

Chapter 2

Theoretical Issues

Self-Determination: An Overview

On June 30, 1978, Ruth Sienkiewicz-Mercer, who until that time had lived at the Belchertown State School for people with mental retardation, moved into an apartment in Springfield, Massachusetts. She described the first days of her new life in these words:

“I had never had a place of my own. As a result, I had never worried about buying groceries and planning meals, paying the rent and the phone bill, balancing a checkbook, making appointments, figuring out how to keep the appointments I made -- all of the things adults just do. But starting out in society at the age of twenty-eight, after living at a state institution for the mentally retarded for sixteen years, I found these everyday tasks confusing and wonderful and frightening” (Sienkiewicz-Mercer & Kaplan, 1989, p. 202).

Confusing, wonderful and frightening might be as apt a description of adulthood as any forwarded by academicians or philosophers. Reading Sienkiewicz-Mercer's observations of her new life, perhaps the most noticeable thing is the universality of her experiences. Remove references to disability and these experiences parallel those of most young adults as they venture on their own for the first time. There is, however, something that young people who venture into adulthood and succeed have in common. Mithaug (1991) pointed out that “in every school in this country a few children succeed regardless of the instruction they receive. Teachers identify these students early because they have purpose in their lives. They know what they like, what they can do, what they want and how to get it” (p. ix). These young people are, Mithaug concluded, self-determined. Appropriately, leaders in the Department of Education have identified self-determination as a critical outcome for youth with disabilities. Halloran (1993), discussing the transition services requirements of the 1990 Individuals with Disabilities Education Act (IDEA), identified self-determination as the “ultimate goal of education” (p. 214). Ward (1988) called the acquisition of self-determination “a critical -- and often more difficult -- goal for people with disabilities” (p. 2).

The education system is not the only system to recognize and emphasize the importance of self-determination for people with disabilities. In the 1992 Amendments to the Rehabilitation Act, which funds the Vocational Rehabilitation system, the introduction stated:

Disability is a natural part of the human experience and in no way diminishes the rights of individuals to live independently, enjoy self-determination, make choices, contribute to society, pursue meaningful careers and enjoy full inclusion and integration in the economic, political, social, cultural and educational mainstream of American society" [Sec. 2 (a)(3)(A - F)].

This language was repeated in the introduction to the 1993 reauthorization of the Developmental Disabilities Act to provide a consistent vision for Americans with disabilities across agencies and funding streams.

That her life experiences ill-prepared her to enter adulthood is not unique to Sienkiewicz-Mercer, nor indeed to people who lived in institutions. It is the experience of too many people with disabilities whose lives are controlled by others, for whom decisions are made, and who experience few opportunities to make choices based on their interests and abilities (Kozleski & Sands, 1992; Kishi, et al., 1989; Stancliffe, 1995; Stancliffe & Wehmeyer, in press; Wehmeyer & Metzler, 1995). The reason self-determination should become the "ultimate" goal of education is that too many people with disabilities remain dependent on caregivers, service-providers, and over-loaded social systems to do for them what they should, and could, be enabled to do themselves (Wehmeyer, 1992b). From cradle to grave, people with disabilities are reliant upon dependency-creating systems -- educational systems, rehabilitation systems, family systems -- to meet their needs. As a result, many people with disabilities fail to reach their maximum levels of independence, productivity, inclusion and self-sufficiency -- outcomes that, ironically, are the main objective of most such systems.

What is Self-Determination?

In 1990, the U.S. Department of Education, Office of Special Education Programs, Secondary Education and Transition Services Branch funded a series of national model demonstration projects to promote self-determination for youth with disabilities. This funding initiative brought increased awareness of the importance of this topic to youth with disabilities and resulted in the

reconceptualization of self-determination as an educational outcome. Historically, the term self-determination has referred to the right of nations to self-governance. The term was appropriated by disability rights advocates and people with disabilities to refer to their “right” to have control in their lives (e.g., Nirje, 1972; Williams, 1989). In this context, self-determination and empowerment are often used interchangeably. Empowerment is a term usually associated with a social movement and typically is used, as Rappaport (1981) stated, in reference to actions that “enhance the possibilities for people to control their lives” (p. 15).

A second use of the term has appeared in the literature pertaining to motivation, particularly the work of Deci and colleagues (Deci & Ryan, 1985). In this research, self-determination refers to an internal need contributing to an individual’s performance of intrinsically motivated behaviors. According to these theorists, humans are inherently active and internally motivated to engage in activities for which there are no obvious external rewards. Deci and Ryan (1985) listed children’s propensities to want to learn, undertake challenges and solve problems as examples of such internally motivated behaviors. Intrinsic motivation is the “energy source that is central to the active nature of the organism” (Deci & Ryan, 1985, p. 11) and is defined as “the innate, natural propensity to engage in one’s interests and exercise one’s capacities, and in so doing, to seek and conquer optimal challenges” (Deci & Ryan, p. 43). Accordingly, Deci and Ryan (1985) defined self-determination as “the capacity to choose and to have those choices, rather than reinforcement contingencies, drives or any other forces or pressures, be the determinants of one’s actions. But self-determination is more than a capacity; it is also a need. We have posited a basic, innate propensity to be self-determining that leads organisms to engage in interesting behaviors” (p. 38).

The present emphasis on self-determination within special education and rehabilitation owes more to the emphasis of self-determination as interchangeable with empowerment. Research on self-determination as a motivational construct has highlighted the importance of promoting educational practices that lead to enhanced internal motivation for students with disabilities (e.g., Deci & Chandler, 1986). This initiative emerged as the logical extension of a changing view of disability in our society, the altered role of education and rehabilitation within this conceptualization of disability, and the empowerment of people with disabilities to speak for themselves (Wehmeyer, in press a).

As Ward has documented (Ward, in press), the self-determination initiative is an outcome of the empowering social movements of the preceding decades (e.g., the independent living,

disability self-help and self-advocacy, and normalization movements). Unfortunately, this heritage did not provide an adequate definitional framework within which to promote self-determination. Advocacy efforts to empower individuals with disabilities necessarily focused on obtaining equal rights and opportunities to be self-determined. Such efforts have spawned legislative and judicial responses, like the Americans with Disabilities Act (ADA), that guarantee citizens with disabilities equal rights, equal access to services and equal treatment in every day affairs. However, in order for people with disabilities to take full advantage of these protections, they must be enabled to do so. The ADA illustrates the limitations to an empowerment emphasis of self-determination. The Act guarantees equal employment protections to individuals with disabilities who are otherwise qualified to perform the job. It does not apply to someone who is not capable of performing the job (Wehmeyer & Ward, 1995). Likewise, access to opportunities to control one's life, to make choices, solve problems, make decisions and set goals are useless until the person holds the attitudes and has the abilities he or she needs to take advantage of such circumstances.

Halloran (1993) suggested that actualizing the emphasis on self-determination would "require a major change in the current approach to educating, parenting, or planning for children and youth with disabilities" (p. 214). To achieve the outcome that children leave school as self-determined individuals, and to provide opportunities for adults with disabilities to become self-determined, there needs to be a definitional framework upon which to build interventions, evaluate the efficacy of strategies and treatments, and conduct research (Wehmeyer, 1992a).

Self-Determination as an Educational Outcome

Although the current emphasis on self-determination owes much to the empowerment movements of the last few decades and research in motivation, there is a gap between these conceptualizations and the conceptualization of self-determination as an educational or adult outcome. Wehmeyer (1992a; in press a) proposed that, for purposes of education and rehabilitation, self-determination is (a) best defined in relationship to characteristics of a person's behavior, (b) viewed as an adult outcome, and (c) achieved through lifelong learning, opportunities and experiences. Before exploring this definitional framework, it is worth discussing alternative ways in which self-determination could be conceptualized.

There is a temptation to define self-determination in terms of specific behaviors like problem-solving, assertiveness or decision-making. This temptation is strong because the image of a self-

determined person conjured up by most people is that of a successful person using such behaviors. However, after further reflection it becomes evident that self-determination cannot be defined as a set of behaviors for two reasons: (1) any behavior can be self-determined; and (2) both the occurrence and non-occurrence of a behavior can be self-determined.

In the first instance, although there are behaviors that are typically viewed as self-determined (making choices, problem-solving, self-advocacy, etc), when one attempts to compile a list of behaviors that could “define” self-determination, that list will grow exponentially to encompass virtually any behavior in a person’s repertoire. For example, speaking up for yourself is generally identified as a self-determined action, and in most cases it is. However, if “speaking up for yourself” is a defining variable of self-determination, then people who cannot speak are, *a priori*, eliminated from being self-determined. One might then point out that it is not the act of “speaking” itself that is self-determined, but the intention of that act. As such, we can expand the list to include “speaking up for yourself”, “using sign language to communicate your wants”, “using [a specific augmentative communication device] to communicate”, and so forth. The list quickly expands to the point of being unwieldy and cumbersome.

One solution to this problem is to broaden the behavior(s) identified as defining self-determination. So, for example, instead of “speaking up for oneself” as the defining variable, this could be rewritten as “communicating for oneself” as the behavior of note. However, this is an unsatisfactory solution for several reasons. First, while some behaviors might be amenable to such summation, others that could clearly be interpreted as self-determined are not. Consider a situation where two consenting adults with disabilities decide to get married. In the aftermath of this decision, they meet heavy resistance from friends, family members and professionals who predict disaster and threaten to prohibit the marriage. In response to this, the couple elopes to Nevada and they are married the next week. Is, then, “getting married” a behavior we should add to our definition? Obviously not, as many people choose to remain single or live together without getting married. What then is the broader behavior to be identified? In essence the couple was acting on a decision, exerting control over their lives and acting on preferences and dreams. None of these adequately describe why the act was self-determined, and several (e.g., exert control, act on dreams) would hardly be described as “behaviors.” We are left with the unsatisfactory option of listing, ad infinitum, behaviors like “getting married” with mutually exclusive behaviors like “not getting married” also on the list.

