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Evidenced Based Practices that Promote Transition to Postsecondary Education: Listening to a Decade of Expert Voices

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As increasing numbers of students with disabilities access postsecondary education, research studies and literature reviews have investigated the needs of these students who chose to pursue postsecondary education. These articles included studies that (a) asked students with disabilities to identify needs and (b) summarized needs in literature reviews about students with disabilities in postsecondary education. This article summarizes needs and recommendations from college students with disabilities and authors who reviewed related literature from 1995–2006. The summary includes needs in five areas: self-determination, social skills, academic preparation, accommodations, and assistive technology (AT). Each of these areas of need is described and recommendations for practice are discussed. The purpose of this article is to identify a set of evidence-based transition practices that will address these needs and increase the likelihood of success for students who enroll in postsecondary education institutions.

Attaining a college degree is an important accomplishment for many students with disabilities because of the positive impact a degree has on adult outcomes (Madaus & Shaw, 2006). Like their peers without disabilities, students with disabilities aspire to attend college because of the benefits a degree offers to them. Although these students may want to attend college or other postsecondary education options, their numbers remain behind those of their college-bound peers without disabilities (Horn & Nevill, 2006). Of those who enroll in college, many students with disabilities have limited success despite increased access to higher education and greater numbers of disability support programs (Izzo & Lamb, 2002; Stodden, 2000).

One of the ongoing challenges is ensuring that students with disabilities receive instruction and direction that will help them apply, enroll, and successfully complete

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a degree from a postsecondary institution. In order to meet this challenge, educators and support personnel must be informed of the needs voiced by college students with disabilities and information acquired from research. A number of studies have asked students with disabilities to identify their needs in postsecondary settings, while other experts have summarized these needs in literature reviews. For example, Mull, Sitlington, and Alper (2001) reviewed published research from 1985–2000 about postsecondary education for students with learning disabilities. Their analyses of reviewed research indicated that students were unprepared for postsecondary academic requirements and learning strategies, along with study skills, time-management, testtaking, memory, and note-taking strategies. Poor organization, communication, and social skills were also identified weaknesses. Further, 65% of the articles reviewed focused on the need for self-advocacy skills among students who attend postsecondary education.

Other studies investigated students' thoughts about self-advocacy skills and the disability-related issues they encountered in postsecondary education settings. Greenbaum, Graham, and Scales (1995) interviewed 49 successful adults with learning disabilities about their postsecondary education experiences and reported that study participants received significant support from their families but expressed the need for social support. Participants seemed to be aware of their disabilities, were determined and motivated, and had a strong sense of goals and direction. The adults recommended that students need to obtain information on both the postsecondary school's academic program and disability services. The adults in this study advised high school students to have well-developed skills in self-determination. Similar advice to college-bound students with disabilities was offered by students in a study conducted by Hennessey, Roessler, Cook, Unger, and Rumrill (2006). When 208 college students with disabilities were surveyed to determine their post-graduation concerns, they urged collegebound students to become self-advocates and encouraged them to invite stakeholders and support personnel to be active participants as they plan for college. Stodden, Whelley, Chang, and Harding (2001) reported that although most postsecondary institutions offered advocacy assistance, students with disabilities in their study believed that more emphasis needed to be placed on the development of advocacy skills. The same was true with study, communication, and organization skills; many institutions offered this assistance but students with disabilities recommended comprehensive coordination of these skills in their personal, educational, and social lives.

Academic preparation and learning strategies were key components in several studies. For instance, a case-study approach was used with high-ability students with learning disabilities who were successful at the college level (Reis, Neu, & McGuire, 1997). Throughout their K–12 schooling, many of the participants had difficulties in reading and writing and experienced negative interactions with some instructors and peers. Participants attributed their success to their abilities to incorporate compensatory and learning strategies along with executive functions, into their college experiences. Reis and her colleagues urged professionals to help students "learn how to learn and how to develop a personal system that enables them to achieve" (p. 477). Li and Hamel (2003) provided a review of the literature about college students with writing disabilities. They concluded that there is a critical need for empirical studies in this

area, particularly on instructional methods and strategies. In addition to expanded use of assistive technology, the authors asserted that empirical research is needed to investigate which assistive technology interventions are effective for writing disabilities.

