TASH

Equity and Full Participation for Individuals with Severe Disabilities

A Vision for the Future

edited by

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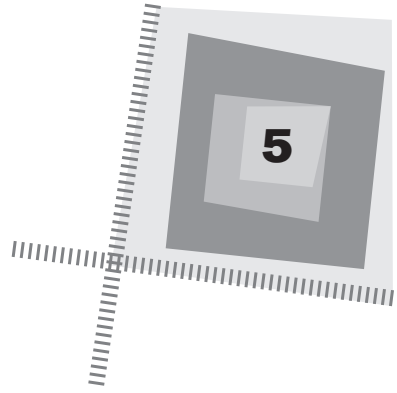

Promoting Self-Determination and Self-Directed Learning

Martin Agran and Carolyn Hughes

Promoting self-determination, especially choice making, is a recommended practice. Failure to offer such opportunities (and related instruction) is considered neither in the best interests of the individuals served nor the individuals who support them (Agran & Hughes, 2005). Although the extent to which people with severe disabilities are taught to become more self-determined varies considerably (if they are taught at all), promoting self-determination has been recognized as an important need since educational services for students with severe disabilities were mandated in the 1970s. This chapter discusses the importance of promoting self-determination for individuals with severe disabilities. Self-determination is considered both a process to apply and an outcome for individuals to achieve, which provides them with a means to identify their preferences and desires and become more active in managing and directing their own behavior. A brief historical overview is presented and is followed by a review of self-determination practices and concerns—in particular, self-determination as an evidence-based practice and the value of self-determination in gaining access to the general curriculum. Next, there is a discussion of the alignment of self-determination with TASH's national agenda, as well as an examination of relevant legislation, mandates, and policies pertaining to self-determination. This chapter also addresses supporting self-determination in inclusive education, supporting the ongoing relationship between self-determination and opportunity, and promoting self-determination among youth from culturally diverse backgrounds.

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HISTORICAL ANTECEDENTS

Self-determination has been valued and advocated since the early 1970s, even though there is current interest in self-determination and educators are making committed efforts to enhance active student involvement in educational planning and decision making. Nirje (1972) indicated that individuals with intellectual disabilities have the right to self-determination. They are citizens with the same rights as all other citizens, and service providers need to respect the choices, wishes, and desires of the people they serve.

In the first issue of the *American Association for the Education of the Severely/Profoundly Handicapped Review* (the original name of *Research and Practice for Persons with Severe Disabilities*), Williams, Brown, and Certo (1975) argued that the strategies used with students with severe disabilities resulted in students who were too externally controlled and cue dependent. Consequently, students are unable to appropriately respond, generalize, and transfer behaviors without external agents (i.e., teachers, paraprofessionals) present to deliver cues and consequences to them. Williams et al. suggested that students need to be taught how to provide their own cues, evaluate the quality of their responses, and self-correct inappropriate responding.

Mithaug and Hanawalt (1978) asked three adults to select the work tasks they preferred in one of the first investigations to systematically determine if individuals with severe intellectual disabilities have preferences. The findings suggested that individuals with extensive support needs do indeed have preferences and can consistently express them. Mithaug and Hanawalt suggested that such choice making enhances motivation and increases productivity and task accuracy. Guess and Siegel-Causey (1985) advanced the self-determination initiative by indicating that students with severe disabilities are given few, if any, opportunities to make choices and decisions in their best interests. Educators decide what they think is best for these students based on how they perceive the students' roles—in effect, educators decide what students learn and how they behave. Students fail to recognize that they are "self-directing and purposeful human beings" with their own agendas. Their failure to achieve desired outcomes should be seen as a failure in behavioral and educational technologies rather than an inability or opposition to making choices.

This early research provoked stakeholders (e.g., educators, advocates) to rethink their traditional approach to educational and service delivery. Educators and service providers began to explore ways for individuals with varying support needs to become contributing members regarding decisions and actions that directly affect their lives, rather than continue to believe that individuals with severe disabilities cannot determine or regulate their own behavior.

