Perspectives of Children With Physical Disabilities on Inclusion and Empowerment: Supporting and Limiting Factors

Yeshayahu Hutzler, Osnat Fliess, and Anat Chacham
Zinman College, Israel

Yves Van den Auweele
Catholic University of Leuven, Belgium

The purpose was to explore the personal experiences of children with physical disabilities in physical education (PE) and to identify supporting and limiting mechanisms to their inclusion and empowerment. A computerized analysis of individual profiles was performed based on in-depth interviews with 8 females and 2 males, ages 9 to 15, who were included in regular PE classes. Two individual profiles served as examples for situations faced during inclusive settings and typical reaction patterns. A comparative qualitative analysis of interview themes generated five main categories of themes: assistive devices, physical activity, peers, important adults, and self. Experiences during physical activity were identified as supporting or limiting empowerment within each category, based on selected criteria. An almost equal distribution of supporting and limiting factors was observed.

Children with disabilities are increasingly being included in physical education (PE) lessons around the world (DePauw & Doll-Tepper, 2000; Downs, 2001; Hutzler, Yaakov, Almosny, & Bergman, 2001; Lienert, Sherrill, & Myers, 2001). Guidelines for inclusion practice have been delineated in many countries such as the USA (Block, 2000; Sherrill, 1998), Canada (Active Living Alliance of Canadians with a Disability, 1995), Australia (Downs, 1995), Finland (Heikinäro-Johansson, Sherrill, French, & Huuhka, 1995), and Israel (Superintendent Ministry of Education, 1994). Published research covers mostly teachers’ and peers’ attitudes toward the included children (Block & Rizzo, 1995; Block & Zeman, 1996; Slininger, Sherrill, & Jankowski, 2000) and outcomes of the inclusion process (Houston-Wilson, Dunn, van der Mars, & McCubbin, 1997; Liebermann, Dunn, ...
Inclusion, as used in this study, is defined as providing specially designed instruction and support for students with special needs in regular PE settings (Moore & Gilbreath, 1998). Inclusion is guided by the fundamental principle of valuing diversity (Rogers, 1993). Belonging, acceptance, and a sense of being supported are essentials of an inclusive school environment, where all the educational needs of a child with a disability are expected to be met (Stainback & Stainback, 1990). However, because children with disabilities comprise the minority in schools, their specific needs are often not being met (Block, 1999). Empowerment is an alternative to advocacy and professional management in minority and community organization (Rappaport, 1981; Zimmerman & Rappaport, 1988). Our study links inclusion and empowerment, based on the belief that personal empowerment of children with disabilities may help their inclusion process.

Empowerment refers to gaining control over one’s life and assuming responsibility for changes that lead to a healthy, active lifestyle and positive mental health (Hutzler & Sherrill, 1999). Empowerment has roots in social learning theory (Bandura, 1997) and particularly in social-constructivist theory (Paris & Byrnes, 1989). Constructivism is defined as a set of beliefs about knowing and learning that emphasizes the active role of learners in constructing their own knowledge (von Glasersfeld, 1989). In this view, the learner constructs knowledge in an attempt to integrate existing knowledge with new experiences. The social world of a learner includes the people who directly affect that person (e.g., teachers, friends, students, administrators, and participants in all forms of activity). Learning takes place in contexts that are personally meaningful to students (Gergen, 1995). Important factors for empowerment research from the latter view are (a) contextual relativism (i.e., external stimuli have a mediating function, and their impact needs to be studied related to a context), and (b) personal construction of meaning (i.e., learning is the process of making sense of what was experienced).

Past physical activity research has linked empowerment explicitly with experienced athletes in wheelchair sport contexts (Hutzler, 1990; Pensgaard & Sorensen, 2002; Wuerch, 1996). In the present study, an attempt has been made to link perspectives of school children with disability, mostly with cerebral palsy, on their inclusion and empowerment. The purpose was to explore the personal experiences of children with disabilities in PE and other physical activities within inclusive environments and to identify supporting and limiting mechanisms to children’s empowerment. Criteria were used that were manifested within the frameworks of constructivism and theories related to coping with stressful life events. These relate to locus of control (Rotter, 1966), hardiness (Kobasa, 1979), and sense of coherence (Antonovsky, 1987). Based on these frames of reference, criteria for supporting empowerment were (a) critical thinking and problem solving, (b) sense of self-efficacy and self-respect, (c) social competence and leadership, and (d) active learning, commitment, and adherence (Downs, 1995; Sadan, 1997). Criteria for limiting empowerment were (a) limited self-initiated learning, (b) fatalist reactions, (c) presenting helplessness behaviors, and (d) relying on external resources for learning, coping, and decision making.
Method

