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Career Development for Exceptional Individuals 2008 31: 164 originally published online 22 April 2008

DOI: 10.1177/0885728808315331

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Academic Identity Development Through Self-Determination

Successful College Students With Learning Disabilities

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This study provides a model of academic identity development for college students with learning disabilities from the integrative self-determination themes of persistence, competence, career decision making, and self-realization. Nineteen self-determined and high-achieving participants were interviewed. The participants' stories illustrate how persistence influences competence, which in turn influences career decision making and ultimately enhances self-realization and supports one's academic identity. Knowledge of one's learning disability, along with self-advocacy and conflict resolution skills, improved the students' ability to obtain academic accommodations in college settings. Secondary education implications include the importance of providing opportunities for students to (a) acquire self-knowledge about their disability, (b) autonomously practice self-advocacy with teachers, and (c) develop conflict resolution skills within the context of academic accommodation requests.

Keywords: *career and vocational development; learning disabilities; self-determination; postsecondary education; qualitative research*

Postsecondary educational access and opportunities for students with learning disabilities have increased dramatically in the United States due to the passage and enactment of progressive legislation such as the amended Rehabilitation Act of 1998 and the reauthorization of the Individuals With Disabilities Education in 2004 and the Americans With Disabilities Act in 1990. In spite of the rising opportunities for higher education and the subsequent number of students with a broad range of disabilities attending postsecondary institutions, college graduation rates and employment rates for students with disabilities lag behind those for students without disabilities (Horn & Berkold, 1999; Wagner & Blackorby, 1996). Meanwhile, attainment of a college education continues to be the gold standard of increased opportunities in adulthood.

According to the 2004 *Digest of Education Statistics*, the population of college students with disabilities is steadily increasing, with the latest data showing that approximately 11% of college students report having some type of disability (Horn & Nevill, 2006; Horn, Peter, &

Rooney, 2002). The types of disabilities reported by college students include, in descending percentages, orthopedic conditions (25.3%), mental illness or depression (21.9%), health impairments (17.4%), attention-deficit disorder (10.9%), other (7.9%), specific learning disabilities (7.4%), hearing (4.9%), visual (3.8%), and speech disability (0.4%) (Horn & Nevill, 2006; Horn, Peter, & Rooney, 2002). Furthermore, the Beginning Postsecondary Students Longitudinal Study (Horn & Berkold, 1999) represents a sample of undergraduates, with and without disabilities, who first began their postsecondary education in the 1989–1990 school year and who were followed up in 1992 and 1994. Findings from the Beginning Postsecondary Students Longitudinal Study indicate that only 16% of college students with disabilities earned a bachelor's degree, compared to 27% of those without a disability. Furthermore, the report documents

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that many students with disabilities have an increased risk of attrition due to delayed college enrollment, part-time enrollment, working full-time while enrolled, completing high school with a GED or certificate, being financially independent from their parents, having their own children, and/or being a single parent. Such factors create barriers to college completion with which many students without disabilities do not overcome.

Considering the many barriers to successful college enrollment and completion that college students with disabilities face, it is imperative to study factors predictive of successful transitions from secondary to postsecondary education. Self-determination has been associated with a broad range of positive outcomes in students with disabilities, including enhanced physical and psychological health, higher self-esteem, and improved general well-being (Deci & Ryan, 1985; Field & Hoffman, 1994; Wehmeyer & Schwartz, 1997). With today's increasing empirical support for self-determination as an essential factor leading to successful adult outcomes for youth with disabilities, there is clearly an assumption that higher levels of self-determination will lead to a better quality of life.

Ward (1988) identified five traits underlying self-determination: self-actualization, assertiveness, creativity, pride, and self-advocacy. Others have described self-determination as knowing how to choose based on an awareness of personal needs (Martin & Marshall, 1996) or 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, 1996, p. 24). More specifically, Wehmeyer (1995) recognized the four essential characteristics of self-determined behavior as behavioral autonomy, self-regulated behavior, psychological empowerment, and self-realization.

