Social Inclusion of Children With Intellectual Disabilities in a Recreational Setting

Gary N. Siperstein, Gary C. Glick, and Robin C. Parker

Abstract
The social acceptance of children with and without intellectual disabilities was examined in an inclusive, summer recreational program. Participants were 67 children entering Grades 3 through 6, of which 29 were identified as having a mild intellectual disability. Children were recruited from economically and racially diverse urban school districts. Results showed that children with and without intellectual disabilities were equally accepted by their peers. Specifically, 95% of children without intellectual disabilities indicated that they liked to "hang out with" at least 1 child with an intellectual disability. Results also indicated that the majority of children without intellectual disabilities made at least 1 new friend with another child with an intellectual disability. The features of recreational programming that promote social inclusion are discussed.

DOI: 10.1352/1934-9556-47.2.97

The movement toward inclusion of children with intellectual disabilities in both schools and the surrounding community began over 20 years ago. Moreover, the embodiment of this movement’s objectives in national educational policy (e.g., with the Rehabilitation Act of 1973, the Education for All Handicapped Children Act in 1975 [later amended as the Individuals With Disabilities Education Act, or IDEA], the Americans With Disabilities Act of 1990, and the 2004 amendments to IDEA) is now over 30 years old. Despite the passage of time and the existence of legislative and policy mandates, the promise of inclusion in school settings has not been fully realized. It is true that a growing number of children with intellectual disabilities spend part of their day in general education classrooms; however, for most, acceptance and full participation in the social community of the school, which have long been central to the definition of inclusion (e.g., Gottlieb, 1981; Siperstein & Parker, 2008), remain elusive. Too often, children with intellectual disabilities in inclusive classroom settings are not as socially accepted as their nondisabled peers are (e.g., Townsend, Wilton, & Vakilirad, 1993) and experience isolation and even social rejection (e.g., Heiman, 2000; Sabornie & Kauffman, 1987; Sale & Carey, 1995; Siperstein, Leffert, & Widaman, 1996). In fact, in a recent national survey of over 5,000 students, only 10% reported having a friend with intellectual disabilities (Siperstein, Parker, Norins Bardon, & Widaman, 2007). Furthermore, most were unwilling to socially interact with a student with an intellectual disability in “friend-type” activities (e.g., nondisabled student inviting a student with an intellectual disability to spend time with his/her friends).

It is clear that there are challenges to the social inclusion of children with intellectual disabilities within the general education classroom, as evidenced by the numerous programs and interventions that have been developed for use both in and out of the classroom (see Siperstein, Norins, & Mohler, 2006, for a review). Many of these approaches and interventions focus on improving the attitudes of nondisabled students. In fact, techniques such as teacher-directed instruction about disabilities, awareness training, and role playing, to name a few, have been successful in promoting positive attitudes toward children with intellectual disabilities (e.g., Rilotta & Nettelbeck, 2007; Siperstein, Norins, & Mohler, 2006). In
particular, programs that incorporate structured contact between children with and without intellectual disabilities have been shown to not only promote positive attitudes but also positive social interactions and, in some cases, the social acceptance of children with intellectual disabilities. For example, peer buddy programs have shown some success in facilitating positive social relationships between students with and without intellectual disabilities (e.g., Hughes, Carter, Hughes, Bradford, & Copeland, 2002; Kishi & Meyer, 1994). Interestingly, however, Hughes et al. (2002) found that students with and without intellectual disabilities were less likely to socially interact in settings where the student with intellectual disabilities was receiving instruction from their nondisabled peer, such as in peer tutoring. This is perhaps due to the fact that the contact that takes place during these types of interactions does not promote a sense of equal status among participants, nor do the students with and without intellectual disabilities share a common goal; both are factors that have been found to be important to the development of positive attitudes and interactions (Allport, 1954). Furthermore, such interactions are perhaps less conducive to the development of positive social relationships because they highlight the differences between the students with and without intellectual disabilities, as opposed to similarities.

