Providing Postsecondary Transition Services to Youth with Disabilities: Results of a Pilot Program

Lucy Barnard-Brak
Marcelo Schmidt
Tianlan Wei
Texas Tech University

Tamara Hodges
Eric L. Robinson
Baylor University

Abstract
The results of a pilot program to provide transition services for high school seniors with disabilities via one-on-one mentoring services over the course of an academic year were examined. Results indicate significantly improved attitudes toward requesting accommodations over the course of the nine month program. These results suggest positive outcomes associated with the pilot program including increased application and subsequent enrollment to postsecondary education over and above national estimates. Information highlighting aspects of the program are provided including the positive preliminary results of the program. The paper concludes with a section on lessons learned and future adjustments in order to provide some practical program guidance for individuals who anticipate beginning a similar program.

Keywords: Transition services, students with disabilities, postsecondary education

There has been considerable improvement over the past two decades in postsecondary education (PSE) transition services provided to students with disabilities in the United States. Kohler and Field (2003) suggest that these improvements can be attributed to the federal government’s concerted effort to improve policies and legislation that support transition services, an increase in federal funds invested in transition services, and the growing body of scholarly research addressing the issue of transition services. A tangible measure of improvement in transition services is the growing number of students with disabilities who are pursuing PSE. For example, the National Longitudinal Transition Study 2 (NLTS-2), which followed a nationally-representative sample of youth with disabilities, found a 17% increase in PSE enrollment between the years 1987 through 2003 (Wagner, Newman, Cameto, & Levine, 2005). While this increase in enrollment is encouraging, according to the same study only approximately one-third (31%) of high school graduates with disabilities enroll in PSE compared to 40% enrollment for students in the general population (Wagner, Newman, Cameto, & Levine, 2005; Wagner, Cameto, Garza, & Levine, 2005). Thus, while the pursuit of PSE as a result of enhanced transition services for youth with disabilities is improving, it is evident that several challenges remain.

There are multiple challenges commonly faced by students with disabilities as they transition to PSE, including (1) the consequences of a less than ideal secondary preparation (Hitchings, Retish, Horvath, 2005; Horn & Berktold, 1999; Johnson, Stodden, Emanuel, Luecking, & Mack, 2002; Kohler & Field, 2003); (2) differences in services provided by secondary education and PSE (Madaus & Shaw, 2004; Padron, 2006; Sitlington, 2003), and (3) inadequate self-advocacy skills that may allow them to meet the rigors of PSE (Anctil, Ishikawa, & Tao Scott, 2008; Kissel, 2006; Lancaster, Schumaker, & Deshler, 2002).

Further, students with disabilities are often enrolled in secondary educational tracts that are not
comprehensive enough nor possess the academic rigor conducive to PSE (Blackorby & Wagner, 1996; Johnson et al., 2002; Stodden, Conway, & Chang, 2003), which occurs despite the requirements of the Individuals with Disabilities Education Improvement Act (IDEA) 2004. IDEA specifies that youth must be provided with accommodations and services that will “prepare them for further education” (IDEA, 2004, 20 U.S.C. § 1400 d(1)(a)). Hitchings et al. (2005) noted that, of a sample of students with disabilities who had expressed interest in attending PSE, only 5% were enrolled in an academic program rigorous enough to prepare them for the demands of PSE.

Interestingly, those few students with disabilities who actually meet the academic criteria for PSE typically encounter a myriad of difficulties particular to services provided at the postsecondary level. Madaus (2007) suggested that this transition period can be “confusing and overwhelming” (p. 32) for students with disabilities. The incongruence between secondary and postsecondary institutions in terms of services and accommodations provided warrant attention (Johnson, et al., 2002; Stodden, et al., 2003). Stodden, Jones and Chang (2002) outlined two primary differences in services, supports, and accommodations between secondary educational settings and those in postsecondary settings. They indicated that differences exist in terms of (a) the laws and interpretation of the laws that regulate services provided and (b) between the services that each setting is required to provide students with and under what circumstances. For example, IDEA, which regulates secondary education, places the burden on school personnel to identify and provide necessary services whereas ADA (Americans with Disabilities Act) at the PSE level requires students to self-identify and request accommodations and services on their own (Stodden et al., 2001).

