of children and youth with low vision in comparison to their normally sighted peers; and how sport and recreation can enhance a child's sense of self-worth and empowerment.

#### Social Supports and Friendship Development

For children under the age of 10 years, competencies are shaped through their interactions with parents and more so by their parents' perceptions of their competence (Dempsey, Kimiecik, & Horn, 1993). According to Babkes and Weiss (1999) parents influence children's judgements by communicating their own beliefs about the child's likelihood of success and the relative value of achievement areas. They found that children who perceived their parents to have positive beliefs about their physical competence, who gave high amounts of positive contingent responses for success, and who served as positive role models through their own involvement in exercise and sport, reported higher perceptions of physical competence and enjoyment of sport.

Zeijl et al., (2000) investigated the role of parents and peers in the leisure activities of 927 normally sighted adolescents from different social classes. The

study's focus was the degree to which pre-adolescents (10-12 years), juveniles (13 years), and adolescents (14-15 years) associated with parents and peers in their leisure time and whether the contact with parents and peers changes in the course of the transition from childhood into adolescence. They found that younger adolescents between the ages of 10 and 12 years spent most of their leisure time with family members, whereas 14 to 15 year olds spent more time with their peers, regardless of gender. The 13 year old children in the study were found to be in a transitional stage, spending equal amounts of time with family and peers. As a child gets older, social interactions and social supports from peers become more important. The same applies for children with visual impairments. They will have the same need for emotional support, intellectual stimulation, and physical activity as other children (MacCuspie, 1996).

In a study by Sacks, Wolffe & Tierney (1998), only one quarter of blind and low vision participants and their parents reported that they spent time after school with friends. The majority of blind and low vision students and their parents reported that students spent their time after school alone, spent more time on the telephone, participated in more sedentary activities, and were bound to their homes by their inability to travel independently. If not encouraged by adults, the low vision student tended to isolate himself from his peers and tended to interact more directly with adults and family members. Opportunities for social integration and acceptance by

sighted age-mates appeared limited at best. Students with visual impairments had to work harder at maintaining social relationships with their sighted friends.

A distinction can be made between being accepted and having friends (Bukowski & Hoza, 1989). Acceptance is reflected in the perception by the group that the child is an appropriate playmate or workmate, one who should be routinely included in classroom and playground activities (MacCuspie, 1990). Friendships are defined as close, special dyadic relationships (Bukowski & Hoza, 1989). Friends are loyal, trusting and intimate with each other (Bukowski, Newcomb, & Hartup, 1996). Their relationship is based on reciprocal affection and is voluntary (Rubin, Bukowski, & Parker, 1998). When disagreements arise, friends must handle their conflicts in a constructive manner if the relationship is to continue. In this way, friendships require individuals to be concerned with their partner's interests as well as their own (Hartup & Stevens, 1997).

According to Berndt (1989), friendship is considered to be a significant source of support for individuals involved in a relationship. Friends are thought to buffer each other against many types of stress. Friends have the most positive effect when friendships are stable and provide the specific type of support needed. These supportive relationships, especially those that provide validation and aid, were found to make positive contributions to school adjustment as rated by children (Ladd, Kochenderfer, & Coleman, 1996). The physical and emotional support provided by

friends is frequently essential to our willingness to try unfamiliar activities or meet new challenges (MacCuspie, 1996).

Traditionally, researchers consider children who independently nominate one another as friends, to be friends. In an investigation of children's relationships with classmates conducted by Hundley and Cohen (1999), almost 400 children in grades 1 through 6 were given their class rosters and beside each name asked to rate how much they liked each student. They also circled the names of three people they liked the most. The researchers investigated children's liking for all classmates based on different types of friendship nominations: Mutual Friends (each nominated the other); Unilateral Given Friends (child nominated classmate); Unilateral Received Friend (classmate nominated child); or Not a Friend (neither nominated the child). The primary goal was to assess children's liking for classmates based on the type of friendship nomination relationship between children. The second goal was to evaluate whether factors such as group standing (i.e., general peer acceptance) or number of mutual friends might influence the liking ratings of these relationships. Variations in liking across these dyadic relationships reflected an awareness of differences in how self and individual classmates view one another in terms of friendship.

Relationship histories of classmates develop through their personal interactions as well as through observing each other's actions. Through these interactions, children develop opinions about each of their classmates and

expectations about the way others will behave (Rubin, Bukowski, & Parker, 1998). Individuals most often select people who are similar to themselves as friends (Kupersmidt, De Rosier, & Patterson, 1995). Through common interests and experiences, adolescents develop friendships and peer groups which impact their self-esteem and independence. Children who are routinely left alone on the sidelines miss an extraordinary amount of time practicing and refining the skills of social interaction and effective communication, motor coordination and physical fitness, and intellectual processing and problem solving (MacCuspie, 1996).

#### Children with Low Vision

Kroksmarks and Nordell (2001) compared adolescents with low vision and sighted adolescents in order to determine how they spend their leisure time and whether their everyday activities were bound to places, people or both. The study involved six adolescents aged 15 to 16; four with congenital low vision (two males and two females) and two adolescents who were sighted (one male and one female). A time-geographic method of data collection was used whereby the participants completed a time-diary which required them to record entries each time they changed activities on a given day. The data showed that both boys and girls with low vision changed activities less often, were involved in single activities for longer periods of time, and were more sedentary than their sighted peers. Leisure time for adolescents with low vision was spent mostly at home with family. Time spent with friends was usually for a specific purpose such as completing homework assignments. Their

social activities included such things as horseback riding, playing guitar, attending church events, cleaning their rooms and household chores. They also spent a greater period of time doing homework, playing computer games, watching television and sleeping. Overall, the research indicated that adolescents with congenital visual impairments were less independent than their sighted peers, had fewer friends and were more reliant on parents than adolescents without visual impairments.

Kef (1997) investigated the personal networks and social supports of 316 blind and visually impaired adolescents (166 male and 150 female) aged 14 to 23. Participants were interviewed to determine whether blindness or visual impairment influenced their personal networks and social support systems. Data collected using the Social Network Map, and Functional Vision Scale, determined that the size and range of the personal networks of blind and visually impaired adolescents were smaller than those of their sighted peers. The types of friendships adolescents with visual impairments have was examined by Rosenblum (1997) in a study using The Intimate Friendship Scale (IFS) which was administered to 22 adolescents aged 13 to 19 with visual impairments. Adolescents who reported being members of intimate, reciprocal friendships were found to be more compassionate, disclosing, competent, and sociable and had higher levels of self-esteem than their peers whose friendships were not intimate (Buhrmester, 1990).

Sacks (1992) states that many school children with visual impairments have difficulty with social interactions because many skills essential for effective social



interaction (like mutual gaze and smiling) are visual; lack of vision or reduced vision affects the child's ability to recognize these signals and respond to them appropriately. In a research study conducted by Sacks, Wolffe, and Tierney (1998) with 16 low vision, 16 blind, and 16 sighted adolescents aged 15-21, it was found that sighted adolescents spent significantly more time in active social situations than those who were blind or visually impaired. Adolescents with low vision were least likely to be involved in high-level social interaction (such as scouting or playing an instrument in a group); adolescents who were blind spent the most time in passive activities (like watching television and talking on the phone). In short, adolescents with visual impairments (both those who were blind and those who had low vision) spent significantly more time alone than did sighted adolescents.

It is well established that social agents contribute to the quality of youths' physical activity experiences, however, relatively little research has specifically explored peer relationships in physical activity settings (Smith, 2003). Through shared interactions, children recognize similarities and mutual interests that lead to the establishment of friendships (MacCuspie, 1990, 1996). Social comparison processes are especially noticeable when discussing sport and physical activity. MacCuspie (1996) found that children with visual impairments believed that they lacked the skills (such as the ability to catch a ball) needed to gain access to peer groups. The first place children are involved in organized physical activity is in school physical education classes. As children grow older, the sources of information

they use to judge their performance in structured sport settings change. The more opportunities children with low vision have to interact with their peers, the greater their likelihood of establishing friendships.

### Participation in Sport and Recreation

Quality physical activity experiences are those that prompt commitment and adherence to active living, as well as those that facilitate outcomes such as moral and social development, motor competence, positive self-perceptions, and positive affect (Smith, 2003). Children who are visually impaired have the same need for emotional support, intellectual stimulation, and physical activity as other children (MacCuspie, 1996). Inclusive physical education means providing all students with disabilities the opportunity to participate in regular physical education classes with their peers.

Children compare themselves with others in relation to their abilities and, in doing so, develop a perception of themselves as capable individuals. Physical activity contexts such as organized sport, physical education, and neighborhood games all provide opportunities to interact with peers and therefore serve as important contexts for youth development. For example, they provide opportunity for peer comparison while exposing youth to different points of view (Smith, 2003). Shapiro and Ulrich (2001) evaluated the perception of physical competence of children with and without learning disabilities (LD) in three contexts: (1) physical education classes; (2) outdoor school recess; and (3) at home. The athletic competence sub-scale from the Self-Perception Profile for Learning Disabled Students (SPPLD), and two social

comparison questionnaires were administered to 60 students aged 10 to 13 years, 30 with LD and 30 without LD. Responses indicated that the participants relied primarily on classmates, self-comparison, and family members to judge their physical competence. Within these comparisons, physical competence was highly regarded. Peers are not only important to the acquisition of competence information in competitive sport settings, but also psychological, social and moral development (Smith, 2003).