Self-determination offers the possibility of a framework for understanding the specific strengths and weaknesses associated with positive outcomes of students with learning disabilities, and consequently researchers have increasingly focused on how advocates, educators, and policy makers can foster the development of self-determination of students with disabilities from the elementary through postsecondary levels. Although studies have focused on the efficacy of curriculum and programs to encourage self-determination at the secondary level, recent research has focused on developing this construct at the postsecondary level as well (Field, Sarver, & Shaw, 2003; Stodden, 2001).

This study, therefore, explored the cognitive and behavioral manifestations of self-determination in successful college students with learning disabilities.

Special educators, parents, and scholars must hear the voices of students with learning disabilities who have successfully transitioned into a 4-year college. The current study had two purposes. First, the study explored ways in which participants' self-determination had affected their transition and their current success. Second, the research sought to illuminate narratives of behavioral manifestations of self-determination, which are informative to young adults with learning disabilities, special education teachers, rehabilitation counselors, and policy makers who are interested in the success of young adults with learning disabilities. The stories of self-determined, matriculating college students with learning disabilities provide a credible window into self-determination development that has not been fully explored to date.

Method

Study Setting

All participants were college students with documented learning disabilities (which included attention deficit disorder) who were receiving academic accommodations from the disability resource center (DRC) at a large land-grant university in the Northwest region of the United States. To maintain student confidentiality, the DRC independently recruited all participants through e-mail and personal communication. All interview participants received a \$25 gift certificate to either a grocery store or Starbucks.

Neither of the researchers who conducted the interviews or analyzed the results had any prior relationship with the participants. Although the lead researcher has extensive experience as a rehabilitation counselor with college students with learning disabilities, this experience was obtained in another state. The second researcher is an experienced community counselor and doctoral student but had minimal experience with this population.

Participants

All of the students with learning disabilities (289) registered with the DRC were invited, via an e-mail from the director of the DRC, to complete a Web-based self-determination survey. The e-mail solicitation to each student contained a unique password and link to the online survey (hosted by the Center for Teaching and Learning and Technology at the university). Students were given the option of requesting a paper-and-pencil survey (from the DRC office) as well. Of the 289 students with learning disabilities, 104 completed the survey. All

participants also gave permission to the DRC to release their grade point averages (GPAs) to the researchers.

Subsequent to the online survey, the survey results were analyzed according to descriptive statistics (mean and standard deviation based on total scores), providing a basis for interview selection. The selection criteria were intuitively designed to increase variance among the relationship between the two key variables: self-determination and GPA. Therefore, based on a mean analysis of the group of self-determination scores and GPA, participants who met the following criteria were included in the interview pool: (a) greater than the group mean self-determination scores and greater than the mean GPA, (b) less than the group mean self-determination scores and less than the mean GPA, (c) equal to the mean self-determination scores and GPA, (d) less than the mean self-determination scores and greater than the mean GPA, and (e) greater than the mean self-determination scores and less than the mean GPA. From the 104 survey participants, 39 met one of the five interview selection criteria. All 39 college students with learning disabilities were invited to participate, of whom 19 completed interviews during one semester. Because the 19 interview participants included representation from each of the five selection criteria, and based on the quality of the interviews, the researchers were satisfied that the variables of interest in this study were adequately saturated and concluded data collection.

Tables 1 and 2 include participant characteristics for the survey and interview participants by gender, ethnicity, time of diagnosis, age, GPA, and self-determination scores.

Measurement and Analytic Strategy

Surveys. The level of self-determination of the participants was obtained from two standardized measures: the *Student Self-Determination Scale* (SDSS; Hoffman, Field, & Sawilowsky, 1996) and the *Self-Determination Scale* (SDS; Sheldon, Ryan, & Reis, 1996). Each of these measures was formatted for Web-based administration, ensuring that the integrity of the paper-and-pencil administration was maintained. The authors of the scales were contacted, they granted permission for a Web-based administration, and appropriate fees for SDSS were paid per each completed survey. Approximately two thirds of the respondents completed Web-based surveys, and one third completed paper-and-pencil surveys. All surveys were completed within one semester.

