

Self-Determination Skills in Postsecondary Students with Learning Disabilities

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Abstract

Many adult students with learning disabilities have entered postsecondary schools in recent years. Many of these students experience cognitive, emotional, and behavioral limitations that may act as obstacles in their educational processes and subsequent careers. Research has shown that self-determination skills can help ameliorate the effects of these limitations in secondary students. The purpose of this article is to investigate and to discuss the level and need of self-determination skills of students with learning disabilities who are enrolled in postsecondary education.

Self-Determination Skills in Postsecondary Students with Learning Disabilities

The diversity of students on college campuses includes an ever growing number of students with a diagnosed learning disability (LD) (Adelman & Vogel, 1993; Cosden & McNamara, 1997; Dalke & Franzene, 1988; Zurcher & Bryant, 2001). Brinckerhoff (1996) reported that the number of college freshmen with LD by the mid 1990s had risen to 35,000 students. Modern medicine, federal legislation, and better technology have allowed students with disabilities to better control obstacles that previously kept them from pursuing goals in higher education (Reber, 1999). The growing numbers represent an increased interest in higher education by students with a learning disability (Cosden & McNamara, 1997; McGuire, Madaus, Litt, & Ramirez, 1996). However, students with LD on college campuses often experience multiple difficulties such as lack of motivation, lower levels of self-esteem and self-confidence, greater academic and personal-emotional adjustment dysfunctions, lack of understanding of their disability, an inability to express their perceived needs to others, limitations in strategic knowledge and self-monitoring, and lack of understanding of their disability and how it affects their learning throughout their academic careers (Brinckerhoff, 1996; Hall, Spruill, & Webster, 2002). They experience less emotional support and more feelings of isolation than their peers without disabilities (Hall et al., 2002). As a result, students with LD have a higher rate of failure and lower college graduation rates than students without LD (Cosden & McNamara, 1997).

Individuals with a learning disability often experience greater apprehension levels than a person without a learning disability when making the decision of whether or not to attend a college or university (Higgins & Raskind, 1995). Adding to the apprehension levels of these students is the ever present question or doubt as to whether longer study hours will be sufficient to compensate for the deficits associated with their disability (Higgins & Raskind, 1995). However, famous individuals such as Winston Churchill, Whoopi Goldberg, Cher, and Greg Louganis have been diagnosed with LD or dyslexia and been successful in life despite their disability (Brinckerhoff, 1993).

Research has shown that transition issues faced by students with LD include initiating or maintaining employment, pursuing postsecondary education, adjusting to social and community life, and being able to live independently (Hoy, Gregg, Wisenbaker, Manglitz, King, & Moreland, 1997). Although students with LD realize that they have problems, they do not understand how their deficits affect their performance in school (Adelman & Vogel, 1993). As a result, they are often unable to develop compensatory strategies to help them meet the responsibilities of timely completion of duties or assignments (Adelman & Vogel, 1993). Many of them do not understand their disability, how it affects their learning, or how to describe it to others in plain language (Brinckerhoff, 1996). Many college-age students with LD are deficient in the content preparation necessary to succeed in college (Brinckerhoff, 1996). According to McGuire, Norlander, and Shaw (1990), students with LD suffer from this under-preparedness because of a system of “tracking” established in high school.

Tracking allows limited choice in course selection in high schools; therefore, some students with LD do not meet post-secondary requirements for admission even though they have all of the aptitude for college studies. Curriculum decisions which are made early in the student’s high school program may inadvertently be limiting any post-secondary options for students with LD (McGuire et al., 1990). Difficulty in matching the student’s academic preparedness with a college’s expectations may result in students with LD being unable to compete with their peers and later dismissed from the school due to this mismatch (Dalke & Franzene, 1988). After leaving high school, one of the reasons why students with disabilities are not more successful is because the educational process has not prepared them to be self-determined young adults (Wehmeyer & Schalock, 2001). Brinckerhoff (1996) reports that, even though students with LD have been admitted to college, they very often need services that help them stay there in order to graduate.

Current research findings, regarding employment of adults with learning disabilities indicate that most of these individuals work on a part time basis or at an entry level position for minimum wages (Sittlington, Frank, & Carson, 1993; Williams, 1998). Rojewski (1996) emphasized that persons with learning disabilities are more likely to be underemployed and concentrated in lower-prestige occupations which deemphasize academic skills while capitalizing on individual strengths. Research has also shown that, despite average or above average intelligence, fewer students with learning disabilities choose to attend either a two or a four-year college than their peers without disabilities (Williams, 1998). Only 23% of students with learning disabilities versus 56% of students without disabilities enroll in postsecondary education (Adelman & Vogel, 1993).

Recent research has shown that self-determined students with cognitive or learning disabilities are more likely to be employed and have higher earnings than their peers with similar disabilities who are not as self-determined (Field & Hoffman, 2002). Self-determination curricula has had a definite, positive impact on high school students with mild cognitive disabilities, students with moderate to severe mental retardation, and students with cross-categorical special needs (Nevin, Malian, & Williams, 2002). Wehmeyer and Schwartz (1997) used The Arc’s Self-Determination Scale as a questionnaire for 80 high school students with cognitive disabilities (mental retardation and learning disabilities) to assess adult outcomes one year after their graduation. The sample was divided into dichotomous groups based on a frequency distribution of self-determination total scores with the top and bottom third of each frequency count (MR and LD) assigned to a high or low self-determination groups. This ensured that groups consisted of students with different levels of self-determination.

They found that:

Throughout the data there was a consistent trend characterized by self-determined youth doing better than their peers 1 year out of school. Members of the high self-determination group were more likely to have expressed a preference to live outside of the family home, have a savings or checking account, and be employed for pay. Students who earned the most had significantly higher self-determination scores (Wehmeyer & Schwartz, 1997, p. 253)

Many studies on learning disabilities have been conducted in elementary and secondary schools (Coffey & Obringer, 2000; Field, Sarver, & Shaw, 2003; MacMillan, Gresham, Bocian, & Siperstein, 1997; Shepard, Smith, & Vojir, 1983; Vaughn, McIntosh, Schumm, Haager, & Callwood, 1993). However, “Unlike their counterparts in elementary and secondary schools, postsecondary students with learning disabilities represent a relatively unstudied subpopulation of students with disabilities” (Zawaiza & Gerber, 1993, p. 65). All things considered, very little research on self-determination skill levels or its correlates has been conducted on the population of students with LD at the postsecondary level (Zawaiza & Gerber, 1993). There is little data available on the attendance and/or completion rates in vocational programs or graduation from college rates for students who have learning disabilities (Adelman & Vogel, 1993). It has been difficult to assess current adult outcomes for people with disabilities because very few researchers cared to ask and definitional inadequacies have limited the validity of the findings from those investigations which did focus on that question (Wehmeyer, 1997).