Given that ADA requires students with disabilities to self-report and request appropriate services, those who have developed self-advocacy skills can manage this process with greater ease (Brinckerhoff, 1994; Durlak, Rose, & Bursuck, 1994; Getzel & Thoma, 2008; Hitchings et al., 2005; Johnson et al., 2002; DOE, 2007). Self-advocacy as a concept is nested within self-determination theory (Field, 1996; Ward, 1988) and has been reported to be the most crucial skill students with disabilities must develop in order to succeed in PSE (Janiga & Costenbader, 2002). Test, Fowler, Wood, Brewer, and Eddy (2005) recommend that youth develop self-advocacy skills that enable them to understand who they are, understand and exercise their rights, communicate effectively about their needs, and become leaders and advocates for themselves in the cause for students with disabilities.

Another recommendation is that self-advocacy skills be acquired early in life with guidance from parents and school personnel prior to enrollment in PSE (Brinckerhoff, 1994; Hitchings et al., 2005). It has been noted, however, that these skills are not always being taught to youth during secondary education (Brinckerhoff, 1994), with teachers citing time constraints and difficulty in imparting self-advocacy training as reasons for not doing so (Lancaster et al., 2002). Yet, the importance of early development of self-advocacy skills cannot be overstated in light of the relative absence of this type of training offered in PSE. According to Stodden et al. (2001), institutions of higher education are more likely to provide services that advocate for students with disabilities than they are to teach self-advocacy skills or offer self-advocacy training to students.

Accessing PSE may be the product of such self-advocacy on the part of students with disabilities. Ancil et al. (2008) found evidence indicating that students who exercised self-advocacy skills were more likely to persist and successfully meet their academic goals. Given that secondary education often fails to prepare students to self-advocate, it is not surprising that two-thirds of all students with disabilities who could transition into PSE never do (Wagner, Cameto, Garza, & Levine, 2005). Contributing to these low numbers are inadequate transition services, which regularly exclude student input and often deter them from transitioning into PSE (Hitchings, et al., 2001). Students who do transition into PSE must further exercise their advocacy skills in order to request educational accommodations, a process that typically entails registering with an on-campus office along with providing appropriate disability documentation. A number of students with disabilities in PSE, however, fail to request the accommodations or do so only after struggling academically or socially (Barnard-Brak, Lechtenberger, & Lan, 2010). As a result, many students with disabilities in PSE no doubt encounter challenges with persistence and drop out of college.

Failure to access and persist in PSE places individuals with disabilities in a precarious and vulnerable position in society. Often the consequence of not completing PSE burdens individuals with undue economic strain as their potential for securing meaningful
employment is significantly limited (National Council on Disability [NCD], 2003). Thus, individuals with disabilities are more likely to live below the poverty line as compared to their non-disabled counterparts (She & Livermore, 2006). This relationship between disability and socio-economic status prompted the Task Force on Postsecondary Education and Disabilities (2000) to conclude that higher education is the key determinant as to whether an individual with a disability continues to experience material (e.g., financial) hardship.

There appears to be a paucity of studies that assess the impact and value of transition service models implemented towards PSE. This observation is echoed by Cobb and Alwell (2009) who, after a systematic review of literature of transition services, concluded there is a “relative absence of transition models,” and that while some have been described in the literature, it is “time to move from descriptions to empirical validation of these models” (p. 79). Thus, the purpose of the current study was to examine the effectiveness of a mentoring program to assist youths with disabilities in transitioning to PSE. To achieve this purpose, two research questions were examined. The first research question examined whether the mentoring intervention was associated with a statistically significant decrease in negative attitudes towards requesting accommodations among high school students with disabilities across the academic year. The second research question examined whether these differences in attitudes towards requesting accommodations were significantly associated with whether the participant applied to college.