REALIZING SELF-DETERMINATION

Although there is general consensus regarding the value of self-determination (Agran & Hughes, 2005), there are varying definitions as to what it is and how it is manifested (Powers, 2006; Wehmeyer, 1998). Self-determination is a complex construct involving the interplay of several components. For some professionals, it is a desired outcome and similarly defined to outcomes relating to independence or success. For others, it is a number of selected strategies that allow students to exert increased control over their learning experiences. Such strategies allow individuals

to direct and regulate their own behavior, independent of control by others (e.g., teachers, paraprofessionals), and become active participants in their own learning. Students with disabilities need to be taught to become self-directed learners to advance their participation into general education (Fisher, Sax, & Jorgensen, 1998). They need to learn strategies that will allow them to problem-solve; retrieve, process, and synthesize information; and determine and direct their own behavior and learning.

It is crucial that a learning environment for self-determination is created in which numerous opportunities and supports are provided so that students can develop a sense of urgency and learn that they can influence or manipulate their environments (Shogren, Bovaird, Palmer, & Wehmeyer, 2010). Students need to act as causal agents in their own lives to ensure that they perform self-determined behaviors (Wehmeyer, 2005). This is facilitated in environments in which they are encouraged to make choices and experience the consequences of those choices.

CURRENT PRACTICE, CONCERNS, AND CHALLENGES

Self-determination as a psychological construct is related to successful individual performance and personal volition, particularly with respect to people with disabilities (Walker et al., 2011; Wehmeyer, Agran, et al., 2007). Self-determination is associated with positive academic, social, and adult outcomes for youth with a range of disabilities (Fowler, Konrad, Walker, Test, & Wood, 2007; Lachapelle et al., 2005; Wehmeyer & Palmer, 2003). Self-determination or student-directed learning strategies have demonstrated educational efficacy across a wide range of learning and adaptive skills and students with a variety of disabilities and have been well validated and supported in the literature (see Agran, King-Sears, Wehmeyer, & Copeland, 2003; Agran & Wehmeyer, 1999; Wehmeyer, Agran, et al., 2007). These strategies aim to teach students to set appropriate goals for themselves, monitor their performance, identify solutions to current or future problems, verbally direct their own behavior, reinforce themselves, or evaluate their own performance. Individuals are seen as causal agents in affecting their own outcomes (e.g., making and acting on personal decisions, choosing to advocate for themselves), which is consistent with a model of self-determination. Although proponents of self-determination theory acknowledge that individuals do not have direct control over many aspects of their social or economic conditions, it is assumed that people who are self-determined can gain access to resources or expertise through others in order to achieve desired outcomes (Bandura, 2001; Walker et al., 2011). Achieving personal outcomes by gaining access to the support or influence of others is particularly relevant to people with severe disabilities, who typically require extensive support in order to fully participate in everyday life activities (Thompson, Wehmeyer, & Hughes, 2010). The following sections discuss self-determination as an evidence-based practice and its value in gaining access to the general curriculum.

Evidence-Based Practice

The importance placed on students' involvement in their own educational decision making was established in the Individuals with Disabilities Education Act (IDEA) Amendments of 1997 (PL 105-17), which mandated including students in their individualized education program (IEP) meetings when planning for the transition from

school to adult life and requiring educational decisions be based on students' interests and preferences. Active involvement by students in their educational planning is valued as a means to promote students' self-advocacy, self-determination, and positive postschool outcomes and provides a measure of students' level of self-directed learning (Martin, Van Dycke, Christensen, et al., 2006; Test et al., 2004; Wehmeyer, Palmer, Soukup, Garner, & Lawrence, 2007). Furthermore, accumulating evidence has suggested that the role of student-directed learning and self-determination promotes positive academic, social, and adult outcomes for students with intellectual and developmental disabilities (e.g., Fowler et al., 2007; Lachapelle et al., 2005; Martorell, Gutierrez-Recacha, Perda, & Ayuso-Mateos, 2008; Wehmeyer & Palmer, 2003). Lachapelle and colleagues reported that self-determination status positively related to quality of life for adults with intellectual disability. Wehmeyer and Palmer found a positive relation between self-determination and postschool outcomes (e.g., employment, independent living) for students with intellectual and learning disabilities.