The purpose of this article is to investigate and to discuss the level and need of self-determination skills of students with learning disabilities who were enrolled in postsecondary education. Information is provided on attitudes towards disability, the definition of a learning disability, and the prevalence and incidence rates of students with LD. Next, the problems students with LD may face in their educational or vocational lives, some specific demographic variables addressed in LD research, and the effects of the disability on students in college are discussed. Motivational and attribution factors, as well as locus of control and self-efficacy of students with LD, are also addressed in this commentary. Lastly, aspects of self-determination are discussed such as: its roots, effects of legislation, definition and component parts, and the teaching of self-determination in the school system.

Attitudes Toward Disabilities

Societal attitudes towards individuals with disabilities have changed over the centuries. Similar to the roles of women and members of minority ethnic groups, individuals with disabilities have been distinctly underplayed or totally absent from academic discussion in the histories of Europe and the United States (Kent, 2001). In early Greek and Roman eras, people with physical and mental disabilities were thought to have their conditions because their souls had somehow been “cursed” by the deities or because they were sinful (Rubin & Roessler, 2001; Snow, 2001). People with disabilities were killed either for economic reasons, to promote population control, or simply because the father disapproved of the child due to its disability (Rubin & Roessler, 2001). Leaders in Greece, such as Aristotle, had established an understanding of the idea of a perfect human body for that society so that anyone born with a disability was subsequently viewed as imperfect and considered as deformed, monstrous, deviant, or mutilated (Kudlick, 2003). Additionally, early Greek and Roman laws mandated the desertion or death of babies

with disabilities to fulfill their societies' quest for "human perfection" (Snow, 2001). This negative societal attitude towards people with disabilities actually represented an early form of eugenics that carried over into modern times (Rubin & Roessler, 2001; Snow, 2001).

During the early part of the Christian era and the Middle Ages, people with disabilities were present everywhere in society, but had been excluded from the Old Testament and were conspicuously absent in history books (Kent, 2001). It was widely thought that disabilities were a direct result of the people being sinful (Snow, 2001). Consequently, during these periods they were treated in the monasteries by priests and monks through methods such as exorcisms rather than by physicians (Rubin & Roessler, 2001; Snow, 2001). Individuals with mental illness received less humane treatment methods such as starvation, whipping, or immersion in hot water in order to drive out the supposed devil causing their disability (Rubin & Roessler, 2001). Snow (2001) reported that a continuum of treatment methods were used ranging from prayer to beating the devil out of the person with the disability. From the sixteenth to the eighteenth century, people with mental illnesses were thought to be sick rather than possessed by the devil; consequently, they were placed in asylums that were very similar in patient treatment to that of prisons rather than hospitals (Rubin & Roessler, 2001). Despite these prevailing negative attitudes, there were instances of positive attitudes displayed by ancient leaders such as Hippocrates. He presented Greek society with the idea that mental illness was caused by the interaction of the human being and her/his environments rather than that of supernatural causes (Rubin & Roessler, 2001). Perhaps, Hippocrates rejected the supernatural pathology because he was a physician himself. Consequently, sanitariums were designed that provided more humane treatment efforts that included occupation, exercise, and entertainment (Rubin & Roessler, 2001). Roman society provided equally humane treatment methods to those who were of the upper classes but the lower classes received harsher treatment methods which included starvation (Rubin & Roessler, 2001).

In America's twentieth century, the trend in attitudes towards those with disabilities became one of preventing them from reproducing as Chief Justice Oliver Wendell Holmes proclaimed that, "Three generations of imbeciles is enough" (Snow, 2001, p.1). This attitude towards people with disabilities amounted to a modern day form of eugenics (Snow, 2001). In America, such attitudes resulted in hundreds of thousands of men, women, and children with disabilities being abandoned in institutions, where segregation, isolation, various forms of abuse, and death were quite common occurrences (Snow, 2001). Still, government officials and political leaders of the early twentieth century began to realize a need for vocational rehabilitation programs due to changes in society prompted by the Industrial Revolution and wars. Large numbers of industrial workers were injured while on the job and these occurrences resulted in early workers' compensation laws (Rubin & Roessler, 2001). Soldiers wounded in war could benefit more from vocational rehabilitation programs than they could from social isolation programs of institutionalization. The Soldier's Rehabilitation Act (1918) authorized vocational rehabilitation services for returning veterans with disabilities resulting from their military service (Rubin & Roessler, 2001). Legislation passed during the presidencies of Eisenhower, Kennedy, and Johnson expanded funding for rehabilitation services so much that the years from 1954 to 1972 became known as the Golden Era of Rehabilitation (Rubin & Roessler, 2001). This era became "... a time of increased funding for client services, expanded training opportunities for rehabilitation personnel, further development of rehabilitation facilities, and implementation of many significant rehabilitation research projects" (Rubin & Roessler, 2001, p. 40).

This time period fostered a slowly changing attitude towards persons with disabilities as further legislative assistance from the federal government reflected the changing attitudes of people as being more amenable towards those with disabilities who needed rehabilitation. The subsequent passage of policies, such as Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the Individuals with Disabilities Education Act (IDEA) of 1997 were instrumental in ensuring equal access to education for people with disabilities and simultaneously improving the attitudes and treatment of this population by individuals in society (Rao, 2004). IDEA has been amended on several occasions, most recently in 2004 as P. L. 108 – 446, and is now known as the “Individuals with Disabilities Education Improvement Act, 2004.” Research indicated that employees with disabilities were equal to people without disabilities in terms of their productivity, turnover rates, absenteeism, and accident rates (Berry & Meyer, 1995). “In some cases, employees with disabilities have been shown to be more productive [italics added], have better work attitudes, and lower absenteeism, turnover and accident rates than non-disabled employees” (Berry & Meyer, 1995, p. 212). Despite these positive findings, concerns of skepticism still existed among employers with regard to the cost of reasonable accommodations, providing interpreters, adjusting examinations and training materials, adapting work schedules and other employer’ apprehensions (Berry & Meyer, 1995). It became apparent that attitudinal barriers towards people with disabilities were quite commonplace in society despite the good intentions of policymakers and the presence of legislation designed to eradicate said barriers.