Methodology

Participants
A total of 43 high school students with disabilities participated in this study. Among the participants, approximately 48.8% (n = 21) reported being female and 51.2% (n = 22) reported being male. In terms of ethnicity, 46.5% (n = 20) described themselves as White, followed by 37.2% (n = 16) African American, and 20.9% (n = 9) Hispanic. The sum of participants from each ethnic group exceeds the sample size because the respondents were permitted to endorse more than one ethnicity. Table 1 provides a summary of the frequency and percentages by types of disabilities reported by participants.
With the informed consent of the students and their parents, students’ eligibility for special education services was confirmed with school personnel but not the disability(ies) reported. Disabilities such as visual and hearing impairment are typically regarded as visible disabilities, while other disabilities such as learning disabilities and diabetes are typically regarded as hidden or non-visible disabilities. In the current study, approximately 76.7% (n = 33) of the participants reported having hidden disabilities and 7.0% (n = 3) reported having visible disabilities. We did not make any evaluation of this attribution of hidden versus visible disability by participants.

**Mentoring Intervention**

The pilot program included one-on-one mentoring for each of the participants for approximately an hour a week throughout the academic year. Each of these mentors were graduate students in school psychology or social work who received approximately two weeks of training and a structured curriculum of materials from a team of education practitioners before working with students in the schools. In exchange for fulfilling the roles as mentors in the program for the academic year, these graduate students were funded externally with stipends and tuition assistance as graduate assistants. Each mentor was assigned between seven and ten high school students, which would vary according to logistics as the pilot program served four different school districts covering a geographical area of approximately 29 square miles.

Mentors met with student participants approximately once a week for about an hour on a routine basis while observing the school’s calendar. Mentors would usually coordinate to meet with multiple students at a school consecutively to reduce time commuting from school to school. Based upon the structured curriculum, mentors would cover a range of topics related to transition to PSE for students with disabilities. Example topics covered included role playing self-advocacy activities (e.g., discussing a request for accommodations with faculty), how to fill out a FAFSA (Free Application for Federal Student Aid) checklist, and discussing services available to individuals with disabilities through the state vocational rehabilitation agency. The curriculum also included structured campus visits, which consisted of tours and meeting with personnel such as staff in disability accommodations offices.

None of the four school districts had a transition specialist dedicated to serving students with disabilities who were college-bound. For our program, we had a point of contact with a school counselor who would help us identify students and arrange the most appropriate times to pull students out of class. For the school districts we worked with, there was no distinction in PSE transition services between students with and without disabilities. Throughout the academic year, mentors received weekly supervision by two faculty members in the school psychology program. Thus, this mentoring program to help students with disabilities transition into higher education presents a model for providing long-term, individually based services for students with disabilities utilizing graduate students in school psychology, social work, and other allied fields.

**Measures**

To measure students’ pre- and post-intervention attitudes toward requesting accommodations, the Attitudes Toward Requesting Accommodations scale ([ATRA]; Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010) was utilized. The 32-item scale consists of four subscales measuring student attitudes toward requesting accommodations: Academic Integrity, Disability Disclosure, Disability Acceptance, and Accommodations Process. Respondents were asked to rate each item on a 5-point Likert scale with values ranging from 1 (strongly agree) to 5 (strongly disagree). Total scores were calculated by summing individual item scores without recoding any items. As such, higher scores on this scale indicate more negative attitudes toward requesting accommodations, while lower scores indicate more positive attitudes. Barnard-Brak et al. (2010) reported that the internal consistency of scores for the data was $\alpha = .912$. Acceptable levels of internal consistencies for scores for the data on the four subscales were also revealed: Academic Integrity ($\alpha = .906$), Disability Disclosure ($\alpha = .875$), Disability Acceptance ($\alpha = .903$), and Accommodations Process ($\alpha = .943$). As the mentoring intervention spanned the academic year, the pre-test was administered in August and the post-test was administered in the following May.