As noted previously, self-determination has demonstrated educational efficacy across a wide range of learning and adaptive skills and students with a variety of disabilities and has been well validated and supported in the literature (see Agran et al., 2003; Agran & Wehmeyer, 1999; Wehmeyer, Agran, et al., 2007). A growing body of research literature suggests that student-directed learning strategies may greatly enhance a student's participation in general education for students with intellectual and developmental disabilities. Gilbert, Agran, Hughes, and Wehmeyer (2001) taught five middle school students with cognitive disabilities to self-monitor a set of classroom survival skills in their general education classrooms (e.g., Spanish, reading, history). Target behaviors included greeting teachers and students, using a day planner, and asking and answering questions. All target behaviors increased, and all students reported that they felt a greater membership in their classes. Copeland, Hughes, Agran, Wehmeyer, and Fowler (2002) taught four high school students with intellectual disabilities a set of self-regulation strategies (i.e., goal setting, self-monitoring, goal evaluation) to increase their level of performance of specified study skills (e.g., responding to worksheets, reading comprehension). The instruction produced immediate effects and increased the students' report card grades to satisfactory levels. Agran, Blanchard, Wehmeyer, and Hughes (2001) taught six secondary-level students with varying disabilities to use several student-directed learning strategies (i.e., goal setting, self-monitoring, problem solving) to modify selected academic, study, and social skills (e.g., scheduling time to complete assignments, completing assignments, initiating conversation with peers). All students dramatically increased their performance levels to 100%. Agran et al. (2005) taught six adolescents with mild to moderate disabilities to self-monitor their instruction-following skills in their content classes. All achieved rapid gains. Wehmeyer, Palmer, Agran, Mithaug, and Martin (2000) conducted a field test of a self-determination model (i.e., Self-Determined Learning Model of Instruction) with teachers responsible for the instruction of 40 adolescents with intellectual disabilities, learning disabilities, or emotional or behavior disorders. Students identified a total of 43 goals they wanted to achieve. Fifty-five percent of the students achieved their goals, and 30% exceeded their goals.

Researchers have demonstrated the effects of published curricula in promoting self-determination (e.g., Cross, Cooke, Wood, & Test, 1999; Hoffman & Field, 1995; Powers et al., 2001; Zhang, 2001b). For example, Cross et al. (1999) found

that introducing the *ChoiceMaker* curriculum (Martin & Marshall, 1995) to teach students with intellectual disability choice-making and goal-setting skills resulted in increased scores on The Arc's Self-Determination Scale (Wehmeyer & Kelchner, 1995). The effects of instructional packages on increasing students' active involvement in transition planning and the IEP process have also been demonstrated (e.g., Allen, Smith, Test, Flowers, & Wood, 2001; Martin, Van Dycke, Christensen, et al., 2006; Mason, McGahee-Kovac, Johnson, & Stillerman, 2002). For example, Martin, Van Dycke, Christensen, et al. (2006) used the *Self-Directed IEP* curriculum (Martin, Marshall, Maxson, & Jerman, 1997) to teach secondary special education students to increase their speaking, goal-setting, and leadership roles in their IEP meetings.

Access to the General Curriculum

An emerging evidence base is documenting that students with severe disabilities can gain access to and become actively engaged in the general education curriculum. Spooner, Dymond, Smith, and Kennedy (2006) suggested that there are four general approaches to promote access to the general education curriculum for students with severe cognitive disabilities—peer supports, universal design for learning, teaching and assessing content standards, and self-determination. Self-determination, in particular, serves as a curriculum augmentation strategy (self-initiated instructional practice) that allows students to provide their own cues and consequences and employ a problem-solving approach that will allow them to process information (Copeland & Cosbey, 2009; Wehmeyer, Field, Doren, & Mason, 2004). Wehmeyer (2005) noted that self-determination strategies serve as an entry point to the curriculum and a useful instructional strategy that will allow students to self-regulate their learning and become more self-determined. For example, Agran, Wehmeyer, Cavin, and Palmer (2010) taught three high school students with intellectual disability to use a self-regulated problem-solving strategy to improve a variety of academic and communication skills across a variety of general education classrooms. The students were taught to set goals, plan courses of action to achieve their goals, evaluate their progress, and modify their goals or plans as needed. The students learned to generate and respond to a series of questions (e.g., "What do I want to learn?" "What can I do to make this happen?"). Dramatic improvements were reported for all students. Wehmeyer et al. noted that self-determination strategies produce two major benefits. First, they allow students to meet state standards that require that students learn how to set goals, problem-solve, and make decisions. Second, students are better prepared to enhance their overall academic performance as these skills have utility across all content areas.