Regrettably, it was the negative, non-accepting attitude towards people with disabilities that resulted in society’s wariness, even to the point of hostility, regarding the idea of community integration that permeated society (Yazbeck, Villy, & Parmenter, 2004). Negative attitudes toward disability have seriously obstructed the progress of people with disabilities inclusion in schools, the workplace, the broader community, and unjustifiably confined the choices or alternatives created by professionals for people with disabilities receiving services (Gilmore, Campbell, & Cuskelly, 2003). In fact, professionals’ negative attitudes towards disability, and those that have disabilities, affected the delivery of the quality of services as well as the outcomes of those services (Wong, Chan, Cardoso, Lam, & Miller, 2004). Berry and Meyer (1995) reported that people without disabilities may have low expectations of people with disabilities; consequently, they were expected not to behave in a competent manner in the workplace, school, or community. People without disabilities have displayed behaviors such as devaluing pity, avoidance, and exclusion when they encountered people with disabilities (Berry & Meyer, 1995). In the end, these negative attitudes towards people with disabilities affected their successful rehabilitation, education, integration, and their ability to live independently (Wong et al., 2004).

Just as adults needed laws in the workplace, adolescents and children with disabilities need special laws in schools (i.e., IDEA, 2004) to be afforded the special protections necessary for combating negative attitudes towards people with disabilities (McGrath, Johns, & Mathur, 2004). York and Tundidor (1995) conducted 12 interviews with 257 secondary-age students without disabilities to investigate their attitudes about inclusive education as experienced by typical high school students, to understand their recommendations about inclusive education, and to give voice to their concerns about this educational practice. The researchers noted that three main barriers to inclusion were identified by the students: 1) the teasing of students with disabilities, 2) the challenging behaviors of students with disabilities, and 3) the negative adult attitudes towards students with disabilities (York & Tundidor, 1995). Bunch and Valeo (2004) stated that students with disabilities generally have “lower positions of status” than their non-

disabled peers and that this attitude of rejection displayed by peers without disabilities is based upon their observation that students with disabilities do not exhibit acceptable behavior in both general and special education classes. Whenever a teacher responded to a student with disability, in a manner marking her or him as different from students without disabilities, the students without disabilities also viewed the student as different (Bunch & Valeo, 2004). This has led to abusive behavior, a lack of friendships, and the need to protect students with disabilities (Bunch & Valeo, 2004). Children with intellectual disabilities, such as learning disabilities, often experience social isolation, social neglect, rejection by their peers, and their social skills may be assessed as low by their teachers (Nowicki & Sandieson, 2002).

Gender and age are two personal factors found in previous research to be correlated with children's and youth's attitudes toward their peers with disabilities (MacMillan, Widaman, Balow, Hemsley, & Little, 1992; McDougall, DeWit, King, Miller, & Killip, 2004). Males hold more negative attitudes toward their peers with disabilities than do females (McDougall et al., 2004; Nowicki & Sandieson, 2002; Rao, 2004; Yazbeck et al., 2004). McDougall et al. (2004) claimed that attitudes become more negative in early adolescence than in the higher grades. However, other researchers found that attitudes giving rise to discrimination against people with disabilities have been noted as less prevalent among younger than older people (Yazbeck et al., 2004). The latter finding was explained by the fact that older people grew up in an era in which people with disabilities were placed in residential hospitals and were less visible to the community; therefore, they might not be as influenced by "political correctness" or feel obliged to provide "acceptable" responses as would younger people (Yazbeck et al., 2004).

Perhaps, these contradictions can best be explained by Yazbeck et al. (2004) who asserted that the inconsistency in the findings could be due to the type of contact people have with those with disabilities. In order to promote positive attitudes towards people with disabilities, it is not sufficient to only promote contact with people with disabilities to overcome negative attitudes. The type of contact with people who have disabilities should be structured, organized along a meaningful dimension, and the quality of the contact must be high (Yazbeck et al., 2004). Therefore, different attitudes among genders, age groups, education levels, racial groups, etc., could be due to deficiencies in one or more of these criteria in their contact with people who have disabilities. Understanding the prevailing attitudes of a community, which in turn influence the actions of its members, is crucial to bring about social change through effective public policies that promote an inclusive society (Yazbeck et al., 2004).

Definition, Prevalence, and Incidence of Learning Disabilities

The assessment of a learning disability has been most heavily influenced by the initial federal definition by the U. S. Office of Education (U.S.O.E.). The U.S.O.E. definition has been incorporated into the 2004 IDEA definition:

- (i) The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

(ii) The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage (U. S. O. E. Office of Special Education Programs).

Individuals are considered to have a learning disability when a substantial difference exists between their expected abilities, measured by intellectual performance on IQ tests, and their actual academic performance, measured by achievement tests, in one or more specific areas (Gordon, Lewandowski, & Keiser, 1999).

The Individuals with Disabilities Education Act of 1997 (IDEA) was passed for the purposes of providing federal funding assistance to help meet the educational needs of students with disabilities (Tate, 2000). However, of all the disability categories covered by the act, the number of children with a learning disability has grown at an exponential rate over a short period of time (Anderson, 1997; Fuchs & Fuchs, 1998; Siegel, 1999; Swanson, 1996; Tomasi & Weinberg, 1999). Since the Education for All Handicapped Children Act of 1975 (P. L. 94 – 142) passed, the number of children receiving services under the LD category has increased dramatically (Tomasi & Weinberg, 1999). Specific numbers of children identified as having a learning disability in the 1977 school year were 969,368; however, 20 years later in 1997 the numbers were 2,748,497 (Ysseldyke, 2001). Each year approximately 120,000 new students are being classified as having a learning disability (Swanson, 1996). The learning disabilities category now represents over 52% of all students with disabilities served in special education under IDEA (Gresham, 2001). From 1989 to 1998, there has been a 173% increase of students with learning disabilities attending higher education programs (Lock & Layton, 2001). Lock and Layton (2001) reported that, of the 428,000 students with disabilities currently enrolled in higher education settings, 196,000 (46%), were identified as having a learning disability. In spite of their growing numbers, according to Hall et al. (2002), only 1.8 % to 3% of individuals who have LD have been found to enroll in a four-year college or university one year after graduating from a high school.