**Analysis**

All analyses were performed in SPSS (v. 16.0). Missing data were limited as approximately 9% (n = 4) of the cases had incomplete data on some variables. Missing data were handled using a pairwise method of deletion. To answer the first research question, a
paired or dependent samples $t$-test was performed given that data were repeated measures. For the second research question, we performed an independent samples $t$-test to examine the difference scores in attitudes toward requesting accommodations from two time points according to whether the participant subsequently applied to college. In performing our independent samples $t$-test, the assumption of homogeneity of variance was evaluated by the Levene’s $F$ test for the equality of variances. Results of the Levene’s $F$ test indicated that the assumption of homogeneity of variances may be considered met, Levene’s $F(1, 41) = .116, p = .735$. Cohen’s $d$ was calculated as the measure of effect size. Values for Cohen’s $d$ of .20, .50, and .80 and larger may be considered as small, medium, and large respectively (Cohen, 1988).

**Results**

In answering the first research question, results indicate that negative attitudes towards requesting accommodations significantly decreased across the academic year in which the intervention occurred, $t(42) = -6.03, p < .001, d = -.74$. This value of Cohen’s $d$ may be considered as indicating a close to large and substantial effect that may be attributed in at least part to the mentoring intervention. As of first time point in data collection in August of the academic year, participant mean ATRA scores were 96.30 ($SD = 9.33$) and decreased to a mean score of 89.23 ($SD = 9.78$) by the second time point at the end of the academic year in May. Thus, the mentoring intervention appeared to be associated with an increase in positive attitudes toward requesting accommodations among the participants.

For the second research question, we examined for differences in attitudes toward requesting accommodations according to whether the participant applied to college. Approximately 81% ($n = 35$) of the sample applied to at least three institutions of PSE while 19% ($n = 8$) did not apply to any institution of PSE. Approximately half of the students with and without disabilities in the study’s school districts attempted PSE prior to this pilot study. We should also note that participation in the mentoring program required the completion of at least three college applications; otherwise, the student chose not to continue participating in the program. Thus, students either completed three or zero college applications.

Postsecondary institutions to which participants applied ranged from two-year technical and community colleges to four-year institutions of higher education.

Results revealed no statistically significant differences in ATRA scores between those participants who applied to college and those who did not, $t(41) = 1.10, ns$. A post hoc statistical power analysis was conducted to examine if there was a sufficient sample size distribution between the two groups. Results indicate a lack of an acceptable level of statistical power (1 – $\beta = .27$) to reveal statistically significant differences. Subsequently, 100% ($n = 35$) of the sample that applied to PSE were accepted to at least one institution and chose to attend. Approximately 94% ($n = 33$) of these institutions were two-year community colleges or vocational schools (e.g., The Culinary Institute of America) followed by the four-year degree-granting institutions of higher education with approximately 6% ($n = 2$). This outcome coincides with national findings indicating that students with disabilities were five times more likely to attend a two-year versus a four-year institution (Wagner, Newman, Cameto, & Levine, 2005). The majority of the institutions were located in the state where the mentoring intervention occurred, many of which were close to home (e.g., within 50 to 100 miles).

**Discussion**

From the results of the current study, it appears that the mentoring intervention was associated with a substantial and significant decrease in negative attitudes toward requesting accommodations. In producing more positive attitudes toward requesting accommodations among participants, previous research has indicated that these attitudes are associated with students subsequently requesting accommodations in higher education and higher grade point averages in higher education (Barnard-Brak, Davis, Tate, & Sulak, 2009). Results did not, however, reveal that this decrease in negative attitudes toward requesting accommodations was associated with the participant applying to college. Yet, post hoc analyses also revealed a lack of statistical power given that only eight out of the 43 participants (e.g., 19% of the sample) did not apply to an institution of PSE. This lack of sufficient sample size distribution may make the pilot program a victim of its own success in not producing enough participants that did not apply to college for the purposes of statistical analysis. Results of the current study indicate that mentoring intervention programs, such as in this pilot program, are associated with positive outcomes for high school students with disabilities.
Lessons Learned and Future Adjustments