This illustrates the second barrier to defining self-determination by behaviors. In most cases one can identify acts that are intuitively self-determined, but mutually exclusive! The example of getting married or staying single is one such situation.

Returning to the previous example of a self-determined behavior, speaking up for yourself, there are situations where doing so is not a wise course of action and the preferred option might be to remain silent. So, for example, if a person knows that speaking up for his or her rights might unduly harm someone else, that person might choose to sit quietly. As such, one can describe situations where the behaviors of “speaking up for one’s rights” and “not speaking up for one’s rights” are both self-determined actions. Finally, defining self-determination as a set of behaviors fails to take into account cultural and regional differences. A common example of such differences is that although looking someone directly in the eyes when speaking to that person is a self-determined action in many cases, in some Native American cultures it is a sign of disrespect and would not be viewed as self-determined behavior.

There is also a tendency to attribute the description “self-determined” only to successful people who act in successful ways. This, however, is an inaccurate characterization of self-determination. Research in the area of goal-setting and achievement emphasizes that goal-oriented behavior can have (a) the desired outcomes, (b) unintended outcomes or (c) no outcome, and each of these outcomes may be beneficial or not. So too, self-determined behavior may have multiple outcomes. Returning to the example of the couple who eloped to be married, this may have been a reasonable or unreasonable action based on the circumstances and, independent of the reasonableness of the action, the marriage may succeed or fail.

A second option is to define self-determination as a characteristic or trait of an individual. This is, perhaps, more satisfactory than defining it by behaviors, but there are problems that remain with this approach. Positing that human behavior is motivated by needs, drives, traits or impulses has been criticized as inherently circular. Bandura (1977) pointed out that in such theories, “inner determinants often were inferred from the behavior they supposedly caused, resulting in description in the guise of explanation” (p. 2). Self-determination as a trait or personal characteristic could only be inferred from the presence of behaviors (e.g., problem-solving, choice-making, goal setting) the trait or characteristic presumably caused. Furthermore, theories proposing the existence of drives, traits, impulses or needs have not overcome the criticism that they fail to account for the marked variability in human behavior across time and environmental conditions. It is not the presence of motivated behavior that is

questioned, but whether it is useful to ascribe such behaviors to drives, traits, needs or impulses. It is almost impossible to describe self-determination as a characteristic of a person without entering this morass.

Self-Determination Defined

To circumvent the problems associated with defining self-determination as either a set of behaviors or as a characteristic of an individual, we have defined this construct according to characteristics of actions or events. Self-determination refers to "acting as the primary causal agent in one's life and making choices and decisions regarding one's quality of life free from undue external influence or interference" (Wehmeyer, 1992a; in press b). An act or event is self-determined if the individual's action(s) reflected four essential characteristics: (1) the individual acted autonomously; (2) the behaviors were self-regulated; (3) the person initiated and responded to event(s) in a "psychologically empowered" manner; and (4) the person acted in a self-realizing manner (Wehmeyer, in press; Wehmeyer, Kelchner & Richards, 1994). As the description "essential" suggests, we propose that self-determined behavior reflects all four of these characteristics. They represent a set of attitudes (psychological empowerment and self-realization) and abilities (behavioral autonomy and self-regulation) that must be present if a person is to be self-determined. To the degree that a person consistently (not to be confused with unfailingly) exhibits self-determined actions, he or she can be construed as being self-determined.

Deci and Ryan (1985) emphasized the importance of the belief that one causes things to happen in one's life for intrinsic motivation. Causal agency implies that an outcome was purposeful and the action performed to achieve that end. A causal agent is someone who makes or causes things to happen in his or her life (Wehmeyer, Kelchner & Richards 1994). The emphasis on causing things to happen in (rather than controlling) one's life is an important distinction because there are times when even the most self-determined person chooses to relinquish actual control over actions. Wehmeyer and Berkobien (1991) pointed out that if a person is having his or her gall bladder removed, he or she may want to have control over the decision to undergo this procedure and choose the surgeon to perform the procedure, but if that person is wise he or she will certainly relinquish control over the procedure itself to the surgeon!

This definitional framework has been evaluated empirically, as described in **Chapter 3**. We have also examined the relationship between several of these component elements. Wehmeyer (1993)

found that adolescents with mental retardation and learning disabilities had more barriers to effective career decision-making (self-regulation) than peers without disabilities, and that for all students an internal locus of control (psychological empowerment) was strongly correlated with positive career decision-making ($r = .52$). Similar relationships extend into adulthood, as Wehmeyer (1994) found that perceptions of psychological empowerment (locus of control) differed significantly based on employment status. Individuals with developmental disabilities employed competitively held significantly more positive (internal) perceptions of control than did peers employed in sheltered workshops or unemployed.

Likewise, Wehmeyer and Kelchner (1994) found that individuals with mental retardation generated fewer and less sophisticated solutions in social problem-solving situations (self-regulation) and that locus of control orientation, self-efficacy, (both psychological empowerment), general self-esteem and domain specific measures of problem-solving self-concept (both self-realization) contributed significantly to the variance of total problem-solving scores. These findings suggest that the characteristic elements of self-determination are related but contribute uniquely to self-determination (Wehmeyer, Kelchner, & Richards, 1994).

Essential Characteristics of Self-Determined Behavior

Behavioral Autonomy

Sigafoos, et al. (1988) stated that “human development involves a progression from dependence on others for care and guidance to self-care and self-direction” (p. 432). The outcome of this progression is autonomous functioning or, when describing the actions of individuals achieving this outcome, behavioral autonomy. Lewis and Taymans (1992) defined autonomy as “a complex concept which involves emotional separation from parents, the development of a sense of personal control over one’s life, the establishment of a personal value system and the ability to execute behavioral tasks which are needed in the adult world” (p. 37). The word “autonomy” derives from the Greek words “autos” (meaning self) and “nomos” (meaning rule) and refers to the condition of living according to laws given oneself (Haworth, 1986). Within the definitional framework for self-determined behavior, a behavior is autonomous if the person acts (a) according to his or her own preferences, interests and/or abilities, and (b) independently, free from undue external influence or interference.

Sigafoos, et al. (1989) operationalized the concept of behavioral autonomy, identifying four behavioral categories; self- and family

care activities, self-management activities, recreational activities, and social and vocational activities. Self- and family care activities involve daily activities, including routine personal care and family-oriented functions like meal preparation, care of possessions, performing household chores, shopping, and home repairs. Management activities involved the degree to which a person independently handled interactions with the environment. These activities included the use of community resources and the fulfillment of personal obligations and responsibilities.

Recreational activities reflecting behavioral autonomy are not specific actions but the degree to which an individual used personal preferences and interests to choose to engage in such activities. Likewise, social and vocational activities included social involvement, vocational activities and the degree to which personal preferences and interests were applied in these areas.

Wehmeyer and Kelchner (1995), using a measure developed by Sigafoos, et al., (1989) found that people with mental retardation experience limited autonomy in each of the above conceptual categories. Lewis and Taymans (1992) arrived at the same conclusion when examining the behavioral autonomy of youth with learning disabilities. This is consistent with findings from other researchers, using different measures, that students with learning disabilities and emotional disorders experience limited behavioral autonomy (Deci, Hodges, Pierson & Tomassone, 1992; Zettin & Murtaugh, 1990).

Self-Regulated Behavior

Whitman (1990) defined self-regulation as "a complex response system that enables individuals to examine their environments and their repertoires of responses for coping with those environments to make decisions about how to act, to act, to evaluate the desirability of the outcomes of the action, and to revise their plans as necessary" (p. 373). Self-regulated behaviors include self-management strategies, (including self-monitoring, self-instruction, self-evaluation and self-reinforcement), goal setting and attainment behaviors, problem-solving behaviors and observational learning strategies (Agran, in press). Self-regulated behaviors include a combination of behavioral and cognitive strategies to achieve the end that individuals employ the strategies they need to become the causal agent in their lives (Agran, in press; Wehmeyer, in press a).

Acting in a Psychologically Empowered Manner

Psychological empowerment is a term referring to the multiple dimensions of perceived control, including its cognitive (personal efficacy), personality (locus of control) and motivational domains

(Zimmerman, 1990). Essentially, self-determined people act on the basis of a belief that they (a) have control over circumstances that are important to them (internal locus of control), (b) possess the requisite skills to achieve desired outcomes (self-efficacy) and (c) if they choose to apply those skills, the identified outcomes will result (outcome expectations).

A number of researchers in self-determination have stressed that acting in a self-determined manner requires a combination of abilities and attitudes (Ward, 1988; Wehmeyer, 1992a). Most people can readily identify someone who possesses one but not the other. A person who knows an effective decision-making strategy (ability) but who does not believe that if that strategy is applied it will achieve the desired outcomes (attitude) is not likely to make decisions. In the same situation, someone who believes that he or she is effective and can influence outcomes by acting, but who lacks the requisite decision-making skills may be more likely to act but no more likely to come to a satisfactory outcome from that action.

The inclusion of psychological empowerment as a defining variable for self-determined behavior illustrates the importance of both cognitive and behavioral contributions to this framework. Bandura (1977) argued that a “theory of human behavior cannot afford to neglect symbolic activities” (p. 13). Agran (in press) noted the importance of cognitive behaviors in achieving self-regulation, including the use of metacognitive, self-instruction, self-reinforcement, and observational learning strategies. Such “cognitive” aspects of self-determined behavior are not easily observed, but, in our view, are essential if someone is to be self-determined.