Problems Faced by Students with LD

Students with learning disabilities have a lifelong condition that impacts their affective and cognitive development significantly (Hoy et al., 1997). Future employment for adults with LD tends to be part-time or at entry and minimum wage levels with very few employee' benefits (Hoy et al., 1997). Hoy et al. (1997) found that males with LD are more likely to be employed than females with LD and also to earn higher wages than females with LD; however, both genders usually find employment in, "...low level fast food, laborer, service, production line or helper occupations" (p. 281). Adults with learning disabilities face higher unemployment rates, are less likely to have an employment plan, will work longer in entry-level positions, earn lower wages, and are more likely to be in dependent living situations than their peers without handicaps (Reekie, 1995).

Hoy et al. (1997) found that many adults with LD do not go beyond the high school level academically, are dissatisfied with their current social lives, and remain heavily dependent upon their immediate families. There is a great amount of emotional stress related with growing up having a learning disability that forces many adults to drop out of secondary or postsecondary schools (Hoy et al., 1997). Hoy et al. (1997) reported that 30 – 40% of students with LD drop out of high school each year. Wagner (1995) reported that students with LD rarely furthered

their education or training after high school. Hall et al. (2002) reported that a mere 14% of students from special education with LD had enrolled in postsecondary schools while 53% of students with no disability had enrolled in either a college or university. They also reported that postsecondary students with LD were more likely to attend some type of vocational program as opposed to attending a four year college or university. Field et al. (2003) report, "... high percentages of students with learning disabilities dropping out of high school, not seeking admission to postsecondary education, and not being prepared to succeed in postsecondary education" (p. 340). They attribute these negative occurrences to colleges which promote dependence producing programs such as course waivers, substitutions unsupported by data and content tutoring (refers to assistance with the specific subject matter in a course that help students understand the course material by explaining and demonstrating concepts, reviewing topics, providing guidance through exercises, answering questions, clarifying, etc.) and other short term solutions that assist the student in passing courses but not in learning them. Vogel and Adelman (1992) reported that students with LD had lower GPAs at the end of each year of college study as well as at exit. Overall, postsecondary students with LD have been found to have a propensity to be slower and less competent as learners when compared with their peers without disabilities (Zawaiza & Gerber, 1993).

Demographic Variables in LD Research

An increasing number of minority ethnic students have been identified and subsequently placed into classes for those with learning disabilities (Argulewicz, 1983; Gregory, Shanahan, & Walberg, 1986). Overall, this increase has resulted in a disproportionate number of minority students being placed in special education classrooms (Argulewicz, 1983). In a nation wide survey of over 26,000 12th grade students with learning disabilities, Gregory et al., (1986) found that these students tended 1) to be older than their peers without disabilities, 2) to be minority students, i.e., African American, Hispanic American, and Asian American, and 3) to have other handicapping conditions. Research based on self-determination theory has shown that encouraging self-determination skills, especially among minority students, has resulted in more positive academic and psychological outcomes (Cokely, 2003).

Stodden, Kim-Rupnow, Thai, and Galloway (2003) recommended that secondary and post-secondary schools should promote more training in self-determination among minority ethnic groups and that follow-up investigations should be performed to help ensure gains in self-determination skills from these activities. Cokely (2003) collected data through a self-report questionnaire administered to 687 students attending three public colleges in the Midwest and South over a three-year period. He compared the students' GPAs, the mean scores of academic motivation, academic self-concept, and self-esteem and found that, although there were differences in academic performance, African American students did not lack academic motivation. Nor did they suffer from lower self-esteem and lower academic self-concept than "white" students (Cokely, 2003). He asserts that the studies done to date on the promotion of self-determination related to positive academic and psychological outcomes have been primarily limited to "White" students. However, very little research has been performed to study this relationship within the population of African American students (Cokely, 2003).

Mellard and Byrne (1993) provided data from a four year study on students, in the California community college system, who referred themselves for LD services, were eligible for services, and were already receiving services. They found that younger students (18 – 19) were referred in higher proportions than older, non-traditional students (Mellard & Byrne, 1993). Students

with disabilities, especially those with learning disabilities, feel less academically capable as they grow older and compare themselves more with students without disabilities in the mainstream (Renick & Harter, 1989).

In a study comparing sociological characteristics of elementary age boys and girls with LD, Ryckman (1981) suggested that psychological differences exist between the two groups, “The composite that emerges based on these results is that LD girls are verbally inferior, less capable of abstract thinking, more field dependent, and more impulsive than LD boys. However, on academic skills, there were no significant differences” (p. 51). Wehmeyer (1993) investigated locus of control for students with LD and found that girls perceived locus of control scores were more external than boys. He also found that the scores of the students were consistent with previous reports for students with LD.

Zurcher and Bryant (2001) maintain that when examinees with LD are provided with necessary accommodations, their scores as a group are very comparable to those of examinees without LD taking the test under customary administration conditions. When students with LD were provided with accommodations, scores from entrance examinations predicted higher GPAs than the students actually earned (Zurcher & Bryant, 2001). In a recent study, Sarver (2000) investigated the relationship between self-determination and academic success for college students with LD and found a positive and significant relationship between grade point averages and their levels of self-determination.

In a study done by Adelman and Vogel (1990), career attainments of college students with LD were investigated to see if their participation in support programs enhanced their career opportunities. Some of the findings of the study show that developing a self-understanding of a student’s learning disability should be one of the major goals of any college support system. These researchers found that college support services greatly assisted the students in finding out their individual strengths and weaknesses thereby allowing them to develop compensatory strategies (Adelman & Vogel, 1990).