One approach that may alleviate this concern draws on the principles of cooperative learning. Cooperative learning activities conducted in the classroom promote the notion of equal status among all participants, as each child is expected to contribute to the group: for example, through shared decision making, working together, and helping one another (Jacques, Wilton, & Townsend, 1998; Piercy, Wilton, & Townsend, 2002). That is, children with intellectual disabilities participate in and contribute to activities in ways that are similar to their nondisabled peers. Jacques et al. (1998) found that children with intellectual disabilities who were randomly assigned to cooperative learning programs showed significant increases in social acceptance, whereas no such improvements were found in inclusive classrooms that did not use cooperative learning tasks.

Cooperatively structured activities have also been effective in promoting the inclusion of children with intellectual disabilities outside of the classroom, particularly in recreational settings (Rynders et al., 1993; Rynders & Staur, 1995). Inclusive recreational programs have used activities such as team games, cooking tasks, and art projects in cooperative ways that allow children with disabilities to contribute through the same means of effort and teamwork as children without disabilities (Rynders et al., 1993). These types of activities also provide the opportunity for participants with and without intellectual disabilities to benefit mutually from the activities they are engaged in, as all participants are working toward common goals.

Similar results have also been noted in recreational settings that use sports as a platform for supporting the inclusion of children with intellectual disabilities. Special Olympics Unified Sports (http://www.specialolympics.org/unified_sports.aspx) involves placing children with and without intellectual disabilities on competitive sports teams as equal-status participants, where all team members contribute and play a valued role. That is, children with intellectual disabilities participate with their nondisabled peers without special treatment or individualized supports. In fact, an important tenet of Unified teams is that all members are treated equally and given equal status (Special Olympics Unified Sports Handbook, 2003). Too often, in the school and classroom, children with intellectual disabilities are characterized by the personalized supports they receive, such as having to leave class for resource room time or the presence of a one-on-one aide, which may inadvertently provide the de facto label of having a disability, or highlight differences. The perception of similarity, whether in terms of actual ability level or the ability to contribute equally to a given activity, has been found to be an important feature in the development of positive social relationships between children with and without disabilities (Helmstetter, Peck, & Giangreg, 1994; Siperstein & Chatillon, 1982; Siperstein et al., 2007). Similarly, there is encouraging evidence that programs such as Unified Sports, where all participants are treated equally, can not only improve the attitudes of nondisabled participants (Castagno, 2001) but promote positive social relationships between individuals with and without intellectual disabilities (Norins-Bardon, Harada, Parker, & Brecklinghaus, 2008; Siperstein, Hardman, Wapproetti, & Clary, 2001).

In the present study, we focused on the recreational setting to demonstrate that social inclusion can be achieved. The goal of the study
was to document the social relationships of children with and without mild intellectual disabilities participating in an out-of-school recreational setting. Using sports as a platform, the recreational program designed in this study emphasized cooperatively structured activities in which all children could participate and contribute equally. In this program, we sought to build on past research conducted on inclusive recreational settings to create an environment where social acceptance was more than just possible but was the norm for children with intellectual disabilities.

Method

Participants

The children who participated in the summer recreational program were recruited from three urban school districts in eastern Massachusetts. Selection of participants was based on an application process. To recruit both children with and without intellectual disabilities, applications were given to elementary school teachers in regular, inclusive, and special education classrooms in the three urban school districts. In selecting children, we strove to achieve an equal balance of children with and without intellectual disabilities. To select children with intellectual disabilities from the applicant pool, we reviewed the individual education plans (IEP) of the children receiving special education services. Each child’s IEP was reviewed to ascertain the presence of an intellectual disability and any accompanying physical or sensorial challenges that might hinder their participation in sports-oriented programming (children who had physical or sensorial disabilities were excluded). The IQs of children with intellectual disabilities invited to participate in the program ranged from 50 to 75.

After each child with an intellectual disability was selected, a child without an intellectual disability of the same gender, grade, and school district was correspondingly selected from the applicant pool to ensure that the profile for children without intellectual disabilities was similar to those with intellectual disabilities. For example, if a male child with intellectual disabilities entering fifth grade from one school district was selected, a child without intellectual disabilities was selected at random from our pool of male applicants entering the fifth grade from that same school district but not necessarily the same school. This process resulted in the selection of 42 children without intellectual disabilities and 42 children with intellectual disabilities, for a total of 84 children. The parents of children who were not selected to participate in the camp were informed that their child would be placed on a waiting list, which was carried over to the subsequent year of the program.