Self-Realization

Finally, self-determined people are self-realizing in that they use a comprehensive, and reasonably accurate, knowledge of themselves and their strengths and limitations to act in such a manner as to capitalize on this knowledge. This self-knowledge and self-understanding forms through experience with and interpretation of one's environment and is influenced by evaluations of significant others, reinforcements and attributions of one's own behavior (Wehmeyer, in press a).

Component Elements of Self-Determined Behavior

We have suggested elsewhere that there are a number of component elements whose development are integral to the emergence of the four essential characteristics of self-determination (Wehmeyer, in press). As previously discussed,

these component elements cannot be used to define self-determination, but the acquisition of each is necessary, if not sufficient, for the expression of self-determined behavior. Doll, Sands, Wehmeyer and Palmer (in press) described the unique development of each of these component elements. It is at this level that instructional efforts to promote self-determination will be focused. Although not intended as an exhaustive taxonomy, the following component elements seem particularly important to the emergence of self-determined behavior:

- choice-making
- decision-making
- problem-solving
- goal-setting and attainment
- self-observation, evaluation and reinforcement
- internal locus of control
- positive attributions of efficacy and outcome expectancy
- self-awareness
- self-knowledge.

As called for by Halloran (1993), a purposeful, properly implemented educational strategy to promote self-determination will place instructional emphasis on students' acquisition of these component elements. To date much of the instructional emphasis in the area of self-determination has been with adolescents with disabilities. The development and acquisition of these component elements is, however, lifelong and begins early in life. Some elements have greater applicability for secondary education, while others will focus more on elementary years. Promoting self-determination as an educational outcome will require not only a purposeful instructional program, but one that coordinates learning experiences across the span of a student's educational experience!

Choice-Making

People with disabilities frequently cite the opportunity to make choices as an important part of the right to self-determination. In many ways, choice-making has become the lightning-rod for action to promote self-determination. More emphasis has been placed on this component element as critical to the quality of life for people with disabilities than most other elements combined, particularly for individuals with severe disabilities. There have been training programs developed to teach choice-making and increase choice-making behaviors (Gothelf, Crimmins, Mercer & Finocchiaro, 1994; Parsons, McCarn & Reid, 1993; Reid, Parsons

& Green, 1991; Warren, 1993), efforts to increase the diversity of choices for people with disabilities (Brown, Belz, Corsi & Wenig, 1993), discussions about the importance of making choices for people with disabilities (Ficker-Terrill & Rowitz, 1991; Guess, Benson & Siegel-Causey, 1985; Shevin & Klein, 1984; West & Parent, 1992), procedures developed to assess individual preferences and choices (Mithaug & Hanawalt, 1978; Stancliffe, 1995) and research efforts to determine the degree to which people with disabilities express choices and preferences.

Guess, Benson & Siegel-Causey (1985) framed choice-making within the “broader philosophical issues that pertain to personal autonomy” and proposed three levels of choice-making: (a) choice as indicating preferences; (b) choice as a decision-making process; and (c) choice as an expression of autonomy and dignity. Reid, Parsons and Green (1991) identified the instruction of choice-making as consisting of two basic components: (a) the act of choosing; and (b) the identification of a preference. The first component involves “emitting specific behaviors necessary to select one item or event from two or more alternatives” (Reid, Parsons & Green, 1991, p. 3) while the second directs that action toward the selection of preferred outcomes.

These descriptions illustrate the importance of experiences early in life that enable children to identify their own preferences, based on their unique interests and abilities, and allow them the opportunity to select activities based on these preferences. While many individuals with disabilities lack the skills to select between alternatives or cannot communicate specific preferences effectively, there is little doubt that virtually every human being expresses preferences in one way or another. The limited research that exists suggests that too frequently the preferences of individuals with disabilities are ignored or not acknowledged, due either to the highly structured nature of most environments to which individuals with disabilities have access or to ineffective means of communicating these preferences (Houghton, Bronicki & Guess, 1987; Kishi, Teelucksingh, Zollers, Park-Lee, & Meyer, 1988; Wehmeyer & Metzler, 1995).

Ironically, these circumstances create learning, living and working environments that frustrate professionals' efforts to promote independence and limit the effectiveness of most interventions. Increased opportunities and capacities to express preferences and make choices have been linked to reductions in problem behaviors exhibited by individuals with severe disabilities (Gardner, Cole, Berry & Nowinski, 1983; Grace, Cowart & Matson, 1988; Munk & Repp, 1994), increased participation of children, youth and adults with and without disabilities in appropriate or adaptive tasks (Koestner, Ryan, Bernieri & Holt,

1984; Swann & Pittman, 1977; Realon, Favell & Lowerre, 1990) and more positive educational or achievement outcomes (Koenigs, Fielder & deCharmes, 1977). In short, choice-making is an effective management strategy as well as a valued skill (Dunlap, 1990).

Kohn (1993) provided another reason to implement strategies that involve students in choices and decisions in the classroom; it is beneficial to the teacher. He quotes one educator who stated:

I've been teaching for more than 30 years and I would have been burned out long ago but for the fact that I involve my kids in designing the curriculum. I'll say to them, "What's the most exciting way we could study this next unit?" If we decide their first suggestion isn't feasible, I'll say, "Okay, what's the next most exciting way we could study this?" They always come up with good proposals, they're motivated because I'm using their ideas, and I never do the unit in the same way twice (Kohn, 1993, p. 12).

Shevin and Klein (1984) suggested that there were three essential components to a choice-fostering curriculum; (a) cognitive/discrimination skills cluster; (b) affective skills cluster; and (c) generalization of skills in real-life experiences. Under the first of these clusters, Shevin and Klein identified "those skills which enable the learner to understand and discriminate from among alternatives as a prerequisite to acting." They included in this cluster skills like visual, auditory, and tactile discrimination, and an understanding of concepts like "choose" and "more." Affective skills in the second cluster involve student identifications of likes, dislikes, interests, abilities, wants, needs and, ultimately, preferences.

The skills identified in these first two clusters represent instructional opportunities for early childhood and elementary school years. Shevin and Klein (1984), along with others, emphasized the importance of learning such skills in contexts that promote generalization and provide real life opportunities to experience choices. They also stressed integrating choice-making opportunities throughout the school day and listed five keys to maintaining a balance between student choice and professional responsibility:

1. incorporating student choice as an early step in the instructional process;
2. increasing the number of decisions related to a given activity which the student makes;

3. increasing the number of domains in which decisions are made;
4. raising the significance in terms of risk and long-term consequences of the choices which the student makes; and
5. clear communication with the student concerning areas of possible choice, and the limits within which choices can be made (Shevin & Klein, 1984, pp. 164).

Kohn (1993) suggested that school programs can provide opportunities for meaningful choices in both academic and behavioral areas. In academic areas, students can participate in choosing what, how, how well and why they learn. The determination of what one learns is fairly straightforward, and has become a key element in promoting student involvement in educational planning and decision-making (Martin, Marshall & Maxson, 1993). Allowing students to choose how they learn certainly entails more dedication and effort on the part of the teacher, but it is reasonable to provide choices between working alone, in small groups or as a class, or to provide alternatives as to where students sit while they work (Kohn, 1993).

Allowing student choice in how well a student is doing reflects the emphasis in student-directed learning on self-monitoring, self-evaluation and self-reinforcement. Perhaps the most overlooked aspect of structuring choice in the classroom is getting students involved in a discussion of why they are learning. Deci and Chandler (1986) suggested that providing rationales for activities to learners is one important way of increasing student motivation to learn and participate. Telling students that they have to learn something “because it is for their own good” or other more controlling reasons will limit student self-determination. Indeed, Deci and Chandler (1986) suggested that being honest and straightforward about rationales for specific learning activities moves an activity from being externally imposed to self-regulated.

Decision-Making

There is, thematically and pragmatically, considerable similarity between choice-making and decision-making. There is further overlap with the third component element, problem-solving. All three are important to becoming autonomous and self-regulating. Choice-making refers to a process of selecting between alternatives based on individual preferences. Decision-making skills refer to a broader set of skills that incorporate choice-making as but one component. Beyth-Marom, Fischhoff, Jacobs Quadrel & Furby (1991) suggested that most models of decision making incorporate the following steps:

- a) listing relevant action alternatives;
- b) identifying possible consequences of those actions
- c) assessing the probability of each consequence occurring (if the action were undertaken);
- d) establishing the relative importance (value or utility) of each consequence;
- e) integrating these values and probabilities to identify the most attractive course of action (p. 21).

Baron and Brown (1991) proposed that “deficient decision-making is a serious problem throughout society at large and [this] problem needs addressing in childhood or adolescence.” Rightly or wrongly, today’s youth are seen as lacking the basic skills to make effective decisions, a perception reinforced constantly by news reports. If this is true for America’s youth as a whole, it is especially true for children and youth with disabilities. Even when they are allowed to make choices, most persons with disabilities are prohibited from making decisions, due primarily to an assumption of incompetence. This is particularly so if the individual has a cognitive disability. For example, Wehmeyer and Metzler (1995) found that youth and adults with mental retardation were more often than not provided the opportunity to make choices about events such as the leisure activity in which they engaged (75% of 4,544 people indicated that they had made this choice unassisted or with assistance) or what clothing they wore (83%), but were largely uninvolved in major decisions that impacted their lives. Only 33% of this group indicated they had a voice in deciding where they lived, 44% indicated they had a role in the decision about where they work and 44% reported that they had provided consent (either unassisted or with assistance) for their most recent medical procedure.