Obstacles faced by adolescents at risk of poor academic outcomes due to learning disabilities may be further complicated by socioeconomic disadvantage which only serve to put children at an even higher risk of academic failure (Fleming, Cook, & Stone, 2002). “Studies have shown that the reading and arithmetic scores of children from lower socioeconomic status families are generally lower than those obtained by children from families of higher socioeconomic status” (Kealy & McLeod, 1976, p. 64). Without some degree of competence in these areas, the student is unable to learn adequately from other educational experiences and thus falls behind his or her peers. This fact is glaringly apparent for students with a learning disability. In a study investigating the relationship between socioeconomic status of the family and the incidence of diagnosis of LD, Kealy and McLeod (1976) found that approximately 73% of the children from higher status families had been diagnosed and received proper educational treatment whereas approximately only 35% of the children from lower status families had been diagnosed and received proper educational treatment illustrating the fact that the later have less chance of receiving the attention they require.

O’Connor and Spreen (1988) reviewed four prior studies of the educational and occupational outcomes for children with LD and concluded from them that the higher the SES background the higher the adult educational and occupational achievement and the lower the unemployment rate of children with LD. In their own study, these researchers found similar results showing, “... a

significant positive linear trend exists between the parents' SES and education level, and the educational and occupational achievement for the children with LD, including salary and employment, as adults in their twenties" (O'Connor & Spreen, 1988, p. 152). It was demonstrated that fathers' SES and education level played an important role in the outcome of children with LD as the increase of either of these variables positively correlated with outcome variables. Blair and Scott (2002) investigated the proportion of LD placements associated with low socioeconomic status. The findings of their research showed that 30% of LD placements among boys and 39% of placements among girls were attributable to low SES markers (gender, race, maternal education, maternal age at delivery, marital status, birth weight, and trimester of prenatal care initiation). This rate ratio was more than it was for the general population illustrating that low SES does indeed have an increased effect on children's LD placement. More specifically, the researchers found:

- that boys are more than 2 ½ times more likely than girls to receive an LD placement by age 12 to 14 years
- that children of mothers reporting less than 12 years of education at the time of the child's birth are approximately 1 ½ times more likely to receive a placement of LD than are children of mothers reporting higher levels of education (Blair & Scott, 2002, p. 17).

Fleming et al. (2002) investigated 19 Chicago public schools to examine the effects of social influences on the lives of 5th through 8th grade students with and without learning disabilities. Among other things, they found that there was a significantly greater portion of students with LD living in single-parent families as well as a significant proportion of students with LD reporting that their parents were out of work (Fleming et al., 2002). These researchers suggested that families of students with LD may be among the most socio-economically disadvantaged of students.

College Life for Students with Learning Disabilities

Cosden and McNamara (1997) reported that college students with LD are more likely to be a "subset" of those students who graduated from high school who performed well while they were in school. This could be attributed to the fact that their intelligence, personal coping and compensatory skills, or home and school support have enabled them to go beyond a secondary education (Zawaiza & Gerber, 1993). Despite their ability to attend and to be successful in college, students with LD still do not understand how their disability affects their learning or how to communicate this impairment to others (Brinckerhoff, 1996; Williams, 1998). In high school, students with LD have the opportunity to interact with their teachers day after day in classes that last approximately 45 to 50 minutes; however, in college the students may meet in classes with a professor only 2 or 3 times a week for 1 to 2 hours (Williams, 1998). High school classes are usually made up of no more than 25 to 30 students, but in college the number of students in classes may be as large as 200 to 300 (Brinckerhoff, 1996). The lack of understanding of their disability and lack of teacher feedback leave the students at a distinct disadvantage when seeking tutorial or special assistance from professors or others on campus (Brinckerhoff, 1996; Williams, 1998). While students without disabilities require little one-to-one teacher interaction, students with LD need instruction that is very deliberate and elaborate in order for them to learn (Zawaiza & Gerber, 1993).

College life is structured much differently than high school with the students being held more responsible for their own learning. Colleges demand that the students master their subjects as

opposed to merely achieving rote learning as in high school (Williams, 1998). Brinckerhoff (1996) reported that, “High school students find that their time is structured by the limitations set by parents, teachers, and other adults. College environments require students to function independently by managing their time and organizing their days” (p. 120). Brinckerhoff (1996) also reports that high school students with LD are encouraged to take easier classes like general science rather than chemistry or physics in order to boost their grade point averages (GPA). Due to this poor curriculum planning, students with LD are less well prepared to attend a college or a university compared to their peers without disabilities (Dalke & Franzene, 1988; McGuire et al., 1990).

There are varying levels of academic support on each college campus for students with learning disabilities. Brinckerhoff (1996) suggests that high school students need to understand the difference between a college that offers a comprehensive LD program and a supported services model. A comprehensive LD program is one that is led by a person, with expertise in the LD area, which offers postsecondary components such as: diagnostic testing, individual education programs, academic and program advisement, basic skills remediation, subject area tutoring, specialized courses, auxiliary aids and services, and counseling (Brinckerhoff, 1996).

In contrast, support services on colleges or universities usually include the minimal requirements mandated by Section 504, i.e., access to taped textbooks, tape recorders, assistance in arranging testing accommodations, readers, note takers, and provisions for arranging course substitutions (Brinckerhoff, 1996). While the former programs contain critical aspects of individualization geared towards those with LD, the latter support services are geared towards generic activities carried out to ensure equal educational opportunity to any and all students with disabilities (Brinckerhoff, 1996). Apart from the type or degree of services offered on campuses, many high school students do not realize that they have a right to them as reasonable accommodations and they are not “favors” offered by schools. Williams (1998) reported that many students with LD do not bother to use the accommodations offered by colleges and universities.

Despite having almost 9% of their first year students identify themselves as having a disability, college administrators report that only 1% to 3% of their students request accommodations (Aune & Friehe, 1996). Aune and Friehe (1996) reported that some students with LD are afraid of being stigmatized by their peers and professors, so they do not use support services that are offered on campus. Some students do not wish to be seen walking in the door of campus support services for fear that people on campus will learn of their disability. Other students hesitate to disclose their disabilities to professors because they anticipate that the instructor might think them less capable, refuse to allow them to continue in the class, or might reveal their disability in front of the class (Aune & Friehe, 1996).