The SDSS and SDS were selected for the study as they were deemed to be the most appropriate standardized measures of self-determination available for use

Table 1
Survey Participant Characteristics ($n = 104$)

Participant Characteristic	<i>n</i>	%
Gender		
Male	52	50.0
Female	52	50.0
Ethnicity ^a		
Caucasian	90	88.2
African American	1	1.0
Asian/Pacific Islander	3	2.9
Latino/Latina	2	2.0
Native American	1	1.0
Other	5	4.9
Time of diagnosis		
Elementary school	48	46.2
Middle school	5	4.8
High school	20	19.2
College	31	29.8
Participant Characteristic	<i>M</i>	<i>SD</i>
Age	23.22	5.86
Grade point average	2.90	0.55
<i>Student Self-Determination Scale</i> score	75.53	7.58
<i>Self-Determination Scale</i> score	3.79	0.69

a. Data from two participants are missing.

Table 2
Interview Participant Characteristics ($n = 19$)

Participant Characteristic	<i>n</i>	%
Gender		
Male	10	52.6
Female	9	47.4
Ethnicity		
Caucasian	17	89.5
African American	0	0.0
Asian/Pacific Islander	0	0.0
Latino/Latina	1	5.3
Native American	0	0.0
Other	1	5.3
Time of diagnosis		
Elementary school	13	68.4
Middle school	2	10.5
High school	2	10.5
College	2	10.5
Participant Characteristic	<i>M</i>	<i>SD</i>
Age	21.79	2.72
Grade point average	3.10	0.43
<i>Student Self-Determination Scale</i> score	76.16	12.33
<i>Self-Determination Scale</i> score	3.94	0.77

with college students with learning disabilities, based on previous research. The SDSS is a 92-item, self-report instrument that measures both affective and cognitive

aspects of the student's self-determination. The items contain a brief statement in response to which the student marks, "That's me" or "That's not me." Previously, Sarver (2000; see also Field et al., 2003) used the SDSS to investigate self-determination in college students with learning disabilities and found reliable results. Furthermore, the SDSS has previously reported a high level of internal consistency reliability ($r = .91$; Hoffman et al., 1996).

In contrast to the SDSS, the SDS is a short, 10-item scale designed to assess individual differences in self-determined behavior. Also, unlike the SDSS, the SDS has not been used in research with students with documented learning disabilities. In the SDS, for each of the 10 items, participants are asked to indicate which of two statements is truer for them (e.g., "A. I feel pretty free to do whatever I choose to" or "B. I often do things that I don't choose to do"). Participants respond on a 1 (*only A feels true*) to 9 (*only B feels true*) scale. Accounting for reverse coding, participants' responses are summed to form the self-determination index. The SDS has been used in research with college students without reported disabilities (Thrash & Elliot, 2002), and the authors reported adequate reliability and validity ($r = .95$ to $.93$; Sheldon & Deci, 1996).

The results from the SDSS and the SDS were tallied, and descriptive statistics, including means and standard deviations, were computed to characterize the participants' total scale scores. In addition, all participants gave consent to the DRC to confidentially report participants' official cumulative GPAs (obtained from a secure university database) to the researchers. GPA was assumed to be an accurate measure of academic achievement.

Cronbach's alphas for total scale scores on the SDSS and SDS were .90 and .77, indicating that the scales had acceptable internal consistency. Scale means were 75.53 ($SD = 10.08$) for the SDSS, and 3.91 ($SD = .69$) for the SDS. The mean scores for the SDSS were much higher than the norm means of 31.86 (Hoffman et al., 1996); however, the standard deviation and alpha level were comparable to those obtained in previous studies. Conversely, the mean, standard deviation, and alpha for the SDS were comparable to those obtained in previous studies (Sheldon et al., 1996; Thrash & Elliot, 2002).

Because the SDS has not been normed or researched with this population, the relationship between the SDSS and the SDS was investigated using the Pearson product-moment correlation coefficient. There was a strong, positive correlation between the total SDS and the total SDSS scores ($r = .49$, $n = 96$, $p < .01$).