Physical education can promote the acquisition of both daily living skills and mobility skills for students with visual impairments by helping to develop their physical fitness and psychomotor abilities. The four generally agreed upon goals of physical education are: (a) knowledge acquisition and application; (b) motor skill acquisition; (c) health related fitness; and (d) psycho-social well-being (New Brunswick Department of Education, 2000). For children with low vision, it is difficult to achieve skill at fast-paced or 'open-skill' activities. Therefore, opportunities for students with low vision to demonstrate physical competence in an active environment are restricted. Children with low vision are generally not involved with their peers in activities that require participants work together towards an equal and rewarding common goal (Ashton-Schaeffer, Gibson, Autry & Hanson, 2001). Furthermore, their seeming disinterest in participating sends a negative message to their peers.

Physical proximity between those with disabilities and their classroom peers does not necessarily result in social integration (MacCuspie, 1996). Tripp et al., (1995) applied contact theory in their examination of attitudes of children in physical education programs toward peers with disabilities. The Peer Attitudes Toward the Handicapped Scale (PATHS) was administered to 455 children aged 9 to 12 years to determine whether interaction between individuals with differences produces a change in attitude toward the other. Although the mean attitudes for the integrated and segregated groups were quite similar, the study did indicate that contact between individuals with and without disabilities must be direct and personal to produce positive attitude change.

This finding was echoed by Place and Hodge (2001) who examined the behaviors of eighth-grade students with and without physical disabilities relative to social inclusion in a general physical education program. Employing the Academic Learning Time for Physical Education (ALT-PE) and Analysis of Inclusion Practices in Physical Education, Form S (AIPE-S), they observed three girls with physical disabilities and 19 classmates (11 females and 8 males) without disabilities. Although the three students with disabilities were included in the regular physical education program, meaningful contact with peers was frequently limited to hands-on assistance or physical contact when it was their turn to participate in the activity. More often than not, they were left on their own. Segregated inclusion and social isolation illustrated the fact that an inclusive setting does not ensure interactions among

children with and without disabilities. In order for children with visual impairments to extend their personal networks and develop friendships, they must have an opportunity to interact with others on an equal basis with all involved working toward a common goal.

The lack of early experience with complex sports activities severely limits sport participation later in life. Ponchilla (1995) states that access to physical education, recreation, and athletic programs is generally limited for individuals with visual impairments. Impaired vision usually prevents adults from participating in community basketball or softball leagues and restricts the participation of young people in physical education classes and school athletics.

The types of social interactions students were involved in after school also differed according to the level of vision. Unless children have enough residual vision to perform at the level of their sighted peers, there is little possibility that they will receive the full benefits of physical education (Ponchilla, 1995). According to Ponchilla (1995) and Lieberman, Houston-Wilson and Kozub, (2002), the problem relates to the expertise of the instructors and the individual student's sports skill ability. A student's skills cannot be expected to improve significantly without providing educators with appropriate methods to use with the students who are visually impaired.

Traditional physical education curricula and youth sport programs are usually based on 'open-skill' sports. Open-skill sports are found in multi-player game

settings in which movements of the ball are unpredictable (e.g., basketball, soccer, hockey, etc). Closed skill sports are repetitive activities which take place in a predictable environment (e.g., bowling, archery, diving, curling, horseback riding, etc). Many students with low vision do not participate in physical education classes for a variety of reasons. For example, the physical education teacher may be concerned for the safety of the student, may not know how to include the student, or may suggest that they sit out of the activity and join in whenever they feel comfortable participating. As a result, the student with low vision will not have the prerequisite skills or experience necessary to be successful in the activity (Steadward, et al., 2003).

Ponchilla (1995), found that mainstream physical education instructors face a twofold problem with students with visual impairments, namely, their training has not prepared them to work with special students, and they seldom have sufficient time to give individualized instruction. This was also illustrated in Lieberman, Houston-Wilson and Kozub, (2002) in their study of 170 New York State physical education teachers. They found that the major barriers to the inclusion of visually impaired students in physical education and physical activity programs were lack of professional preparation, inappropriate equipment, overprotection, lack of adequate programming, time constraints and parental overprotectiveness.

With appropriate adaptations, students with disabilities can be included in regular physical education. Ponchilla, Strause and Ponchilla (2002) found that nearly

two-thirds of the United States Association of Blind Athletes (USABA) had either been fully included in school physical education classes, played on sports teams, or participated in athletic events open to the public. Those who received physical education in junior high school or high school were more likely to participate in school or college sports than those who did not. That is, 69 percent of those who received physical education in school played on sports teams compared to only 20 percent who did not. The study concluded that once children know how to participate, they will overcome the barriers to success by themselves.

### Empowerment Through Sport

The benefits of participation in sports for building fitness, teaching good fitness habits and healthy competition, developing self-esteem, building social skills, and friendships, and providing pleasure are well documented. Blinde and McClung (1997) looked at the impact of participation in recreational activities on perceptions of the physical and social selves of individuals with physical disabilities. The participants were college and university students, 11 women (aged 19 to 54) and 12 men (aged 20 to 36) with physical disabilities. Participants were asked to select from several recreational activities such as horseback riding, fitness training, weightlifting, racquetball, bowling, tennis, fishing, walking and tai chi. Half of the participants partook in only one activity, while the remainder selected a combination of activities. Questionnaires and tape-recorded interviews, 45 minutes in length, were conducted within two weeks of the completion of a recreation program. Findings from this

research attest to the positive benefits that can result from participation in recreational activities for individuals with physical disabilities. This comprehensive study illustrated how participation in recreational activities increases confidence, self-esteem and social contacts.

In a similar study, Blinde and Taub (1999) interviewed 28 male college students with physical or sensory disabilities in order to investigate personal empowerment through sport and physical fitness activities. Life histories, including degree of past and current involvement in sport, personal outcomes and the relative importance of sport and physical activity in respondents' lives, were obtained through personal interviews. The researchers looked at three areas of empowerment: perceived competence as a social factor, facilitation of goal attainment, and social integration. While the participants had all been involved in some form of sport and physical fitness activity, participation patterns varied from limited (e.g., infrequently lifting weights) to extensive (e.g., regular participation on a sport team); and degree of success ranged from minimal (e.g., being able to lift a light weight) to great (e.g., being a member of the university wheelchair basketball team). Despite differences in activity levels and experiences, the participants shared some important life experiences and background characteristics. Nearly all of the participants mentioned how perceptions of the self were changed as a result of their participation in sport and physical activity. It gave them a better outlook on life, improved the overall perception of themselves and boosted their confidence. There was an increase in



awareness of potential. Rather than accepting the assumed boundaries and limitations of a disability, participants mentioned how their participation resulted in a redefinition of their abilities and aspirations. A greater sense of empowerment was indicated in their perceptions of their independence and control over life activities. They were better able to counter feelings of dependency and being controlled by outside forces. Participants felt a greater sense of accomplishment, gained a feeling of self-actualization, were better able to develop to their fullest potential.

Goal attainment requires the availability of supportive or adaptive environments that provide opportunities for learning and practicing strategies necessary to achieve a desired outcome. Participants said that involvement in sport and physical activity encouraged them to set and pursue goals, and to be persistent in their pursuit. They were more confident and assertive in their approach to achieving their goals in both physical activity and other aspects of their lives. They felt also that it provided them with experiences that broadened their social contacts. They were able to bond and connect with others by participating in activities with people who had similar interests. This fostered feelings of interpersonal inclusiveness and a sense of belonging. It allowed them to broaden their social skills and experiences, and taught them important interpersonal skills such as cooperation, leadership and teamwork. Participants indicated that it assisted them in feeling more integrated into society (Blinde & Taub, 1999).

Physical activity contexts such as organized sport, physical education, and neighborhood games all provide opportunities to interact with peers and thus serve as important contexts for youth development (Smith, 2003). Jones (2001) interviewed elite athletes and members of various sport teams and concluded that sport is especially conducive to friendships. That friendships are life enhancing and that sports and physical activity provide opportunities to develop friendships based on common interests and experiences.

Because high quality peer relationships can translate to positive health-related outcomes, the development of effective and efficient ways to use physical activity contexts to promote peer relationships is a worthy pursuit (Smith, 2003). For children with visual impairments, this idea is especially salient. Children with visual impairments can develop physical skills which allow them to feel confident in pursuing activities outside of school, in neighborhood activities, community recreation programs, and organized sport. Peer interactions increase and social networks broaden, thus enhancing their self perceptions.

## Chapter III

### Methods and Procedures

This chapter presents the methods and procedures used in this study to select participants and collect and analyze data. The purpose of the study was to determine patterns of physical activity participation, sources of social support and friendship dynamics among children with low vision. If participation in sport and recreation can lead to larger social networks, then the potential for developing friendships and social skills will increase for children with visual impairments.

#### Participants

Participants for this study were drawn from the Atlantic Provinces Special Education Authority (APSEA) student data base. APSEA provides educational services, programs and opportunities for persons from birth to 21 years of age with low incidence sensory impairments. This includes children and youth who are deaf, deaf-blind, hard of hearing, blind, or visually impaired and who are residents of Atlantic Canada (New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island). Criteria for participation in this study included: the student had to be 8 to 14 years of age, with low vision (20/70 to 20/400); their visual impairment was their only impairment; and the student's parent or care-giver gave permission for their child to participate in the study.

The participants in this study were 24 children (15 males and 9 females, aged 8 to 14 years,  $M = 11.3$ ;  $SD = 1.9$ ) with low vision (20/70 to 20/400) from rural,

suburban and urban communities. For the purpose of comparison, participants were classified as having moderate low vision (20/40 to 20/160, n = 15) or severe low vision (20/200 to 20/400, n = 9). Sixteen itinerant vision teachers responded to the call for participants. Forty-two questionnaires were sent to the itinerant vision teachers and 29 were returned. Five were not fully completed and therefore not included in the final analysis.