Assistive technology is a critical area that needs attention as students make transitions to postsecondary education. In a literature review about assistive technology in the transition process, Mull and Sitlington (2003) urged students to include identification of funding sources for assistive technology in their transition plans. Assistive technology should be based on assessed needs in light of their chosen postsecondary environments. Training in the use of assistive technology along with assessment of its efficiency in postsecondary contexts was strongly recommended by these authors.

During the past decade, research studies and literature reviews have summarized the needs of students with disabilities who chose to pursue postsecondary education. These articles included studies that (a) asked students with disabilities to identify needs and (b) literature reviews about students with disabilities in postsecondary education. How well has the field responded to these findings and recommendations over the past decade? With the increasing population of students with disabilities who enter postsecondary education comes the responsibility of professionals to facilitate their transitions to campus. Transition stakeholders must be aware of postsecondary needs and demands in order to assist students as they acquire the skills, supports, and accommodations needed at the postsecondary level (Sitlington, 2003). Our intent is to describe evidence-based practices that are responsive to expert recommendations made over the past decade and, ultimately, to help students increase the likelihood of successful transitions to postsecondary education institutions.

METHOD

To determine the most critical needs as students move to postsecondary education, the authors conducted a content analysis of articles that reflected college students' opinions about their disabilities and related needs. Content analysis is a detailed and systematic examination of a specific body of information that is gathered to identify patterns or themes (Leedy & Ormrod, 2001). A challenge that arose quickly while reviewing articles was a dearth of literature that presented students' opinions. The authors added several literature reviews to gain a clearer picture about the needs of students with disabilities who chose to attend college. The authors did not attempt to include literature searches from every available source, but they chose sources that targeted wide readerships and included representative literature (i.e., transition, postsecondary education, college students with disabilities). Finally, the authors reviewed current needs stated by students with disabilities who completed a survey at a mid-sized university. By triangulating information from three sources, the authors were able to identify common themes that included: (a) self-determination strategies, (b) social and interpersonal strategies, (c) academic preparation, (d) accommodations, and (e) assistive technology. Using this list, a search for practices that have answered these needs was initiated. Parameters for inclusion in the review were that studies must be evidence-based practices that were used with adolescents and adults with learning,

emotional, medical, and physical disabilities, reflecting the populations found on many college campuses (Horn & Nevill, 2006). Articles about students with intellectual disabilities were not included.

Articles for the first phase of the review were located by searching the ERIC database from 1995–2006 for surveys, interviews, focus groups, or questionnaires completed by college students with disabilities. A search for reviews of literature about students with disabilities in postsecondary education was also completed. The descriptors used were transition, postsecondary education, college students with disabilities, surveys, voices, needs, opinions, literature review, and synthesis of the literature. During the subsequent search for evidence-based practices, the descriptors added were instruction, remediation, assistive technology, adaptive technology, social skills, interpersonal skills, self-determination, college decision, study skills, learning strategies, and college demands. In addition, reference lists from articles and books were searched as well as a hand search of the following journals: Career Development for Exceptional Individuals, Journal of Postsecondary Education, Exceptional Children, Journal of Learning Disabilities, Journal of Special Education, Learning Disabilities Research, Teaching Exceptional Children, and Journal of Vocational Rehabilitation. Recommended practices to address the needs for transition to postsecondary education found in the initial search are summarized below in the following order: self-determination, academic preparation, social and interpersonal strategies, accommodations, and assistive technology.