However, a competency model of disability proposes that “like any other person, a person with a disability should be expected to make all decisions about his or her life” (Accreditation Council on Services for People with Disabilities, 1992). What distinguishes decision-making from choice-making is that it refers to a process with specific steps or components. There are a number of algorithms that provide a structure for this process, but they typically focus on a series of interrelated learning activities. Students need to learn to identify the area of concern or, more specifically, define the issue or problem about which a specific decision is to be made. Secondly, students must possess the skills that enable them to collect information about their specific situation and to use this information to identify options for consideration. Once options are clarified, students need to learn to identify and evaluate the consequences and outcomes of action

based on the various options. When those consequences have been detailed, choice-making skills can be applied to select a specific alternative. Finally, students must implement this plan of action.

While emphasis on choice-making should occur early in a student's educational career, specific decision-making skills are probably better addressed at the secondary level. Beyth-Marom, et al. (1991) suggested that in order to achieve generalization, decision-making and problem-solving need to be taught in terms of familiar knowledge domains. By this, they refer to the efficacy of addressing such areas within the context of a life-skills or functional education curriculum, with decision-making skills learned by applying the process to real world issues. Once again, the educational planning and decision-making process is an excellent context within which to teach decision-making skills.

Problem-Solving

The third element in this triumvirate is problem-solving skills. Decision-making is a process of weighing the adequacy of various solutions. A problem is "a task whose solution is not immediately perceived" (Beyth-Marom, et al., 1991). More specifically however, a problem "is a specific situation or set of situations to which a person must respond in order to function effectively in his environment" (D'Zurilla & Goldfried, 1971).

It is the situational, response-oriented aspect of problem-solving skills that distinguish them from decision-making skills. Humans are presented with problems that require resolution on a day-to-day basis. Problem-solving skills have typically focused on such problem resolution in two primary contextual domains: impersonal problem-solving and interpersonal or social problem solving. The former has drawn the most attention from researchers and studies have focused on an individual's ability to complete puzzles and anagrams or solve mathematical problems. Such problems typically have only one correct solution with answers remaining the same over time (Wheeler, 1991).

In contrast, problems involving interactions between people are complex, with multiple processing demands and decision points, and have numerous possible solutions that may vary according to time or setting (Wehmeyer & Kelchner, 1994). While both types of problem-solving skills are important for self-determination, social problem-solving skills are critically important for the emergence of self-determined behavior.

Social problem-solving, alternatively referred to as interpersonal cognitive problem-solving, emphasizes cognitive and behavioral strategies that enable individuals to interact with one another and to cope in an increasingly social world. Much of the focus for intervention in special education has been strictly on

social skills training. While such instruction is important, in the absence of similar emphasis on social problem-solving skills, it is insufficient to redress deficits in social interactions exhibited by youth and adults with disabilities (Chadsey-Rusch, 1986; Park & Gaylord-Ross, 1989; Wehmeyer & Kelchner, 1994).

Like the choice-making process, problem-solving skills are embedded into virtually all decision-making procedures. The first step in most interventions to promote decision-making skills is to identify the issue at hand or the problem. As it is conceptualized by most researchers, however, the decision-making process begins with the listing of already identified options. Pragmatically, one must first engage in problem-solving before decision-making can occur. Thus, the instructional emphasis for problem-solving overlaps considerably with that for decision- and choice-making.

Such instructional emphasis typically includes three focal points: (a) problem identification; (b) problem explication and analysis; and, (c) problem resolution. Izzo, Pritz and Ott (1990) suggested that the characteristics of an instructional environment contribute significantly to the attainment of these skills. Instruction should occur within environments that emphasize the student's capability to solve problems, promote open inquiry and exploration, and encourage generalization. Teachers should serve as role models by verbalizing the problem-solving steps used on a day-to-day basis and should make sure that students are provided adequate support and accommodations.

Goal Setting and Attainment

To be the causal agent in one's life, a person needs to acquire the skills necessary to plan, set and attain goals. The term goal refers to a construct that incorporates multiple meanings and, according to Locke & Latham (1990) "encompasses the essential meaning of terms such as intention, task, deadline, purpose, aim, end and objective. All of these have in common the element that there is something that the person wants to achieve" (p. 2). Causal agency implies that an outcome was purposeful and a given action performed to achieve that specific outcome. This requires that actions be goal-directed.

Such action can be conscious or unconscious, although the latter is typically associated with the more organismic-biological connotation of goal-directed action as the "organisms need to sustain its life by taking the actions its nature requires" (Locke & Latham, 1991). A subset of these goal-directed actions involve purposefully goal-directed actions, where goal attainment is the result of a conscious, purposeful action (Locke & Latham, 1991). Although self-determined behaviors are purposeful or intentional, it is incorrect to imply that all such actions, as well as all goal-

directed actions, are consciously intended. Locke and Latham (1991) pointed out that control over many actions becomes indirect because that action is, in some sense, habituated. An example these authors use is that when a person moves his or her arm, there is typically no conscious intent to move each muscle that controls the arm movement. Instead, such actions are automated and although the intent was to move the arm, much of the action was not consciously intended.

A second issue that speaks to a similar topic is that self-determined, and goal-directed, behaviors are not always successful or reach the intended goal. There are a number of reasons that this might be the case but it does not abrogate the self-determined or goal-directed nature of the behavior. Self-determined behavior cannot be judged or determined by the relative success of the action just as goal-directed action cannot be determined by the achievement of the specific target or objective.

Goal setting theory focuses on the underlying assumption that goals are regulators of human action. This is true for educational motivation and achievement. For example, Schunk (1985) found that student involvement in goal setting improved performance on math activities for students with learning disabilities. The effects of goal setting on behavior is itself a function of goal difficulty and specificity as well as previous experiences with the activity or action. Goal attainment is typically a function of two related aspects of goals; content and intensity. Goal content refers to the topic of the goal while goal intensity reflects that priority of a goal in the person's hierarchy of goals. There are considerable between-individual differences in these aspects, and goal attainment or achievement will be affected by the salience and importance of the topic and the intensity of the individual's desire to achieve the goal.

Educational efforts to promote goal-setting and attainment skills will concentrate on the identification and enunciation of specific goals, the development of objectives and tasks to achieve these goals, and the actions necessary to attain a desired outcome. Martino (1993) identified several important considerations in goal identification and enunciation:

1. Goals should be specific and measurable.
2. Goals should be attainable.
3. Goals should reflect something that the student wants to improve on.
4. Goals should have specific, practical starting and finishing dates.
5. Goals should be written.
6. Goals should be stated in terms of anticipated outcomes.

7. Students should be able to visually track their progress on the goal.

The educational planning and decision-making process is an enterprise that revolves around goal-setting, implementation and evaluation. The involvement of students in this process, from elementary school through graduation, provides the best educational environment to promote effective goal setting and attainment skills. Teachers and parents can model effective skills like identifying short and long-term goals, describing objectives, implementing plans based on these goals and objectives and reevaluating and refining these plans.

Self-Observation, Self-Evaluation and Self-Reinforcement Skills

The definitional framework of self-determined behavior identified such action as self-regulated, and self-regulated behavior as constituting, at the very least, the essential skills of self-observation, self-evaluation and self-reinforcement. Whitman (1990) defined self-regulation as "a complex response system that enables individuals to examine their environments and their repertoires of responses for coping with those environments to make decisions about how to act, to act, to evaluate the desirability of the outcomes of the action, and to revise their plans as necessary." It is within this broader context that self-regulation skills are important for self-determined behaviors. Whitman goes on to maintain that, in order to show dynamic self-regulation, individuals must make decisions concerning what skills to use in which situation, examine the task at hand and their strategic repertoire, and formulate, enact and evaluate a plan of action, with revisions if necessary. Self-regulation differs from automatic processing in that it requires focused attention and continuous decision-making among alternative responses (Whitman, 1990). Self-regulation includes the skills of self-monitoring (observation of one's social and physical environment), self-evaluation (making judgments about the acceptability of this behavior through comparing information about what one is doing with what one ought to be doing) and, based upon the outcome of this self-evaluation, self-reinforcement.

Internal Locus of Control

The final four component elements of self-determined behavior focus not on skill development, but on the attitudinal component characteristics of self-determined behavior; that the person initiated and responded to the event(s) in a "psychologically empowered" manner; and acted in a self-realizing manner. Although actual control over a given event is not necessary for

self-determination, as one may choose to relinquish such event specific control to another person, the belief that one has control over outcomes that are important to one's life is critical to self-determined behavior.

People who hold such beliefs have been conceptualized as having an internal locus of control. Rotter (1966) defined locus of control as the degree to which a person perceives contingency relationships between his or her actions and outcomes. Mercer and Snell (1977) described the construct in the following manner:

When a person is characterized as having an internal locus of control, he views reinforcement as primarily the consequences of one's own actions; whereas, if a person is characterized as having an external locus of control, reinforcement is viewed as the result of outside forces, e.g., luck, fate, chance and/or powerful others (p. 183).

The locus of control construct has proven to be a powerful heuristic for explaining, at least partially, individual and group variability in motivation, personality and learning. Internal locus of control has been linked to adaptive outcomes, including positive educational and achievement outcomes and increased time and attention to school-related tasks (Lefcourt, 1976). External orientations have, conversely, been linked to increased impulsivity in decision-making, distractibility and sociometric ratings of rejection from peers (Ollendick, Greene, Francis & Baum, 1991; Ollendick & Schmidt, 1987). Research data has, therefore, validated the intuitive hypothesis that students who feel in control of their lives and their destiny perform better than students who feel that other people or circumstances dictate their lives.