Participants

Participants were 10 children (8 females and 2 males) with physical disabilities whose ages ranged from 9 to 15 years. Access to medical files of school children in Israel is not approved. Therefore, the participants were drawn out of a collective of 110 children, who participated in leisure time activities organized by a national nonprofit organization for rehabilitation of children with disabilities during the past 5 years. Fifty-six children of this collective were included in the regular school system in three of the five educational districts in Israel. A criterion-based sampling procedure (Goetz & Le Compte, 1984), also known as purposive sampling, was implemented. Criteria were established in order to assure diversity, expressive capability, and reliability in the following categories: (a) school levels (elementary, junior, and high school), (b) mode of locomotion (without aids, with brace, with crutches, with wheelchair), (c) level of participation in PE (non, full, partial), (d) type of disability (spastic diplegia, spastic hemiplegia, spinal motor atrophy), and (e) gender (male and females). The 10 children comprising the final sample reflected typical students with physical disabilities throughout Israel. Most had cerebral palsy. Children and parents completed an informed consent. Table 1 describes the participants.

Procedure and Measures

We used the intraindividual correlational procedure developed by De Boeck and Rosenberg (1988). This is a method for quantifying the frequency and hierarchy of

Table 1  Personal Details of the Participants

<table>
<thead>
<tr>
<th>ID#</th>
<th>Gender</th>
<th>Age</th>
<th>Disability</th>
<th>School</th>
<th>Mobility</th>
<th>Participation in PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>10</td>
<td>Spastic diplegia</td>
<td>Elementary</td>
<td>Crutches</td>
<td>Full</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>13</td>
<td>Spastic diplegia</td>
<td>Junior HS</td>
<td>Crutches</td>
<td>Full</td>
</tr>
<tr>
<td>3</td>
<td>Female</td>
<td>13</td>
<td>Spastic diplegia</td>
<td>Junior HS</td>
<td>Crutches</td>
<td>Partial *</td>
</tr>
<tr>
<td>4</td>
<td>Female</td>
<td>9</td>
<td>Spastic hemiplegia</td>
<td>Elementary</td>
<td>Independent</td>
<td>Full</td>
</tr>
<tr>
<td>5</td>
<td>Female</td>
<td>14</td>
<td>Spinal motor atrophy</td>
<td>Junior HS</td>
<td>Wheelchair</td>
<td>Partial</td>
</tr>
<tr>
<td>6</td>
<td>Female</td>
<td>14</td>
<td>Spastic hemiplegia</td>
<td>Junior HS</td>
<td>Independent</td>
<td>Full</td>
</tr>
<tr>
<td>7</td>
<td>Female</td>
<td>12</td>
<td>Spastic hemiplegia</td>
<td>Junior HS</td>
<td>Independent</td>
<td>Full</td>
</tr>
<tr>
<td>8</td>
<td>Female</td>
<td>13</td>
<td>Spastic hemiplegia</td>
<td>Junior HS</td>
<td>Independent</td>
<td>Full</td>
</tr>
<tr>
<td>9</td>
<td>Male</td>
<td>15</td>
<td>Spastic diplegia</td>
<td>High S</td>
<td>Independent</td>
<td>Full</td>
</tr>
<tr>
<td>10</td>
<td>Female</td>
<td>14</td>
<td>Limb-girdle muscular dystrophy</td>
<td>High S</td>
<td>Independent</td>
<td>Partial</td>
</tr>
</tbody>
</table>

*aUsed to participate before entering junior high school.
relationships across qualitatively analyzed verbal comments acquired via a semistructured interview. This method was initially designed in Belgium for psychological counseling of elite athletes (De Boeck & Rosenberg 1988; Van Mele, Van den Auweele, & Rzewnicki, 1995). This was the first experience of using it with children.

When working with children with disabilities who are integrated in the regular school system, it is extremely difficult to find enough children with the same background and the same environmental contexts to meet requirements of experimental group research (i.e., homogenous group structure, random selection of group members). Therefore, the intraindividual procedure is an alternative solution. This method may be valid for children because, similar to elite athletes, the participant is facing distress that stems from the discrepancy between objective capabilities and/or beliefs in ability and desired outcomes.

The intraindividual correlational design uses the mathematical model of hierarchical class analysis. It contains two sets of categories: (a) specific situations and (b) individual reactions: emotions, behaviors, and thoughts (De Boeck & Rosenberg, 1988). The computer analysis yields a hierarchical structure of relationships between these sets of categories characterized as classes of situations (appearing at the bottom of each profile) and classes of reactions (emotional and behavioral responses—appearing at the top of each profile). Figure 1 demonstrates a model profile, in which situations are represented in boxes and reactions in ovals.

