JVIB

June 2004 • Number 6

Effects of Visual Impairment, Gender, and Age on Self-determination

Barbara L. Robinson and Lauren J. Lieberman

Abstract: This survey of 54 students with visual impairments (aged 8–23 years) who participated in a one-week summer sports camp examined the opportunities they were given for self-determination at home, at school, with friends, for health care, and in physical education classes. The participants at all levels of visual impairment scored low in self-determination across all the domains, which indicates that they were given few opportunities for self-determined behaviors.

The self-advocacy empowerment movement, which began with the Civil Rights Act of 1964, led to Title IX (1972), the Education of All Handicapped Students Act (P.L. 94–142) (1975), the Americans with Disabilities Act (P.L. 101–336) (1990), and the Individuals with Disabilities Education Act (IDEA; P.L. 105–17) (1970, 1997). A key motivational theory that has been traced throughout this movement is self-determination theory (SDT), which encompasses self-advocacy, disability rights, and empowerment (Ward, 1996). SDT describes the motivational agents that affect an individual's

attitudes, abilities, and behaviors that lead to the definition of goals and the initiative to achieve the goals (Kowal & Fortier, 1999; Ward, 1996). Sherrill (2004) further explained that self-determination is the perceived control an individual has over contributing events that lead to the achievement of goals, psychological well-being, and intrinsic motivation.

Human development involves the progression from dependence on others to self-care and self-direction (Wehmeyer, 1996). Through opportunities for self-determined behaviors, the development and acquisition of component elements that are critical to achieving a positive quality of life can be taught beginning at an early age (Abery & Zajac, 1996; Deci, Eghrari, Patrick, & Leone, 1994). Parents play a critical role in fostering self-determination, and they need to provide the same opportunities to their children with disabilities, starting at a young age, as they do to their children without disabilities (Doss & Hatcher, 1996). Doss and Hatcher (1996) also suggested that parents tend to overprotect their children with disabilities but need to allow them to take risks and apply skills that are related to self-determination. Deci, Vallerand, Pelletier, and Ryan (1991) stated that the promotion of greater self-determination, which means a greater sense of choice, self-initiation of behavior, and personal responsibility, is the avenue to take to attain positive outcomes that are beneficial to both the society and the individual. Components of self-determined behavior, such as choice making, decision making, problem solving, and

goal setting, influence an individual's development as an independent person. Parents play a critical role in the development of these skills and need to help their children recognize the process of reaching goals without focusing on outcomes (Doss & Hatcher, 1996).

Individuals with disabilities are socially perceived to need long-term care and protection and have been isolated from the social mainstream and denied the benefits and opportunities that are available to people without disabilities (Ward, 1996). Consequently, they are not afforded opportunities to make decisions in their lives even though opportunities to make the most rudimentary choices can have a meaningful impact on the quality of their lives (Schloss, Alper, & Jayne, 1993). Wehmeyer and Schwartz (1998) reported that teaching students to become self-determined and to take greater responsibility for their lives is an important aspect of the successful transition from school to adult life for adolescents with disabilities.

Instruction in self-determination skills is important to all students, since an essential part of independence and dignity is the ability to make choices (Abery & Zajac, 1996; Gothelf, Crimmins, Mercer, & Finocchiaro, 1994; Wehmeyer, 1996). Teaching choice-making skills within natural environments and naturally occurring activities can be beneficial because it allows students to explore the world around them (Doss & Hatcher, 1996). A controlled dynamic environment for teaching self-determined behaviors is

a physical education class or physical-activity environment in which students can realize that what they do or say is important and can influence others. The physical education teacher is one of the most important influences on socialization within a physical education class (Suomi, Collier, & Brown, 2003). Opportunities to participate in activities that help all children realize that everyone is unique can be provided in these and other classes at school, as well as at home and in the community (Doss & Hatcher, 1996).

Physical activity improves the health-related quality of life by enhancing psychological well-being, which, in turn, contributes to human growth and social development. Social development is considered to be an essential characteristic of self-determined behavior (American Alliance for Health, Physical Education, Recreation and Dance [AAHPERD], 1999; Graham, Holt-Hale, & Parker, 1998). Psychological well-being and social development can be enhanced through opportunities to participate in a variety of age-appropriate physical activities (Houston-Wilson & Lieberman, 1999). Accordingly, IDEA requires that appropriate education be provided to all children, regardless of their ability levels (*Code of Federal Regulations,* 1998).