Most students with learning disabilities will need additional assistance to be successful in college. The exact extent to which students with learning disabilities use services for students with disabilities in postsecondary environments is unknown (Adelman & Vogel, 1990; Mellard & Byrne, 1993). These students may profit from programs provided by whatever campus organizations have been established for people with disabilities. These campus centers can assist in guiding students in determining study strategies and positive course selections as well as to have staff members present who can also assist the student (Lock & Layton, 2001). However, according to Yocum and Coll (1995), only 31% of the faculty and 6% of the academic counselors in community college environments have received any type of special education training. Lock and Layton (2001) suggest that this lack of training and understanding of learning

disabilities may lead to typical accommodations for the student rather than individual matching of services that would best fit the student's needs.

Motivational and Attribution Factors

Students with learning disabilities have had their entire academic and personal lives affected by the disorder and need to be provided with techniques for gaining better control in order to be successful (Basse & Slauter, 1997). Hall et al. (2002) assert that this group of students faces problems in motivation, attributions, self-esteem, and affective responses that can negatively affect their academics. Klassen (2002) asserts that, "...when compared with their typically achieving peers, LD students are in general less metacognitively aware and tend to focus on the concrete demands of tasks, rather than on the more obscure evaluative and self-awareness skills demanded by metacognitive processes" (p.89). Cosden and McNamara (1997) indicate that there have been few studies directed at identifying factors related to self-esteem for college students with LD, or that have examined factors related to self-esteem for students with or without LD. Differentiation of areas of self-esteem is of special interest in assessing the self-perceptions of students with LD, because one could then distinguish among precise areas of perceived strengths and weaknesses as well as assess the relationship of these perceptions to global self-esteem (Cosden & McNamara, 1997).

Successful transition planning for students with LD requires identifying and teaching them objective skills relevant to various careers as well as teaching them to manage subjective feelings such as inferiority, insecurity, and uncertainty about success in their future careers (Panagos & DuBois, 1999). Nurturing these subjective feelings becomes especially important for students with LD because of inaccurate and negative messages they receive regarding their skills and potential abilities. Techniques should be developed by educators to assist students with learning disabilities to become more aware of and to utilize their strengths while compensating for their learning style differences (Basse & Slauter, 1997). These techniques should increase the students' opportunities for success as well as their full involvement in the community. Most educators have long recognized the significance of affective and motivational factors in the instruction of students with learning disabilities (Bendell, Tollefson, & Fine, 1980; Hisama, 1976). The affective component focuses on a number of factors chief among them is self-efficacy and locus of control (Hall et al., 2002). The next sections will specifically provide some information as to how locus of control and self-efficacy impact the lives of students with learning disabilities.

Locus of Control and Students with Learning Disabilities

Academic locus of control has long been shown to be an important affective variable that strongly influences learning (Boersma & Chapman, 1981). This concept refers to the way in which individuals view their successes and their failures. An internal locus of control is one in which the perception of positive or negative events are a consequence of one's own actions and thus under their personal control while an external locus of control is one in which the perception of positive and negative events are a consequence unrelated to one's own behavior and therefore beyond their personal control (Bendall et al., 1980; Connor, 1995; Hallahan, Gajar, Cohen, & Tarver, 1978; Hisama, 1976; Tur-Kaspa & Bryan, 1993). Hallahan et al. (1978) enumerate several characteristics of individuals with an internal locus of control; they are: 1) people who have previously experienced success, 2) more likely to occur among middle-class than lower-

class persons, 3) positively associated with intellectual striving and expectancy of success, and 4) positively related to academic success. Further, Boersma and Chapman (1981) report that: Those who attribute the source of success and failure to themselves (internal locus of control) and who see within themselves the ability to achieve, tend to obtain higher levels of achievement. On the other hand, individuals who attribute success-failure experiences to others, to luck, or chance (external locus of control), tend to achieve at lower levels (p.350).

This link between the locus of control and academic success seems plausible because academic achievement demands a certain degree of effort and persistence on tasks and this type of effort would not be forthcoming if the student sees little relationship between effort and outcomes (Boersma & Chapman, 1981).

Connor (1995) likens internal and external loci of controls to two opposite ends of a continuum. On the internal end of the continuum are individuals who will attribute to him/herself a capacity to exert some control over events and more readily avoid negative states such as passivity or perception of inability to cope with daily events (Connor, 1995). On the external end of the continuum are individuals who under socialize, have maladaptive behaviors, have less effective communication skills, and possibly have learned helplessness (Connor, 1995; Miranda & Villaescusa, 1997). Students with learning disabilities may fit anywhere along this continuum according to their individual characteristics and personalities.

Hallahan et al. (1978) also distinguish between the two ends of the continuum asserting that those with an internal locus of control believe that good things happen to them because they worked hard and with skill to bring about their success. Persons with an internal locus of control believe that they are also responsible for undesirable events that occur in their lives. They think that such events occurred either because they were not sufficiently skillful in their efforts or they believe they did not try hard enough to be successful. Meanwhile, those with an external locus of control believe that what happens to them is unrelated to what they do and that positive/negative events occur because of luck, fate, other peoples' involvement, or are just one of those things that uncontrollably happen (Hallahan et al., 1978). Students with an external locus of control tend to aspire to achieve but they also tend to rationalize their failures by blaming external circumstances for their ill fates in school. They also tend to be less successful academically than those students who have an internal locus of control (Connor, 1995).

Self-Efficacy and Students with Learning Disabilities

Self-efficacy theory (Bandura, 1993) suggests that sources of self-efficacy are not perceived to be inherent; instead, the sources are integrated into self-efficacy judgment through cognitive processing. In other words, the theory centers on how individuals operate cognitively on their social experiences and how these cognitive operations influence their behavior and progress (Hampton, 1998). Bandura (1993) identified four sources that can influence the level of self-efficacy of an individual: 1) performance accomplishments, 2) vicarious experience, 3) emotional arousal, and 4) verbal persuasion. Performance accomplishments acknowledge that individuals are more likely to believe that they can achieve a desired result if they have been successful in similar or related tasks. Vicarious experience allows the individual to become convinced of their potential for success when they see others struggle and achieve their desired goals. Emotional arousal refers to the potentially motivating or debilitating effects of anxiety. Finally, verbal persuasion refers to social and self reinforcement through verbal encouragement.