RECOMMENDED PRACTICES

Self-determination

Many students with disabilities transition from high school to college with limited skills in self-determination, self-advocacy, and internal locus of control. Researchers have found that individuals with enhanced skills in self-determination have a higher likelihood of positive adult outcomes, including the completion of a college degree (Harris & Robertson, 2001; Izzo & Lamb, 2002; Wehmeyer & Schalock, 2001). The importance of self-determination as a construct and attribute to successful adult outcomes has been consistently emphasized in the literature, with many recommendations of what should be done to enhance skills in this area. However, limited evidence is available related to research-based instructional procedures for promoting self-determination in students with disabilities when they exit high school (Argan & Wehmeyer, 2000; Izzo & Lamb, 2002). Harris and Robertson (2001) did longitudinal research on 40 students currently enrolled in a postsecondary education setting. Over a four-semester period, they found that students who followed through on a nine-step approach to promote self-determination earned more credits and had higher grade point averages than those who didn't complete the approach.

In another study, Thoma and Getzel (2005) conducted six focus groups that included 34 adults with disabilities who received support services and who were identified by college service providers as students who had enhanced self-determination skills.

These students identified critical components of self-determination to be problemsolving skills, understanding one's disability, goal setting, and self-management. The students reported that they learned their skills by trial and error and from support of mentors and parents.

As they investigated strategies and skills that were developed prior to students with disabilities entering college or university settings, Wehmeyer, Argan, and Hughes (2000) examined the degree in which self-determination was promoted and taught during high school. They noted four basic components of instructional activities that promoted self-determination: self-monitoring, self-instruction, self-evaluation or self-judgment, and self-reinforcement. These researchers found that the most frequently identified strategy taught by respondents was self-reinforcement, followed by self-evaluation and goal setting. The most frequent reason for not promoting self-determination was that the teachers believed students would not benefit from the instruction. Only 22% indicated that their students had goals related to self-determination on their individual transition plans.

Zhang, Katsiyannis, and Zhang (2002) considered the importance of teachers and parents promoting self-determination skills in high school students with disabilities. They surveyed parents and teachers to determine their use of recommended practices for fostering self-determination skills. The practices included (a) decision making of issues regarding academic, career, and home life; (b) linking goals to decisions; (c) managing goals; and (d) determining needed supports. Results revealed that fewer than half of the parents reported fostering these practices frequently while the teachers' responses were mixed.

Wehmeyer, Palmer, Argan, Mithaug, and Martin (2000) developed and field-tested *The Self-Determined Learning Model of Instruction*, a tool to teach skills in self-determination so students with disabilities would become responsible for directing their own lives. The model has a problem-based approach that uses the following three-phase instructional process: (1) set a goal, (2) take action, and (3) adjust plan. After instruction, students met or exceeded identified goals, showed gains in self-determination, had more adaptive perceptions of control, were pleased with life outcomes, and expressed their satisfaction with the model and its outcomes. Results supported the implementation of *The Self Determined Learning Model of Instruction* as a tool that could enable students with disabilities to self-regulate learning and enhance self-determination—all skills that will prove helpful as they enter a postsecondary education setting.

Further research revealed positive results that educators could consider as they prepare students for postsecondary education. For example, Zhang (2001) investigated The *Next S.T.E.P.: Student Transition and Education Planning* (Halpern et al., 1997), an empirically tested curriculum to promote self-determination by instructing students to take control of their Individual Educational Program (IEP) and transition planning process. Zhang researched the effects of this curriculum on 71 ninth-grade students with learning disabilities. An untreated control group design with pretest and posttest was used. The results indicated that after instruction using the *Next S.T.E.P.* curriculum, the treatment group had a significant improvement in self-determination scores in the posttest while the control group did not improve. The usefulness of this finding

indicates that instructional activities in the *Next S.T.E.P.* curriculum can improve students' general abilities in self-determination skills.