There has been limited (comparatively) exploration of the locus of control construct for individuals with disabilities, particularly youth and adults with cognitive disabilities. At least part of the reason for this is that when people with disabilities are seen from a disease or deficit model, there is limited emphasis on the individual's beliefs and perceptions. Wehmeyer (1994a) noted:

One factor that has undoubtedly contributed to the lack of research in this area is that the measurement of locus of control is reliant upon self-report assessments. There is a pervasive, if not clearly articulated, mistrust of self-report measures with people with mental retardation based on several factors. Practitioners and researchers have tended to dismiss personal reports from such individuals as unreliable. Individuals with mental retardation were seen as intellectually incompetent and this incompetence

extended to the individuals' reports of beliefs, emotions, feelings, or perceptions. Their opinions and perceptions were not accorded value and worth and were not solicited or encouraged (p. 528).

Within a competence model of disability, however, the beliefs, opinions and perceptions of people with disabilities become "increasingly important and valued, not imbued with assumptions of incompetence" (Wehmeyer, 1994a). Difficulties in measurement remain, but the importance of individuals' beliefs about themselves and their environments make the effort worthwhile.

The limited research that exists suggests that people with disabilities hold perceptions of control that are more external, and thus more maladaptive, than non-disabled peers. Students with learning disabilities (Dudley-Marling, Snider & Tarver, 1982) and mental retardation (Wehmeyer, 1994b) have been found to have more external scores than non-disabled peers, even when compared to same age peers who experienced school failure but were not receiving special education services. Such maladaptive perceptions were found to contribute to ineffective career decision-making for youth with mental retardation and learning disabilities (Wehmeyer, 1993). Wehmeyer (1994c) also found that adults with cognitive and developmental disabilities who were competitively employed held significantly more adaptive or internal perceptions of control than did peers who worked in sheltered environments or who were unemployed.

The role of educators in promoting internal perceptions of control, as well as adaptive efficacy and outcome expectations, a positive self-awareness and a realistic self-knowledge, is more complex than just providing adequate instructional experiences. An internal locus of control emerges as children make choices about things that they do every day, like selecting clothing, and these choices are honored and supported. To understand contingency relations between their actions and positive outcomes, children have to learn to distinguish between outcomes due to ability, effort and chance. There is a typical developmental course for this progression. Very young children attribute positive outcomes solely to effort and do not take into account ability or chance. As they get older, children begin to distinguish between chance or luck and effort or ability, and in early adolescence, begin to differentiate between effort and ability. Children with disabilities may need specific instruction at these critical time periods to ensure that they can realistically assign causality to their actions.

It is particularly important to consider the learning environment and to evaluate its effect on student perceptions of control. Teachers who use an overly controlling style or whose classrooms are rigidly structured limit the development of positive perceptions of control. This does not mean that classrooms must become chaotic; allowing greater control is not the same as relinquishing all control and abolishing rules and regulations (Deci & Chandler, 1986). Instead, classrooms can be structured such that students can perform more actions for themselves, like obtaining their own instructional materials.

Additionally, an educational program that emphasizes problem-solving, choice- and decision-making and goal-setting and attainment skills using student-directed learning activities will provide ample opportunities for students to learn that they have control over reinforcers and outcomes that are important to them.

Positive Attributions of Efficacy and Expectancy

Self-efficacy and efficacy expectations are two related constructs, introduced by Bandura (1977), that have been linked together for the present discussion. Self-efficacy refers to the “conviction that one can successfully execute the behavior required to produce a given outcome” (Bandura, 1977, pp. 193). Efficacy expectations refer to the individual’s belief that if a specific behavior is performed, it will lead to the anticipated outcome.

The two are individually necessary, but not sufficient, for behavior like goal-directed and self-determined actions. A person has to believe that: 1) he or she can perform a specific behavior needed to achieve a desired outcome; and 2) if that behavior is performed, it will result in the desired outcome. If a person does not believe that he or she can perform a given behavior, (independent of the validity of that belief), then consequently he or she will not perform that action. However, a person may believe that he or she is capable of performing a given behavior, but due to past experience may not believe that a desired outcome will occur even if that behavior is exhibited and, subsequently, will not perform the action. For example, a student with a disability may not believe that she has the social skills necessary to initiate a conversation with non-disabled peers, and will refrain from initiating such actions. On the other hand, that same student may believe that she has the requisite skills, but having been ignored in the past, may believe that she will be ignored again and, likewise, refrain from initiating the action.

Like perceptions of control, perceptions of efficacy and expectancy have been linked to academic achievement and persistence at academic activities (Lent, Bron, & Larken, 1984; Ollendick & Schmidt, 1987). Very little research has examined the

self-efficacy and efficacy expectations of individuals with disabilities. Most of the extant literature in the area of learning disabilities focuses on changing self-efficacy and efficacy-expectations through environmental or instructional modifications (Schunk, 1989). Wehmeyer (1994a) found that individuals with mental retardation held less adaptive attributions of efficacy and expectancy than did non-disabled peers and that such attributions became less adaptive as the student got older, a trend not consistent with typical developmental functions for these attributes.

Attributions of efficacy and expectancy emerge as children and adolescents interact with the world around them. One holds positive beliefs of efficacy and efficacy expectations because one has acquired specific skills, exercised such skills and experienced the outcomes anticipated by such activities. Several factors limit the acquisition of these perceptions by people with disabilities. As Kennedy (1993) highlighted, overprotection by well-intentioned others frequently limits opportunities for children and youth with disabilities to engage in actions that would enable them to establish a sense of efficacy and efficacy expectations. The general assumption of incompetence spawned by the disease and deficit models of disability have, as previously suggested, limited even the opportunity for people with disabilities to learn skills, like goal-setting and decision-making skills, that would contribute to efficacy expectations.

Overly structured environments, including many special education classrooms, limit the opportunities to acquire skills related to choice and decision-making, hinder the development of an internal locus of control, and prohibit students from learning that they are effective and that their behaviors can have beneficial outcomes. Again, an educational program that focuses on promoting self-determined behavior through the means detailed above will provide the opportunities students need to develop adaptive perceptions of self-efficacy and efficacy expectations.

Self-Awareness and Self-Knowledge

In order for one to act in a self-realizing manner, one must possess a basic understanding of one's strengths, weaknesses, abilities and limitations as well as knowledge about how to utilize these unique attributions to beneficially influence one's quality of life. At the most fundamental level, in order to be self-determined one must first possess a sense of self, referring to the establishment and awareness of oneself as possessing a unique identity. Two features of a sense of self that are, in essence, prerequisite to the exhibition of self-determined behavior are: 1) a sense of separateness from others; and, 2) a stable identity over time. Individuals must be cognizant of their uniqueness and separateness from others and

must understand that one has a permanence which endures despite changes in circumstances (Damon, 1983). Without these notions, Damon suggests, "it would be impossible to organize one's personal experience in any meaningful sense." Without this sense of self, it is not possible for one to be self-determined.

However, this sense of self emerges in very early childhood development, probably by 2 years of age. Beyond just this prerequisite sense of self, children need to develop self-awareness and self-understanding; to learn what they do well, what they need assistance with, where their interests lie and how to use their talents to their advantage. For children and youth with disabilities, this is particularly important. To be successful, students with disabilities must understand and learn to accommodate for limitations introduced by their disability. Many practitioners identify this as a critical need, but unfortunately it is too often articulated in a negative sense, e.g., that a student needs to learn that s/he can't do something.

It is in this area that student-directed learning experiences become particularly important. Students do not learn what they can or cannot do from lectures, role playing, social skills simulations or any other more traditional teacher-directed instructional activities. They learn, as do all people, through their own interpretation of events and experiences. At any given time, the New York Times Bestseller list for non-fiction contains one or more books that are classified as "popular psychology" and provide interested parties the chance to learn more about themselves and, if necessary, change this or that aspect of their personality, intelligence or, often as not, self-image. Most adults who want to improve some aspect of their lives, change something they do not like or generally explore themselves do so in a self-directed manner.

This process is not one of pure introspection, however, and does not focus exclusively or even primarily on an understanding of limitations. In many cases, students with disabilities are quite able and more willing to identify what they do poorly than those things they do well. The specter of having a disability, as pictured in disease or deficit models, hovers over any given circumstance and students dwell more on what they are unable to accomplish than what they can achieve. Since special education is essentially remediative in nature, this is hardly surprising. It is particularly important for adolescents to focus on developing their strengths so that they can accomplish more in these areas. Lipsky and Gartner (1989) pointed out that if universities adopted the same structure that the special education process uses, college students would enter university and spend four years trying to improve, even slightly, on the activities and subjects they have the most trouble

doing, while basically ignoring areas of strengths and interests. Secondary special education programs should adopt, instead, the model used in postgraduate education, where students focus almost exclusively on their strengths and interests and attempt to utilize these skills to their benefit.

Why is Self-Determination Important?

People with disabilities have made it clear that self-determination is an outcome that is important to them. Williams (1989) stated “We want it [self-determination as a complete way of life] not just for ourselves but for all people with disabilities. Indeed, we want it for all people -- period. And, we want it now” (p. 16). Kennedy (1993) said that “what people need to realize is that self-determination can be different things to different people. All people should have the opportunity to be self-determining, based on what that means for them” (p. 11). It is not difficult to understand that when a person has limited control and choice in his or her life, the reclamation of such control and choice becomes an issue of intense importance.