Winnick (1985) and Lieberman and McHugh (2001), however, reported that students with visual impairments (that is, those who are blind or have low

vision) had lower levels of physical fitness than did sighted students, and Winnick (1985) noted that physical fitness decreased as the degree of visual impairment increased. Gronmo and Augestad's (2001) finding that totally blind youths had significantly lower physical competence than did sighted youths supported Winnick's (1985) findings.

The inclusion of students with visual impairments in physical education has a significant effect on the students' participation in sports and socialization skills (Lieberman, Houston-Wilson, & Kozub, 2002; Ponchillia, Strause, & Ponchillia, 2002). Furthermore, the likelihood that students with visual impairments will reap the rewards of physical activity increases when they are included in regular education environments (Ponchillia et al., 2002).

Limited opportunities to participate in sports, other recreational activities, and physical education classes contribute to negative societal beliefs that persist toward individuals with disabilities (AAHPERD, 1999; Blinde & McClung, 1997; Korhonen, 2000). Many adolescents who are visually impaired have been found to be socially isolated, to have few friends, and to have inadequate interpersonal skills (Huurre, Komulainen, & Aro, 1999; Kef, 1997; Lieberman & Stuart, 2002; Rosenblum, 1998). A visual impairment may cause an adolescent to feel inadequate and inferior, reflecting his or her lack of social acceptance, academic underachievement, physical incapability, and social

maladjustment (Huurre et al., 1999). Kroksmark and Nordell (2001) noted that adolescents with low vision took part in activities that were previously decided upon, did not spend time with friends, and were dependent on their parents for transportation. They concluded that adolescents with low vision are given fewer opportunities than are sighted adolescents to develop the competence in everyday activities that is required to become independent of their parents.

SDT suggests that people should be treated with respect and dignity, regardless of their ethnicity, age, social class, or possession of a disability, and that opportunities to achieve independence through the acquisition of skills have not been readily provided to individuals with disabilities (Wehmeyer, 1996; Wehmeyer, Agran, & Hughes, 1998). The purpose of this study was to investigate the effects of visual impairment, gender, and age on opportunities for self-determination that are provided to students with visual impairments. The research focused on the following three questions:

1. Are opportunities for self-determination in any areas affected by the level of visual impairment?

2. Are there differences between the opportunities for self-determination that are provided to boys and to girls?

3. Are older students given more opportunities for self-determination than are younger students?

Method

Participants

Fifty-four students, 31 boys and 23 girls (aged 8–23) who are visually impaired or deaf-blind attended Camp Abilities, a one-week summer sports camp for children who are blind. The students' visual statuses were categorized as total blindness, travel vision (travel vision is the ability to see at 5–10 feet what the normal eye can see at 200 feet, 5/200–10/200), or legal blindness according to the U.S. Association for Blind Athletes (1982/1998/2004) sports classifications: Group B1 (totally blind) had 20 participants (9 females and 11 males) with a mean age of 14.45 years, Group B2 (travel vision) consisted of 12 participants (4 girls and 8 boys) with a mean age of 12.25 years, and Group B3 (legally blind) consisted of 22 participants (10 girls and 12 boys) with a mean age of 14.23 years. The students were also categorized within the groups according to two age groups (8–15 years and 16–23 years) and to gender.

Data collection

The data were collected through a questionnaire given to the students at the camp. A letter of consent was obtained from the parent or legal guardian of each student. The letter was sent with the student's information packet for the camp and was returned to

the researcher. The questionnaire was read to all the students by their camp counselor, the authors, or a sign language interpreter and was completed within the first two days of camp.

The data were collected using the Self-Determination Exercise Scale: Student Edition, which was originally validated by Abery, McGraw, and Smith (1995) at the University of Minnesota Institute on Community Integration for students with visual impairments or deaf-blindness. The original scale contains five categories of questions related to the student's daily schedule: At Home, With Friends, Health Care, At School, and At Work. For the current study, the At Work category was replaced with questions concerning physical education. These questions were sent to five experts in the fields of special education and physical education for validation. The experts' responses were incorporated into the questions for use in this study.