Social Skills Strategies

Among the most challenging areas for college students with disabilities is adjusting to the social pressures of postsecondary education and adult living. For instance, students with disabilities on the autism spectrum may feel isolated because of the difficulty they have building relationships (Baker & Welkowitz, 2005). Further, research over the past decade has shown that students with a wide array of disabilities often display inappropriate behavior that negatively influences their relationships with other students and adults (Gresham, 2002; Parker & Asher, 1987). Students' inabilities to engage in positive social relationships with peers can result in rejection and alienation and academic failure (Kupersmidt, Coie, & Dodge, 1990; Miller, Lane, & Wehby, 2005). Experts agree that students with or at risk for emotional and behavioral disorders or those who have social skills deficits are predictive of future employment difficulties (Elksnin & Elksnin, 1998; Miller et al., 2005). Clearly, social skill development is a critical area that students need to increase the likelihood for successful postsecondary outcomes.

Secondary school years are associated with substantial changes in teachers' expectations regarding student behavior (Lane, Pierson, & Givner, 2004) and an increase in the importance of satisfactory peer relations (Ryan, 2000). In other words, teachers may assume that high school students have acquired appropriate behavioral and social skills commensurate with their age. Although little information is available regarding the specific social and behavioral skills of high school-aged youth with disabilities (Lane, Carter, Pierson, & Glaeser, 2006), current research revealed that social skill development is crucial to successful transitions to postsecondary education (Adreon & Durocher, 2007; Sabbatino & Macrine, 2007). In light of this information, high school personnel must include and emphasize the importance of social skills in the curriculum as they prepare students for postsecondary education. Furthermore, rehearsal of these skills in social settings and information about building interpersonal relationships must be embedded within the K–12 curriculum for students with disabilities.

Interventions that target social skills have limited success due to the absence of systematic assessment procedures to identify skill deficits in individual students (Gresham, Sugai, & Horner, 2001). The IDEA (2004) requires that a student's IEP address transition planning by at least age 16. Unfortunately, transition services, which are initiated just prior to high school graduation, are bound to be ineffective because the skills that students need to be successful in college and other post-high school settings take years to nurture and develop. Strategies and interventions that identify the post-secondary needs of students early in the education process are more successful (Gresham et al., 2001).

Research findings suggested that secondary special education services that are designed to facilitate the transition from high school to college of adolescents with disabilities should include (a) hands-on work experience (experiential learning) in the form of part-time or summer jobs, volunteering, supervised credit-bearing internships,

or cooperative education; and (b) participation in social skills training with emphasis on interpersonal communication, self-awareness, self-advocacy, and job-keeping skills (Miller et al., 2005; Ohler, Levinson, & Sanders, 1995). In addition, experts have recommended that prior to implementing a successful social skills intervention, the interventionist must (a) identify skills students already possess; (b) identify social skills strengths, social skills acquisition deficits, and performance deficits; and (c) determine the extent to which these conditions occur in the presence or absence of problem behaviors (Miller et al., 2005; Gresham, 2002).

Miller et al. (2005) argued that it is important that the interventions be linked to assessment results, as acquisition deficits and performance deficits require vastly different intervention approaches. For example, acquisition deficits call for explicit social skills instruction (e.g., modeling, coaching, behavioral rehearsal, and social problem solving). Performance deficits call for interventions focused on enhancing the performance of skills (e.g., peer initiation strategies, behavioral contracts, and reinforcement-based strategies). Finally, removing interfering problem behaviors involves behavioral interventions such as differential reinforcement procedures and response costs. In order for these efforts to be successful, a variety of transition stakeholders must pool resources and ideas to create optimal opportunities for students to acquire, practice, and enhance their social skills in academic, social, and occupational settings.

Academic Preparation

The 1997 and 2004 amendments to the IDEA emphasized the importance of providing access to the general education curriculum to students with disabilities. Kochhar-Bryant and Izzo (2006) stated that access to the general education curriculum increases the opportunities for students to graduate with a general education diploma and increases the opportunities to advocate for accommodations in those settings. If students have experiences and practice with rigorous coursework during high school years, they may be more likely to generalize their work habits to postsecondary education settings. Because more students with disabilities are being taught in general education classrooms, a critical component for opening doors to postsecondary schooling, effective instructional practices to promote this generalization must be delivered in both general education and special education settings.