Concerns and Challenges

Studies show, however, that few students are actively involved in the IEP process or consistently regulate or manage their own behavior without instruction and support. Martin, Van Dycke, Greene, et al. (2006) reported that secondary students who did not have any training generally talk only 3% of the time at IEP meetings. Secondary students in Hughes, Cosgriff, Agran, and Washington's (2013) study likewise self-reported having received little instruction and assumed only a minimal role at their IEP meetings. In addition, Agran and Hughes (2008) reported that the

majority of students in their sample (high school and junior high school) stated that they had not been taught to either lead their IEP meetings (80% at the high school level, 96% at the junior high school level) or how to conduct their IEP meetings. Unfortunately, in virtually all studies in which instruction was provided to increase self-determination or active involvement in educational planning, participants were students with high-incidence disabilities or mild intellectual disability. Self-determination curricula investigated, such as the *Self-Directed IEP* (Martin et al., 1997) and *ChoiceMaker* (Martin & Marshall, 1995), require considerable content reading, necessitating modifications to allow access by students with more severe disabilities and limited reading skills. Teachers of students with severe disabilities, however, overwhelmingly reported not knowing how to teach self-determination skills to these students (Wehmeyer, Agran, & Hughes, 2000).

Recommendations for Change

Addressing self-determination among people with severe disabilities requires teachers and other providers to adopt two fundamental conceptual approaches: 1) realize that people with severe disabilities, including those with limited verbal repertoires, do have preferences and can make choices (Cannella, O'Reilly, & Lancioni, 2005); and 2) be aware that the skills that compose self-determination, such as problem solving, goal setting, and choice making, typically must be taught to people with severe disabilities and opportunities to practice these skills must be provided (Wehmeyer, Agran, et al., 2007). Assumptions are too often made with respect to the capacity of people with severe disabilities to act autonomously. Teachers, providers, and caregivers must learn to be attentive and responsive to individuals' unique communication modes; some individuals may express preferences via facial expressions or body language or by approaching or reaching for an object or person, whereas others may whine, scream, grab or strike at an object, or hit themselves or others to communicate a choice or preference (Machalicek et al., 2010). Effective communication skills must be taught to people with severe disabilities and limited verbal repertoires, and people must learn to recognize and respect these individuals' preferences and choices as an example of self-determination and self-advocacy.

A substantial body of research indicates that people with severe disabilities, limited language skills, and intellectual disability can learn to perform the strategies that compose self-determination and self-directed learning (e.g., self-monitoring, self-evaluating, goal setting; see Wehmeyer, Agran, et al., 2007). For example, Copeland and Hughes (2000) taught two high school students with severe disabilities to use picture prompts to increase their independent performance of job task sequences. Acquisition of the picture prompt strategy was associated with decreased prompting by an adult trainer. Hughes et al. (2011) taught five high school students with intellectual disability and autism to use communication books to prompt themselves to initiate conversation with general education peers. Self-prompted communication book use by participants generalized across peers and settings. Gilbert et al. (2001) taught five middle school students with severe intellectual disability to self-monitor their performance of a set of classroom survival skills, such as having appropriate materials and acknowledging teacher comments. Self-monitoring was associated with increases in target skills for all participants. User-friendly guides for

teaching such self-directed learning strategies are available in several publications (e.g., Agran et al., 2003; Wehmeyer, Agran, et al., 2007).