### Permission

Approval from the Institutional Review Board at the State University of New York (SUNY) at Brockport and the Atlantic Provinces Special Education Authority (APSEA) Research Review Committee was obtained prior to commencement of this research. The human participants approval forms for SUNY Brockport, the Atlantic Provinces Special Education Authority (APSEA), and the Parent, Child and Principal consent form are presented in the appendices. Participation was voluntary and all research records were kept confidential. All written information collected about the participants was destroyed upon completion of the study.

### Instruments

The research instrument was a questionnaire with three sections (see Appendices H, I and K). The first section requested demographic information on the student from the vision teacher, including age, grade, gender, eye condition and acuity. It also asked for the itinerant teacher's perception / opinion regarding the

student's involvement in sport and recreational activities, friendships and sources of social support.

The second section included 11 closed-ended questions and two open-ended questions for the participants to complete. The questionnaire was sent out for validation to four experts in the field of visual impairment and adapted physical education. Each expert was asked to review the questions and provide feedback. The cumulative results of the feedback were utilized to establish content validity for the questionnaire. The instrument was designed to obtain information about the participant's free time (i.e., who they spend their time with, where they made friends, how they spend their time, and in what activities), as well as determine involvement and satisfaction within sport and recreational activities. Responses were noted on a 7-point Likert-type scale, with options ranging from 0 (not at all important) to 7 (very important). The third section of the questionnaire included the social support sub-scale, 'People in My Life', of the Perceived Competence Scale for Children (1982), developed by Susan Harter. It is a self-report instrument which measures a child's competence across cognitive, social and physical domains. The sub-scale consists of 24 closed-ended questions which tap perceived regard from significant others. The four sources of social support or positive regard are: (1) parents; (2) teachers; (3) classmates; and (4) close friends. Together, they determine an individual's profile of support. The inclusion of two sources of peer support (i.e., classmates and close

friends) assumes that the nature and extent of support from these two groups may differ (Harter, 1985).

### Procedures

Criteria for participation in this study required that the students be between the age of 8 to 14 years, have low vision (20/70 to 20/400), and that visual impairment is the only impairment. The instrument was initially pilot-tested on five students with normal vision between the ages of 8 and 14. The purpose of the study was shared via electronic mail with 39 Atlantic Provinces Special Education Authority (APSEA) itinerant vision teachers (all colleagues of this researcher). Next, the research questionnaire was sent to the Director of Programs for Students who are Blind or Visually Impaired at the APSEA Center in Halifax, Nova Scotia, Canada, for review. Upon approval, it was sent to all 39 APSEA vision teachers who were asked to determine how many of their students fit the stated criteria. Sixteen of the 39 teachers responded with the names of 42 potential participants (24.7% of the 146 students with low vision in APSEA's student database).

Forty-two packages, which included the questionnaires, pupil and parental/guardian consent forms, and teacher information sheets were mailed to those vision teachers who had provided one or more names. Each itinerant teacher obtained signed permission from his/her school district superintendent and school principal prior to completing the questionnaires. Each student was provided with consent forms and were told they could withdraw from the study at any time without any

consequences. The itinerant teachers completed the questionnaires with their students. Depending upon the age of the student, itinerant teachers either read the questionnaire to their student and recorded their answers, or the student completed it independently. Self-addressed, stamped envelopes were provided to the itinerant teachers. Code numbers and names were used on the questionnaires. Respondents were assured by the researcher that their comments would not be associated with them as individuals.

### Design and Analysis

#### Participants

Participants were divided into two groups based on their visual acuity: moderate low vision (20/70 to 20/160) and severe low vision (20/200 to 20/400). Of the 24 participants who completed the questionnaires, 14 had moderate low vision, and 10 severe low vision. As shown in Table 1, there were 12 pre-adolescents with moderate low vision; four pre-adolescents with severe low vision; one juvenile with moderate low vision; five juveniles with severe low vision; one adolescent with moderate low vision and one adolescent with severe low vision.

#### Method of Analysis

The sample consisted of 24 children and youth (15 males and 9 females) with low vision (20/70 to 20/400), between the ages of 8 and 14 years ( $M = 13$  years). All participants were drawn from the Atlantic Provinces Special Education Authority (APSEA) student database.

All statistical procedures were performed in SPSS for Windows, version 8.0 and the statistical significance level for individual tests set at  $p < 0.05$ . Comparisons were made between the amount of time participants spent with significant people in their lives such as parents, peers, siblings, relatives, neighbors, sitters and others. The amount of time participants spent with their friends was also considered. Where they developed friendships, and how often they spent time with those friends was one of the primary considerations. Cross-tabulations were used to look at whether the degree of visual impairment had an impact on where students developed friendships and how much time they spent with these friends.

Where participants said they were physical activity was assessed (i.e., Physical Education class, school teams, their neighborhood, community recreation program, or a representative sport team) and the amount of time they were engaged in sport and recreational activities was compared to determine if friendships were made through this social arena. Descriptive statistics was used to evaluate the participant's satisfaction with their level of physical activity and whether their visual impairment had an impact on how much time they spent participating in sport and recreation. These activities were further assessed according to: (1) male vs. female; (2) moderate low vision (20/40 to 20/160) vs. severe low vision (20/200 to 20/400); and (3) sport vs. recreational activities.

The researcher determined each participant's level of physical activity based on their responses to the questions, "What types of activities do you like to do with



your friends?”, and “In what sport and recreational activity are you involved?”

Activities classified as non-active included: watching television, talking on the phone, listening to music, reading, going to malls or to the movies, spending time on hobbies, using the computer or Internet, and playing video games. Moderate activities were: walking, skating, bike riding, bowling, hide and seek, shooting hoops, skateboarding/skating, canoeing, and swimming. Activities classified as vigorous were: jogging/running, swimming laps, aerobic dance, weight training, soccer, basketball, hockey, figure skating, and hiking. These activity levels, vigorous, moderate and non-active, are based on the Health Canada (2005) criteria for determining activity levels in sport and recreation.

These activities were also sorted according to whether they were open- or closed-skill sports. Open-skill sports are associated with multi-player game settings in which ball movements are unpredictable (e.g., basketball, soccer, hockey, etcetera). Closed-skill sports are repetitive activities which take place in a predictable environment (e.g., bowling, archery, diving, curling, horseback riding, etcetera). In closed-skill sports, persons with visual impairments are able to participate with little or no modification or adaption. Cross-tabulations were assessed to determine whether the participant’s level of visual impairment had an impact on how satisfied they were with their level of physical activity. A t-test assessed level of satisfaction differences as well.

Degree of support from people in their lives such as parents, classmates, teachers, and friends was statistically analyzed using a small sample t-test. As described by Harter (1985), the parent scale taps content involving the extent to which parents understand their children, want to hear their children's problems, care about their feelings, treat them like a person who really matters, like them the way they are and act like what their children do is important. The classmate support scale taps the extent to which one's classmates like them the way they are, are friendly, don't make fun of them, listen to what they say and ask them to join in and play or games. The teacher support scale assesses the degree to which one's teachers help them if they are upset, help them do their very best, care about them, are fair to them and treat them like a person. The close friend sub-scale, asks whether the child has a close friend who responds positively toward them. Items ask whether the child has a close friend who they can tell problems to, who really understands them, who they can complain to about things that bother them, who they can spend time with and who really listens to what they say (Harter, 1985).

Comparisons were made according to grade, degree of visual impairment, social support (friends, teachers, parents, classmates), participation in sport and recreational activities and satisfaction with level of physical activity.

## Chapter IV

### Results

For children with visual impairments, social interactions with their normally sighted peers are often hindered by a variety of factors which forces them to miss out on socializing with others. Adequate physical development and skill levels make it easier for them to form friendships. The purpose of the study was to investigate patterns of physical activity participation, sources of social support and friendship dynamics among children with low vision.

#### Participants

Twenty-nine questionnaires were returned over a two month period. Five were not fully completed which resulted in a total of 24 questionnaires for study. Of the 24 participants who completed questionnaires, 14 had moderate low vision (20/70 to 20/160), and 10 had severe low vision (20/200 to 20/400). Participants were also divided according to age as described by Zeijl et al., (2000), namely Pre-adolescents (8-12 years), Juvenile (13 years), and Adolescents (14-18 years). In total, there were 12 pre-adolescents with moderate low vision, four pre-adolescents with severe low vision; one juvenile with moderate low vision, and five juveniles with severe low vision. One adolescent had moderate low vision, and another severe low vision (See Table 1).

Table 1

*Description of Participants*

Groups	Moderate Low Vision (20/70 to 20/160) n=14	Severe Low Vision (20/200 to 20/400) n=10	Total N=24
Pre-adolescent (8-12 years)	12	4	16
Juvenile (13 years)	1	5	6
Adolescent (14-18 years)	1	1	2

PATTERNS OF PARTICIPANT INVOLVEMENT IN SPORT AND  
RECREATIONAL ACTIVITIES

How Much Time They Spend Participating in Sport and Recreational Activities

Of the 24 participants, 23 said they were involved in sport and recreational activities to some extent. A total of 14 said "Yes", nine said they are involved "Sometimes", and one said he was not involved in sport and recreational activities. Of the 14 children with moderate low vision, all were involved in physical activity to some degree, the majority said they were definitely active. Half of the participants with severe low vision said they were physically active and half said "Sometimes". The one participant who said he was not physically active had severe low vision (See Table 2).