Klassen (2002) defines self-efficacy as "... beliefs in one's capacity to organize and execute the courses of action required to produce given attainments" (p.88). It also refers to personal judgments of one's capacity to organize and implement actions in the face of obstacles (Hampton, 1998). Hampton (1998) further asserts that how much energy is expended by the individual and how long these efforts are sustained in the face of obstacles is influenced by the self-efficacy beliefs of students with learning disabilities. Individuals with enhanced self-efficacy usually exhibit increased internal motivation, more favorable self-perceptions, and more adaptive attribution patterns (Tabassam & Grainger, 2002).

According to Klassen (2002), students need much more than ability and skills to perform successfully in a school environment because they will also need a sense of efficacy in order to use the aforementioned skills and ability to regulate their learning. Students, and especially young women with disabilities, have come to believe that they do not have control over their lives particularly in educational environments (Wehmeyer & Lawrence, 1995). Students with learning disabilities are often characterized by learned helplessness and consequently believe that their failures are due to their low ability and that their successes are due to ease of the task (Miranda & Villaescusa, 1997). Tabassam and Grainger (2002) state that research has shown students with learning disabilities differ from typically achieving students in terms of self-concept, attributions for success and failure, and self-efficacy beliefs. The presence of a learning disability, and the associated secondary characteristics such as low self-efficacy beliefs, can cause more students with learning disabilities to experience difficulties if not total failure in academic settings (Hampton, 1998).

Background of Self-Determination

According to Ward (1999), the beginning of the self-advocacy movement can be traced back to 1968 at a meeting for parents of people with disabilities. At a later conference the phrase "People First" evolved when someone at the meeting declared that he or she was tired of being called mentally retarded because "... we are people first" (Ward, 1999). Over time, self-advocacy groups came into existence all over the United States, Canada, England, Australia, New Zealand, and Sweden (Ward, 1999).

There is a need for self-determination to go hand-in-hand with self-advocacy (Walker, Shoultz, Hall, & Harris, 1999). Students must learn to become their own advocates in view of the fact that most instructors and counselors are unfamiliar with the educational needs and requirements of those with disabilities (Lock & Layton, 2001). According to Williams (1998), self-advocacy has been interchangeably used with self-determination. However, Williams (1998) claims that self-advocacy is a component of self-determination. M. Wehmeyer (personal communication, February 8, 2003) stated that self-determination is a broader construct than self-advocacy. Self-Determination generally refers to exerting control in one's life through a variety of means, one of which is self-advocacy. According to Eisenman and Tascione (2002), a self-determined individual, "... acts from awareness of personal needs and preferences, sets goals and works toward them, creates solutions to problems, advocates for self [*italics added*], identifies needed supports, and regularly evaluates and adjusts performance" (p. 35). These comments substantiate Williams' (1998) claim that self-advocacy is a component of self-determination.

Effects of Legislation

The 1997 Individuals with Disabilities Education Act (IDEA) laid a strong foundation for more active student involvement in their Individualized Education Program (IEP)/Individual Transition Plan (ITP) (Price, Wolensky, & Mulligan, 2002). This act required school systems to consider students' transition needs by the age of 14 with the planning for the students' adult status to begin one year prior to his or her attaining the age of majority. Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 were mandates providing "... equal access to postsecondary education and employment for individuals who self-advocate, request accommodations, and indicate how their disability affects their ability to perform" (Price et al., 2002, p. 109). There was an increased focus on self-determination in the IDEA legislation that was mirrored in the Rehabilitation Act Amendments of 1992. The Rehabilitation Act Amendments of 1992 state in part in Section 2:

Disability is a natural part of the human experience and in no way diminishes the right 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 (Field & Hoffman, 2002, p. 91)

According to Field and Hoffman (2002), the Rehabilitation Act Amendments of 1998 actually strengthened the concept of empowerment for all persons who have a disability emphasizing the need for them to make informed choices. If the person with the disability is eligible for services, then he or she should actively participate with counselors in completing a rehabilitation plan (Rubin & Roessler, 2001). If people with disabilities learn self-advocacy and conflict resolution skills, they will be better able to use the legal rights afforded them by clearly voicing their opinions and communicating their needs to employers, professors, and others in positions of authority (Rubin & Roessler, 2001). Field and Hoffman (2002) assert that students with LD need to be equipped with self-determination skills in the secondary setting if they are to assume responsible roles as defined by rehabilitation legislation.

Definition of Self-Determination

Historically, self-determination has referred to the right of a nation to self-governance (Price et al., 2002). This concept has been adopted and adapted by disability rights advocates to refer to the rights of people with disabilities to control their own lives. Various definitions of self-determination have been offered by different authors. Nevin et al., (2002) offered several of them in a report: "...the opportunity and ability to make choices and decisions regarding ones quality of life"; "... the ability of the person to consider options and make appropriate choices regarding residential life, work, and leisure time"; "... an educational outcome referring 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 influences or interferences" (p. 75). Price et al. (2002) report, "... that self-determination was the acquisition of attitudes, abilities, and skills that led students to define their own goals and then to find the personal initiative necessary for goal acquisition" (p. 110).

For purposes of this article, self-determination will be defined as, "... 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, 1995, p. 1). It is a general theme

which must include some aspect of choice and action that lead students to define and achieve their goals and then to find the initiative that is necessary for goal acquisition.

Components of Self-Determination

According to Wehmeyer et al. (1998), individuals who are self-determined act autonomously, self-regulate their behavior, are psychologically empowered, and are self-realizing. These four characteristics are essential in the individual's life if they are to be considered to be self-determined. Price et al. (2002, p. 111) lists some of the major components of self-determination:

- Behavioral Autonomy: progression from dependence to self care and self direction
- Choice-Making Skills: select from among alternatives based on preferences
- Decision-Making Skills: weigh adequacy of various solutions
- Problem-Solving Skills: Respond in order to function effectively in one's environment
- Goal setting/attainment skills: develop goals and perform necessary actions
- Independence, Risk-Taking, and Safety Skills: perform tasks without help
- Self-regulated behavior: decide to plan, act, evaluate, and revise plans as needed
- Goal-Setting/Attainment Skills: develop goals and perform necessary actions
- Self-Observation, Evaluation, and Reinforcement Skills: access, observe, and record what you discover
- Self-Instruction Skills: self-talk to provide prompts for problem solving
- Self-Advocacy Skills: speak up to defend oneself, a cause, or a person
- Psychological Empowerment: internal locus of control, self efficacy, outcome expectations
- Internal Locus of Control: belief that one has control over critical outcomes
- Positive Attributions of Efficacy/Outcome Expectancy: behavior leads to expected outcomes
- Self-Realization: accurate knowledge of individual strengths and needs, along with the ability to act in a manner that capitalizes on that knowledge
- Self-Awareness: basic understanding of one's strengths, needs, and abilities
- Self-Evaluation: ability to use/apply personal insights to real world settings