A variety of topics were explored in each category of the questionnaire. The With Friends category included 10 items on who the participants' friends were, what the participants did with their friends and when, how often they spent time with their friends, and where they went. A representative question in this category was, "Who decides when you see your friends?" The At Home category included questions on such activities of daily living as haircuts, meals, bedtime, bedroom decorations, chores, clothing, and time to do homework. A sample question in this category was,

"Who decides what you watch on TV?" The Health Care category dealt with doctors' visits, taking medications (such as aspirin or Tylenol), and missing school because of illness. One question from this category was, "Who decides if you need to see your doctor?" The At School section referred to such issues as when help in class was needed, who the participant ate lunch with, and the classes the participant took. For example, a question from this category was, "Who chooses what you get to eat for lunch at school?" The Physical Education section that the authors created included questions on who decided the role that the participants played in class activities, modifications to an activity, and rest periods (how many, how often). Box 1 presents the 12 questions included in the physical education section of the questionnaire.

The students were given three choices for answering the questions: "I decide" (the student only), "We decide together" (the student and parent or guardian or the student and teacher), and "Someone else decides" (the student had no input). A scoring chart containing a column for the total responses for each answer was provided for each category. To determine the score for each response, the response was subjected to a multiplier to represent its self-determination value. The "I decide" responses were multiplied by 2, the "We decide together" responses were multiplied by 1, and the "Someone else decides" responses were multiplied by 0. The sum of each column in the domain represents the domain score. A higher score

indicates that more opportunities for self-determined behaviors are being provided, thus creating a more self-determined student. For example, in the area of choices within the health domain, there were eight questions. If a participant made all the decisions himself or herself, the score would be 16 (8 × 2 for "I decide") and would indicate total control over choices in health care. If the participant made partial decisions on some health care issues but had most choices made for him or her, the score would be less than 8, indicating limited control. Therefore, the more control the participant had in a domain, the closer the score on each item would be to 2 ("I decide"), and the less control a participant had in a domain, the closer the score on each item would be to 0 ("Someone else decides").

Validity

As was mentioned earlier, the original instrument was validated by Abery et al. (1995), who found a strong correlation across all ages and disability groups of 0.83–0.97 (B. Abery, personal communication, June 14, 2002). The face validity was assessed by reading each question to groups of educators, parents, adults with disabilities, and young adults with and without disabilities. The individuals then indicated, on a scale from 1 to 10, the items that were the most pertinent to the definition of self-determination that was used at the University of Minnesota. The original instrument was then administered to groups of students aged 8–21 with physical disabilities, learning disabilities, mild mental

retardation, autism, vision loss, deafness or hearing impairments, and deaf-blindness and to those without disabilities, as well as their parents and teachers. The participants were grouped by disability level according to the intensity and frequency of aids that they needed. There were three disability-level groups— no disability, mild disability, and moderate to severe disability—and three age groups—8–12, 13–17, and 18 and older.

As noted, we modified the scale by replacing the at-work category with questions regarding physical education. Five experts in the field of adapted physical education and special education validated the 12 questions in the physical education section. The experts were asked to score a question +1 if it met the objectives of the study, 0 if they were unsure, and –1 if the question did not meet the objectives.

Reliability

A reliability study of the original instrument included a two-week test-retest reliability, as well as interrater reliability with groups of students with a variety of disabilities and their teachers or parents. The test-retest reliability, ranging from 0.81 to 0.97, was significant for all groups, indicating that impressions of the degree of control were stable. The test-retest reliability was the highest for students with learning disabilities, students with visual impairments, and those without disabilities and was acceptable for those with mild

mental retardation, autism, deaf-blindness, and deafness or hearing impairments (B. Abery, personal communication, June 14, 2002).

Analysis of the data

A 2 × 2 × 3 (gender × age × level of visual impairment) multivariate analysis of variance (MANOVA) was conducted among the two age groups, two gender groups, and three categories of visual impairment described in the section on participants. A post-hoc analysis of variance (ANOVA) and *t*-tests (Scheffe) for the effect of each independent variable on self-determination scores were conducted for the following dependent variables: At Home, At School, With Friends, Health Care, and Physical Education.