ALIGNMENT WITH TASH NATIONAL AGENDA

All TASH national agenda items are predicated on the assumption that service, placement, and support decisions are based on an individual's preferences, choices, and wishes. The revised TASH Resolution on Choices (TASH, 2000) strongly advocated that all individuals have the right to freedom of choice. Professionals and parents have assumed that people with severe intellectual disability are not capable of making choices in their own best interests. Expectations need to change regarding the capability of individuals to express their preferences and make choices, especially with the continuing recognition that individuals with severe disabilities can learn to be self-determined. Self-determination provides access to the general curriculum and thus enhances inclusive education. Community living is based on person-centered planning and individual preference. Decisions regarding employment, such as community living, are based on person-centered planning. Committed efforts are being made to develop culturally responsive and informed self-determination curricula. Choice making and self-directed behavioral interventions have become integral components in positive behavior interventions and supports. In all, the national agenda is advanced by the self-determination initiative.

Related Legislation, Mandates, Practices, and Policies

Researchers have suggested that self-determination is a right and entitlement, even though it is not legally mandated per se (Mithaug, 2005; United Nations [2006] *UN Convention on the Rights of Persons with Disabilities* [CRPD]). This is evident at international and national levels. Relating to the CRPD mandates:

> In order, however, to demolish the spells of the past in discriminating children with disabilities, states and societies must first and foremost respect the principle of non-discrimination, uphold the idea that the best interests of the child must prevail in all actions affecting him/her, and must give generous opportunity and possibility for children with disabilities to voice their opinion and to have their views heard and respected. The marginalization of children with disabilities will not be solved unless it is recognized that these children must be included in the overall decision-making process. (2006, pp. 3–4)

In addition, in 2011 the World Health Organization emphasized the importance of child- and adult-centered educational and health programs and indicated that self-determination is a civil right.

The Individuals with Disabilities Education Improvement Act (IDEA) of 2004 (PL 108-446) mandated that students' preferences and interests must be considered when developing IEPs and individualized transition plans. Concentrated efforts must be made to ensure that students have an active role in educational planning. IEP teams must endeavor to obtain input from students on their preferences and wishes and ensure educational and service and support goals are based on these preferences; optimally, the value of teaching students to lead their own IEP meetings has been promoted. The Rehabilitation Act Amendments of 1992 (PL 102-569) and the Workforce Investment Act of 1998 (PL 105-220) emphasized the importance of self-determination for adults regarding the services and supports they desire.

The need to promote self-determination has been both nationally and internationally recognized across age levels. But the question remains as to whether this recognition has been translated into systematic instruction in which students' and consumers' choices are indeed secured, implemented, and supported. The next section addresses this issue.

EFFECT OF PRACTICE AND POLICY ON RECOMMENDED PRACTICES, INTEGRATED SERVICES, AND QUALITY OF SERVICES AND SUPPORTS

Self-determination has had a dramatic effect on the extent to which individuals with severe disabilities have been taught to advocate for their needs and determine the services and supports they desire. Choice making is considered an essential component of practically all educational and program planning. Consequently, choice making is regarded as the central element of self-determination (Wehmeyer, Agran, et al., 2007). Choice making initiates the self-determination process and prompts action (Deci & Ryan, 1985; Schloss, Alper, & Jayne, 1993). Choices allow individuals to make educational and service decisions that best match their wishes, interests, and capabilities and, in doing so, promote greater engagement and motivation on their part (Mithaug, 2005). Self-determination is largely understood in terms of personal choice. Promoting choice making has become an important focus of disability services and supports, is a basic component in service delivery (Wehmeyer, 2001), and serves as the foundational credo for many educational and human services (Bambara, 2004). It provokes self-determination and self-regulation by allowing individuals with intellectual disabilities to express their preferences, make choices based on those preferences, and, subsequently, act on those choices. Choice making has been a focal point in the self-determination movement (Agran & Wehmeyer, 2003). A mistaken belief may exist, however, that the act of choosing is sufficient in promoting self-determination; in other words, choice making in and of itself produces self-determination (Agran, Wehmeyer, & Krupp, 2010). Consequently, individuals may not be taught other self-directed learning strategies. Choice making is an important component of self-determination, but it is only one of several components (e.g., problem solving, goal setting, self-evaluation). Wehmeyer (2005) suggested that the intent is not only to teach individuals to choose but also to take control over their lives. Expressing preferences and making choices based on these preferences is a critical first step, but it is just that. Choice making has a vital and integral role in promoting self-determination, but it does not necessarily ensure it. The immediate benefit of choice making is that it allows individuals to select a preferred stimulus or condition to one that is least preferred. Choice making is beneficial in that it provides a means to express a preference, but it does not teach individuals how to evaluate the relative weight or value of the choices they make (Agran et al., 2010). Individuals will need to learn to assess the consequences of their actions—in other words, problem-solve. Although choice making and problem solving are typically not associated, competency in problem solving can only be developed if individuals are given the opportunity to experience the consequences of their actions and determine if they are meeting their expectations. Individuals can begin to take more ownership and control over their lives when they understand the need to practice choice making and problem solving. Self-determined individuals are aware of their