Interviews. The interviews were conducted during one semester by two individual researchers, lasted approximately

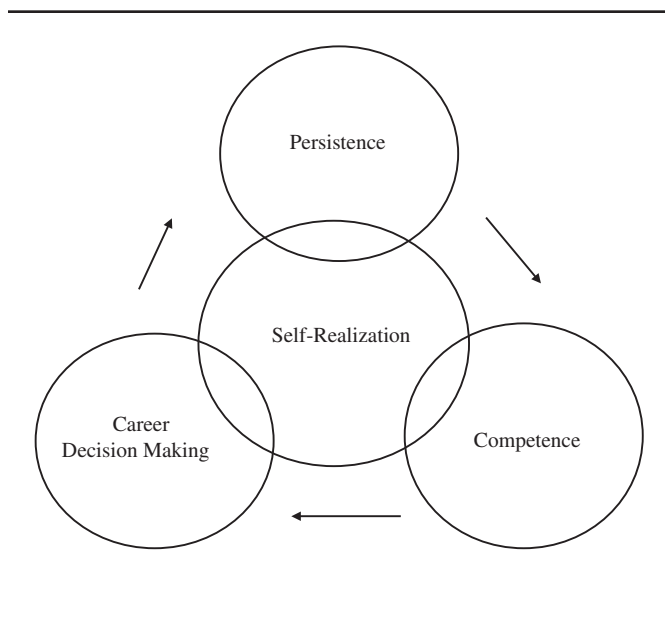
60 minutes, and took place in a private room at the DRC. Each student was interviewed only one time.

Interviews were semistructured and initially included questions regarding the core constructs of self-determination (Field & Hoffman, 1994; Wehmeyer, 1995), specific environments associated with secondary education and special education services, and experiences of interest. Sample interview questions included, "Tell me about your decision to come to this university, and what influenced your selection of goals?" "While in high school, in what ways did you plan your pursuit of a college degree?" and, "In what ways have you had to adjust to the challenges of college in order to be academically successful?" The researchers met weekly to discuss the ongoing emergence of themes, contradictions, concerns, and changes to the interview question format. After completing the first five interviews and assessing the emergence of critical themes, questions were added that related to vocational rehabilitation involvement, socioeconomic background, age at the time of learning disability diagnosis, and risk and protective factors associated with developmental resilience in vulnerable children and adolescents (Werner & Smith, 2001). For example, questions such as, "Was there anything that you had to overcome in spite of your family?" and "Tell me about your involvement with the Division of Vocational Rehabilitation," were added.

All interviews were transcribed by a third party and then reviewed by the interviewers for accuracy. During this process, notes were taken regarding important points or themes. All transcribed interviews were entered into QSR N6 software for coding and analysis (DiGregorio, 2003; Richards, 2002). Using QSR N6 in conjunction with the constant comparative method of qualitative research (Fassinger, 2005; Glesne, 1999; Strauss, 1987), independent coding was completed by the three researchers at separate points in time. Three levels of coding were employed: Level 1, open coding (identifying concepts and units of meaning); Level 2, axial coding (identifying categories and subcategories from the previously identified concepts); and Level 3, selective coding (developing the integrative model of the key categories; see Figure 1).

During the coding process, QSR N6 was used to systematically relate (using the N6 Table function) the integrated themes identified in the axial and selective coding phases to key demographic variables (i.e., gender, time of diagnosis, GPA, and self-determination scores). This process allowed the researchers to explore the hypothesis of relationships between categories and resulted in a recoding of the themes and data until the final core categories were agreed on. During this procedure, the

Figure 1
Academic Identity Development Through Self-Determination



researchers repeatedly checked each participant's original narrative against the emerging theory of the relationships between the self-determination themes. Furthermore, the emerging theory was compared and contrasted to the scholarly literature to determine whether the results were confirming or disconfirming existing evidence.

Results

Evidence of Self-Determination as a Predictor of Transition Success

A model of academic identity development for college students with learning disabilities emerged from the integrative self-determination themes of persistence, competence, career decision making, and self-realization. Figure 1 illustrates how the relationships between persistence, competence, and career decision making are integral to the development of identity and self-realization within a self-determination framework. Within this model, behaving in a persistent manner influences one's feelings of competence, which in turn influences career decision making. Furthermore, persistence, competence, and career decision making all influence outcomes that enhance the individual's self-realization.