Table 2

*Participation in Sport and Recreation*

Participation in Sport & Recreation	Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Total N=24	
	Yes	9	64%	5	50%	14
Sometimes	5	36%	4	40%	9	38%
No	0	0%	1	10%	1	4%

Where They Participate in Physical Activity

Of the 24 participants, 21 said the physical education class was where they were involved in physical activity most often. Intramurals were cited by seven participants, and four indicated being involved with a school team. Outside of school, six said they participated in physical activity in their neighborhoods, 15 were involved with community recreation programs, and none said they were involved with a representative sport team.

When the level of visual acuity was considered, 12 of the participants with moderate low vision and nine with severe low vision participated most often in physical education classes. For participants with moderate low vision, seven participated in intramurals, none with severe low vision participated. Two with moderate low vision and two with severe low vision participated on school teams. Outside of school, four of the participants with moderate low vision and two of the

participants with severe low vision were involved in sport and recreational activities in their neighborhoods (See Table 3).

Table 3

*Place of Physical Activity*

Place of Physical Activity	Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Total N=24	
PE Class	12	86%	9	90%	21	88%
Intramurals	7	50%	0	0%	7	29%
School Team	2	14%	2	20%	4	17%
Neighborhood	4	29%	2	20%	6	25%
Community Recreation	8	57%	7	70%	15	63%
Representative Team	0	0%	0	0%	0	0%

Activities In Which Participants Are Involved

Completed questionnaires, were sorted according to: (1) moderate low vision (20/40 to 20/160) and severe low vision (20/200 to 20/400); and (2) activity level in sport and recreational activities. Activity levels were categorized as vigorous, moderate and non-active. The researcher determined each participant's level of physical activity based on responses to the questions, "What types of activities do you like to do with your friends?" and "In what sport and recreational activity are you involved?"

Activities classified as non-active included: watching television, talking on the phone, listening to music, reading, going to malls or to the movies, spending time

on hobbies, using the computer or Internet, or playing video games. Moderate activities included: walking, skating, bike riding, bowling, hide & seek, shooting hoops, skateboarding/skating, canoeing, and swimming. Activities classified as vigorous were jogging/running, swimming laps, aerobic dance, weight training, soccer, basketball, hockey, figure skating, and hiking.

These activities were then identified as either open- or closed-skilled sports (See Chapter II for details). See Table 4 for the activity distribution.

Table 4

*Activities in Which Most Participants Say They are Involved*

Rank	Activity	Total N=24		Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Open-skill	Closed-skill
		Count	Percentage	Count	Percentage	Count	Percentage		
1	swimming	11	46%	5	36%	6	60%		✓
2	basketball	8	33%	5	36%	3	30%	✓	
3	soccer	7	29%	6	43%	1	10%	✓	
4	biking	6	25%	3	21%	3	30%		✓
5	hockey	4	17%	4	29%	0	0%	✓	
6	jogging/running	2	8%	2	14%	0	0%		✓
6	figure skating	2	8%	1	7%	1	10%		✓
6	baseball/softball	2	8%	2	14%	0	0%	✓	
6	dodgeball	2	8%	1	7%	1	10%	✓	
6	table tennis	2	8%	2	14%	0	0%	✓	

Table 5 lists the activities in which participants said they would like to be involved. The majority of activities were assigned to the closed-skill category and are independent of other players (See Table 5).

Table 5

*Activities in Which Participants Would Like To Be Involved*

OPEN-SKILL (multi-player; unpredictable movement)		CLOSED-SKILL (repetitive; predictable environment)	
Basketball Team	Ringette	Biking	Rock Climbing
Car Racing	Soccer Team	Cheerleading	Skiing
Dodgeball	Volleyball Team	Folk Dancing	Snowboarding
Lacrosse		Girl Guides	Tae Kwon Do
		Golf	Mountain Biking
		Karate	Walking

Level of Satisfaction with Physical Activity

Quality physical activity experiences are those that involve commitment and adherence to active living, as well as those that facilitate outcomes such as moral and social development, motor competence, positive self-perceptions, and positive affect (Smith, 2003).

Of the participants in the study 13 said they were moderately satisfied with their level of participation in sport and recreational activities. Eight participants said they were highly satisfied and three said they had low satisfaction levels in their physical activity levels. For those with moderate low vision five reported high satisfaction and nine reported moderate satisfaction. This, however, is not reflected in



the results for the severe low vision group, where four said they were moderately satisfied, three said they had high satisfaction and three said they had low satisfaction (See Table 6).

Table 6

*Satisfaction with Level of Physical Activity*

Satisfaction with Level of Physical Activity	Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Total N=24	
High	5	36%	3	30%	8	33%
Moderate	9	64%	4	40%	13	54%
Low	0	0%	3	30%	3	13%

FINDINGS RELEVANT TO FRIENDSHIP DYNAMICS

From the results of the present study it was not possible to state positively that those children who have low vision and are involved in sport and recreational activities had a larger peer group than those who were not involved. All but one of the participants said they were involved in some type of sport and recreational activity and, as a consequence, there was no comparison group. However, from the data for “who the participants spend their time with”; the “types of activities they are involved in”; and “where they are involved in physical activity”; suppositions can be drawn about interactions with friends outside the immediate family.

Many of the participants indicated that they favored passive activities such as hanging out, playing computer games, watching television, going to movies, talking on the phone, and listening to music. This finding is similar to that of Sacks, Wolffe,

and Tierney (1998) who found that adolescents with low vision were the least likely to be involved in high-level social interactions (such as scouting or playing an instrument in a group). Adolescents who were blind spent most of their time in passive activities (like watching television and talking on the phone). In short, they found that adolescents with visual impairments (both those who were blind and those who had low vision) spent significantly more time alone than did sighted adolescents.

### Time Spent With Friends

Of the 24 participants, six said they play with friends everyday, 13 said they play with friends a couple of times per week, and four said they spend time with their friends only on the weekends. Only one said they never spend time with friends. Participants who said they spend time with friends only on weekends, did homework during the week which kept them from spending time with friends (See Table 7).

Table 7

### *Play Time with Friends*

Play Time with Friends	Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Total N=24	
	Everyday	3	21%	3	30%	6
Couple times per week	8	57%	5	50%	13	54%
Weekends	3	21%	1	10%	4	17%
Never	0	0%	1	10%	1	4%

### With Whom They Spend Their Time

Most of the participants in this study said time was spent with family members and peers. Pre-adolescents spent much of their time with parents or siblings,

juveniles spent most of their time with peers and, to a lesser degree, with parents and siblings, while adolescents spent time with their siblings, peers and neighbors (See Table 8).

Table 8

*With Whom They Spend Their Time - Age*

With whom they spend their time	Pre-adolescent (8-12 years) n=16		Juvenile (13 years) n=6		Adolescent (14-18 years) n=2		Total N=24	
parents	11	69%	3	50%	0	0%	14	58%
peers	5	31%	5	83%	1	50%	11	46%
siblings	7	44%	2	33%	2	100%	11	46%
relatives	4	25%	0	0%	0	0%	4	17%
neighbors	1	6%	0	0%	1	50%	2	8%
sitter	1	6%	0	0%	0	0%	1	4%

Visual acuity did not play a significant role. Participants with moderate low vision spent similar amounts of time with parents, peers, siblings and relatives as did those with severe low vision (See Table 9).

Where They Develop Friendships

Participants were asked where they made friends. A total of 22 said they made friends in their school classes; 14 said they made friends from other classes, and 11 said they made friends in other grades. Outside of school, 10 said they made friends in their neighborhoods, seven in After-School programs, and three made friends at their babysitter's (after-school sitter 3:00-5:00pm). Six of the participants

said they made friends through church related activities. Recreational programs were reportedly more popular for making friends than team sports.

The participants' level of vision was addressed to see if it had an impact on friendship making. Of the 14 participants with moderate low vision, 13 made friends from their own class. For students with severe low vision, nine of the 10 made friends in their own class as well as from other classes and other grades. This finding is interesting, as it is similar to those in a study by MacCuspie (1996). She found, in comparison to their peers who were fully sighted, children with a visual impairment spent much less time with their own classmates on the playground. Instead, they were frequently observed playing with children from other classes and even children from younger grades.

Overall, participants with moderate low vision and those with severe low vision said they mostly made friends at school and in their neighborhoods. After-school and community recreation programs were also a popular choice, while sport team and after-school sitters were the least likely place to make friends (See Table 10).

## SOCIAL SUPPORTS

### Perceived Social Support from People in Their Lives

Smith (2003) found that children compare themselves with others in relation to their abilities and, in doing so, develop a perception of themselves as capable individuals. Physical activity contexts such as organized sport, physical education,

Table 9

*With Whom They Spend Their Time - Level of Vision*

With whom they spend their time	Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Total N=24	
parents	10	71%	6	60%	16	67%
peers	8	57%	7	70%	15	63%
siblings	4	29%	5	50%	9	38%
relatives	3	21%	5	50%	8	33%
neighbors	1	7%	1	10%	2	8%
sitter	1	7%	0	0%	1	4%

Table 10

*Where Participants Make Friends*

Where Participants Make Friends	Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Total N=24	
Class	13	93%	9	90%	22	92%
Other Classes	6	43%	8	80%	14	58%
Other Grades	4	29%	7	70%	11	46%
Neighborhood	5	36%	5	50%	10	42%
After-School Programs	4	29%	3	30%	7	29%
Sitter	2	14%	1	10%	3	13%
Community Recreation	5	36%	2	20%	7	29%
Team Sports	4	29%	1	10%	5	21%
Church	3	21%	3	30%	6	25%

and neighborhood games all provide opportunities to interact with peers and therefore serve as important contexts for youth development. MacCuspie (1996) stated that the physical and emotional support provided by friends is frequently essential to our willingness to try unfamiliar activities or to meet new challenges.