The individual analysis performed in this study required four stages:

1. Collecting verbal descriptions of reactions (emotions, behaviors) and situations reported by the participating children via semistructured in-depth interviews.
2. Categorizing the verbal descriptions into a grid of emotions/behaviors by situation (see Table 2).
3. Rating the descriptors in the grid by the participants during a second session.
4. Performing the hierarchical class analysis by means of a computer program (De Boeck, 1992).

Collecting Descriptions. The aim of the interview was to identify the supporting and limiting factors for empowerment of children with disabilities in activities requiring physical function and movement at school settings (e.g., physical education, recess, excursions). The interview was semistructured, asking the children how they felt and what they did in reaction to situations related to physical activity in the inclusive environment. Two experienced postgraduate able-bodied female professionals (ages 28-29) who were familiar with the children conducted interviews. The interviews took place during summer at the children’s homes. Interviews followed guidelines for conducting participant observations and interviews with children (Alan Fine & Sandstrom, 1988). To assist the interviewers in facilitating children’s reactions, a guideline of activity categories (including all activities requiring movement at school) was structured. These activity categories were identified in a pilot study, including 21 children of the same age and disability as in the present study (Hutzler, Chacham, & Fliess, 2000). Guideline criteria for the interview follow:

1. Situations during PE lessons, recreational activities, and trips organized by the school
2. Situations during alternative activities instead of PE lessons in school
3. Situations during physical activities outside school (such as sport center for children with disabilities)
4. Different situations that involved social support networks (parents, counselor, teachers, peer, other children from school, assistant, etc.)
5. Situations connected to getting feedback and marks in PE
6. Situations connected to social activities in school
7. Situations connected to the disability (with aspects of social popularity)
8. Situations connected to different periods during personal development, such as moving from one school to another, being hospitalized, etc.

**Categorization.** After the data had been collected, the interviewer constructed an individual grid for each child. This grid contained the relevant categories depicting situations and reactions (emotions/behaviors) mentioned by the participant. Table 2 shows an example of such a grid.

**Rating.** In the next stage, the child rated each of the situations and indicated to what extent each one of the emotions and behaviors was suitable to the situation. An 11-point rating scale was used with verbal descriptions at 0 (not at all applicable/never happened), 5 (just barely applicable/just barely happened), and 10 (completely applicable/always happened) (Van den Auweele, De Cuyper, Van Mele, & Rzewnicki, 1993; Van Mele et al., 1995).

**Individual Profiling.** Since the computer model analyzes only binary data (De Boeck & Rosenberg, 1988), the participants’ scores were electronically dichotomized. In this way, all the numbers from 0 to 4 became 0, and all the numbers from 5 to 10 became 1. Table 2 shows a comparison of raw and dichotomized categories. The structural model (Figure 1) clarifies the connection between the original grid (filled in by the participant) and the resulting scheme. The computer analysis addressed to the following principles, which are paraphrased from De Boeck & Rosenberg (1988), Van den Auweele et al. (1993), and Van Mele et al. (1995).

1. A class of situation is a collection of equivalent situations (i.e., situations in which the same reactions are present). “During break time” and “When I succeed performing a difficult exercise,” for example (Class I in Figure 1) are both connected with the same reactions: “I feel good” and “I feel one of the group” (Class 2 in Table 2), thus belong to the same class. Situation classes are marked with alphabetical characters in Figure 1.

2. A class of reaction is a collection of equivalent reactions connected with the same situations. Reaction classes are marked with Arabic numbers in Figure 1: “I find a substitute, solution: I sit instead of stand; I walk instead of run” and “I insist on my own goals” (Class 5 in Figure 1) are connected with the same situation: “When being confronted with a difficult exercise” (Class E in Figure 1).

3. A situation class can be in terms of its reaction patterning an extension or reduction of one or more other classes of situations. When a second class is an extension of a first class, the reaction pattern of the second class is enlarged with additional reactions compared to the first class. In the example appearing in Figure 1, the situations in Class B containing “being a child with disability in a regular school” and “participating in PE lesson” is an extension of Classes D and E containing “getting the same attention (from teachers) like other kids” and “when being confronted with a difficult exercise.” A reduction is the reverse of an extension. The situations in class I containing “during break time” and “when I succeed performing a difficult exercise” are a reduction of Class C: “when my classmates...
cheered me, when I succeeded to jump a rope.” A class that is an extension of another one is put above the other and connected with it by means of an arrow from the extension class toward the reduction class. The result is a hierarchical structure of situation class. A class of reactions can likewise be considered in terms of the group of associated situations an extension or a reduction of one or more reaction classes. The number of classes characterizes the hierarchy among reactions where 1 is the highest.