Of the 84 children who were selected to participate, 7 either did not complete the registration process or did not show up to the first day of program activities. Eight other children left in the middle of the program: 2 at the request of the program director (due to behavioral problems that could not be managed) and 6 for family reasons. In addition, 2 children declined to participate in the study at the end of the camp. Preliminary analysis indicated that the children that dropped out or left early from the program were no different from the children that remained for the duration.

The final sample consisted of 67 children (29 with intellectual disabilities and 38 without intellectual disabilities). The sample was racially diverse (58% African American, 27% Caucasian, 12% Latino, and 3% Asian American), and 94% of children were from households where English was the primary language. Sixty-four percent of the children were male, and 36% were female. All children ranged in age from 8 to 13 years, with a mean age of 11 years, and were entering Grades 3 through 6.

Program Design

The recreational sports program designed for this study was based in part of the principles outlined in Unified Sports programming (Special Olympics Unified Sports Handbook, 2003), albeit with a recreational, noncompetitive focus as well as best practices of inclusive recreational programming (e.g., Mulvihill, Cotton, & Gyaben, 2004; Rynders & Staur, 1995). As in Unified activities, all children participated equally during the program and no differentiation was made between the children with and without intellectual disabilities. To reinforce a sense of unity and belonging to the group, children were organized within the context of a team, where each child participated in activities in groups of approximately 12, with an equal ratio of children with and without intellectual disabilities. These teams of children stayed
Inclusion in a recreational setting

Program Characteristics

The program followed a traditional day-camp format, as children attended from 8:30 a.m. to 2:30 p.m., Monday through Friday, for 4 weeks. Throughout the day, children rotated between three sport sessions: swimming, basketball, and soccer. The swimming session included instruction and open swim time, whereas the basketball and soccer sessions included instruction and scrimmages. It is important to note that children with and without intellectual disabilities participated in all of these sessions, as well as free play, free swim time, and arts and crafts, alongside one another. All children, regardless of disability, were transported together to and from camp and were also provided breakfast, lunch, and a snack each day. No cost was incurred by the families of children who participated in the camp, with the exception of a $25 registration fee. The recreational program was sponsored by several philanthropies in the greater Boston area. It should be noted that the program was piloted for 2 weeks the previous summer with approximately 50 children with and without intellectual disabilities.

The program was managed by an administrative staff that included a director and assistant director, 1 coach for each of the sports offered (swimming, basketball, and soccer), 12 counselors, and 6 junior counselors. This resulted in a child to staff ratio of approximately 3 to 1. All staff members participated in 2 days of intensive training that included workshops on behavior management and cooperative goal structuring and emphasized the unique demands of working with children with and without intellectual disabilities in an inclusive setting. All of the 12 counselors were either college graduates or in the process of completing their bachelor’s degree. In addition, 50% had participated in the pilot implementation of the program the previous summer.

The director and assistant director were responsible for observing the sport and nonsport activities of the program to ensure the consistency of implementation by coaches and counselors. At the end of each week, the administrative staff met with coaches and counselors to provide feedback and to address any staff concerns. In addition, the administrative staff was present at the program each day and was available to address any concerns or issues as they arose.

Assessments of Social Relationships

Careful consideration was given to implement assessment measures that were appropriate to a summer recreational setting. For example, we chose not to use roster rating scales to measure social relationships because children interacted regularly with other children outside of their team, making a roster that listed only the children on a given team arbitrary. Moreover, a roster that listed every participant in the program would be exceedingly lengthy, as there were 67 children. Therefore, we chose to use a nomination procedure as a means to assess children’s social relationships. We also elected to use an open-ended nomination proce-
dure rather than asking children for a fixed number of nominations (i.e., “Name the three children you like to play with most”). When children are asked to give a fixed number of nominations, it may inflate the level of acceptance experienced by the most popular peers (Hallinan, 1981; Taylor, Asher, & Williams, 1987). The following measures were used.