In order to determine whether involvement in sport and recreational activities affected self-perception in children with low vision, the social support sub-scale 'People in My Life' of the Perceived Competence Scale for Children (1982) was utilized. Harter (1985) has identified four possible sources of social support, namely (1) parents; (2) teachers; (3) classmates; and (4) close friends.

All of the participants felt they received most of their support from parents. Support from their teacher (3.3 moderate low vision vs. 3.2 severe low vision) and friends (3.2 moderate low vision vs. 3.5 severe low vision) were rated by the participants as being supportive,  $t = .513$  significant at  $p > .05$ . Classmate support was rated lowest (3.1 for both students with moderate and severe low vision) although there were no significant differences found among any of the four support groups (See Table 11).

Table 11

*Degree of Social Support*

Degree of Social Support	Moderate Low Vision (20/70 to 20/160) n=14		Severe Low Vision (20/200 to 20/400) n=10		Total N=24	
	Parents	3.6	25.7%	3.5	35.0%	3.6
Classmates	3.1	22.1%	3.1	31.0%	3.1	12.9%
Teachers	3.3	23.6%	3.2	32.0%	3.3	13.8%
Friends	3.2	22.9%	3.5	35.0%	3.4	14.2%

The final question asked whether the participants had any suggestions for other children with low vision who might want to participate in sport and/or recreational activities. Of the 24 low vision participants who completed the questionnaire, 19 wrote comments such as: "Don't let your vision stop you - if you think you can do it - try;" "Just try your best, it helps you learn how to get along with kids and it's fun;" and "Go for it! Get involved in it and tell them you can." Six participants offered suggestions that would be helpful to those coordinating an activity. For examples, "Let recreation leader know your needs"; "Explain to the runner of the activity and your teammates of your vision problems"; and " Maybe use a bigger puck with sound inside, try good contrast with equipment and goals." Only one participant was cautious. She wrote: "Be careful because something might hit you in the face" (See Appendix L). Whether the participants were involved in sport and recreational activities all of the time or sometimes, the data shows that they felt well supported and confident when they participated.

## Chapter V

### Discussion

The purpose of the study was to investigate the patterns of physical activity participation, sources of social support and friendship dynamics among children with low vision. A child with a visual impairment has the same need for emotional support, intellectual stimulation, and physical activity as other children (MacCuspie, 1996).

In an attempt to gather sufficient information regarding the involvement of children with low vision in physical activity, it was important to have as many participants as possible contribute to the study. With visual impairments being a low incidence disability, and the research including children with their visual impairment being their only disability, the anticipated number of potential participants was expected to be relatively low. What resulted was an even smaller sample size due to unforeseen restrictions. For example, access to interviewing students in some schools was limited by school district policy, resulting in itinerant vision teachers being able to interview fewer students than was expected (“...ran into a snag with the School Board...in the process of changing their policy with regard to research studies and involvement in the school system...therefore unable to do as many students as I had originally planned”). Some teachers indicated the time-frame to complete questionnaires with students was a limiting factor (“Although I have students who fit, I can only commit just now to doing one, due to time constraints”). Others cited



concerns regarding the content included in the questionnaire (“The questions are not appropriate for my students, nor do I feel that a teacher is the right person to be asking these questions to any student...the questions were making me feel uncomfortable... the questions would cause anxiety in the child and could cause her to become more insecure in making friends just by planting the idea of doubt in her mind...we [teacher and parent] thought that the nature of the questions could make anybody, especially a young and impressionable student, feel as if he/she were betraying her school teachers, her parents, and herself...I cannot ask my students to complete a questionnaire that I would not agree to complete myself”). Although there were fewer participants than expected, those who did participate were felt to represent a cross-section of children with low vision between the ages of eight and 14 years for the purpose of this study.

As stated by Jones (2001), friendships can arise in virtually any context where individuals come together with shared interests. Would involvement in sport and recreational activities by youth with visual impairments provide common ground for acceptance and interaction with their sighted peers, and lead to a greater sense of self worth for children with low vision? Out of this present research came three questions: 1) Does the degree of visual impairment affect participation in sport and recreational activities for children with low vision?; 2) Do children with low vision who are involved in sport and recreational activities have greater friendship dynamics than children with low vision who are not involved in sport and recreational

activities?; 3) Do positive social supports affect involvement in sport and recreational activities in children with low vision?

All but one of the participants, regardless of the degree of visual impairment, said they were active in sport and recreational activities. Of the 24 who returned questionnaires, fourteen said "Yes" to being involved, nine said they are involved "Sometimes", and only one said they were not involved in sport and recreational activities at all. To fully assess this response, further inquiry into their perception of sport and recreation is required. What do the participants consider to be 'sport' and 'recreation' activities, and what do they mean when they say that they are involved.

All but three participants said they are involved in Physical Education classes but they did not specify their level of involvement. If the Physical Education teachers were asked how much their student with low vision participated, would they agree that they were fully involved?

What did 'sometimes' mean to the participants when they were answering the question; Do you participate in sport and recreational activities? Does it mean that they play with friends in the yard, shooting hoops in the driveway or playing street hockey, or does it mean when they are playing a game in physical education class that they are comfortable playing? These questions are difficult to answer with the kind questions and response format presented in this research questionnaire. Future studies could delineate these issues.

Of the 23 participants who said they were involved in sport, two were involved in figure skating programs (closed-skill sport) with a competitive component, and the four sport team participants were involved in their school basketball and soccer teams (open-skilled sports). Other activities participants were involved in, but not on sport teams, were mostly traditional, open-skill physical activities such as basketball, hockey, volleyball, baseball/softball, dodgeball, etcetera. These are the activities and sport skills taught in many physical education classes, where ball skills begin as early as grade 2 and progress to modified games in grade 3, and then into lead-up and regulation format games from grade 4 to 12. Unless the Physical Education curriculum emphasizes individual skill development and cooperative games, the student with a visual impairment will be at a disadvantage in traditional, open-skilled activities.

The majority of participants in this study said they were involved in swimming. Comments which were included with their rated responses indicate that what they consider to be 'swimming' can range from spending time in their backyard pools or the beach, to swim lessons at the local pool, and diving with a recreational club. Therefore, the conclusion that can be drawn from these responses is that although many of the participants are involved in swimming, it might be considered to be more of a moderate physical activity.

Swimming, basketball, soccer and hockey were the most popular activities for participants with moderate low vision, while swimming, basketball, and biking were

the most popular activity choices for participants with severe low vision. They are also part of the 'traditional' physical education program found in a majority of schools. Open-skill sports do not lend themselves to successful participation by children with visual impairments. Why then were the majority of the participants involved in these types of activities? Perhaps it is due to the fact that these are the activities they are familiar with through introduction and exposure to them in physical education classes, or because it is what they see their friends and siblings doing. Their teachers, parents, siblings, and peers may all be factors in influencing physical activity choices.

Most of the participants were involved in physical activity through their physical education classes; the second most common venue for participation was with community recreation programs. Some of the participants with moderate low vision participate in the intramural programs at their schools, but not one of the participants with severe low vision said they were involved in intramurals. Intramural programs generally include 'traditional' sports such as basketball or soccer, and are scored according to points accumulated for various activities and student participation. According to Ponchilla (1995) and Lieberman, Houston-Wilson and Kozub, (2002), the problem in providing physical education relates to the expertise of instructors and the individual student's lack of sports skills. A student's skills cannot be expected to improve significantly without providing educators with methods by which they can adapt sports activities for the student who is visually impaired.

Although the participants said they were involved in sport and recreational activities, and mostly satisfied with them, they did acknowledge that there were other activities in which they would like to be able to participate. Some of the activities were the types of sports they played in physical education classes and were familiar with, such as basketball, soccer, and volleyball. However, three of the participants indicated through their comments that they would like to play at a higher level, for their school teams. Other sport activities suggested by the participants were lacrosse, ringette, dodgeball, and car racing. All of these are open-skill activities which do not lend themselves to successful involvement by persons with visual impairments. Despite the varied list of 'traditional' sports in which the participants said they were involved, four did indicate a desire to participate in less traditional physical activities such as biking, cheerleading, folk dancing, rock climbing and Tae Kwon Do.

MacCuspie (1990, 1996) states that the physical and emotional support provided by friends is frequently essential to our willingness to try unfamiliar activities or to meet new challenges and through shared interactions children recognize similarities and mutual interests that lead to the establishment of friendships. In the present study, all participants reported spending time with their parents and siblings as well as with their friends. In relation to their visual acuity and who they spend time with, it did not appear that the degree of visual acuity played a significant role. Participants with moderate low vision spend similar amounts of time with parents, peers, siblings and relatives as do those with severe low vision.

The participants' level of vision was addressed to see if it had an impact on where they develop friendships. Overall, the participants with moderate low vision and those with severe low vision said they mostly made friends at school, and in their neighborhoods. After-school programs and community recreation programs made up the second highest location for making friends, while team sports and after-school sitters were the least likely places to make friends. The majority of participants made friends in their own classes, although students with severe low vision said they made friends in other classes and other grades. This difference between the moderate and severe low vision participants is interesting when considering MacCuspie's (1996) research on social inclusion. She found that in comparison to their peers who were fully sighted, children with a visual impairment spent much less time with their own classmates on the playground. Instead, they were frequently observed playing with children from other classes and even children from younger grades.