4. The hierarchical relations between the reaction classes are represented in the same way as for situations (i.e., with an arrow from the higher to the lower class). The equivalent classes of situations and reactions, together with their related extensions and reductions, form a simultaneous hierarchical structure of situation and reaction classes. The hierarchy among reactions is characterized by the number of classes where A is the highest. The association between a situation class and its direct reaction pattern is represented in the profile with a zigzag line (Figure 1).

5. Goodness-of-fit is the degree of correspondence of attributes to a similar pattern. Goodness-of-fit scores appear as a decimal number to the right of each reaction in the structural model of the hierarchical class analysis. The situation or reaction with the highest goodness-of-fit (1.00 or nearly 1.00) is the best prototype of its class (Van den Auweele et al., 1993). An overall goodness-of-fit with a score above .60 indicates that the model is acceptable (Van Meele et al., 1995). The computerized analysis is performed from a low to a high rank (e.g., rank 1 to 5), fixed in advance by the researcher, so that several solutions are obtained. The choice of the definitive rank depends on (a) the complexity of the solution (many classes and relationships or not) compared to that of a higher or lower rank, (b) the increase in goodness-of-fit when choosing a higher rank, and (c) the additional information that would be obtained in the case of a higher rank. The interpretability of the overall model solution offers a content-related criterion.

**Comparative Analysis.** In order to cope with omission of details by using the computerized methodology, a traditional qualitative analysis of themes appearing in the individual profiles (Strauss & Corbin, 1990) was also performed. In this second level analysis, the situations and reactions described in the individual profiles were categorized into themes labeled “mediating factors” (Pensgaard & Sorensen, 2002). The contextual trend of these factors for each case was analyzed based on the criteria of empowerment described in the introduction and identified as supporting or limiting empowerment, based on consensus among two experienced postgraduate professionals. If discrepancies arose between independent professionals’ suggestions, they discussed the topic until reaching an agreement.

**Results and Discussion**

The results are presented in two main sections: (a) example profiles representing a personal (intraindividual) perspective and (b) a comparative analysis representing a group perspective.

**Analysis of Individual Example Profiles**

Figure 1 shows an example of the hierarchical profiles (participant #1) that were derived through the intraindividual analysis. Based on the individual data, a
summary table for each participant (Table 3) was constructed, describing (a) the mediating factors categorized into supporting and limiting factors, (b) the most dominant situation, and (c) the most dominant reaction.

Two participants (#1 and #8) were selected to demonstrate the personal construction of meaning from what they experienced. Both had a high overall goodness-of-fit (.90 and .84). The most dominant situation (best prototype) of #1 was “when my friends assist me” (e.g., jump rope, Class A). It is linked to reactions such as “I don’t care” (Class 1), “I feel like one of the group” (Class 2), “I feel normal, like everybody else” (Class 2). For Participant #8, the most dominant
<table>
<thead>
<tr>
<th>Situations</th>
<th>Reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When being confronted with a difficult exercise</td>
<td>1. I find a substitute, solution: I sit instead of stand; I walk instead of run</td>
</tr>
<tr>
<td>2. When I participate in PE lessons</td>
<td>2. I get rest</td>
</tr>
<tr>
<td>3. During break time</td>
<td>3. I feel normal, like everybody else</td>
</tr>
<tr>
<td>4. When my friends assist me (e.g., jump rope)</td>
<td>4. I talk with my friends</td>
</tr>
<tr>
<td>5. Getting the same attention (from teachers) like other kids</td>
<td>5. I feel that they do it, not because of my disability, but because I am their friend</td>
</tr>
<tr>
<td>6. When kids ask me what do I have (about my disability)</td>
<td></td>
</tr>
<tr>
<td>7. Being a child with disability in a regular school</td>
<td></td>
</tr>
</tbody>
</table>

Table 2  Example of Part of the Grid—Participant #1 (Dichotomized)
<table>
<thead>
<tr>
<th>Most dominant situation</th>
<th>Most dominant reaction</th>
<th>Supporting factors for inclusion</th>
<th>Limiting factors for inclusion</th>
</tr>
</thead>
</table>
| 1 “When my friends help me” (e.g., helping me jumping, etc.) | “It’s all right with me” | - My friends  
- My PE teacher  
- Myself  
- The physical activity | |
| 2 “A friend in elementary school told me that I can’t participate in the show” | “I want to participate” | - My self  
- My PE teacher  
- My friends | - Other children  
- Alternative activity instead of being with my classmate  
- Failures in physical activity |
| 3 “When I participate in PE lesson”  
“When I do sport in Win-gate (in a program for children with disability)” | “I feel good about it” | - My friends  
- My classmates  
- PE and physical activity  
- My teachers  
- My school  
- The break | - PE lessons in which I don’t take a part  
- When some boy mocked me and teased me |
| 4 “When I had to use a brace” | “It is important for me to be like everybody else” | - My parents  
- Myself  
- My teacher  
- Other teachers  
- My best friends  
- PE and physical activity | - My disability  
- An assistive device (brace)  
- When some boy mocked me and teased me |
| 5 “A boy came to me and told me that he feels pity for me” | “It does not bother me” | - Myself  
- My sense of humor  
- My teachers & stuff  
- The assistive device (wheelchair)  
- Classmates  
- PE and physical activity | |
### Table 3 (continued)