Results

Subscale scores

The total opportunity score (TOS) represents the total number of responses in each of the three response categories ("I decide," "We decide together," and "Someone else decides") for the five domains studied. The variable At Home provided 22 opportunities to respond; the variable With Friends, 10 opportunities; the variable Health Care, 8 opportunities; the variable At School, 16 opportunities; and the variable Physical Education, 12 opportunities, for a total of 68 response

opportunities. The TOS score for all 54 participants who chose to answer all the questions across all domains was 3,616 responses, with a mean individual TOS score of 66.96. Table 1 presents the population data for each response. As the table shows, Group B2's TOS average was below that of the rest of the population for the study. The number of responses recorded for each category was added and represents the total number of responses for each group. For example, the total group responded in the "I Decide" category 1,192 (32.96%) times. Of the 1,192 responses, 413 (28.9%) were recorded for the B1 group (*n* = 20), 266 (35.6%) were recorded for the B2 group (*n* = 12), and 513 (34.3%) responses were recorded for the B3 group (*n* = 22).

Table 2 presents the sum of responses according to the three groups (B1, B2, and B3) and two genders for the three types of responses: "I decide," "We decide together," and "Someone else decides." For the "I decide" category, Group B1 had the lowest response percentage (28.9%) of the three groups. The boys in B1 responded 25% of the time in this category, while the girls responded 34.2% of the time. The total response percentage for B2 was 35.6%; the boys in this group responded 32.8% of the time, and the girls responded 40.4% of the time. Group B3 had a total response percentage of 34.3%; the girls in this group responded 33.4%, and the boys responded 35.0%.

The "We decide together" category had the lowest

response percentages overall of the three options: B1 (25.9%), B2 (22.6%), and B3 (24.0%). The B1 boys responded 27.7% of the time in this category, while the B1 girls responded 23.5% of the time; the B2 boys responded 22.9% of the time, and the B2 girls responded 25.4% of the time; and the B3 boys responded 21.1% of the time, and the B3 girls responded 27.5% of the time.

The highest percentages of responses were in the "Someone else decides" category. Group B1 had the highest number of responses in this category (43.3%), followed by Group B2 (41.4%) and B3 (41.1%). The responses by gender for the three groups were as follows: Group B1 (boys, 45.2%; girls, 40.8%); Group B2 (boys, 43.7%; girls, 37.5%); and Group B3 (boys, 42.9%; girls, 39.1%).

Scoring charts

Descriptive statistics for a comparison between each dependent variable (At Home, With Friends, Health Care, At School, and Physical Education) using gender as the fixed variable for the population are summarized in Table 3. The At Home domain provided 22 opportunities for the students to respond; the average scores for the boys and the girls were 21.26 and 23.52, respectively. With Friends provided 10 opportunities to respond; the average scores for the boys and the girls were 9.61 and 9.83, respectively. Health Care provided 8 opportunities to respond; the average scores for the

boys and the girls were 3.0 and 4.65, respectively. At School provided 16 opportunities to respond; the average scores for the boys and the girls were 16.16 and 18.83, respectively. Finally, Physical Education provided 12 opportunities to respond; the average scores for the boys and the girls were 7.71 and 7.74, respectively. These averages are low, which seems to indicate that many of the participants answered in the "someone else decides" or "we decide together" response categories.

A 2 × 2 × 3 MANOVA compared the effects of gender, age, and visual acuity (totally blind, travel vision, and legally blind) across the five dependent variables. The global view of the data was described by a Wilks's lambda trace value of 0.590 ($F_{(10,78)} = 2.354^{b}$, $p = .017$), which indicated that significant differences in opportunities for self-determination existed among the levels of visual impairment. The global view indicated no significant differences for gender ($p = .055$) or for age ($p = .059$). The results of the MANOVA indicated that a statistical difference exists among levels of visual acuity and suggested that post-hoc tests were appropriate when the dependent variables are considered to be multicollinear. A post-hoc ANOVA was used for univariate comparisons using estimated marginal means. The results are shown in Table 4.

The results indicated that the level of visual impairment had a significant effect on opportunities for

self-determination ($F_{(2,43)}$= 6.663, p = .003), on the basis of the linearly independent pairwise comparisons among the estimated marginal means on the dependent variable At School. Therefore, the lower the functional level of vision, the fewer the opportunities for self-determination in this domain. Table 5 summarizes the data.