In our opinion, the call for self-determination by people with disabilities is, in and of itself, sufficient justification for focusing on this outcome. However, there are other reasons that it is important to focus limited resources, including time, personnel and money, to achieve self-determination for individuals with disabilities. These reasons include the importance of self-determination to experience an enhanced quality of life and integration into one’s community and recent findings concerning adult outcomes for people with disabilities.

Self-Determination and Quality of Life

We have opted to frame causal agency within the concept of quality of life because we believe that, along with its historical ties to the empowerment movement, self-determination is associated with quality of life issues. Schalock (1990) provided six fundamental quality of life principles: 1) Quality of life for persons with disabilities is composed of those same factors and relationships that are important to persons without disabilities; 2) Quality of life is experienced when a person's basic needs are met and when he or she has the same opportunity as anyone else to pursue and achieve goals in the major life settings of home, community and work; 3) Quality of life factors vary over the life span of a person; 4) Quality of life is based on a set of values that emphasize consumer and family strengths; 5) Quality of life is determined by the congruence of public values and behavior, and;

6) Quality of life is a concept that can be consensually validated by a wide range of persons representing a variety of viewpoints of consumers and their families, advocates, professionals and providers.

Like self-determination, quality of life focuses attention on both subjective and objective indicators. Dalkey (1972) stated that "quality of life is related not just to the environment and to the external circumstances of an individual's life, but whether these factors constitute a major share of an individual's well being, or whether they are dominated by factors such as a sense of achievement, love and affection, perceived freedom and so on" (p. 9). An individual's quality of life is determined across settings, environments and opportunities. We suggest that causal agency is a critical element contributing to an individual's enhanced quality of life and that virtually all choices and decisions at some level contribute to some aspect of quality of life, be it physical, psychological or social. Conceptualizing self-determination as contributing to an enhanced quality of life reflects the importance of both major decisions which occur infrequently (buying a house, medical decisions) and daily choices that are less consequential but more frequent, such as what to wear or eat or how to spend one's free time.

The measurement of both quality of life and self-determination share considerable overlap. Both examine issues of choice and access to various activities and emphasize individual perceptions about and self-reports of experiences and expectations. Research into the former suggests that people with disabilities experience fewer choices and have more limited access to desired activities than peers without disabilities. For example, Stancliffe and Wehmeyer (in press) reviewed the literature related to choice-making by people with mental retardation and developmental disabilities. They concluded that, despite evidence that they could make effective choices, people with mental retardation and developmental disabilities too infrequently had such opportunities. Wehmeyer and Metzler (1995) found that 66% of more than 5,000 people with mental retardation and developmental disabilities did not choose where they were currently living, 88% did not choose their current staff person, 77% did not choose their present roommate and 56% did not choose their current job or day activity.

Similarly, Wehmeyer, Kelchner and Richards (in press) found that even in a sample of more than 400 members of self-advocacy groups, people with mental retardation who are most likely to be self-determined, a large percentage did not have choices in their lives. For example, while 30% of the group indicated they did not choose where they lived, only 15% indicated they had selected where they live unassisted. Comparatively, Kozleski and Sands

(1992) used the same survey with adults without disabilities and found that only 10% indicated they had no choice in where they lived, 13% had no choice in their roommate, and no respondents indicated that someone else had selected their job or day activity.

Although we have focused most of our research efforts toward examining self-determination of people with mental retardation, these experiences are not unique to people with cognitive disabilities. Jaskulski, Metzler, & Zierman (1990) surveyed more than 13,000 people with developmental disabilities to determine the degree to which they were integrated into their communities, functioned independently and led productive lives. Forty-one percent of this sample had a physical disability, 10% experienced a sensory disability, 6% an emotional disability and 42% were identified as having mental retardation. Thus, 57% of the sample did not have a cognitive disability. From this group (respondents without mental retardation), 41% indicated they had no choice in their current living arrangement. Sands and Kozleski (1994) analyzed differences between adults with disabilities and adults without disabilities on multiple indicators of quality of life. They concluded that “most importantly, the degree of choice which individuals with disabilities were able to exercise was significantly limited when compared to adults without disabilities. This lack of opportunity to make choices extended from relatively innocuous activities such as decorating a bedroom to such fundamental choices as to who shares that bedroom” (p. 98).

By virtually all standards and conceptualizations, there is a positive relationship between increased opportunities to make choices and decisions and take more control over one’s life and an enhanced quality of life. The research literature on quality of life for people with disabilities and the self-determination of people with disabilities send the same, clear message...people with disabilities lack the opportunity to experience control and choice in their lives, and their lives would be more fulfilling and satisfying if this were not the case.

Current Adult Outcomes for People with Disabilities

Another variable influencing the current emphasis on self-determination and justifying the commitment of resources to this end is current adult outcomes for people with disabilities. Until recently it has been difficult to evaluate this, if for no other reasons than very few researchers cared to ask and definitional inadequacies limited investigation. To evaluate the degree to which individuals with cognitive disabilities are self-determined one must piece together findings from school follow-up/follow-along studies regarding student outcomes as adults, studies comparing individuals with disabilities and

non-disabled peers on certain relevant social-psychological measures (e.g., locus of control, self-concept) and the few studies that have evaluated opportunities for students and adults with cognitive disabilities to make daily choices.

For most adults, employment or engagement in meaningful activities constitutes an important aspect of their perceptions of control and self-concept. Holding a job is essential for financial security and autonomy and contributes to the degree to which one perceives oneself and is perceived as being an adult. Employment outcomes for young adults with disabilities are not as positive as most would desire. Chadsey-Rusch, Rusch and O'Reilly (1991) reviewed the research on employment, residential and social outcomes of youth transitioning from school to adulthood. Most studies found that special education students had employment outcomes much worse than their non-disabled peers, with under 40% of students employed full time and most of them underemployed. Wagner, et al., (1991) reported that only 20% of youth with mental retardation and 37% with learning disabilities were employed full time.

Employment status is not an unambiguous indicator of self-determination. One might be unemployed though self-determined or, more likely, employed but not experience significant control or choice in one's life. Wagner and colleagues' data included sheltered environments as an employment option, yet there is evidence that sheltered settings limit control and individuals in such settings evidence lower perceptions of quality of life (Inge, Banks, Wehman, Hill & Schafer, 1988; Gersten, Crowell & Bellamy, 1986; Schalock, Keith, Hoffman & Karan, 1989). To the extent that many youth with severe disabilities have few employment options outside of sheltered workshops, one has to consider the impact of this variable on self-determination.

Several investigations have compared individuals in sheltered and competitive work environments. Schalock, et al., (1989) found significantly higher scores on a quality of life index for individuals employed in competitive or supported settings versus sheltered environments. Sinnott-Oswald, Gliner and Spencer (1991) reported that individuals in supported employment evidenced higher scores on a quality of life indicator than peers in sheltered employment. Wehmeyer (1994a) found significant differences between locus of control scores for adults with cognitive disabilities, with individuals who were unemployed or working in a sheltered setting perceiving themselves as having less control than peers in competitive settings.

Wehmeyer (1992b) surveyed adults with cognitive disabilities in self-advocacy groups about employment status, job preference and amount of choice in career decisions. Of 254 respondents, a large percentage (87.5%) were employed. Most of these (95%) indicated that they were satisfied with their jobs. However, only 37% of those

employed listed a job equivalent to their current one as their preferred job. Of those indicating job preferences, 73% were able to indicate the abilities necessary for those jobs. Although individuals in this sample were older (mean age = 36) and had been in the work force for several years, when asked about how they located their present job, only 8% responded that they had found it themselves. Essentially, these adults wanted other jobs, knew what was necessary to perform such work, but were waiting on someone else to locate the job.

Other outcome indicators support the assumption that individuals with severe cognitive disabilities experience limited self-determination. Wehmeyer and Metzler (1995) analyzed the data from the National Consumer Survey (NCS), a national survey of Americans with disabilities pertaining to their satisfaction with their lives, for 5,000 people with mental retardation. Only 6.3% indicated they had a choice in where they currently lived, 9.4% said they had selected their roommates and 11.3% indicated they had selected where they worked or their daytime activities. These figures are low not only when compared with adults without disabilities, but to people with non-cognitive disabilities as well. For example, of 10,000 adults with disabilities other than mental retardation, 15.3% indicated that they chose where they live. For people with mental retardation, the opportunity to exert control over their lives was a function of the relative importance of the activity. Thus, 56.3% of the respondents indicated that they determined what clothes they wore (which still leaves more than 40% who do not even have control over that aspect of daily life!) while only 17.6% indicated they provided unassisted consent for medication. While it may be prudent to request assistance in making decisions such as consent to medication for individuals with cognitive disabilities, 56.7% indicated that they had absolutely no control in the process whatsoever.

Several other outcomes from this survey provide evidence of the need to address self-determination for people with severe cognitive disabilities. Only 5.8% of the respondents indicated that they owned their home and only 4.5% indicated that they were currently or ever had been married (or were living with someone). For the sample with non-cognitive disabilities, 12% were or had been married. Among non-disabled Americans, 58% are married or live with someone and 20% are separated or divorced. Several other studies provide information regarding opportunities for choice. Kishi, Teelucksingh, Zollers, Park-Lee and Meyers (1988) determined that adults with mental retardation had significantly fewer opportunities to make choices regarding daily activities, such as what or where to eat or how to spend their time than did their nondisabled peers.

The environment in which one lives impacts how much choice one has on a day to day basis. Pierce, Luckasson & Smith (1990) found that there were significant differences between settings where a person

lived (group home vs. mini-homes) in the amount of time staff members selected activities during unstructured time. People living in group homes spent more time in activities selected by staff than did peers living in smaller, less structured mini-homes. Lord and Pedlar (1991) found that individuals who had moved from an institution to group homes exercised some choice about things such as menu planning and leisure activities, but "more often were at best invited or at worst told to do something. Some staff members saw the residents as having choice in their lives because they could choose ways of filling free time in an evening" (p. 217). Wehmeyer, Kelchner and Richards (1994a) found that relative self-determination varied according to the individual's living arrangement (independent, semi-independent, congregate setting), with people living in more restrictive environments showing less self-determination.