<table>
<thead>
<tr>
<th>#</th>
<th>Most dominant situation</th>
<th>Most dominant reaction</th>
<th>Supporting factors for inclusion</th>
<th>Limiting factors for inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>“When I participate in PE lesson”</td>
<td>“I am telling my mommy”</td>
<td>-My mother&lt;br&gt;-My girl friends from junior high&lt;br&gt;-My classmates&lt;br&gt;-PE and physical activity&lt;br&gt;-My teachers and stuff</td>
<td>-My disability&lt;br&gt;-When some boy mocked me&lt;br&gt;-My girl friends from elementary school&lt;br&gt;-Changing environment (framework)</td>
</tr>
<tr>
<td>7</td>
<td>“When I perform a sport activity that no one forces me to do (marathon run)”</td>
<td>“I feel like everybody else”</td>
<td>-My classmates&lt;br&gt;-Other weak peer in class (anomaly classmate)&lt;br&gt;-PE and physical activity</td>
<td>-Other children with disabilities&lt;br&gt;-children who are mocking me</td>
</tr>
<tr>
<td>8</td>
<td>“I ask my teacher to tell my classmate about my disability”</td>
<td>“I am going to my teacher”</td>
<td>-My teacher&lt;br&gt;-Other weak peer in class (anomaly classmate)</td>
<td>-My disability&lt;br&gt;-PE lessons&lt;br&gt;-The adult world&lt;br&gt;-Other nondisabled children (classmate)</td>
</tr>
<tr>
<td>9</td>
<td>“When I get help (assistance) during PE lessons”</td>
<td>“I feel embarrassed”</td>
<td>-My classmate&lt;br&gt;-My friends&lt;br&gt;-Myself&lt;br&gt;-My teachers and stuff</td>
<td>-An assistive device (wheelchair) that emphasizes my difference</td>
</tr>
<tr>
<td>10</td>
<td>“Participating in sports in extracurricular activities”</td>
<td>“I feel I am a normal child”</td>
<td>-My classmates&lt;br&gt;-My friend&lt;br&gt;-Myself</td>
<td>-Other children with disabilities.</td>
</tr>
</tbody>
</table>

situation (best prototype) was “I am asking my teacher to tell the classmates about my disability” (Class A). It is linked to reactions such as “I am going to see what my teacher says” (Class 1), “try to cope myself” (Class 2), “try to be strong” (Class 3). One interpretation of these reactions is that Participant # 1 has high self-confidence and an optimistic attitude to life. His friends accept and help him; he feels comfortable and is one of the group. In contrast, Participant # 8 seeks support for coping in the adult world rather than with her peers.

In Class B, Participant #1 reports “participating in a class excursion in spite of a difficult terrain,” linked to reactions such as “I feel like one of the group”
(Class 2), “I feel normal, like everybody else” (Class 2). In the same Class B, Participant # 8 reported about difficulties during PE lessons, linked to reactions such as “sitting aside, partially participating” (Class 8), “leaving class” (Class 4), “trying to cope by myself” (Class 2), and “going to my teacher” (Class 1). Both participants report a coping situation accompanied by completely different reactions. This example reflects the differences between an empowered child, high in commitment to his peer group and the other nonempowered child, who is likely to withdraw if anticipating stress and difficulties.

In Class C, Participant #1 describes a situation in which “my classmates cheered me when I succeeded to jump rope,” linked to reactions such as “I feel embarrassed, I feel that they do it, not because of my disability, but because I am their friend” (Class 3), and “I don’t care” (Class 1). In Class D, Participant #1 reports “getting the same attention (from teachers) as other kids,” linked to “It’s obvious” (Class 4) and “I don’t care” (Class 1). On the other hand, Participant # 8 reports in Class D, “I share with my teacher problems that I have” linked to “I feel good about it” and “I feel that I get attention” (Class 5). Again, the same pattern appears of # 1 being included in the peer group and receiving the same amount of attention as peers, whereas # 8 persists on getting special attention from her teacher.