Peer hang-out-with and friendship inventory. To assess who children preferred to play with and who children had made new friends with since arriving at the program, a peer play-with and friendship inventory was constructed. Every child was asked the following two questions in a one-on-one interview: “Who do you like to hang out with at camp?” and “Did you make any new friends at camp?” If a child responded yes to the latter question, he or she was asked, “Who are the new friends that you made at camp?” The “hang-out-with” question characterized children’s acceptance and has been extensively used in past research on children with and without intellectual disabilities (Cook & Semmel, 1999; Manetti, Schneider, & Siperstein, 2001). The “new friend” question characterized children’s friendship preferences. We modified the question from prior studies that have asked children to simply nominate their friends or best friends (Oden & Asher, 1977; Siperstein & Bak, 1989). Both questions were used collectively to portray a complete picture of children’s social relationships. Additional questions that pertained to the overall program experience were also included (e.g., “What was your favorite sport?” “Do you want to come back next year”) but were not analyzed for the purpose of this study. In addition, children were free to nominate any other child, regardless of gender.

Assessment of Sport Skills

To assess the degree to which children’s sports skills were related to their social relationships, we adapted sports skill assessment measures from existing instruments used with children with intellectual disabilities (Special Olympics, 2004). These instruments were used to assess each child individually in swimming, basketball, and soccer on specific skill components, on a scale from 0 to 5, where 0 = no opportunity to perform skill; 1 = could not perform skill at all; 2 = performed skill with assistance (verbal & demonstration); 3 = performed skill with verbal assistance only; 4 = performed skill proficiently, needs practice; 5 = mastered skill.

Swimming was composed of seven skill components: getting in the water, floating, gliding, paddling, freestyle, backstroke, and advanced strokes. Basketball was composed of seven skill components: dribbling stationary, dribbling in motion, chest pass, bounce pass, lay-up, jump shot, and set shot. Soccer was composed of five skill components: passing stationary, passing in motion, shooting stationary, shooting in motion, and dribbling. Composite scores in each sport were computed by averaging the sum of the skill components in that sport. These scores were then used to classify children in one of the following four sport ability groupings: beginner, rookie, winner, and superstar. These groupings were created based on the guidelines outlined by Special Olympics (Special Olympics, 2004). Ability levels were only used for assessment purposes, and children were never distinguished by these labels in any program activities. The sports skills assessment measures were found to be highly reliable (all z values were above .9).

Procedures

The peer hang-out-with and friendship inventory was administered during the last 2 days of the program to all children by trained research assistants, all of whom were graduate students in school psychology and had prior experience testing and evaluating children. Children were individually taken out of program sessions and administered the inventory. All children were ensured that their responses would be confidential, that their participation was voluntary, and that they could end the interview at any time.

Sports skills assessments were carried out two times throughout the course of the program, once during the first week and once during the last week by each coach in each of the three sports. All coaches were instructed on how to complete the assessments during the 2-day staff training session prior to the start of the program. The first assessment was used to measure the ability level that each child entered the program with, whereas the second was used to measure the ability level that each child reached by the conclusion of the program. Assessments were completed by coaches immediately following the sport session in which they were given, based on a child’s performance on that particular day.
Results

Peer Acceptance of Children With and Without Intellectual Disabilities

To assess the degree to which children with and without intellectual disabilities were accepted by their peers, we focused on the nominations each child received in response to the question, “Who do you like to hang out with at camp?” The nominations received by children with and without intellectual disabilities in response to this question are presented in Table 1. (Note: Because a disproportionate amount of the attrition described in the Participants section occurred in one team, it was not possible to obtain a valid measure of children’s social acceptance from the rest of the children on that team at the end of camp. Therefore, this reduced the total number of children included in these analyses from 67 to 59 [26 with intellectual disabilities and 33 without intellectual disabilities].) Results showed that the majority of children were accepted by their peers. The mean number of nominations received by children with intellectual disabilities and children without intellectual disabilities is presented in Table 2. Results from an independent t test showed that children with and without intellectual disabilities did not differ in the degree to which they were accepted by others in the program, t(57) = 1.12, ns. We then examined the extent to which children without intellectual disabilities accepted children with intellectual disabilities and vice versa, as shown in Table 3. The results were overwhelmingly positive; 97% of children without intellectual disabilities nominated at least 1 child with an intellectual disability when asked who they liked to “hang out with.” Similarly, 84% of children with intellectual disabilities nominated at least 1 child without an intellectual disability. These findings show that the vast majority of children with intellectual disabilities were socially accepted by their peers without intellectual disabilities.