In addition to making a noticeable impact on students with disabilities with respect to their attitudes toward requesting accommodations, the pilot program provided opportunities for lessons learned and subsequent future adjustments that might assist others when pursuing a similar program model. In pursuing this program, the local university partnered with local independent school districts to provide access to students and also a location in which to meet with students on a regular basis. Without the support from schools, this pilot program would not have been successful. Thus, the value of these partnerships with schools was pivotal in the success. Future first year programs should engage schools, at all levels of personnel, as early as possible in implementing such a program. Support from district-level administrators was critical to this type of program by scheduling parent night programs, working with local Educational Service Centers, providing access to student records more expeditiously than local staff, as well as organizing bus transportation when needed to make college campus tours, and scheduling roundtable discussions with all necessary adults who were invested in this program. Campus personnel, while helpful, did not necessarily have the resources or knowledge on how to enact program-related activities described above. We should note that bus transportation for college campus tours was not part of the funded mentoring program and the program was fortunate enough to have the cooperation of schools. A future adjustment will be to anticipate involving the parents throughout the year in order to help them become an integral part of their student’s transition into PSE. In addition, the future plan is to collaborate with the educational service centers to strengthen and expand the efforts of this project.

Thus, the logistics of executing programs such as this were clearly the domain of school district-level administrators as there was a noticeable degree of integration between district-level and school-level leadership to influence the logistics across the majority of the school districts. By utilizing district-level administrators, it is intended that all parties involved will combine resources to strengthen necessary services. Being an outside agency (i.e., a university) bringing this program into selected schools required the efforts of many school personnel from different levels of the organization.

Another lesson learned was to accommodate the school personnel’s request for the type of academic subject a student can be removed from in order to meet with a mentor. The initial plan was to request a one-hour per week meeting. For logistical reasons, attempts were made to coordinate the university mentor being on the high school campus for blocks of time since the school locations caused significant driving distances for some mentors. This coordination would mean that the mentor would attempt to schedule several high school students over consecutive hour blocks as much as possible. This scheduling of students was met with initial resistance by some school officials because of the subject areas that certain students would miss. A compromise was usually agreed upon, typically through consultation between the mentor and the principal, to not take students out of class when subjects such as math or English were taught but rather for elective class periods such as theatre arts. Through creative scheduling and occasionally having no more than a one-hour block of time between mentor-student meetings, this potentially critical problem was resolved to the satisfaction of the school personnel.

An additional lesson learned was addressing the timing of establishing contact with the local school districts. The funding for this program was finalized about the time local public high schools began their academic year. Therefore, the first month of the program focused on hiring graduate students and establishing contacts in the public schools during a time when school personnel were preoccupied with coordinating and organizing the opening of their school. A future adjustment for the second year of the program is to establish contacts with schools in the spring in preparation for the fall semester.

A third lesson learned that might benefit future programs focuses on establishing a larger pool of initial students. The goal of year one of this program was to enroll approximately 50 high school students with disabilities and we ended up enrolling 43, with only 35 completing the program. Further, several of the initial contacts with prospective participants revealed that some were the typical age of seniors (i.e., 17-18 years old) but were juniors or sophomores academically in terms of credits earned. Since the project is geared as a one-year mentoring program, the referral of these students introduced several challenges ranging from adapting the curriculum to collecting pre- and post-program data because one of the most meaningful data points is whether students applied to college. A future adjustment will be to, more clearly and early
on, communicate the type of student needed for the program (i.e., student with a disability who is on track to graduate at the end of the academic year), and to have a “wait list” of students in the fall semester in case some students are unable or unwilling to participate in the program. It may be necessary to inform students about the project during the spring of their junior year in high school in order to have the group ready to begin as soon as they start their senior year.

A final lesson learned was the difficulty in maintaining contact with the first cohort of project participants once they graduated from high school. Then, due to the nature of the graduate programs at the local university, it is difficult to continue with the same mentors. An artifact of this situation is attempting to get high school graduates to respond to contacts from another individual other than their year-long mentor. In addition, it was discovered that email, postal addresses, and telephone numbers were often inaccurate. Future adjustments to this situation include preparing the high school student to anticipate having a different person contact them during the summer after graduation. Additionally, we recommend setting up contacts via Facebook and Twitter accounts prior to graduation and guiding participants to use the accounts prior to graduation so they will anticipate and have experience communicating with program staff. Subsequent cohorts should be easier and more effectively communicated with after graduation using these methods.