Looking at the question of how often participants spent time with their friends, of the 24 participants, six said they play with friends everyday, 13 said they play with friends a couple of times per week, and four said they spend time with their friends only on the weekends. Only one said they never spend time with friends. Participants who said they spent time with friends only on weekends, reported that they usually had homework to do during the week which kept them from spending time with friends. Being involved in physical activities through sport and recreation would be a great way to "make an extra effort" in getting connected with others who have similar

interests. As stated by MacCuspie (1990, 1996), it is through shared interactions that children recognize similarities and mutual interests that lead to the establishment of friendships. Smith (2003) also found that quality physical activity experiences are those that promote commitment and adherence to active living, as well as those that facilitate outcomes such as moral and social development, motor competence, positive self-perceptions, and positive affect.

In the present study, participants were mostly involved in 'traditional' physical activities such as basketball, hockey, volleyball, baseball/softball and dodgeball. Those are the skills and activities most often taught in physical education classes and promoted through the media (professional basketball, hockey, baseball). They are the sports to which 'toy stores' and 'sport stores' cater. Are children with visual impairments aware and familiar with other more appropriate, closed skill, physical activity options such as: Judo, Tae Kwon Do, wall climbing, bowling, archery, diving, curling, or horseback riding? If they were, would they be more likely to be active and satisfied with their level of participation and have a greater sense of empowerment? Without exposure to physical activity choices in which children with low vision can be successful, they will not be able to make appropriate choices in order to live an active lifestyle. As Steadward, et al. (2003) have found, as a result of the lack of previous inclusion, the student with low vision will not have the prerequisite skills necessary to be successful in the activity and will not be motivated to join in with the activity. These questions require further investigation.

## Conclusion

Obtaining conclusive data in any study with children with low vision is restricted by the relatively small population from which to draw and lends itself to generalizations in the best of circumstances. The sample group was drawn from the Atlantic Provinces Special Education Authority (APSEA), which serves a population diverse in nature simply due to its large geographical area, as well as the diverse nature of school-age populations who are visually impaired. However, despite the small numbers, the results have proven to be interesting.

As all but one of the participants reported that they were involved in physical activities, a comparison between those who are involved in sport and recreation and those who are not, cannot be made. However, it is possible to identify where they were active. Of the 24 participants, all but three reported being active in physical education classes, and all but one said they were active in other places, such as recreation programs and their neighborhoods. As the physical education curriculum in most schools follows the traditional 'open-skill' sport curriculum (e. g., soccer, volleyball, basketball, badminton, etcetera.), and rarely includes swimming, perhaps they are not as active as they could be if they were participating in less traditional 'closed-skill' activities (e.g., cooperative games, wall climbing, hiking, biking, etcetera.). Of the participants with moderate low vision, 100% reported moderate to high satisfaction with their level of physical activity, while 30% (3 out of 10) of those with severe low vision were not satisfied. Therefore, it appears that the level of



vision does affect the participation in sport and recreational activities of children with low vision with regard to satisfaction.

Whether the participants had moderate or severe low vision, all reported that they felt supported by friends and classmates and as a result were involved in more sport and recreation activities. This is illustrated by amount of time participants spend with parents, siblings, relatives and peers. Pre-adolescents (8-12 years) spend 69% of their free time with parents and 44% with siblings; juveniles (13 years) spend an average of 83% of their free time with their peers; and adolescents (14-18 years) indicated that they spend 100% of their free time with siblings. Of those participants with moderate low vision, an average of 64% of their free time is spent with parents and peers, compared to an average of 65% for those with severe low vision.

Comments and suggestions the participants had for other children who might be interested in participating in physical activities indicated a positive attitude towards becoming involved in sport and recreational activities. From the responses of the 24 participants in this study, it does appear that being involved in sport and recreational activities affects friendship dynamics and social supports for children with low vision in a positive manner.

### Implications for Future Research

This study investigated the participation in sport and recreational activities, friendship dynamics and social supports among children with low vision. During the research process, there were several questions which surfaced that merit further

inquiry. Chiefly among these is whether participants shared a common definition of terms such as friends, sport and recreation, participation and activity levels. A survey of parents and physical education teachers could provide a clearer picture of the level of participant involvement and reasons for any non-involvement in various activities. Further, a comparison of the type and degree of participation and self-perception levels of students with low vision with those of their sighted peers would create a more complete picture of the situation and could allow for planned intervention strategies if areas of need were identified.

## Appendix A

### Human Subjects Research Form

Directions: Please type or neatly print.

TO: Colleen Donaldson, IRB Administrator, Academic Affairs, 6<sup>th</sup> Floor Allen, SUNY Brockport, 350 New Campus Drive, Brockport, N.Y. 14420-2919  
[REDACTED]

FROM: Investigator(s) name(s): Janet M. MacVicar  
Department: [REDACTED]  
[REDACTED]

Project Title: The Effect of Participation in Sport & Recreational Activities on the Social Development of Children with Low Vision

- College Status (for each investigator):  
Faculty/Staff:  
Undergraduate Student:  
Graduate Student: Janet M. MacVicar
- If the principal investigator is a student, list name, department, and local telephone number of faculty supervisor. Please note that the Faculty/Staff Supervisor must indicate knowledge and approval of this proposal by signing this form.  
Faculty/Staff Supervisor's name: Dr. Lauren J. Lieberman  
Department and phone number: Physical Education & Sport, [REDACTED]
- Check appropriate category of research project (complete after reviewing guidelines):  
Category I (Exempt Review) \_\_\_\_\_; Category II (Exempt Review) \_\_\_\_\_X\_\_\_\_  
Category III (Full Review) \_\_\_\_\_
- The Principal Investigator must sign this form. (If the P. I. Is a student, their faculty/staff supervisor must also sign this form).

\_\_\_\_\_  
1. Signature of Investigator

\_\_\_\_\_  
Date

I certify that this project is under my direct supervision and that I am responsible for insuring that all provisions of approval are compiled with by the investigator.

\_\_\_\_\_  
2. Signature of Faculty/Staff Supervisor

\_\_\_\_\_  
Date

\_\_\_\_\_  
3. Signature of Department Head or Designee

\_\_\_\_\_  
Date

## Appendix B

### APSEA Permission for Research Project



#### ATLANTIC PROVINCES SPECIAL EDUCATION AUTHORITY

5940 South Street, Halifax, Nova Scotia, B3H 1S6

902-424-8500 (v/tty) Fax: 902-424-0543

### PERMISSION FOR RESEARCH PROJECT

Permission is being requested for the participation of \_\_\_\_\_,  
age \_\_\_\_\_ in the research project described below.

#### **Research Project Description (purpose)**

The purpose of this study is to investigate the effect of participation in sport and recreational activities on social development of children with low vision.

#### **Procedure in which student will be involved**

The Student questionnaire will be sent to 142 students with low vision from the Atlantic Provinces Special Education Authority's (APSEA) data base and completed by the participant at her/his school under the guidance of the vision teacher of students who are blind or visually impaired. The main questionnaire is from Susan Harter's 'Social Support Scale for Children' with background questions designed by the researcher. The student's itinerant vision teacher will read the questionnaire to the student and record their answers.

#### **Duration of the project**

Starting and completion dates: April 21, 2003 to July 31, 2003

#### **Additional information**

Code letters will be used for the APSEA Itinerant Teachers and code numbers will be used to assure that student's comments would at no time be associated with them as individuals. Once the information has been compiled and the research project has been completed, all information relevant to the student's participation will be shredded.

Participants will remain anonymous and may withdraw from the project at any time. I give permission for \_\_\_\_\_ to take part in the Research Project as described above.

\_\_\_\_\_  
Signature (Parent/Guardian or Student)

\_\_\_\_\_  
Date

## Appendix C

### APSEA Research Support Request

March 20, 2003

Dear Colleague,

I am doing a graduate degree in Adapted Physical Education at the State University of New York at Brockport. In partial fulfillment of the requirements for the degree, I am writing a thesis on the effect of sport and recreational activities on social development of children with low vision. I would like to generate my data from the low vision students we serve through APSEA.

My research will include boys and girls from 8 to 14 years, in grade three to grade eight who have low vision. Within my definition of low vision, I include visual acuities up to 20/400 (corrected visual acuity between 20/70 and 20/400 in the better eye or restrictions in peripheral vision resulting in a field of 20 degrees or less are present, regardless of visual acuity).

A questionnaire will be sent to APSEA itinerant teachers to complete with their students who fit the study profile. The student questionnaire consists of approximately 34 questions you will read to the student and then record the answers they provide. It will take approximately 30-40 minutes to complete. If you would be interested in assisting me with this research, please email me with the number of students you have that fit the research profile. I will then send you the questionnaire and a self-addressed return envelope for the completed questionnaire. My email address is [REDACTED]

Code numbers and code names will be used to assure respondents their comments would at no time be associated with them as individuals. All procedures will be approved by the IRB Committee at SUNY Brockport and the Atlantic Provinces Special Education Authority (APSEA) Research Review Committee. Once completed the questionnaire will be return to me using the stamped, return-addressed envelope included with the questionnaire package.

Thank you in advance for your assistance with this research.

Sincerely,

Janet M. MacVicar

Appendix D

**PARENT/GUARDIAN CONSENT FORM**

Statement of Informed Consent

The purpose of this research project is to examine the effect of participation in sport and recreation activities on the social development of children with low vision. This research project is also being conducted in order for me to complete my masters thesis for the Department of Physical Education at the State University of New York College at Brockport.