Bost and Riccomini (2006) provided an overview of 10 principles of evidencebased instruction that increased the opportunities for students with disabilities to have successful outcomes in general education classes and decreased the number of students who dropped out of high school. The 10 principles are (1) active engagement, (2) providing experience of success, (3) content coverage and opportunity to learn, (4) grouping for instruction, (5) scaffolded instruction, (6) addressing forms of knowledge, (7) organizing and activating knowledge, (8) teaching strategically, (9) making instruction explicit, and (10) teaching sameness. Although the use of these ten principles is beneficial, experts remind us that many students with disabilities also need remedial instruction and study skills instruction to prepare them for transition to postsecondary education (Brinkerhoff, 1996; Brinkerhoff, McGuire, & Shaw, 2002).

Many secondary students with disabilities need intensive and systematic instruction to master reading, writing, and mathematics (Brinkerhoff, 1996; Bost & Riccomini, 2006). Despite this need, Conderman and Katsiyannis (2002) found that 85% of secondary special education teachers emphasized mostly content instruction. The teachers responded that they believed that direct instruction, which is typically remedial in nature at the high school level, was more appropriate at the elementary rather than the secondary level. However, a meta-analysis by Adams and Engelmann (1996) found that direct instruction can have a significant impact on older students, including middle school and high school students, as well as adults. Other researchers have also reported the positive outcomes of providing remedial instruction in decoding and fluency instruction (Archer, Gleason, & Vachon, 2003), comprehension (Mastropieri, Scruggs, & Graetz, 2003), writing (Gersten, Baker, & Edwards, 1999; Schumaker & Deshler, 2003) and mathematics (Maccini, 1998) to secondary students with disabilities. In addition to benefiting from intensive remedial instruction, many students with disabilities have benefited from explicit study skills instruction, which includes note-taking, organization, and time-management skills (Brinkerhoff, 1996; DuPaul Weyandt, 2006).

Accommodations

Equally important to academic preparation are knowledge about and ongoing evaluation of accommodations that assist students in classes and learning. Researchers have examined whether accommodations lead to successful educational achievement. Sharpe, Johnson, Izzo, and Murray (2005) examined the various types of accommodations received at the secondary and postsecondary levels by 139 postsecondary graduates with disabilities. Findings showed that postsecondary institutions provide accommodations at a much higher rate than high schools provided. The most common accommodations used at postsecondary institutions included extra time (83%), quiet environment (70%), communicate with instructor (50%), tutor/assistant (45%), priority registration (42%), and recording of lectures (40%). The most common accommodations employed at the secondary level included extra time (26%), quiet environment (18%), tutor/assistant (17%), and test read to student (14%). Less favorable results were found in a study conducted by Dowrick, Anderson, Heyer, and Acosta (2005). Focus groups were conducted in 10 disparate states to explore student-identified barriers to the access and utilization of educational supports and subsequent employment. The researchers found that students with disabilities still have difficulty obtaining basic accommodations and supports.

The level that teachers apply information they know about accommodations can be crucial to students' use of accommodations. At the secondary level, Maccini and Gagnon (2006) found that special education teachers used assessment accommodations more frequently than general education teachers did, and the total number of methods courses taken predicted teacher use of assessment accommodations. Aside from the frequency they provided accommodations, general educators reported using the same accommodations as special educators. The most commonly used assessment accommodations included extended time on tests, calculators, and problems read to

students. Other researchers investigated the effects of computer-based test accommodations (Calhoon, Fuchs, & Hamlett, 2000). Results from this study determined that a test reader, either human or computer, increased math scores for high school students with learning disabilities, but no significant differences were found between the teacher-read, computer-read, or computer-read with video. The type of reading test accommodation was not important, but having the test read aloud was important.

As teachers and other stakeholders prepare college-bound students, they must be mindful of the need for (a) current knowledge of the wide array of accommodations, (b) time for the student to become accustomed to the accommodation, and (c) teaching the student to continuously monitor the effectiveness of each accommodation.