Finally, in Class E, Participant #1 reports being confronted with a difficult exercise. It links to “I find a substitute, a solution: I sit instead of stand, I walk instead of run,” and “I insist on my own goals” (Class 5). On the other hand, Participant # 8 reports “I get a mark that I don’t deserve—lower than the other kids,” and “I don’t do things because of my disability.” These are linked to “I am angry” (Class 10), “It makes me feel bad, it’s bothering me, I cry, I talk to my PE teacher” (Class 6). Consistently, Participant # 1 is coping, adapting himself to the situation, and insists on not giving up, while Participant # 8 gets into a conflict through comparing herself to peers and through her low perception of competence. Therefore, furious emotions and extreme reactions are shown. Once again, her default choice is to turn to her teacher and seek help.

The major outcome of this personal analysis of example profiles was the demonstration of individual differences in response structure while facing a similar situation. One participant tended to lean on internal resources and his peer group to expand his experience repertoire and to creatively suggest solutions to potentially stressful events, while the other depended exclusively on external, adult resources and tended to avoid confrontation with stressful life events. Research indicates that internalizing locus of control through intervention is positively related to academic and psychosocial achievements in non-PE settings (Ketchel & Bieger, 1989; Swan, 1990). It is recommended to explore this issue in PE as well.

Comparative Analysis of Mediating Factors

A total of five main categories (assistive devices, peers, physical activity, adults, and the self) were generated during the comparative content analysis. These categories represent themes related to situations and reactions reported during the inclusive school activity.

Assistive Devices. In 2 participants (# 4 and #9), the assistive device (arm brace and wheelchair) was linked with feelings of distress (“It was embarrassing,” “I felt I am not worthy,” “I feel different”). It even caused one child to lie about the reason he wore a brace (“I’m saying that I broke my arm, and now I have to wear
it—I lie to them”). Contrarily, another child (#5) described situations in which her assistive device (wheelchair) became a supporting factor as a means for her classmates to compete against each other to get permission to push her. This situation was linked to positive feelings (e.g., “I like it,” “It makes me laugh,” “I feel a part of the group”). This example demonstrates the differences between a child who perceives stressful life events (the use of assistive devices) as a challenge and an opportunity for social interaction, compared to a child who tries to avoid being associated with a device because of fear of its perceived negative social impact.

**Peers.** Classmates, best friends, and other children were mentioned frequently. The comments did not show a general supportive or limiting pattern. Four subcategories of peers’ mediating factors follow.

Six out of the 10 participants gave information about being teased and ridiculed by other children (e.g., imitating their walk, expressing pity, opening the brace), with reactions mostly categorized as having a limiting function. These included emotional reactions (“I hate it,” “I am afraid,” “I feel different,” “I’m disappointed,” “I cry”) and help-seeking reactions (asking Mom or the class teacher to handle it). A few reactions could be categorized as supportive, reflecting coping behaviors such as humor (“I make a joke out of it”). Three participants reported excluding behaviors (i.e., peers deliberately ignoring them during game situations). These caused reactions that were mostly categorized as limiting, with a similar structure, as for teasing and mockery.

On the other hand, 4 participants mentioned peers insisting on their participation and encouraging them to participate during game and exercise activities (e.g., helping to perform jump rope, lowering the cadence of a rhythm game, cheering during participation, asking to come and join, changing and adapting game rules). These behaviors caused reactions mostly categorized as supportive, including satisfaction (“I feel good,” “I like it”), but the most important reaction seemed to be the feeling of participation (“I feel one of the group, like everybody else,” “I feel something in common”).

A final observation related to peers was the relative limited reference to other children with a disability. Most participants had extracurricular interactions with other children with a disability. Nevertheless, only two (#7 and #10) referred to these children explicitly: “I wouldn’t like to be seen with them.” This may be an indication that the major role model accepted by our participants was that of the able-bodied children.

**Physical Activity.** The impact of physical activity as a potential mediator for inclusion and empowerment was explicitly investigated in this study. All participants were included in regular PE at least some time during their schooling history.

All participants reported experiencing activities during PE lessons in which they were not successful. This fact reflects the most common method for including children with disabilities in PE lessons in Israel and other countries: “Let them do what they can.” The child needs to experience failure and success in order to decide when to participate and when not. Very little structured adaptation was reported by our sample. Most children reacted to perceived failures with emotions suggesting positive coping with the situation: “Trying to be strong, it’s something that teaches me a lot, trying to cope, I accept it, feel like everybody else.” Some children expressed emotions related to ego-defending mechanisms: “It doesn’t bother me,” “I feel good about it”. Four children expressed emotions of distress:
“embarrassed,” “disappointed,” “sad,” “it is hard for me,” “it makes me cry.” Two children suggested active coping: “I find an alternative solution, participating partially.” Four out of the 10 participants were relying on external help: “tell the PE teacher,” “tell the class teacher,” “tell Mom.”