needs and make decisions to meet those needs by setting goals, taking action, and adjusting through ongoing self-evaluation. Individuals will continue to be dependent on others if they do not have opportunities to make meaningful choices and practice problem solving.

Current Research and Practice: Self-Determination, Environment, and Opportunity

Research suggests that exercising self-determination skills (e.g., choice making, problem solving, self-advocating) and being actively involved in educational planning relate to relevant skill instruction received, environmental factors, and opportunity to practice skills (e.g., Shogren et al., 2007). Early studies in residential settings for adults with intellectual disabilities revealed that residents had little opportunity for making choices or decisions or advocating for themselves in their daily lives (e.g., Kishi, Teelucksingh, Zollers, Park-Lee, & Meyer, 1988; Wehmeyer & Meltzer, 1995). Subsequent studies examined the type of residential environment in relation to opportunities to practice self-determination. Less restrictive settings that provided supports and accommodations were associated with greater opportunities for choice making, decision making, and promoting self-determination for adults with intellectual disability (e.g., Robertson et al., 2001; Wehmeyer & Bolding, 2001; Wehmeyer & Garner, 2003).

Investigating Instruction versus Opportunity The extent to which individuals are taught to be self-determined largely depends on the setting and the opportunities presented in that setting. Both the quality and frequency of self-determined responses are contingent on the opportunities for individuals to demonstrate (and be reinforced) for these behaviors. Although residential settings provide many opportunities for residents to demonstrate their self-determination, only one published study was found in which self-determination skills were taught to adults in a residential setting. Specifically, Hughes (1992) taught four adults with severe intellectual disability and limited verbal skills living in a group home to solve problems related to completing daily living skills (e.g., cleaning room) by using self-instruction to guide their performance. Participants learned to use their verbal behavior to solve problems (e.g., cord in the way when vacuuming) and apply their self-instructions to novel problems not involved in training (e.g., spray can missing when dusting). Although the gains reported were noteworthy, there was no discussion of opportunities to be self-determined in such settings. Although numerous studies investigated self-determination and involvement in educational planning in school settings, the primary focus has been on outcomes of instruction; consequently, little is known about how opportunity or environmental factors influence performance of self-determination skills at school (Carter, Owens, Trainor, Sun, & Swedeen, 2009; Chambers et al., 2007; Shogren et al., 2007).

Zhang (2001a) asked general and special education teachers to rate how often students with mild intellectual disabilities demonstrated 13 self-determination behaviors (e.g., making choices, setting goals, self-advocating) in their respective classrooms. Special versus general education teachers reported higher rates of self-determination behavior, suggesting that special education settings are more conducive to self-determination than general education environments. Zhang suggested,

however, that teacher bias or expectations may have influenced results because special education teachers are more likely to be aware of the IDEA 2004 mandate to address students' interests, preferences, and choices in educational programming. Zhang did not report environmental features or actual opportunities or activities that may have related to exercising self-determination in either setting. Furthermore, student perspective on opportunity to exercise self-determination (e.g., making choices) across settings was not sought.