To assess the degree to which children made new friends while attending the program, each child was also asked to nominate other children in response to the question, “Who are the new friends that you made at camp?” The nominations received by children with and without intellectual disabilities are presented in Table 1. As with nominations on the “hang-out-with” question, these results showed that the majority of children received at least one new friend nomination regardless of disability status. Also similar to the results on the hang-out-with question, an independent t test showed that children with intellectual disabilities received the same number of new friend nominations as children without intellectual disabilities, t(57) = 1.43, ns (see Table 2 for mean nominations). In addition, most children gave cross-disability, new friend nominations (see Table 3). Specifically, of the children who made new friends while attending the program, 88% of the children without intellectual disabilities nominated at least 1 child with an intellectual disability, and 92% of children with intellectual disabilities nominated at least 1 child without an intellectual disability as a new friend. Overall, these results showed that children with and without intellectual disabilities were equally preferred as friends by their peers, providing additional evidence that children with

### Table 1 Number of Nominations Received by Disability Status

<table>
<thead>
<tr>
<th>Type of nomination</th>
<th>Children with intellectual disabilities (n = 26)</th>
<th>Children without intellectual disabilities (n = 33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Hang-out-with” nominations received</td>
<td>Zero: 27% one or two: 31% three or more: 42%</td>
<td>Zero: 12% one or two: 39% three or more: 49%</td>
</tr>
<tr>
<td>New friend nominations</td>
<td>Zero: 19% one or two: 27% three or more: 54%</td>
<td>Zero: 12% one or two: 33% three or more: 55%</td>
</tr>
</tbody>
</table>

### Table 2 Mean Nominations Received by Children With and Without Intellectual Disabilities

<table>
<thead>
<tr>
<th>Nomination type</th>
<th>Children with intellectual disabilities (n = 26)</th>
<th>Children without intellectual disabilities (n = 33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hang-out-with nominations</td>
<td>2.46 (2.53)</td>
<td>3.15 (2.21)</td>
</tr>
<tr>
<td>New friend nominations</td>
<td>2.35 (1.83)</td>
<td>3.06 (1.95)</td>
</tr>
</tbody>
</table>

Note. Numbers in parentheses represent standard deviations.
Tests were conducted to measure athletic ability in swimming, basketball, and soccer, with a significance level of 0.001. N. Siperstein et al. (2009) found that 5.00% of all children could be described as isolates, meaning that they received no nominations from other children in response to either question. Of these 5 children, only 2 were children with intellectual disabilities. This finding is encouraging because it strongly suggests that both children with and without intellectual disabilities were equally successful in building positive social relationships.

### Table 3 Frequency of Cross-Disability Status Nominations

<table>
<thead>
<tr>
<th>Question</th>
<th>Children with intellectual disabilities</th>
<th>Children without intellectual disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who do you like to hang out with at camp?</td>
<td>84%</td>
<td>97%</td>
</tr>
<tr>
<td>Who at camp did you make new friends with?</td>
<td>92%</td>
<td>88%</td>
</tr>
</tbody>
</table>

*These figures only include children who nominated at least 1 other child by name in response to the specific question.

Athletic Ability and Social Relationships

We first examined the degree to which children with and without intellectual disabilities improved their sports skills. Paired t-tests showed that children with intellectual disabilities significantly improved their skills in both swimming, \( t(24) = -4.13, p < .001 \), and soccer, \( t(27) = -6.01, p < .001 \). Likewise, children without intellectual disabilities also improved their skills in swimming, \( t(31) = -5.23, p < .001 \), and soccer, \( t(33) = -8.39, p < .001 \). Basketball skills remained consistent throughout the duration of the program. Overall, the finding that sports skills' improvement was persistent among children with and without disabilities further supports the notion that children with and without intellectual disabilities benefited in similar ways from participating in the program. It is also important to note that when we looked at the percentage of children at each ability level (i.e., beginner, rookie, winner, superstar; see Table 4), there was variation in sports ability among both children with and without intellectual disabilities. Regardless of disability status, some children struggled with a particular sport, whereas other children excelled at a particular sport. This is an encouraging finding, because it shows that it is possible for a child to be a rookie or a superstar, regardless of his or her disability status.