Graded task difficulty is a basic element in education in general and in adapted physical education in particular (Block, 2000). However, our findings suggest that failing to master a task sometimes has an empowering function (i.e., “I find an alternative solution.”) In fact, empowerment will not take place if only winning occurs, because the individual has no need for it. Empowerment is initiated through conflict and perceived deficits rather than through sufficient or abundant success and self-actualization (Sadan, 1997). Teachers and other adults following the fallacy that everyone is a winner or giving an A grade in PE in spite of limited participation are not likely to produce empowerment. Without abandoning program accommodations (such as allowing a bounce in volleyball or two bounces in wheelchair tennis), the teachers, guardians, and even peers should challenge students with tasks they need to achieve, even though success will require much effort. This seems to be particularly important for high ego, low task-oriented children, who might otherwise refrain from participation and apply an opportunistic attitude (i.e., only participate if gratification is expected). Short-term combined with long-term task oriented goal setting seems most applicable in such cases and has resulted in positive outcomes in promoting sit-ups performance in children with behavioral disorders (Bar-Eli, Hartman, & Levi-Kolker, 1994).

Several children reported specific inclusion techniques. One child (#5) reported using an individualized worksheet and practicing alone, while other classmates did another activity. Her main reaction was ego-defending (“It doesn’t bother me”). Another child (#9) reported working with a teacher’s assistant in the afternoon. His strongest reaction was “embarrassed,” “I prefer to do it all alone.”

Although all children participated in complementary extracurricular noninclusive physical activity, only 2 children (#5 and #10) explicitly reported participation in activities of a sport center for children with disabilities. Both indicated, “It’s a good idea.” An interesting question is why so few children mentioned this aspect. Perhaps the separated activity was perceived as therapeutic and functional rather than social. Another reason may be that children identified with the physical activity models of able-bodied society rather than that of persons with disabilities and did not perceive their activities and achievements in a separate environment as equally impressive. Children with disabilities consistently and unanimously tried to identify themselves with their able-bodied peers. One of them even said that she is ashamed to be seen with other children with disabilities. Prejudice and stereotypes may spread among peers generalizing a negative attitude toward “the disabled” which is often shared by individuals with disabilities themselves (Sherrill, 1998). Excessive avoidance of peer models with disability and insisting on normative models may increase the gap between ideal and real images of self and be linked to maladaptive behaviors such as avoidance and anxiety.

We suggest that children with disabilities and their parents be informed about networks, sport clubs, and associations of children with disabilities where their unique cases receive an audience and generate peer support. The power perceived among comparable peers could then be transferred to the relations with nondisabled children. In one case, a child reported doing this by showing her able-bodied peers the medals she had won in a swimming competition for children with disabilities.
The able-bodied peer group was the most significant support system observed in this study. Thus, peer education using fact sheets for explaining disabilities in children’s terms is strongly recommended. One girl in this study reported on writing a book in which she describes her own disability. Both expert and child-written materials may be useful for this purpose. We encourage general PE teachers to help nondisabled peers be more empathetic and accepting of their disabled peers. While some studies (Block & Rizzo, 1995; Block & Zeman, 1996) suggest that this is a maintainable goal, recent findings show this to be a huge challenge (Goodwin & Watkinson, 2000; Goodwin, 2001; Place & Hodge, 2001).

One child (#7) reported participation in an extracurricular activity in an inclusive environment (a road race). Her emotional reaction was supportive in terms of inclusion: “I feel like everybody else.” Four children described confusion regarding their PE grade. Two participants reported receiving a high grade in spite of almost no participation in PE classes. The children felt this was somewhat odd, and one of them said, “I make a joke out of it.” In contrast, 2 children reported receiving a low grade, which did not take their limitations into account. In these situations children reported feeling “embarrassed,” “being different,” “bothered.” Adapted grading criteria and norm tables such as those included in the Brockport Fitness Test (Winnick & Short, 1999) could help normalizing children’s experiences in this regard.

Four children referred to class excursions and one to a dance performance as a reason for exclusion. Two of them (#1 and #5) reported participation in spite of the physical difficulties, and the other two (#3 and #4) were excluded from these activities. The participating children reacted with emotions of “being one of the group,” “feeling integrated,” but also “don’t let them feel pity for me.” In contrast, the excluded children reported feeling “different,” “resigned,” “disappointed.” They expressed their desire to participate, but also displayed an ego-defending mechanism: “I feel good about it.” Both children consulted with their mom and the class teacher, and one of them summarized, “too bad, but there is no other choice.” Goodwin and Watkinson (2000) also reported exclusion from special events and performances similarly resulted in frustration.