The degree to which an individual perceives him or herself as having control over outcomes and reinforcers has been correlated with positive life-outcomes, and the lack thereof related to negative outcomes. Control is, by consensus, an integral part of self-determination and as such the amount of control individuals with cognitive disabilities attribute to themselves is another indicator of the degree to which these individuals are self-determined. Dudley-Marling, Snider & Tarver (1982) reviewed the literature on locus of control and learning disabilities and concluded that these students were more externally oriented when compared with non-disabled children. Wehmeyer (1993a) found that students with learning disabilities were more externally oriented than expected based on findings from non-disabled peers and that females with learning disabilities were significantly more externally oriented than males. Similar investigation for students with mental retardation has been limited. However, there has been a tendency to attribute externality to this population as well. In their review, Mercer and Snell (1977) determined that four of five studies surveyed attributed more external scores to students with mental retardation than nondisabled peers. Wehmeyer, (1994b) found that adolescents with mental retardation held less adaptive perceptions of control and efficacy than peers with learning disabilities or no disability. Our own research has also found that adolescents with mental retardation evidenced perceptual and psychological barriers to effective career decision-making that included external locus of control and low efficacy expectations (Wehmeyer, 1993b).

Inclusion, Normalization and Community Integration

The Rehabilitation Act amendments discussed earlier illustrate the changing perceptions of disability, and the role of people with disabilities, in our society. This Act stated that "disability is a

natural part of the human experience” [Sec. 2 (a)(3)(A - F)]. This perspective of disability places all human abilities and experiences on a continuum and views disability as a part of, not off of, that continuum. Wehmeyer (in press a) described this as a competency model of disability, as contrasted with historical disease or deficit models. Wehmeyer further emphasized that:

“Within such a conceptualization, disability is seen not as aberrant, outside the norm, or pathological, but as a part of the human experience. People with disabilities are not viewed as sick, diseased, or broken, but valued for their uniqueness. While deficit and disease models of disability led to the labeling of people with disabilities in dehumanizing terms like ‘cripple’, ‘quad’, ‘trainable’, or ‘retardate’, conceptualizing disability within the continuum of human abilities and experiences allows us to apply new labels to people with disabilities: neighbor, colleague, home owner, card collector, football fan, parent, dancer, dog owner, spouse, leader, role model, friend. Not all people with disabilities will actually own a home. Not all people without disabilities own homes. Some people with disabilities will not be good leaders. Some people without disabilities are poor leaders. The central principle of the competency model is that people with disabilities are people first, and have the right to be valued and experience dignity and respect independent of any qualifier or label others might place on them” (Wehmeyer, in press a).

The outcome of such a changing perspective is also reflected in the Rehabilitation Act amendments: “[the presence of a disability] in no way diminishes the rights of individuals to live independently, enjoy self-determination, make choices, contribute to society, pursue meaningful careers and enjoy full inclusion and integration in the economic, political, social, cultural and educational mainstream of American society” [Sec. 2 (a)(3)(A - F)]. Like the intuitive link between quality of life and self-determination, it seems self-evident that until people with disabilities are enabled to be self-determined, they will remain dependent upon systems and other people and, despite the best intentions of these entities, continue to fall short of the goal expressed in the Rehabilitation Act of “full inclusion and integration in the economic, political, social, cultural and educational mainstream of American society” [Sec. 2 (a)(3)(A - F)].

Ray Gagne, a leader in the self-advocacy movement in the United States, related this more eloquently. He wrote about his

experiences as a person with a significant disability (Gagne, 1994). He titled the section describing the years he lived at an institution as “*A Life of No Power: Eighteen Years In An Institution*” (Gagne, 1994, p. 328). He titled the subsequent section, which described his movement back into the community “*Twenty Years in the Real World: A Struggle for Power*” (Gagne, 1994, p 328). It is telling that Gagne viewed his efforts to be self-sufficient and self-supporting as a struggle not for independence, integration, inclusion, productivity or any other descriptor familiar to professionals, but as a struggle for power. For Gagne, the term struggle is not simply hyperbole. When he moved from the state school to an apartment that he shared with two other men with disabilities, he still worked in the sheltered workshop at the institution and, according to his words, lacked many of the basic daily living skills he needed to become independent.

Gagne’s efforts to obtain power and control over his life extended over many years, even though he lived in increasingly more independent settings. He had to acquire the skills he needed to be self-sufficient and perhaps more importantly he needed to believe that he could be in control of his life. What propelled him in that direction were his commitment to become self-determined, the occasional support of a professional, friend, family member or employer who listened to him and enabled him to achieve what he wanted, and opportunities to be involved in advocating on his own behalf. With the latter came increased skills in self-advocacy, communication and consumer advocacy.

Gagne (1994) described the incremental steps to empowerment in his autobiographical chapter. He stated “I learned about Section 504 of the Rehabilitation Act and helped found an advocacy group named the Massachusetts Coalition of Citizens with Disabilities. I learned the skills of leadership, advocacy, consumer organization and assertiveness by watching people, participating in meetings and asking questions. My ability to communicate my ideas to facilitate work toward changing the status quo developed over time” (Gagne, 1994, p. 333). Later he wrote: “After four years I moved twice more. I continued to learn new skills and became more involved in self-advocacy and consumer advocacy” (Gagne, 1994, p. 333). Regarding a new job he had obtained at a chapter of The Arc, he said: “Unlike the staff at the institution, the human services professionals I met at this job treated me with respect. They gave me a chance to contribute my input and feedback and believed in many of my ideas. My colleagues also adapted the working environment to help me communicate with them” (Gagne, 1994, p. 333).

The movement to support and promote self-determination is about treating people with dignity and respect. It is about enabling

people with disabilities to achieve independence, integration and inclusion to the greatest extent possible by providing them the opportunities to learn the skills they need and the chance to put those skills into action. It is about empowerment, choice and control. One critical aspect of empowerment is the equitable distribution of valued, and often scarce, resources, like jobs, financial security and health care. People with disabilities continue to experience social isolation, segregation, un- and under-employment, and discrimination. It is critical to provide greater opportunities for inclusion and choice, employment, home ownership and social integration. A key factor to achieving this is achieving the outcome that adults with disabilities are self-determined. Gagne (1994) makes the same point when he summarized his life experiences:

“I wrote this story to let people know what it was like growing up in an institution from the 1950’s through the 1970’s. The total lack of power in making decisions about my life made me angry, and I was treated as an outcast. The staff’s abuse, neglect, and insensitivity kept me from being educated and learning the other basic skills that many children learn from caring adults. When I got into the real world, I wasn’t sure what my role was. Nobody ever talked to me or taught me how to be successful. I learned to survive mostly on my own and with the help of a few good people.

I feel that what happened to me should never happen again” (p. 334).

Self-Determination and Youth with Mental Retardation

Many people presume that the presence of a significant cognitive or intellectual impairment precludes, *a priori*, an individual from becoming competent. The terms "self-determined" and "severe disability" are usually viewed as mutually exclusive. The presence of a severe cognitive disability is more likely to evoke assumptions of incompetent decision-making, protectionism, legal guardianship, and vulnerability than competency, effective decision-making, goal setting, and independence. The educational, psychological and rehabilitation literature has virtually ignored self-determination as a factor in school and adult success for individuals with disabilities. Even when this topic has been addressed for people with disabilities, there has been limited discussion about its applicability to people with severe disabilities, and discussion has focused almost exclusively on the rights and capabilities of individuals with severe cognitive impairments to

make choices and express preferences. While choice-making is one critical component, self-determination goes beyond simply expressing preferences or making choices. Our experience with people with mental retardation and work in the area of self-determination has convinced us that students with cognitive disabilities can become self-determined, and that educators must focus increased energy and resources on intervention to bring this outcome within the grasp of more people with cognitive disabilities.

Cognitive impairments that impede an individual's rate of learning, ability to generalize that learning, memory, and language development will impact his or her relative self-determination, but do not, *a priori*, preclude the acquisition and development of component elements leading one to be self-determined. People with severe cognitive disabilities will experience limits in the number and complexity of skills they acquire that are important to become fully self-determined. Self-regulation skills, interpersonal cognitive problem-solving, and other such skills require the use of metacognitive strategies. In a society where interpersonal interactions are increasingly complex, limited social problem-solving skills, coupled oftentimes with limited communicative abilities, will pose very real hurdles to decision-making. However, through behavioral and adaptive technologies many of the barriers imposed by cognitive impairments can be removed or mitigated. In some extreme situations, an individual's cognitive and intellectual impairment may be so significant as to preclude the development of the prerequisites we have proposed, but these circumstances seem to us to be rare enough as to be the great exception and not the rule, even among people with severe cognitive disabilities.

Given adequate supports, opportunities to experience control by having one's preferences honored, chances to learn to make choices, reasonable accommodations and the opportunity to learn skills related to self-determination, there is no reason someone with a severe cognitive disability cannot become not only self-determined, but fully self-determined. Despite the significant barriers to expressing self-determination placed in the way of most adults with cognitive disabilities today, there are concrete examples of people who have achieved self-determination.