Teaching Self-Determination Skills

Self-determination skills can be taught anytime, anywhere to students with disabilities (Price et al., 2002). Price et al. (2002) believe that classroom teachers, administrators, and teacher educators can and should teach self-determination to students on a daily basis. Self-determination can also be taught in the workplace either through formal vocational education classes or through work-study experience. Students with disabilities can practice using the component elements of self-determination, i.e., decision-making skills, problem-solving skills, safety skills, risk-taking skills, and goal setting and attainment in natural classroom settings (Price et al., 2002). When classroom instructors provide students with LD the opportunity to select from a variety of assignments instead of arbitrarily making the assignment, they provide them with different components of choice making, problem solving, independence, and decision making (Price et al., 2002).

Palmer and Wehmeyer (2003) conducted a study in which teachers used the Self-Determined Learning Model of Instruction (based on the four component elements of self-determination

listed by Wehmeyer: Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization) to develop goal setting and problem solving methods with children as young as five years old (5 – 9). In this study, children with disabilities (learning disabilities, mental retardation, speech impairments and gifted) and without disabilities were taught to set goals and to use the model to achieve them (Palmer & Wehmeyer, 2003). Using the same Self-Determined Model of Instruction in a multiple-baseline design, four secondary students with mental retardation learned to set their own goals, develop an action plan, implement the plan, and adjust their goals and plans as needed (McGlashing-Johnson, Agran, Sittlington, Cavin, & Wehmeyer, 2003).

Teachers have indicated they would benefit from additional training and information regarding curricula to support more student involvement in IEP and self-determination activities (Mason, Field, & Sawilowsky, 2004). Mason et al. (2004) found that elementary teachers are in greater need of such training than are secondary teachers. It was recommended that researchers need to find ways to enhance teacher and teacher candidates' knowledge and skills of self-determination during pre-service and in-service training (Mason et al., 2004). Along these same lines, if teachers are to promote self-determination training for their students, it becomes imperative that teachers model this behavior in their own classrooms. Therefore, staff development programs must foster knowledge, skills, and beliefs that assist educators to further develop their own self-determination (Wehmeyer, Field, Doren, Jones, & Mason, 2004).

In previous research, Wehmeyer (1993) had found that young women with disabilities were consistently at risk for holding perceptions of themselves and their surroundings which were not advantageous for self-determination, or positive adult outcomes. Wehmeyer and Lawrence (1995) subsequently conducted a study on the effect of a 36 week intervention on the self-determination skills of special education students. The intervention consisted of students receiving instructions for one hour per week during the school year. The instructions consisted of teaching students to make decisions, to set and accomplish goals, and to actively participate in their transition planning meetings. Using a sample of 53 students from special education (with Learning Disabilities and Mild Mental Retardation), the researchers found that there were significant changes between students' pre and post scores on The Arc's Self-Determination Scale after the intervention. When the analyses were conducted based on gender, it became evident that these changes were primarily among young women with disabilities (Wehmeyer & Lawrence, 1995).

Many students leaving our nation's special education programs remain dependent upon teachers, support staff, and parents to make decisions, evaluate performance, and make needed connections to post school services (Martin, Marshall, & Maxson, 1993). According to Hoy et al. (1997), many adults with LD do not have the advocacy skills that are necessary for success in postsecondary education or employment. They exhibit fewer coping and stress reduction skills while displaying high levels of anxiety (Hoy et al., 1997). Additionally, these adults have unfocused goals, little vocational direction, and have quite a bit of difficulty maintaining supportive relationships (Hoy et al., 1997). It has been hypothesized that teacher education programs do not include instruction on strategies that promote students' self-determination (Thoma, Baker, & Saddler, 2002). However, teaching self-determination skills to students with and without disabilities would greatly assist them in preparing for the transition to adulthood and postsecondary education (Hoffman & Field, 1995). Therefore, there is an impelling need for this population of students to be trained in self-determination skills in order to have more successful outcomes in school and at work.

Summary

Adult life in contemporary societies is becoming increasingly more complex (Magolda, 1998). In just about every aspect of adult life, societies place demands on people with disabilities to take on responsibility, to manage their affairs more effectively, and to make informed decisions as they enter into the world of work and school (Magolda, 1998). This type of active and informed lifestyle is necessary to keep pace with daily changes and improvements in technology, science, the economy, and cultural traditions. Because of a highly advanced and technological society, students with learning disabilities must be trained in self-determination skills in order to successfully compete in school and at work (Williams, 1998). Research by Wehmeyer and Schwartz (1997) found, "...that self-determined students with cognitive or learning disabilities were more likely to have achieved more positive adult outcomes, including being employed at a higher rate and having higher earnings, than peers who were not as self-determined" (p. 247). Self-determination skills are key factors that should be addressed in school settings in order to increase the likelihood of students being involved in the planning, decision making, and implementation of their educational programs (Field & Hoffman, 2002). Self-determination skills, such as the ability to advocate for oneself, are crucial for the successful transition of students from elementary to secondary schools when they begin to make course selections that will affect their high school careers and beyond (Barrie & McDonald, 2002).

Malian and Nevin (2002) report that self-determination is a desirable skill whose level can be measured and correlated with success in adult life at work and school. Self-determined students have been shown to be comparatively more successful in adult roles upon exiting from their school programs than students who lack self-determination skills (Malian & Nevin, 2002). Self-determination levels should be a predictor of successful transition to adult life by students with LD who attend colleges. The literature suggests that high school students who have a learning disability, whose IEPs and ITPs include self-determination goals, objectives, and processes, will more likely be successful after graduating from school than those who have not had like experiences (Malian & Nevin, 2002). Contemporary educators need to include components of self-determination in their curriculum to help ensure the success of students with learning disabilities.

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