Assistive Technology

Access to assistive technology and knowledge about its usage is a major need that is expressed by college students with disabilities. In a report from the Task Force of Postsecondary Education and Disabilities from New York State, Walters (2000) examined the status of students with disabilities' access to postsecondary education. The report identified nine goals that would increase opportunities for students' access to, and completion of, postsecondary education programs. Seven of the nine goals directly related to the incorporation of assistive technology, thereby emphasizing the need for experiences about the appropriate use of AT and the creation of policies that would allow AT to move with students from high schools to postsecondary education.

Students' uses of AT have been well documented for the instructional advantages associated with its use. For example, computers and software have been used to simulate real-world situations with images and sounds to increase motivation and confidence (Burgstahler, 2002; Edyburn, 2000; Forgave, 2002; Perfetti, Marron, & Foltz, 1996; Plude, 1996; Xu, Reid, & Steckelberg, 2002). In the face of this research, the field needs extensive investigation of the effectiveness of AT in postsecondary education settings. (Li & Hamel, 2003; Raskind & Higgins, 2003; Zabala & Carl, 2005).

Burgstahler (2002) contended that in order for students with disabilities to pursue postsecondary education programs, they must have knowledge and skills in use of various types of technology that includes access to websites, Internet-based distance learning courses, instructional software, and scientific equipment. Brugstahler noted that teachers, support staff, and service providers had limited awareness of how technology could maximize access to education for students with disabilities. One solution to this discrepancy is the wide-based use of the Quality Indicators for Assistive Technology Services (QIAT) (Zabala & Carl, 2005).

QIAT is a set of descriptors of critical elements related to major functions involved in the provision of assistive technology services. They have been developed and validated for: Administrative Support, Consideration of Need, Assessment of Need, Documentation in the [IEP], Implementation, Evaluation of Effectiveness, Assistive Technology in Transition, and Professional Development and Training (p. 179). The appropriate type of technology applied in fitting situations can make a difference between success and failure whether in a college course or a career. The importance of accurate assessment and provision of other support services (e.g., education and career counseling) can open a full range of AT and services that will broaden opportunities for students with disabilities (Burgstahler, 2002; Walters, 2000). However, as noted by Burgstahler, "the potential of technology to level the playing field in education...will not be realized unless students have access to these powerful tools and are adequately prepared to effectively use them" (p. 179).

DISCUSSION

This study identified critical needs and recommendations for college students with disabilities that were identified during the past decade. Evidence-based studies in each of the critical transition needs were identified and briefly described. The intent was not to present a comprehensive literature review of research in each of the critical areas but rather to offer transition stakeholders summaries of several empirical investigations in each of the critical areas. The rationale for this format is twofold. First, the dearth of evidence-based literature about transition to postsecondary education led the authors to the conclusion that a literature review may not lead to meaningful conclusions and findings. Second, teachers and other transition stakeholders may not have opportunities to see a "big picture" of needs and issues experienced by college students with disabilities. Our hope was to provide an overview of needs and to provide suggestions to address them

Some of the critical needs identified seem to be included in secondary classrooms; however, we cannot say with any level of certainty that we know if each of these areas are commonly addressed as part of transition to postsecondary education. Even if teachers are knowledgeable about evidence-based transition practices, they may resist infusing these elements because of the high-stakes material they must cover and current pressure to increase graduation rates (Kochhar-Bryant & Bassett, 2002). Secondary teachers may be unaware of how to facilitate transition practices in their classrooms or may assume that students with disabilities who have the skills to function in a general diploma track also have the competencies necessary to function in postsecondary education. The areas of need described in this article are valuable to all students who are bound for postsecondary education. Instructors must encourage students to think beyond the goal of high school graduation to the set of skills needed for higher education and adult life.