**Limitations**

Several limitations emerged as part of conducting the current program. First, evaluation of the program is confounded by the self-selection bias of student-participants. All selection and participation in the program was voluntary, thus some students (and/or their parents) who were already inclined to higher education would have volunteered to participate in this program. Thus, improving attitudes toward requesting accommodations and having students apply to college might not be as difficult given the self-selected nature of the sample versus a randomly selected sample of college-bound high school students with disabilities. The influence of the self-selected nature of participation on results is an issue that confronts all correlational research with human subjects as initial and continued participation of human subjects. Second, subsequent and more sophisticated analyses were precluded given the small number of students-participants not applying to college (n = 8). Again, this limitation may be in part due to the self-selected nature of the sample. Additionally, the act of applying to college signifies an important choice in the life of a young person regardless of disability. A limitation of the current study is that the influence of the variables that interact to produce this choice to pursue PSE cannot be underestimated but often are in the current study and relevant literature.

Finally, given the sensitive nature of socioeconomic status (e.g., as measured by household income), we chose not to collect this information from participants, which would have provided further information to inform conclusions. Information about SES and other relevant follow-up data such as their college GPAs and their progress through freshmen courses would have been useful in determining the long-term efficacy of the program. Thus, results are limited to describing the efficacy of the program as to whether students’ attitudes toward requesting accommodations improved over the course of an academic year and whether students were accepted into a postsecondary institution for study.

**Conclusion**

The results of the pilot program, though preliminary, provide positive support for the implementation of similar programs that provide one-on-one mentoring over the course of an academic year (e.g., 9 months) that serve students with disabilities and train future generations of school psychologists, social workers, and others in allied fields. In conclusion, the results of this pilot program are particularly powerful given that only one-third (31%) of all students with disabilities who are capable of pursuing PSE do so (Wagner, Newman, Cameto, & Levine, 2005). From our sample of participants, approximately 81% pursued PSE, which may be considered a substantial gain over 31% even when considering the issue of self-selection bias of those who participated in the program.


**About the Authors**

Dr. Lucy Barnard-Brak received her M.Ed. and Ph.D. in Educational Psychology from Texas Tech University. She is currently the Director of Core Statistical Services for the Burkhart Center for Autism Education and Research at Texas Tech University as well as faculty in the department of Educational Psychology and Leadership. She can be reached via e-mail at: lucy.barnard-brak@ttu.edu

Dr. Marcelo Schmidt received his M.Ed in Kinesiology from the University of Texas – Pan American and Ph.D. in Educational Psychology from Texas Tech University. He is currently working for the Ethics Center at Texas Tech University. His research interests include physical activity of school-aged children, special education, and ethics in education. He can be reached by email at marcelo.schmidt@ttu.edu.

Ms. Tianlan Wei received her LLB degree in Law from Fudan University, China and M.Ed. in Educational Psychology from Texas Tech University. Her experience includes working as a graduate research assistant for College of Education, Texas Tech University. She is currently a graduate part-time instructor of College of Education, Texas Tech University. Her research interests include gender differences in learning and performance, particularly achievement motivation. She can be reached by email at: tianlan.wei@ttu.edu

Dr. Tamara Hodges received her BA degree in psychology from Oral Roberts University and Ed.D. from Baylor University. Her experience includes working as a school psychologist for schools in Central Texas, maintaining a private practice as a psychologist, and serving as a consultant for The Center for Learning and Development in Waco, Texas. She is currently a senior lecturer in the Department of Educational Psy-
Authors’ Note

We express our gratitude to Greater Texas Foundation for providing financial support for this pilot transition services program. The opinions expressed in this report are those of the author(s) and do not necessarily reflect the view of Greater Texas Foundation.