The Wilks's lambda value of 0.622 ($F_{(10,78)}$ = 2.088 [b], p = .035) was indicated when F tests were based on the linearly independent pairwise comparisons among the estimated marginal means. The pairwise comparisons indicated a significant difference in the domain of health between Group B1 (n = 20, SD = 4.084) and Group B2 (n = 12, SD = 5.458), with a p -value of .048, and in the school domain between Group B1 (n = 20, SD = 6.939) and Group B2 (n = 12, SD = 5.418), with a p -value of .003. A significant difference was also found between Group B1 (n = 20, SD = 4.988) and Group B3 (n = 22, SD = 3.990), with a p -value of .005, in the school domain.

Table 6 presents an overview of the presence or absence of significant differences in the five domains studied according to age, gender, and visual impairment. As the table shows, there were no significant differences for gender and age across the five dependent variables. However, there were significant differences among the levels of visual impairment for the dependent variables Health Care

and At School.

Discussion

This research had three goals: to determine the extent to which (1) opportunities for self-determination are affected by the level of visual impairment, (2) boys are provided more opportunities than are girls, and (3) older students are provided more opportunities than are younger students. Each goal is discussed in the following sections.

Effects of visual impairment

The participants' levels of visual acuity significantly affected their opportunities for self-determination with regard to school and health care; however, significant differences were not found in the domains of At Home, With Friends, and Physical Education. The public's perception of individuals with disabilities, in this case those who are visually impaired, is that they need long-term care and protection (Ward, 1996; Wehmeyer, 1996). Although strides have been made with laws governing equality for individuals with disabilities, the mean scores indicate that the participants were given too much support and not enough opportunities to become self-determined in these areas.

The dependent variable At Home provided 22 opportunities for the participants to respond. The mean scores for this area were low, as indicated in Table 3.

This finding was interpreted to mean that the participants had an average score of 1, which corresponded to the "We decide together" response. Therefore, although the scores were low, they indicate that the participants were given some opportunities to make decisions or to be involved in decision making. For example, one participant stated that although she was given opportunities to make choices at home, her mother helped match the clothing she wore. Another participant indicated that her mother decided how she would wear her hair and what clothes were bought and that her father decided how she would spend her free time and what chores she did. The participant chose which clothes to put on in the morning to go to school.

The post-hoc tests indicated that there were no significant differences among the participants' levels of visual acuity with regard to the with-friends domain. As we noted earlier, there were 10 questions in this category. The mean scores for the three groups were low (10.10 for B1, 8.83 for B2, and 9.82 for B3), which indicated that the most frequent responses in this domain were "We decide together" and "Someone else decides," rather than "I decide."

One student in the totally blind group (B1) found it traumatic even to have the questions read to him. He refused to answer the questions and became distraught when his counselor asked him to do so. This boy claimed that he had no friends and that he was often teased and ridiculed by his peers. These findings

support those of Huurre et al. (1999) that many students with visual impairments are socially isolated; have few friends; and, in some instances, appear to be lost on the playgrounds during recess.

There were significant differences between the B1 and B2 groups with regard to decisions about when to go to a doctor, when to take medications, and their health care in general. Williams, Freedman, and Deci (1998) found that physiological outcomes may improve when health care is patient centered. The results of our study indicated that the totally blind participants (Group B1) are not given the same opportunities to be a part of decisions regarding health care as were the participants with travel vision (Group B2). The low mean scores for all groups indicate that many of the participants were not part of the decision-making process in the Health Care domain. Williams, et al. (1998), noted that treatment decisions ultimately belong to the patient, although care must be taken when interpreting the findings of our study, given the participants' ages (8–23 years), since the participants in Williams et al.'s study had a mean age of 54.5 years.

The participants' levels of visual functioning were a significant factor in their opportunities for self-determination in the domain of At School. There was a significant difference among the three groups in this regard, but no significant difference between the travel vision (B2) group and the legally blind (B3) group. All scores were extremely low, but the B1 group's was the

lowest, which may mean that they are not given the same opportunities to participate in decision making regarding educational experiences as are the other groups. Gothelf et al. (1994) stated that it is important to teach self-determination skills to all students, but the findings of our study seem to indicate that self-determination skills are not taught equally to students who are totally blind.