This model is illustrated through the narratives of the participants in the study. To protect confidentiality, all

Table 3
Interview Participant Selected Characteristics, by Pseudonyms

Name	Age	Time of Diagnosis	College GPA
Alex	22	Elementary school	3.13
Amy	19	High school	3.46
Andrew	22	Middle school	3.63
Brent	28	College	3.05
Brian	27	Elementary school	3.07
Britney	21	Elementary school	2.92
Chris	19	Elementary school	3.00
Eric	20	Elementary school	3.26
Kyle	21	Elementary school	2.94
Lisa	20	Middle school	2.18
Lynn	19	Middle school	3.94
Maria	23	Elementary school	2.77
Mary	22	Elementary school	2.45
Mark	18	Elementary school	2.94
Matt	25	Elementary school	2.91
Rachel	24	College	3.81
Rebecca	21	High school	3.49
Sandy	20	Elementary school	2.86
William	23	Elementary school	3.01

names used are pseudonyms; however, the age, college cumulative GPA, and age of learning disability diagnosis are included for each participant, providing more detailed background information (see Table 3).

Persistence enhances competence. The participants told equally as many stories of failed attempts at various pursuits as they did stories of successfully reaching their academic goals. Many shared how these negative experiences were instrumental in their ability to eventually succeed. It was obvious that their personal goals could not have been met without remarkable amounts of persistence.

There were many examples of persistence through academic difficulties, and participants discussed the initial negative impact of multiple failure experiences. Despite this, risk taking was prevalent in the participants' stories. Furthermore, there was a subtheme of problem solving through both independent means (i.e., "I'll solve this problem myself") and interdependence ("I now know how to ask for help with tasks that are difficult for me"). Perseverance, through any means, eventually led to competence. For example, Kyle, Mark, and Mindy discussed how they reacted to academic failure.

Kyle: Basically I had to find out how to cope with my own disadvantages myself, and I kind of self-evolved. I learned from my mistakes. . . . I failed a couple of classes here and there, second time it

was easier because I knew what was coming and I adjusted to it.

Mark: I guess I just learn through my mistakes. So if I do really bad on a paper sometimes, the next time, I'll get it done early, bring it in to the writing center and make sure I don't do it again. So kind of a trial and error.

Mindy: I take risks and challenge myself by taking classes that I know could possibly be over my head. Like taking this computer science course right now that weeds out—about 80% of the people failed out of the class—it's basically weeding people out. I went into that knowing the bad odds that I had for passing and right now I'm getting like a B+. It's not bad at all, but it is bringing down my GPA. I guess I take risks because it satisfies me if I succeed.

A few of the participants had initially dropped out of college after academic failure but had since returned and achieved academic success. Lisa shared her experience of failing and dropping out of a private college, entering the workforce, and eventually returning to college at her current public institution.

Lisa: I think maybe the failure [at the first college] was getting burnt out and depressed. . . . Most of the depression was basically [the] process of realizing who I was . . . and [the solution] was to take a year off, to go to work. . . . I learned a heck of a lot. I ended up going and doing contract work, building an inventory system for a small bike shop out there. From there I learned that I like doing this stuff, that I like building databases and that is sort of why I got this MIS degree.

Other participants discussed how their families supported and modeled persistence by ensuring that their children received the appropriate level of academic accommodations in elementary and secondary education.

Brian: I remember my mom and dad they would have to fight to get accommodations for me. And the school would always say that there's something wrong with me, that I am lazy or unmotivated or whatever, and that they refused to give me accommodations, but my parents fought and made sure I got it.

Rebecca: I was informed and knew what was going on. In high school and stuff, parents took care of that [Individualized Education Program], and when

I came here, my mom is not here to help me, so it's fine, and so I got to get motivated to do what I need to do to get extra help. It's in my hands now, I guess.

Sandy: . . . where family and parents would get together [Individualized Education Program], I was involved in that. My mom always enlightened me on my rights as an individual with the disability . . . has always been [an] advocate along with me. [I] started advocating myself. About probably junior high or so, I started to get a grasp of all of that stuff. And my mom has always influenced that, me knowing what my rights are, and making sure that I know how to fight for my rights.

Persistence took many forms, both through individual struggles with goal attainment and through accessing accommodations, and was therefore the most integral theme found in this study. Without the ability to persist through failure and obtain the necessary accommodations to succeed, the participants would not have found the sense of competence needed to make career decisions. Furthermore, for people with learning disabilities, persistence is the first step toward developing a positive academic identity.