Adults. Participants mentioned several important adults as mediators. Reactions to this particular type of mediators follow. The impact of the PE teacher on the children’s emotions and behavior in our sample seems minor. One child referred to a teacher offering participation and another to a teacher excluding from a specific activity. The reactions were fairly equal: “It is important for me to participate,” “I want to be like everybody else.” This finding suggests increasing the preservice and in-service training related to adapted physical activity for PE teachers in Israel. Based on recent publications (Block, 1999; Lienert et al., 2001), it seems that adapted physical activity training and expertise is still lacking, even in countries with a longer tradition of inclusion. One reason for PE teachers tending to avoid inclusion of children with physical disabilities may be that they are forced into a situation that requires extra preparation and safety measures without any preparation and sometimes without even knowing for sure the child’s limitations. Proper training and access to practical information could decrease avoidance in this regard.

The function of the class teacher and other staff members was mentioned often (#3, 5, 8 and 9). These individuals were approached whenever a child had difficulties in coping with the situation. Probably the children felt more confident with these individuals than with the PE teacher.
Parents, particularly the mother (mentioned by 3 female participants), had a relieving function when children seemed to be frustrated by a situation and had difficulties in coping with it by themselves. We hypothesize that because the mother typically symbolizes a caring and protecting agent, she is mentioned whenever the child avoids coping and seeks being cared for.

The Self. Although the self was not explicitly referred to as a factor in constructing the situation, an impact of individual power was obvious in many participants. Five of the 10 children used statements demonstrating their own powers and coping: “I insist on what I want,” “I find a solution,” “I don’t let them have pity for me,” “I suggest to the teacher which exercises I should do,” “I let them read the book I wrote,” “I want to prove that I can,” “I take part in the decision.” These statements describe an internal type of personal resource in contrast to external resources, such as Mom and the class teacher.

From an empowerment perspective, the ability to decide, to suggest solutions, and to insist on one’s own goals are desirable. In these participants, the self is being experienced as a most supportive mechanism. In those children who have to rely on external support, the self fails to become such a mechanism. It may be assumed that some children experience an event or situation as supporting empowerment while others experience it as supporting helplessness because they have different ways of constructing meaning from experiences. A number of psychological constructs in social and cognitive learning theories can be used to explain this phenomenon. Among the most common are self-efficacy theory (Bandura, 1997) and goal perspective theory (Duda, 1989). Self-efficacy stands for the strength and magnitude of perceived ability to accomplish a certain task. Goal perspective theory includes two types of orientations valuing the individual level of efficacy: (a) a self-referenced task orientation, focusing on mastery and (b) a norm-referenced ego orientation, focusing on comparison with others. Facing failure or noninclusion, children who are low on both ego orientation and self-efficacy may want to rely on others to solve their problems, as Participant #8 in our sample. In contrast, children who are high on task/ego orientations and self-efficacy, as Participant #1 in our sample, would probably insist on being included, modifying the task and suggesting ways the teacher can help. Children high on ego orientation and low on self-efficacy (such as Participant #10 in our sample) may use ego-defending mechanisms (i.e., give up) and say “It doesn’t matter, I don’t like doing it.” If, however, task accomplishment is highly valued by significant others, they might use maladaptive behaviors such as cheating or risking their own health to secure mastery (White & Duda, 1993). Therefore, a differential and versatile approach to empowering children is warranted, based on the analysis of (a) their perceived sense of efficacy, (b) their goal perspectives, and (c) their support systems.

Summary

The methods of analysis revealed no general trend suggesting inclusion as supporting or limiting empowerment. Goodwin and Watkinson (2000) posed an ecological perspective referring to “good days” and “bad days” as central ideas for organizing children’s reactions. In the present study, we have used a social constructivist approach, valuing individual powers (self-efficacy, goal perspective) adjacent to external powers (peers, important adults, physical activity) as mediating factors for empowerment.
We found that over half of the comments related to experiencing failure during physical activity supported empowerment. This depicts the importance of exposure to real-life within an inclusive setting, rather than instruction by graded task difficulty in a segregated setting. We recommend that future researchers focus on a variety of inclusive settings while measuring outcome effects related to empowerment. Hedrick’s unique study of practicing and competing in wheelchair tennis (1985) is an example for a design, representing an experimental approach to examine effects on performance, self-efficacy, and anxiety. This design could be repeated with further outcome effects, populations, and task circumstances.

Specific questionnaires designed to measure the relationship between inclusion and mediating factors outlined in this study (i.e., peers, important adults, physical activity variables, and personal attributes) should be used in large scale and cross cultural studies. On the other hand, case studies are warranted to depict the individual process of coping in an inclusive setting. A triangulation of quantitative and qualitative methods, as performed by Vogler, Koranda, and Romance (2000), is particularly suitable for this purpose.

References


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