Fredericks (1988) related the efforts of his son, Tim, to attain the rank of Eagle scout in Troop 161, in Philomath, Oregon. Tim, who has Down syndrome, was included in the activities of the regular scout troop instead of participating in a "special scouting" program. In order to achieve the rank of Eagle, scouts must conduct a project that provides service to the community. Tim's desire was to communicate to other students what the experience

of having a significant cognitive disability meant to him. He sought and gained approval to conduct an Eagle project giving speeches at school campuses in the local district. Because Tim has difficulty with writing and reading, he and his family have developed a method of accommodating for these difficulties while ensuring that Tim's message is his own. Tim dictates what he wants to say to a family member who prints his words. After this, Tim copies the dictated words in his own script. Tim's father says "Tim's dictation over the years has become quite fluent, and he does not tolerate any editing of his ideas. He occasionally tolerates a suggested word or phrase change" (p. 8).

After this process had resulted in a formal presentation, Tim implemented his project. His original intent was to speak to a few schools, but in the end he presented his speech at twenty-seven schools to an total audience of more than 2,500 people. It is worth repeating Tim's speech without paraphrasing:

"My name is Tim Fredericks. I am handicapped because I have Down syndrome. I was born with Down syndrome. Down syndrome people have an extra chromosome. Nobody knows why we have this extra chromosome. All of you have forty-six chromosomes. I have forty-seven. Would any of you like my extra chromosome? I would be glad to give it to you if I could.

I would like to tell you what it is like to be retarded. I am doing this so that you might be able to understand people like me. School is a good place to learn, but I don't really like to go to school. I am a slow learner. I have a hard time spelling. Some of your teachers tell me that you have a hard time spelling, and you don't have my problem. I have trouble reading. Everyone tells me that I read about the fifth grade level. I hate to write letters and to write in my diary because it is hard for me to write. After I graduate from school, I hope to live in an apartment with a good friend. I also hope to have two or three part-time jobs. I have two now that I get paid for. I work at Ark Animal Hospital every morning for two hours. I have to be there at 7:15. I work at Vandehey's Cabinet Shop three afternoons a week. I have been working now for more than a year at both jobs.

I do chores at home. I have to take care of the animals, twelve chickens, three cats, a dog, three goldfish and a horse. That's a lot of mouths to feed.

I also help my Dad cut wood. I take care of my own room, and I help my Mom vacuum. She says I do a better job than she does. And she is right!

I love music, but I like hard rock best, but my Mom doesn't.

I have a hard time explaining how I feel, but I feel the same way you do.

The hardest thing for me is when people make fun of me or ignore me. For instance, I went to a dance a few weeks ago, and no girl would dance with me. Can you imagine how you would feel if that happened to you? Well, I feel the same way.

Kids on the bus used to make fun of me. That used to make me mad.

I have a girlfriend, but she goes to a different school than I do. I don't get to see her too often. She is handicapped too. I have other handicapped friends, but my best friends are Chris and Mark Weaver. They have been my friends for five years. I think they really like me, and I like them.

I feel good when people talk to me or are friendly to me. That's one of the things I like about Boy Scouts. The boys accept me as I am. They know I am handicapped, but it doesn't make any difference. I am a scout just like them. It takes me longer, and I have to work a little harder to get my merit badges, but I get them done.

That is one of the reasons I am here. I am trying to be an Eagle Scout. I only have three more merit badges to go. My Eagle Scout project was to tell you about myself. I hope I have done that. I want to thank the principal, the staff, and the students for letting me come to talk to you.

If anyone would like to ask any questions, I'll try to answer them, but if I can't my Dad is here, and he can help me" (Fredericks, 1988, pp. 8 - 9).

There seems no question that Tim's actions here are self-determined. He is acting autonomously, is self-regulated, and acts based on an understanding of himself and a belief that he can make an impact. The content of his speech suggests that Tim is self-determined in many other areas of his life.

This is not to suggest that most individuals with severe cognitive and intellectual disabilities will be able to take full control of decisions that impact their lives. It seems evident that many people with severe intellectual impairments will need considerable support in financial and medical decision-making, social interactions, and many other domains. However, as was discussed when defining self-determination, causal agency is not synonymous with absolute control over decisions. Human beings are not completely autonomous or independent but interdependent;

all of us are dependent upon numerous others in our decisions. We often choose to relinquish control to others more capable of performing certain functions in our lives...from surgeons to tax accountants. Our decisions are often influenced as much by our circumstances as by some overall standard.

For example, people who have significant physical disabilities may rely on a personal care attendant to perform specific actions that they cannot, themselves, accomplish because of the limits placed on them by their disabling condition. However, as long as the person with the disability is the causal agent in this process, in that the personal care attendant is acting based on the preferences and instructions of the person with the disability, there is no reason to suggest that he or she is not self-determined simply because he or she does not actually perform the action. There is no reason that the same is not true for people with severe cognitive disabilities. In Tim's circumstance above, he was provided the support he needed to overcome the barriers to acting in a self-determined manner by his family, in this case simply by a process of dictation and transcription.

Such accommodations may be quite extensive for some individuals with severe disabilities. In 1992, The Arc awarded its national Bill Sackter Award to William Crane, who lives in Minneapolis, Minnesota. The Sackter award recognizes someone with mental retardation who has become an achieving, integrated member of society after having left an institutional setting. Bill Crane lived at the Faribault State Hospital in Minnesota for 20 years. Bill experienced significant challenges in his efforts to improve his life. He was born with cerebral palsy, was labeled as having severe mental retardation, and was deaf. He lacked a systematic means of communication. He exhibited behaviors that were deemed as too disruptive for the community. Bill was even denied services in a sheltered workshop because of the severity of his disability and his behaviors. His psychological report described him as "functioning in the severe to moderate range, having no survival skills and needing constant supervision." In a very real sense, Bill was powerless to control his life because the system that was designed to serve his needs instead controlled his life.

The accommodation to overcome these barriers came in the form of legislation and advocacy. Christine Boswell, who at the time was Executive Director of the local chapter of The Arc became Bill's advocate. Together, Bill and Christine forged a working relationship, then a friendship. Christine took the time to listen to Bill, to decipher what he was trying to communicate and finally to begin to advocate on his behalf. He was afforded the opportunity to move into the community. He learned some basic

sign language. He worked with his advocate to get access to employment, first sheltered, then supported. Bill's contribution to this process was simple but essential. He simply never gave up. He never gave up hope. He never gave up expressing his preferences. He never gave up telling anyone who would listen what he wanted.

When awarded the Sackter Award, the nominating form chronicled the achievements of a man who lives a self-determined life. Bill works 30 hours per week as a clerk in a Minneapolis non-profit agency with the support he needs. He has received commendations from his employer as a valued employee. He lives independently in a supported living home in a suburban neighborhood. He has two roommates whom he selected. He interviewed the support service personnel who come into their home on a daily basis. He enjoys mountain camping, whitewater river rafting, hockey, and visiting friends and relatives. He was reunited with his mother after 15 years and travels to visit her when he can make room in his schedule. Bill cooks with a microwave, shops and is responsible for his own self-care needs.

The final sentence in the application sums Bill's current existence up quite neatly. It states that "IQ labels have been disregarded as irrelevant to Bill's potential and capabilities." Bill's accommodations went beyond simply a personal care attendant or a technological device. Without system changes, in the form of legislation and changing perspectives on how to provide services, and strong advocacy, it is probable that Bill would have been unable to overcome the barriers in his way. But, as all of those who spoke during the award ceremony that recognized his achievement, there was never any doubt as to who the causal agent in this process was...it was Bill.

For many people with significant cognitive disabilities, the catalyst for change and the primary impetus to provide accommodations are family members. Because the individual providing assistance is a family member instead of a personal care attendant does not mean that the person is not self-determined. However, it is sometimes difficult for a family member to change his or her relationship with the individual to become, in essence, a neutral accommodation and some relationships remain overly controlling, parent or sibling dominated and, in essence, dependency creating. The same is often true for teacher-student relationships. Most people with severe cognitive disabilities have had very limited opportunities to experience choice and control in their lives and have essentially grown up in dependency creating environments, from the home to the school to the sheltered workshop. Not only do many people with severe cognitive disabilities lack the skills and attitudes to become self-determined,

they lack the opportunities to do so and, consequently, the understanding or motivation to overcome these barriers and assume greater control.

These barriers are too often, for all practical purposes, insurmountable for the person him or herself. People with severe cognitive disabilities are perceived as incapable, incompetent and in need of protection. Attempts by the individual to break free from these bindings frequently result in the establishment of higher, more difficult to scale barriers...greater segregation, more isolation. Individual preferences are treated as problem behaviors and subject to modification. The reality is that people with severe cognitive disabilities are often reliant upon others like family members, friends and professionals both to provide the support they need to reach independence and become as autonomous as possible and to initiate the actions that will allow them to accomplish these ends. Too frequently this reliance becomes yet another dependency-creating relationship that is dominated as much by the needs of the supporter as the needs of the individual. Teacher needs for structure and control in the classroom take precedence over student needs to take control over learning and educational decision-making. Staff needs based on time constraints overwhelm individual needs to maximally participate in daily activities. Family needs for protection and safety eventually win out over independence and autonomy brought about through risk-taking and exploration.

In reality, the greatest threats to self-determination for people with severe cognitive disabilities lie not internal to the individual, but external. There are real limitations to learning and performance that impact the individual's ability to be autonomous and self-regulating. Through behavioral interventions and adaptive technologies, however, people with significant cognitive impairments can learn skills that enable them to become at least partially autonomous and self-regulating. This, combined with families, friends and professionals who act for the individual, based upon his or her preferences, wants, needs, abilities, interests and choices, should enable people with severe disabilities to be self-determined. It is, however, these environmental supports that need modification most desperately.