Acting persistently develops competence. Persistence was integral to the theme of competence in that the participants achieved a sense of competence after finally succeeding in spite of past failures. Participants described their perceived sense of competence equally with behavioral examples of academic achievement as well as nonacademic activities. All of the participants were able to contribute stories of successful experiences along with an added understanding of their strengths and weaknesses, which appeared to be essential to their development of identity and self-realization.

Lynn discussed the developmental process of determining her strengths and weakness while discovering areas in which she was competent. Similarly, Mindy talked about her awareness of her limitations and problem-solving strategies while also framing her sense of academic self.

Lynn: I discovered [that] I'm really good at math; this is my strength, and this is an area I want to go into. And [this] also helped to shape [my] career destination . . . because I don't really enjoy writing. . . . It's not like I want to fight against my weaknesses, but I enjoy the strength part, and this is something I am good at, I can succeed at this. . . . I'm going [to be] a business major . . . like finance, accounting, something with numbers.

Mindy: I have a lot of intelligence. I also have a lot of creativity. If there's a problem, instead of attacking it head on, I can find a way around it usually. . . . I'm also very curious; I like learning. . . . Well, I do have a weakness in math, and that really impacted me; hence, [I] changed my major.

Participants also provided many examples of nonacademic activities from which they derived competence and self-esteem. William spoke about how success in sports was integral to his social development and affected his feelings of competence, whereas Mary discussed the relationship between 4H activities and her competence. Both William and Mary exuded a sense of pride and competence as they shared their stories.

William: A lot of times, guys don't care about academics. . . . If you can be athletic, they don't look at you [and think], "Oh that's the kid with the [special education] aide." I used to play soccer at a pretty high level; I had to work, work, and work all the time. But it's cool, also like in cross-country, you see the results, and that motivates you. I [was also] captain of the football team.

Mary: I come from a farming family, so we really don't have a lot of money. I've been in 4H since I was 9. I started out like every other 4Her does when you pick an animal and you started showing it. Once I got older . . . I got into leadership, and I like teaching others. . . . [Teaching] became my main focus. I think that helped to create my focus of achievement. . . . I participated as an officer. I was given the extraordinary opportunity to show cattle and to take that money and save it for college—that is part of how I'm paying for it. I also have my own small herd that pays tuition from the cash crop that I get every year. That pays tuition. I work over full-time in the summer in order to pay everything else. I work at a nursery . . . and I'm also working for a pond company this summer. I'm self-supporting.

This subtheme of competence, self-esteem, and pride resulted from the development of unique strengths and accomplishments. Many of the examples of competence were not academic in nature, yet the experiences helped the participant develop an understanding of his or her strengths and weaknesses, which in turn directly influenced the career decision-making process. This enhanced understanding is part of self-realization and therefore is essential to achieving a positive academic identity.

Experiencing competence influences career decision making. Career decision making, or developing a career goal based on feelings of competence gained from successful experiences, was the third theme (see Figure 1). The participants all shared stories of how they persisted to find eventual success and how these experiences were the foundation of their career choice-making process. Kyle's story accurately reflects many of the participants' career decision-making processes.

Kyle: I just wanted a job that I enjoy. . . . I try to set too high standards [then] I get too frustrated [and] I'll probably spiral downwards. So . . . because I love PE classes, . . . I'm like, why don't I teach [PE]? . . . I was always motivated. . . . This just seems right for what I wanted to do with my life. So that is kind of the path that I went down.

The career decision-making process was also developmental. For example, Mark and Britney, college freshmen, discussed dreams and goals that were more global, undeveloped, and untested than many of the college upperclassmen's.

Mark: My dreams for myself, well, that changed a lot since I was a child, but . . . I've changed a lot, even since I've been here at school. I've changed a lot of my goals and stuff. . . . I want to be a part of the music business, have like a recording company or something like that, that is my main goal. It is kind of a dream that I have. I don't know, music is just something that inspired me a lot to do my work.

Britney: Just getting a degree, even if I don't get a high GPA, I want a degree, so bad. I want to be a family therapist and work out of my home and see clients or be a school counselor, and if I get a master or even higher PhD . . . I think I would like to go back to high school and be an example that I would've wanted in high school.