Carter et al. (2009) asked special education teachers of high school students with severe intellectual and developmental disabilities to use the AIR (American Institutes for Research) Self-Determination Scale (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994) to rate opportunities for students to engage in and demonstrate self-determination behaviors at school. The AIR scale provides examples of opportunities for self-determination for each of six questionnaire items; however, the focus of this instrument is only on the teachers' provision of opportunities and not environmental factors or activities that could influence self-determination (e.g., IEP meetings). The example for the goal-setting item is, "Troy's teachers let him know that he is responsible for setting his own goals to get his needs and wants met." The AIR scale asks teachers to rate their own actions in providing opportunities for students to practice self-determination but not the outcome of their actions. Teachers in Carter et al.'s study found that opportunities for self-determination were *sometimes* to *almost always* available at school, although they reported that students *almost never* to *sometimes* demonstrated self-determined behaviors. No evidence was provided by the authors to corroborate teacher report, however; therefore, it is not known to what extent opportunities actually existed across the school day. Shogren et al. (2007) suggested that the opportunities that teachers perceive themselves as creating, as indicated on the AIR scale, may not actually affect students' level of self-determination—a notion that may relate to the fact that special education teachers overwhelmingly report not knowing how to teach self-determination (Wehmeyer, Agran, et al., 2000). In addition, Carter et al. did not provide student input on opportunities to practice self-determination skills because of concerns with the validity of responses of students with severe intellectual disabilities. Therefore, it is not known if students' perspectives would have matched those of their teachers.

Inclusion as an Environmental Factor Few investigations in schools have examined inclusiveness of setting in relation to self-determination skills (Shogren et al., 2010); that is, what is the relationship of school inclusion to self-determination for students with severe disabilities. Hughes et al. (2013) investigated the association of level of participation in inclusive activities in school and community and students' reported self-determination skill use. Forty-seven students with severe intellectual disability from three high schools participated. Findings revealed significant differences across schools in student participation in general education and school- and community-based transition activities, which were associated with level of self-determination skill use. Students attending schools offering more inclusive activities reported significantly more frequent use of six of nine self-determination skills: self-advocacy (How often do you speak up for yourself?), choice making (How often do you make choices by yourself?), self-reinforcing (How often do you

tell or reward yourself that you did well when you finish a task?), self-monitoring (How often do you count the number of times you perform a task?), self-evaluating (How often do you compare how well you are doing now with how well you did in the past?), and problem solving (How often do you solve problems by yourself at school, work, or home?). Inclusive activities and self-determination were positively associated.

Walker et al. found that "the degree to which one is socially included affects one's opportunities to engage in self-determined actions; it also affects the experiences in which one learns about individual preferences, interests, wants, needs, and desires" (2011, p. 15). Walker and colleagues further argued that research clearly shows inclusion in community and school provides greater opportunities to make choices, express preferences, set goals, and become more self-determined when compared with more restrictive settings and experiences. This viewpoint is corroborated by findings of Hughes et al. (2013), who showed that students participating significantly less in inclusive classes and school- and community-based transition instruction reported significantly less frequent use of self-determination skills than did students in more inclusive settings.

Numerous studies have demonstrated the positive effects of both inclusive school environments and community-based training on postschool outcomes such as employment, postsecondary education, and independent living (e.g., Cimera, 2010; Test et al., 2009). Attending school exclusively in separate special education classrooms and having very limited or no community-based instruction provides students with little opportunity to independently make choices, solve problems, or speak up for themselves. Wehmeyer and Metzler (1995) suggested that educational environments that are highly structured, restrictive, or protective typically do not provide opportunities for independent problem solving or decision making. Students do not have the opportunity to develop the skills to independently respond to the ever-changing, unpredictable events and vicissitudes that comprise everyday life in inclusive school and community settings when daily activities are more predictable.

Inclusive environments may present frequent challenges for the individual that can prompt independent performance and self-determination skills. For example, the bus route that a student takes to a community-based jobsite may unexpectedly change, causing the student to have to problem-solve options to get to work. Or, a student must learn to prompt and reinforce herself to get to class on time when walking in the hall to her inclusive class without a teacher. The students in Hughes et al. (2013) who were already at a disadvantage because of limited access to inclusive school and community instructional environments reported significantly less use of self-determination skills than did their counterparts experiencing more inclusive educational environments, suggesting that segregated settings can hinder self-determination. Hughes and colleagues' findings suggested that the degree to which students are included in school and community may affect their opportunities to make choices, set personal goals, express preferences, and develop other self-determination skills, as argued by others (e.g., Walker et al., 2011; Wehmeyer, Palmer, et al., 2007). Further investigation of the effects of participation in inclusive settings and activities in relation to self-determination in school and community settings appears warranted at this point.