Next, and most important, we assessed whether a child's social relationships were related to his or her athletic ability with a series of bivariate correlations. We chose to combine soccer and basketball ability ratings into a composite measure of athletic ability in team sports. Results indicated that there was a strong relationship between children's sports skills and their success in building social relationships. Athletic ability in swimming \( r = .50, p < .01 \) and in team sports \( r = .37, p < .01 \) was found to be significantly correlated with the number of hang-out-with nominations that children received from peers. This strong relation-
A connection found between children's sports ability and their social relationships, as has been noted previously (Weiss & Stuntz, 2004). Overall, children who were more proficient in sports received more hang-out-with nominations from their peers. It is important to point out, however, that this relationship was driven by sports skills and not by whether a child had a disability. Simply stated, in this program, sports ability, not disability
status, played a role in the development of social relationships.

It is noteworthy that a relationship was not observed between children’s sports ability and the number of new friend nominations received. Similar to what Hanna (1998) found in a summer recreational program, friendship appeared to transcend the influence of sports ability. It has been suggested that the pathways to the development of children’s friendships are complex (see Asher, Parker, & Walker, 1996), and sports ability is perhaps one factor to consider. However, it is also possible that although efforts were made to design a cooperatively structured program that was noncompetitive in nature, children preferred to hang out with their peers with more adept sports skills, because they would be more likely to be successful as a team during sports-related activities.

Although the results of this study lend themselves most readily to inclusive recreational programs, we should also consider how these data can contribute to the school setting, as that is where children spend the majority of their time. For example, highlighting the individual strengths and talents of children and emphasizing those skills that are attainable by both children with and without intellectual disabilities, such as teamwork, improvement, and sports skills, could allow all children positive recognition. The ideal settings in the school context for these nonacademic talents to be acknowledged are clearly those most similar to a recreational setting, such as recess and physical education. For example, programming team sports and cooperative games that allow for the participation and inclusion of all students during recess or gym could easily provide a way to showcase a wider variety of children’s nonacademic skills. Moreover, it is precisely these less structured times during the school day where children have the most fun. Fun has often been referred to as a great equalizer because children can experience it together and contribute to it regardless of their intellectual limitations.

Even with these broad implications in mind, we recognize that there are several limitations that may limit the generalizability of the results to other recreational settings in which children with intellectual disabilities might be included. First, all of the children with intellectual disabilities participating in the program were mildly impaired; children with moderate to severe intellectual impairment, or those who had any accompanying physical or sensorial challenges that might hinder their participation, were not involved in the program. As such, it was possible for children with intellectual disabilities to demonstrate sports skills and other skills without external supports, something that is not likely to be possible or feasible with more severely impaired individuals. Second, all of the children that participated in the program were elementary-school aged and it is not known whether similar results could be expected with an older sample. For example, the types of sports activities and instruction provided during the program may not be appropriate for older children (i.e., high-school aged) because the differences between highly skilled and less skilled adolescents might be too great. Last, in this study, we did not address the quality of the social relationships formed between children nor did we address whether the social relationships formed were sustained over time, beyond the 4-week duration of the program.

The program developed and implemented in this study was not unlike many other existing after-school or community programs. The results of this study suggest that promoting and emphasizing the individual strengths of all children through cooperatively structured activities can promote the social inclusion of children with mild intellectual disabilities. It is important that we further explore the value and potential of such programs for promoting social acceptance and, most important, the potential carryover into our schools and classrooms. One thing is clear: When the focus is on recreation and having fun together, the social inclusion of children with intellectual disabilities is possible.

References


of adolescents with and without mild mental retardation. *Education & Training in Mental Retardation*, 22, 139–149.


Received 1/18/08, first decision 3/5/08, accepted 9/23/08.

Editor-in-Charge: Steven J. Taylor

The research was supported by Special Olympics Inc. and funded through cooperative agreement No. U59/CCU321826 from the U.S. Centers for Disease Control and Prevention.

Authors:

Gary N. Siperstein, PhD (E-mail: gary.siperstein@umb.edu), Professor, John W. McCormack Graduate School of Policy Studies, Director, Center for Social Development and Education, University of Massachusetts Boston, 100 Morrissey Blvd., Boston, MA 02125; Gary C. Glick, BS, Doctoral Student, Department of Psychological Sciences, University of Missouri-Columbia; and Robin C. Parker, MS, Research Associate, Center for Social Development and Education, University of Massachusetts Boston.