In comparison to Mark and Britney, Alex and Mary, college seniors, articulated specific plans and goals.

Alex: Well now, I would just like to get a degree in mechanical engineering . . . and a minor in sculpture. . . . [Sculpture] is something I enjoy, and it kind of goes side to side [*sic*] with engineering. . . . When I get out of college, I will probably join the Peace Corps and travel around for a little while . . . then get a job in engineering, hopefully something

on the more artistic side of engineering. I really like the whole design process.

Mary: Originally, since I was a little kid, I wanted to be a research biologist. . . . When I got [to college] and I knew that I wasn't able to pass my science classes, particularly the chemistry, I knew it wasn't worth it, so I had to go and find a new dream. Working at a nursery at my hometown and everybody saying, "You're just so creative, you know your plants so well that you should go into landscape architectural," it would be so perfect. So that is where I'm at. . . . I have goals and I know I want to go home and start my own practice; that is what I kind of have to do.

Examples of experiences that suggested a shift of the participant's locus of control from an external to an internal orientation were particularly salient. Specifically, participants shared stories of autonomous goal setting, choice making, and self-directed decision making. It appeared that the opportunity to set goals that were not imposed by others facilitated critical opportunities for self-direction, which influenced career decision making. This phenomenon is best illustrated by Christopher, who was able to articulate how his decisions differed from the advice others had given him, illustrating both his autonomy and his intrinsic motivation.

Christopher: Yeah, I do want to be a nurse. . . . My main goal was to become a dentist, but with a nursing degree, I'll get a job afterwards. . . . [My parents and others] recommended that I get a biology degree, [but] I don't know what I'll do with that. [With a nursing degree] I'll get a guaranteed job . . . because my parents are kind of cutting me off next year.

Christopher went on to explain his process of setting and meeting realistic academic goals.

Christopher: When I get a goal . . . I try to make steps that are easier to see to accomplish the goals. Like if your goal is to get a bachelor in nursing, my mini goals would be first, I go to classes for the first semester, and then I figure out what classes I really want an A in, and then I work really hard to get those A's in those classes. Classes that I know that I won't be able to get the A's in, I tend to not to work as hard. I try to aim for a B and just try to accomplish little stuff at a time instead of just trying to figure out a whole big step and shocked at the end.

In sum, career decision making was salient in all of the participants' stories as a developmental process that began in secondary school. Early experiences with failure and eventual success became markers for future career interests. Participants expressed motivation and courage to pursue these interests and goals through autonomous choice making when necessary, in particular when their desires were in opposition to their parents' or other authority figures'. When they had experienced success, they were confident enough in their own ability to succeed and were able to oppose the advice of others.

Self-realization develops through persistence, competence, and career decision making. The final theme of self-realization cut through the other themes of persistence, competence, and career decision making (see Figure 1). The participants appeared to have a mature understanding of their own individual strengths and weaknesses and possessed an accompanying intrinsic motivation to complete tasks, which resulted in a high level of self-awareness and self-realization and ultimately a positive academic identity that facilitates success in college. They appeared to accept themselves with their learning disabilities such that their sense of their academic selves incorporated both the learning disabilities and their unique values and individual personal characteristics.

The use of personal and academic accommodations in college was a behavioral output of self-realization. The participants were able to use this self-awareness to understand how to request accommodations that met their individual needs. Lisa and Mark summarized their experiences requesting accommodations from the university.

Lisa: I need to take tests in quiet areas. I arrange and I get it done.

Mark: I make sure I ask for help. I advocated for myself, and if I had a problem, I try to bring it up to the DRC or I try to figure out a way. I try to talk to the professor, like if I'm writing a paper and I'm having a really hard time, I'm getting stuck; I'll talk to him and say, "Hey, I'm really stuck; can you help me with this?" If I'm really stuck then I might talk with him about something, work out something where I turn in this a couple days later so he gets my best [paper].

Sandy, Eric, and Alex shared examples of completing difficult tasks and prioritizing academics instead of extracurricular activities.

Sandy: If the goal is to finish a paper by Friday, I make sure I'm through a certain stage I set up on Monday. . . . I want to be with a rough draft by Wednesday. . . . I want to e-mail it to a professor by Thursday, to do all of my final corrections on Friday. It's coming to set up little stuff . . . to make sure I achieved.