In order to participate in this study, your informed consent is required. You are being asked to make a decision whether or not to allow your child to participate in the project. If you want them to participate in the project, and agree with the statements below, please sign your name in the space provided at the end. You may change your mind at any time and remove your child from the study without penalty, even after the study has begun.

I understand that:

1. My child's participation is voluntary and he/she has the right to refuse to answer any questions.
2. My child's confidentiality is guaranteed. His/her name will not be written on the survey. There will be no way to connect him/her to my written survey. If any publication results from this research, my child will not be identified by name.
3. There will be no personal risks or benefits because of my child's participation in this project.
4. My child's participation involves reading/having read to him or her a written survey of 34 questions and answering those questions in writing. It is estimated that it will take 30-40 minutes to complete the survey.
5. Approximately 142 people will take part in this study. The results will be used for the completion of a masters thesis by the primary researcher.
6. When the thesis has been accepted and approved, all consent forms will be destroyed.

I have read/been read and understand the above statements. All my questions about my child's participation in this study have been answered to my satisfaction. I agree to allow my child to participate in the study realizing he/she may withdraw without penalty at any time during the survey process. If you have any questions you may contact:

Primary Researcher

Janet M. MacVicar

██████████  
████████████████████

Faculty Advisor

Lauren J. Lieberman, PhD

██████████  
████████████████████

Please print your name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix E

### STATEMENT OF INFORMED CONSENT

This form describes a research study being conducted with young people. The purpose of this research project is to examine the effect of participation in sport and recreational activities on the social development of children with low vision. This research project is also being conducted in order for me to complete my masters thesis for the Department of Physical Education at the State University of New York College at Brockport. If you consent to this study, you will be asked questions about your feelings, your family and friends, and school. You will also fill out a questionnaire. This study will take about 45 minutes to complete.

A possible risk of being in this study is your feeling that some questions asked of you are of a personal nature. There are no other known risks. You do not have to answer a particular question if you do not want to. You will have a chance to discuss any feelings you have about any questions with the interviewer. If anything you say during the study causes the interviewer to be concerned about you, he or she will talk with you more about it.

The possible benefit from being in this study could be that information will be learned that would allow professionals to better understand how children feel about themselves when they participate in sport and recreational activities.

Any information that you give in this study remains confidential and will be known only to the project staff. The only exception that there could be to this is that if in talking to you, project staff find that there is something happening in your life that is an immediate and serious danger to your health or physical safety. In that case, your parents or another professional might have to be contacted. We would always talk to you about it first. Except for this consent form, all questionnaires will be given a code number and your name will not be on them. If publications in scientific journals arise from this research, results will be given anonymously and in group form only, so that you can not be identified.

Your participation in this study is completely voluntary. Being in it or refusing to be, will not affect your contact with any legal authorities, helping professionals, or social service agencies. You are free to change your mind or stop being in the study at any time during it and there will be no penalty.

You are being asked to make a decision about whether or not to participate in this study. If you wish to participate, and you agree with the statement below, please sign in the space provided. Remember, you may change your mind at any point and withdraw from the study.

I, \_\_\_\_\_, having read (or had read to me) and understand the information provided in this form, agree to participate in this project.

\_\_\_\_\_  
Signature of participant or authorized representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Date

Appendix F

**Atlantic Provinces Special Education Authority (APSEA)  
Principal's Research Consent Form**

Dear Principal,

I am completing a graduate degree in Adapted Physical Education at the State University of New York at Brockport. In partial fulfillment of the requirements for the degree, I am writing a thesis on the effect of sport and recreational activities on social development of children with low vision. I would like to generate my data from the low vision students served by APSEA.

My research will include boys and girls from 8 to 14 years, in grade three to grade eight who have low vision. Within my definition of low vision, I include visual acuities up to 20/400 (corrected visual acuity between 20/70 and 20/400 in the better eye or restrictions in peripheral vision resulting in a field of 20 degrees or less are present, regardless of visual acuity).

A questionnaire will be sent to the APSEA itinerant vision teachers to complete with their students who fit the study profile. The student questionnaire consists of approximately 34 questions you will read to the student and then record the answers they provide. It will take approximately 40-45 minutes to complete. Permission forms will be signed by the student and their parent/guardian prior to receiving the questionnaire. Please sign and date this permission form if you would agree to allow the APSEA Vision Teacher to complete the research questionnaire with the student in your school served by APSEA.

Code numbers and code names will be used to assure respondents their comments would at no time be associated with them as individuals. All procedures will be approved by the IRB Committee at SUNY Brockport and the Atlantic Provinces Special Education Authority (APSEA) Research Review Committee. Once completed the questionnaire will be return to me using the stamped, return-addressed envelope included with the questionnaire package.

If you have any question regarding this request or the research I can be reached at [REDACTED] [REDACTED]. Thank you in advance for your assistance with this research.

Sincerely,

Janet M. MacVicar, MEd  
APSEA Teacher for Children with Visual Impairments

Principal's Signature \_\_\_\_\_

Date \_\_\_\_\_



## Appendix G

### Itinerant Cover Letter

July 18, 2007

Dear Colleague,

I am very excited about this research project and appreciate your support in taking the time to complete the questionnaire with your students.

Enclosed is the student questionnaire which will take approximately 30-40 minutes to complete, and a short itinerant questionnaire. Included also are permission forms for the parents, student and principal which should be completed prior to having the student complete the questionnaire. Once the questionnaire has been completed, I would ask that you return it in the stamped, return-address envelope provided along with the three permission forms.

Thank you again for your assistance with this project. I look forward to sharing my findings with you.

Sincerely,

Janet M. MacVicar

## Appendix H

### Itinerant Vision Teacher Form

Please complete this information form and questionnaire as completely as possible and return it with the student responses.

#### Participant Code #

<b>Birth Date</b>	
<b>Age</b>	
<b>Sex</b>	
<b>Grade</b>	
<b>Etiology</b>	
<b>Vision</b>	
<b>Hearing</b>	
<b>Diagnosis</b>	

1. With whom does your student spend there free time? (Check all that apply)
- parents
  - siblings (brothers or sisters)
  - relatives
  - peers (kids your same age)
  - neighbors
  - sitter
  - other \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Does your student participate in sport and/or recreational activities?

- Yes
- Sometimes (explain)
- No

3. In what sport and/or recreational activities is your student currently involved?

---

---

---

4. Where does your student participate in sport and recreational activities?  
(Check all that apply);

- physical education class
- intramurals
- school teams
- neighborhood
- community recreation (e.g., after-school, weekend, and holiday programs)
- sport teams (e.g., school, community, etc.)
- other \_\_\_\_\_

Comments \_\_\_\_\_

---

---

---

5. Is there a sport or recreational activity in which you feel your student could do well that?

---

---

---

---

6. Further Comments

---

---

---

---

---

Thank you for taking this time to complete this questionnaire with your student.

## Appendix I

### Student Questionnaire

1. With whom do you spend your free time? (Check all that apply)

- neighbors
- parents
- peers (kids your same age)
- relatives
- siblings (brothers or sisters)
- sitter
- other \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Rank the time you spend with others from (1) *most often* to (7) *least often*.

- |   |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|
| <input type="checkbox"/> neighbors                      | (1) | (2) | (3) | (4) | (5) | (6) |
| <input type="checkbox"/> parents                        | (1) | (2) | (3) | (4) | (5) | (6) |
| <input type="checkbox"/> peers (kids your same age)     | (1) | (2) | (3) | (4) | (5) | (6) |
| <input type="checkbox"/> relatives                      | (1) | (2) | (3) | (4) | (5) | (6) |
| <input type="checkbox"/> siblings (brothers or sisters) | (1) | (2) | (3) | (4) | (5) | (6) |
| <input type="checkbox"/> sitter                         | (1) | (2) | (3) | (4) | (5) | (6) |
| <input type="checkbox"/> other _____                    |     |     |     |     |     |     |

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. How often do you play with other children after school?

- everyday
- couple of times a week
- weekends only
- once a month
- never

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. What types of activities do you like to do with your friends?

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Where do you make friends most easily? (Check all that apply).

- your class
- other classes
- other grades
- home neighborhood
- after-school programs
- babysitter
- recreational activities
- sport teams
- church/synagogue/temple
- other (explain) \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Do you participate in sport and/or recreational activities?

- Yes
- Sometimes (explain) \_\_\_\_\_
- No

7. In what sport and/or recreational activities are you currently involved?

\_\_\_\_\_  
\_\_\_\_\_

8. Where do you participate in sport and recreational activities (Check all that apply);

- physical education class
- intramurals
- school teams
- neighborhood
- community recreation (e.g., after-school, weekend, and holiday programs)
- sport teams (e.g., school, community, etc.)
- other \_\_\_\_\_

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Rate your satisfaction with your current sport and/or recreational activities;
- 1 - low
  - 2 - fair
  - 3 - okay
  - 4 - good
  - 5 - excellent

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Is there a sport or recreational activity you would like to be involved in that you are not currently involved now?
- \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. What suggestions do you have for children with low vision who want to participate in sport and/or recreational activities?
- \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for taking this time to complete this questionnaire.

## Appendix J

### Administration and Instruction for Harter Social Support Scale for Children

#### Administration and Instruction

After filling out the information at the top of the scale, instruct your student on as how to answer the questions given below. Introduce the scale as a survey and, if time, ask the student to give examples of what a survey is. Usually, examples given involve two kinds of toothpaste, peanut butter, cereal, etc. to which you can respond that in a survey there is no wrong or right answers, but it is just what you think, your opinion. In explaining the question format, it is essential that you make it clear that for any given item they only check one box on either side of the sentence, they do not check both sides.