Most students indicated they did not attend critical Individualized Education Program meetings where educational decisions are made. Vallerand, Fortier, and Guay (1997) discovered that when students are allowed to make decisions regarding schooling, their self-determined motivation increases, which results in positive outcomes.

An effective way to teach problem solving, socialization, cooperative skills, and team skills is through effective physical education programming (AAHPERD, 1999). A few participants in our study stated that they were not given the opportunity to participate in physical education classes on a regular basis. This finding seems to support Winnick's (1985) contention that students who are visually impaired are overprotected and that others believe that they lack the ability to participate successfully in physical education classes. This exclusion also serves as a barrier to the active participation or opportunities for participation in after-school sports, recreation, and socialization for individuals with visual impairments.

Korhonen (2000) indicated that participation in physical activities depended on the individual's degree of functional vision and that little difference was found for hours spent in physical activity between a low vision group and a sighted group. The findings of Gronmo and Augestad (2001) were similar, but these researchers did find a significant difference in physical competence between their participants who were totally blind and those who were sighted. We found no significant differences among levels of visual acuity and opportunities for self-determination in physical education activities.

Differences by gender and age

The results of the MANOVA indicated that there were no significant differences between the genders at the global level. The overall scores for self-determination were low, which provided little opportunity for significant differences to occur. Post-hoc tests were not conducted.

The results of the MANOVA also indicated that there were no significant differences between the age groups at the global level; therefore, post-hoc tests were not conducted. These results indicate that the older group (aged 16–23) was not given any more opportunities for self-determined behavior than was the younger group (aged 8–15). Generally, sighted youths aged 16–23 who do not have any disability are much more

independent, take greater responsibility for their actions, and are given more opportunities to practice self-determined behaviors or skills than are sighted children aged 8–15. As we stated in the introduction, parents tend to overprotect children with disabilities, and these children are not typically given the same opportunities as their siblings without disabilities.

Conclusion

The participants in this study were not given many opportunities to engage in self-determined behavior across their multitude of daily activities. The TOS revealed that many of them had many choices made by "someone else"—their parents, teachers, guardians, or school administrators.

Greater self-determination, which means a greater sense of choice, self-initiation of behavior, and personal responsibility, is not readily provided to students with visual impairments. Skills that are critical to a positive quality of life need to be taught to all individuals, regardless of their cognitive or physical limitations. As we stated earlier, the provision of opportunities to make even the most rudimentary choices can have a meaningful impact on the quality of life for individuals with disabilities. Therefore, it is important that these skills be taught to all individuals starting at an early age. Previous research indicated that although teachers, researchers, administrators, and parents think that it is important to teach students skills

to become self-determined, such instruction is not part of daily curricular goals (Wehmeyer & Schwartz, 1998). This finding was supported by our study, which found that the participants were not being provided high levels of opportunities for self-determined behavior.

Finally, students need to be involved in decisions more frequently than was found in our study. Students with visual impairments need to be making decisions that affect their everyday activities. If societal beliefs are ever going to change, opportunities and knowledge to behave in a self-determined manner need to be provided. Over 40% of the decisions were made for the students who participated in our study.

Implications for practice

Several implications may be drawn from this study's findings. First, we found that opportunities for self-determination are not being adequately provided to students with visual impairments. Even though legislation provides equal rights to individuals with disabilities, these rights are not commonly considered. Programs to teach self-determination to children with visual impairments need to include personal futures planning, curricular goals, and the use of community support groups (discussion groups, intervention). Recreational programs, such as family-oriented hiking, tandem biking, crafts, canoeing, and camping, can also be used to facilitate self-determination.

Second, opportunities for self-determined behavior in social environments appear to be limited for children with visual impairments (AAHPERD, 1999; Blinde & McClung, 1997; Huurre et al., 1999; Kef, 1997; Korhonen, 2000; Lieberman et al., 2002; Ponchillia et al., 2002). Opportunities could be increased through such events as track-and-field activities (with family members and friends), share-a-book programs, peer tutoring (Wiskochil, 2002), and social events (for example, dances and dinners). Parents also need to give their children with visual impairments the same opportunities to make choices as they do their children without disabilities, including the choice of clothing, food, and where to go on family vacations, and need to honor their children's decisions.