Teachers may not have an awareness of students' ultimate plans for postsecondary education or adult outcomes (Kochhar-Bryant & Bassett, 2002). The common belief that secondary educators are only responsible for narrow content material, rather than demonstrating how their content fits into a bigger arena, may limit the development of students' life goals. Secondary educators need to place more attention on postsecondary education as a viable option for all students with disabilities. Comprehensive transition teaching needs to begin early enough for students to make adequate progress toward postsecondary education goals. Although transition practices

are mandated for specific ages, transition must be conceptualized as a way of teaching rather than a response to a particular legal benchmark (Patton, Cronin, & Wood, 1999).

Transition literature provides a poignant and compelling history of needs from college students with disabilities. Has the field bridged that gap between these collective voices and transition practices for students who choose postsecondary education? Have we paid adequate attention to what postsecondary education students are telling us? Some progress has been achieved; however, a more comprehensive approach would dramatically increase the likelihood for successful postsecondary education outcomes. The following recommendations have been developed to assist students as they prepare for postsecondary education:

- 1. Educators need to develop and integrate multi-impact objectives that support postsecondary education goals. If students are required to memorize a set of elements in chemistry, providing and modeling a menu of memory strategies may not only assist all students in this task but may also provide tools for postsecondary education as well as the linkages to career usage.
- 2. Teachers should begin the year or semester by reviewing each student's postschool outcome statements and postsecondary education goals from IEPs. Students need to identify steps and the related needs necessary to achieving these goals. For example, if a student chooses to pursue a degree in criminal justice, she would develop a plan that will support her enrollment in a postsecondary education setting that offers this degree program. The teacher should then assist the student to investigate skills in self-determination, social skills, academic preparation, appropriate accommodations, and technology in anticipation of meeting her postsecondary education and career goals.
- 3. Students must take the lead in managing the acquisition of skills and remediation of their needs. Teachers can facilitate this process by providing instruction in how to connect content information to the achievement of their individual goals and managing their needs. Using this method, students can apply and generalize information from all the classes in which they are enrolled. Further, they will be able to provide data to their IEP teams and lead the discussion about progress on postsecondary and other transition goals.
- 4. Transition teams must consider social components when students decide to pursue postsecondary education. Using multi-impact objectives, educators can infuse their instruction with guided practice of social skills, exploratory activities, job simulation, or other data-driven activities (Miller et al., 2005). Teachers need to explicitly explain to students what they are learning and how this particular social skill applies to the future.
- 5. Teachers need to expand their knowledge about and use of various technologies in their classrooms. By giving opportunities to practice using technology, students can evaluate the effectiveness of their usage and determine what assistive devices offer the best fit to their needs in a specific context.
- 6. Teachers need to be familiar with typical accommodations used by students in postsecondary education. Among the accommodation commonly used in

postsecondary settings are large print, interpreters, alternative exam settings or formats, extended time on exams, note-taking, readers, or scribes (Getzel & Wehman, 2005). Students need to be exposed to a wider array of accommodations and should gather data during use in order to evaluate effectiveness.

Future Research

Researchers need to invest more attention to what consumers' voices have to say about the needs of students with disabilities who are enrolled in postsecondary education. "Listening to their experiences and involving them not only in the accommodation process, but also in the process for systemic change on the whole is advantageous and likely to be highly effective" (Kurth & Mellard, 2006, p. 83). Wide dissemination of this research will enrich educational and service delivery options to prospective postsecondary students. Further research is needed to determine the level of effectiveness of multi-impact objectives on areas such as performance on standardized tests; college entrance exams; and enrollment, retention, and completion rates in postsecondary education. In addition, researchers need to investigate whether multi-impact objectives positively influence high school graduation rates.

With these instructional shifts comes a need for changes in university teacher preparation programs and personnel development programs within schools. Education programs need to promote effective teaching practices across all curriculum areas and include transition training for all teachers (Wandry et al., 2008). Consequently, we can then prepare educators to teach with transition outcomes, including postsecondary education. Only then will the increasing numbers of students with disabilities who choose postsecondary education paths receive the attention they deserve.

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