#### Instructions to the Child

I have some sentences here and, at the top of the sheet it says "People in My Life." The survey is interested in several kinds of people in your life. This is a survey, not a test. There are no right or wrong answers. Since kids are very different from one another, each of you will be putting down something different.

First let me explain how these questions work. There is a sample question at the top, marked (a). I'll read it out loud while you listen carefully. (Examiner reads sample question). This question talks about two kinds of kids, and we want to know which kids are most like you.

1. So, what I want you to decide first is whether you are more like the kids on the left side who would rather have do fun things with a lot of other people, or whether you are more like the kids on the right side who would rather do fun things with just a few people. First decide what kind of kid is most like you, and go to that side of the sentence.
2. Now, the second thing I want you to think about, now that you have decided which kind of kids are most like you, is to decide whether that is *only sort of true*, or *really true* for you. If it's *only sort of true*, then put an X in the box under *sort of true*; if it's *really true* for you, then put an X in that box under *really true*.
3. For each sentence you only check one box. Sometimes it will be one side of the page, another time it will be on the other side of the page, but you can only check one box for each sentence. You don't check both sides, just the one that side that is most like you.
4. OK, that one was just for practice. Now we have some more sentences which I'm going to read out loud. For each one just check one box, the one that goes with what is true for you, what you are most like.

# Appendix K Social Support Scale for Children

Susan Harter

## PEOPLE IN MY LIFE

Name \_\_\_\_\_

SCORING KEY							
	Really True for Me	Sort of True for Me	Sample Item		Sort of True for Me	Really True for Me	
	<input type="checkbox"/>	<input type="checkbox"/>	Some kids like to do fun things with a lot of other people	BUT	Other kids like to do fun things with just a few people.	<input type="checkbox"/>	<input type="checkbox"/>
(P) 1	<input type="checkbox" value="1"/>	<input type="checkbox" value="2"/>	Some kids have parents who <i>don't</i> really understand them	BUT	Other kids have parents who really <i>do</i> understand them.	<input type="checkbox" value="3"/>	<input type="checkbox" value="4"/>
(C) 2	<input type="checkbox" value="4"/>	<input type="checkbox" value="3"/>	Some kids have classmates who like them the way they are	BUT	Other kids have classmates who wish they were <i>different</i> .	<input type="checkbox" value="2"/>	<input type="checkbox" value="1"/>
(T) 3	<input type="checkbox" value="4"/>	<input type="checkbox" value="3"/>	Some kids have a teacher who <i>helps</i> them if they are <i>upset</i> and have a problem	BUT	Other kids <i>don't</i> have a teacher who helps them if they are upset and have a problem.	<input type="checkbox" value="2"/>	<input type="checkbox" value="1"/>
(F) 4	<input type="checkbox" value="4"/>	<input type="checkbox" value="3"/>	Some kids have a close friend who they can tell <i>problems</i> to	BUT	Other kids <i>don't</i> have a close friend who they can tell problems to.	<input type="checkbox" value="2"/>	<input type="checkbox" value="1"/>
(P) 5	<input type="checkbox" value="1"/>	<input type="checkbox" value="2"/>	Some kids have parents who <i>don't</i> seem to want to hear about their children's problems	BUT	Other kids have parents who <i>do</i> want to <i>listen</i> to their children's problems.	<input type="checkbox" value="3"/>	<input type="checkbox" value="4"/>
(C) 6	<input type="checkbox" value="4"/>	<input type="checkbox" value="3"/>	Some kids have classmates that they can become friends with	BUT	Other kids <i>don't</i> have classmates that they can become friends with.	<input type="checkbox" value="2"/>	<input type="checkbox" value="1"/>
(T) 7	<input type="checkbox" value="1"/>	<input type="checkbox" value="2"/>	Some kids <i>don't</i> have a teacher who <i>helps</i> them to do their very best	BUT	Other kids <i>do</i> have a teacher who <i>helps</i> them to do their very best.	<input type="checkbox" value="3"/>	<input type="checkbox" value="4"/>
(F) 8	<input type="checkbox" value="4"/>	<input type="checkbox" value="3"/>	Some kids have a close friend who really understands them	BUT	Other kids <i>don't</i> have a close friend who understands them.	<input type="checkbox" value="2"/>	<input type="checkbox" value="1"/>
(P) 9	<input type="checkbox" value="4"/>	<input type="checkbox" value="3"/>	Some kids have parents who <i>care</i> about their feelings	BUT	Other kids have parents who <i>don't</i> seem to care very much about their children's feelings.	<input type="checkbox" value="2"/>	<input type="checkbox" value="1"/>
(C) 10	<input type="checkbox" value="1"/>	<input type="checkbox" value="2"/>	Some kids have classmates who sometimes make fun of them	BUT	Other kids <i>don't</i> have classmates who make fun of them.	<input type="checkbox" value="3"/>	<input type="checkbox" value="4"/>
(T) 11	<input type="checkbox" value="4"/>	<input type="checkbox" value="3"/>	Some kids <i>do</i> have a teacher who <i>cares</i> about them	BUT	Other kids <i>don't</i> have a teacher who cares about them.	<input type="checkbox" value="2"/>	<input type="checkbox" value="1"/>

(OVER)



	Really True for Me	Sort of True for Me			Sort of True for Me	Really True for Me	
(F) 12	4	3	Some kids have a close friend who they can talk to about things that bother them	BUT	Other kids <i>don't</i> have a close friend who they can talk to about things that bother them.	2	1
(P) 13	4	3	Some kids have parents who treat their children like a <i>person</i> who really matters	BUT	Other kids have parents who <i>don't</i> usually treat their children like a person who matters.	2	1
(C) 14	4	3	Some kids have classmates who pay attention to what they say	BUT	Other kids have classmates who usually don't pay attention to what they say.	2	1
(T) 15	1	2	Some kids <i>don't</i> have a teacher who is <i>fair</i> to them	BUT	Other kids <i>do</i> have a teacher who is fair to them.	3	4
(F) 16	1	2	Some kids <i>don't</i> have a close friend who they like to spend time with	BUT	Other kids <i>do</i> have a close friend who they like to spend time with.	3	4
(P) 17	4	3	Some kids have parents who like them the way <i>they are</i>	BUT	Other kids have parents who wish their children were <i>different</i> .	2	1
(C) 18	1	2	Some kids <i>don't</i> get asked to play in games with classmates very often	BUT	Other kids <i>often</i> get asked to play in games by their classmates.	3	4
(T) 19	1	2	Some kids <i>don't</i> have a teacher who cares if they feel bad	BUT	Other kids <i>do</i> have a teacher who cares if they feel bad.	3	4
(F) 20	1	2	Some kids <i>don't</i> have a close friend who really <i>listens</i> to what they say	BUT	Other kids <i>do</i> have a close friend who really listens to what they say.	3	4
(P) 21	1	2	Some kids have parents who <i>don't</i> act like what their children do is <i>important</i>	BUT	Other kids have parents who <i>do</i> act like what their children do is important.	3	4
(C) 22	1	2	Some kids often spend recess being <i>alone</i>	BUT	Other kids spend recess playing with their classmates.	3	4
(T) 23	4	3	Some kids have a teacher who treats them like a <i>person</i>	BUT	Other kids <i>don't</i> have a teacher who treats them like a person.	2	1
(F) 24	1	2	Some kids <i>don't</i> have a close friend who cares about their feelings	BUT	Other kids <i>do</i> have a close friend who cares about their feelings.	3	4

## Appendix L

### Suggestions for Participants Who Might Want to Participate in Sport & Recreational Activities

Type	Comment
Encouragement	<ul style="list-style-type: none"> <li>▶ Don't lose confidence.</li> <li>▶ Would tell them to try it.</li> <li>▶ They should if they want to.</li> <li>▶ Try it out, if it doesn't work try something else.</li> <li>▶ Go for it, give it your all.</li> <li>▶ If you're good, you're good, if not who cares as long as you're having fun.</li> <li>▶ Don't let your vision stop you - if you think you can do it - try.</li> <li>▶ Just try your best, it helps you learn how to get along with kids and it's fun.</li> <li>▶ Try them even if you can't do them or wouldn't like them. If it's too risky don't do it.</li> <li>▶ Just do it with your friends first then if you're good, try it with other teams.</li> <li>▶ You should try first before you judge whether you can or not.</li> <li>▶ Try to find something where vision doesn't matter.</li> <li>▶ If you want to do it - do it.</li> <li>▶ Don't give up. Keep trying.</li> <li>▶ You should. You can.</li> <li>▶ Never give up on what you want to do - just do it.</li> <li>▶ Try it and see if you like it before you just give up.</li> <li>▶ Go for it! Get involved in it and tell them you can.</li> <li>▶ Do the best you can do. Try out for school teams.</li> </ul>
Suggestions	<ul style="list-style-type: none"> <li>▶ Just tell them to try out they might be good at it.</li> <li>▶ Depends on what kind of low vision.</li> <li>▶ Let recreation leader know your needs.</li> <li>▶ Explain to the runner of the activity and your teammates of your vision problems.</li> <li>▶ Maybe use a bigger puck with sound inside, try good contrast with equipment and goals.</li> <li>▶ Get a good friend to join you.</li> </ul>
Cautions	<ul style="list-style-type: none"> <li>▶ Be careful because something might hit you in the face.</li> </ul>

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