Third, the participants' perceived levels of control were low, as indicated by their low levels of self-determination. Perhaps the use of competitive sports events (for example, goal ball, wrestling, judo, and swimming), run-with-a-buddy programs using sighted guides, social events (for example, dances, movies, and family game nights), educational objectives (such as the choice of classes), and daily activities at home can be used to increase opportunities for self-determined behaviors. Parents, teachers, peers, coworkers, and community members can participate in disability-awareness programs, including simulations, activities for disabled and nondisabled partners, and "a day in my [disabled] shoes" programs (using wheelchairs and

canes), to increase their understanding of limitations that may be common for individuals with disabilities (Lieberman & Houston-Wilson, 2002).

We believe that the following areas of research would make significant contributions to the understanding and implementation of skills that lead to self-determined behavior:

1. the types of curricular goals that are needed to enhance students with visual impairments' self-determination and to increase opportunities to engage in self-determined behavior,

2. whether opportunities for self-determination vary according to different school environments, and

3. whether there are significant differences between the opportunities for self-determination that are provided to individuals with visual impairments and sighted individuals.

Many of the societal beliefs and barriers to the self-determination of individuals with disabilities that existed 20 years ago are still present today. We as a society have made tremendous strides in improving the lives of individuals with disabilities, but only through a common goal of researchers, educators, administrators, parents, and individuals themselves will we continue to make advancements in the treatment, respect, and dignity provided to individuals with disabilities.

References

Abery, B., McGraw, K., & Smith, J. G. (1995). *Self-determination exercise scale: Student edition.* Minneapolis: Institute on Community Integration, University of Minnesota.

Abery, B., & Zajac, R. (1996). Self-determination as a goal of early childhood and elementary education. In D. J. Sands & M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 169–196). Baltimore, MD: Paul H. Brookes.

American Alliance for Health, Physical Education, Recreation and Dance. (1999). *Physical best activity guide, elementary level* . Champaign, IL: Human Kinetics.

Blinde, E. M., & McClung, L. R. (1997). Enhancing the physical and social self through recreational activity: Accounts of individuals with physical disabilities. *Adapted Physical Activity Quarterly, 14* , 327–344.

Code of federal regulations: Title 3 4 —Education (parts 300–399). (1998). Washington, DC: U.S. Government Printing Office.

Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-

determination theory perspective. *Journal of Personality, 62* , 119–141.

Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist, 26* , 325–346.

Doss, B., & Hatcher, B. (1996). Self-determination as a family affair: Parents' perspectives on self-determination. In D. J. Sands & M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 51–63). Baltimore, MD: Paul H. Brookes.

Gothelf, C., Crimmins, D., Mercer, C., & Finocchiaro, P. (1994). Teaching choice-making skills to students who are deaf-blind . *Teaching Exceptional Children*, 13–15.

Graham, G., Holt-Hale, S. A., & Parker, M. (1998 *)* *Children moving: A reflective approach to teaching physical education* (4th ed.). Mountain View, CA: Mayfield.

Gronmo, J., & Augestad, B. (2001). *Blind youth, self-concept and physical activity.* Melhus, Norway: National Resource Centre of the Visually Impaired.

Houston-Wilson, C., & Lieberman, L. J. (1999). The Individualized Education Program in physical

education: A guide for regular physical educators. *Journal of Physical Education Recreation and Dance , 70* (3), 60–64.

Huurre, T. M., Komulainen, E. J., & Aro, H. M. (1999). Social support and self-esteem among adolescents with visual impairment. *Journ al of Visual Impairment & Blindness, 93,* 26–37.

Kef, S. (1997). The personal networks and social supports of blind and visually impaired adolescents. *Journal of Visual Impairment & Blindness, 91,* 236–244.

Korhonen, K. (2000). *Physical activity of visually impaired high school students.* Unpublished doctoral dissertation, Arla Institute, Helsinki, Finland.

Kowal, J., & Fortier, M. S. (1999). Motivational determinants of flow: Contributions from self-determination theory . *Journal of Social Psychology, 139,* 355–368.

Kroksmark, U., & Nordell, K. (2001). Adolescence: The age of opportunities and obstacles for students with low vision in Sweden. *Journal of Visual Impairment & Blindness, 95,* 213–226.

Lieberman, L. J., & Houston-Wilson, C. (2002). *Strategies for inclusion* . Champaign, IL: Human Kinetics.

Lieberman, L. J., Houston-Wilson, C., & Kozub, F. (2002). Perceived barriers to including students with visual impairments in general physical education. *Adapted Physical Activity Quarterly, 19,* 365–378.

Lieberman, L. J., & McHugh, E. (2001). Health-related fitness of children who are visually impaired. *Journal of Visual Impairment & Blindness, 95,* 272–286.

Lieberman, L., & Stuart, M. (2002) Self-determined recreational and leisure choices of individuals with deaf-blindness . *Journal of Visual Impairment & Blindness, 96,* 724–735.

Ponchillia, P. E., Strause, B., & Ponchillia, S. V. (2002). Athletes with visual impairments: Attributes and sports participation. *Journal of Visual Impairment & Blindness, 96,* 267–272.

Rosenblum, L. P. (1998). Best friendships of adolescents with visual impairments: A descriptive study . *Journal of Visual Impairment & Blindness, 92* , 593–608.

Schloss, P., Alper, S., & Jayne, D. (1993). Self-determination for persons with disabilities: Choice, risk, and dignity. *Exceptional Children, 60,* 215–225.

Sherrill, C. (2004) *Adapted physical activity, recreation and sport: Crossdisciplinary and lifespan*

(6th ed.). Boston: WCB/McGraw-Hill.

Suomi, J., Collier, D., & Brown, L. (2003). Factors affecting social experiences of students in elementary physical education classes. *Adapted Physical Activity Quarterly, 22* , 186–202.

U.S. Association for Blind Athletes. (2004). Table of visual impairment categories for blind athletes. In C. Sherrill, *Adapted physical activity, recreation and sport: Crossdisciplinary and life span* (6th ed., p. 715). Boston: WCB/McGraw-Hill. (Original table published 1982).

Vallerand, R. J., Fortier, M. S., & Guay, F. (1997). Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology, 72,* 1161–1176.

Ward, M. (1996) Coming of age in the age of self-determination. In D. J. Sands & M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 3–16). Baltimore, MD: Paul H. Brookes.

Wehmeyer, M. (1996). Self-determination as an educational outcome. In D. J. Sands & M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 17–36). Baltimore, MD: Paul H.

Brookes.

Wehmeyer, M., Agran, M., & Hughes, C. (1998 *).* *Teaching self-determination to students with disabilities: Basics for successful transition* . Baltimore, MD: Paul H. Brookes.

Wehmeyer, M., & Schwartz, M. (1998). The self-determination focus of transition goals for students with mental retardation . *CDEI, 21* (1), 75–86.

Williams, G. C., Freedman, Z. R., & Deci, E. L. (1998). Supporting autonomy to motivate patients with diabetes for glucose control. *Diabetes Care, 21,* 1644–1656.

Winnick, J. (1985). The performance of visually impaired youngsters in physical education activities: Implications for mainstreaming. *Adapted Physical Activity Quarterly, 2* , 292–299.

Wiskochil, B. (2002). *The effects of trained peer tutors on the academic learning time in physical education (ALT-PE) of students with visual impairments* . Unpublished master's degree thesis, State University of New York, College at Brockport.

Barbara L. Robinson, M.S., *instructor, Department of Physical Education, State University of New York, College at Brockport, 350 New Campus Drive, Brockport, NY 14420; e-mail: <brobinso@brockport.*

edu>. ***Lauren J. Lieberman, Ph.D.,*** *associate professor, Department of Physical Education, State University of New York, College at Brockport, 350 New Campus Drive, Brockport, NY 14420; e-mail: <llieberm@brockport.edu>.*

Previous Article | Next Article | Table of Contents

JVIB, Copyright © 2005 American Foundation for the Blind. All rights reserved.

Search JVIB | JVIB Policies | Contact JVIB | Subscriptions | JVIB Home

If you would like to give us feedback, please contact us at jvib@afb.net.

www.afb.org | Change Colors and Text Size | Contact Us | Site Map |

Site Search Go

About AFB | Press Room | Bookstore | Donate | Policy Statement

---

Please direct your comments and suggestions to afbinfo@afb.net

Copyright © 2005 American Foundation for the Blind. All rights reserved.