Eric: Well, I just realized, like I had to come to a conclusion, that it just takes me twice as long to take tests and twice as long to study. I mean that is cool, I can tell a friend I need to go slow when we're reading over stuff, and he's cool with that. It was kind of hard when I was younger; kids would like make fun of me and stuff; now it's cool.

Alex: For the first time this semester, I had to give up something . . . because I was just doing too much. My engineering classes had been getting progressively harder, and I have the band that I didn't want to quit, and I'm also taking sculpture class on top of a full engineering load and all of that together. I dropped a lab. . . . It was something that I had to do. So for the first time, I had to do that.

Other manifestations of self-realization were associated with understanding one's strengths. Mary talked about her time-management skills, and Chris discussed his confidence in his ability to work hard and eventually find success.

Mary: Time management is definitely one of my best skills. I've done it my entire life.

Chris: After I met with the doctor, I saw hope in that, I started to see that learning disabilities can be a benefit. Since I've worked so hard as a kid, now I know how to work hard as an adult.

Self-realization, although a somewhat abstract concept, manifested itself in a variety of interesting examples in this study. The college students with learning disabilities whom we interviewed discussed their use of accommodations through a sophisticated understanding of their strengths and weaknesses. And they discussed their ability to develop time-management systems and estimate the time needed to complete difficult tasks, which is critical to their academic identity as students with learning disabilities. The participants knew when to expect difficulty and where and how to request accommodations to address the difficulty.

Discussion

The results from this study both confirm and add to the research base creating programs and practices that assist high school students with learning disabilities to transition into and complete college. We know that self-determination facilitates intrinsic motivation, social development, and well-being (Ryan & Deci, 2000) and is a critical element in resilience wherein individuals must practice autonomy and problem solving to persist through failure (Miller, 2002; Miller & Fritz, 1998). How does the process of self-determination development influence the formation of a positive academic identity for students with learning disabilities? Furthermore, what is required for academic success and, ultimately, career satisfaction and success?

The relationship between the four qualitative themes of persistence, competence, career decision making, and self-realization highlights self-determination and career development. Kerka (2002) reviewed research on the career development needs of persons with learning disabilities and identified successful adults with learning disabilities as individuals who have made three internal decisions that lead to four behaviors or external manifestations. First, the internal decisions include a powerful desire to succeed. Second, there is a clear goal orientation. Third, individuals reframe the learning disability experience, which encompasses acceptance of one's disability, understanding one's strengths/weaknesses, and goal achievement. The four behaviors or external manifestations identified by Kerka were (a) persistence; (b) goodness of fit, or finding work that maximizes strengths and minimizes weaknesses; (c) learned creativity, or finding unique ways to accomplish tasks and compensate for weaknesses; and (d) a social network that provides support rather than encouraging dependence.

The National Center on Secondary Education and Transition has noted that successful college students with disabilities are initiators, advocates, and active participants, which the center contends is often the opposite expectation of high school special education recipients and special educators (Stodden & Conway, 2002). Although it was not the focus of this study, only a handful of the interviewees reported being actively involved in their own Individualized Education Program planning, and many reported not attending their Individualized Education Program meetings. Rather, participants discussed the important role of relationships with family who supported and instructed them in how to become advocates for their educational needs while in college. In

general, participants' stories relayed high family involvement in elementary and secondary education, especially in terms of modeling persistence in obtaining appropriate academic accommodations. This modeling naturally led to the use of disability-related supports in college. For example, the majority of the participants learned about the DRC and their rights as college students with disabilities from their families rather than from their special education teachers or school counselors.

Last, one of the primary manifestations of self-advocacy and conflict resolution is through accommodation requests in college settings. Palmer and Roessler (2000) found that college students with learning disabilities who received self-advocacy and conflict resolution training were significantly more knowledgeable about accommodation responsibilities and rights than those in the treatment group who did not receive similar training. Stodden, Whelley, Chang, and Harding (2001) reviewed the extent to which different types of educational supports and accommodations are available across a wide range of institutions and found that the results varied drastically across both states and campuses. Although we can hope that accommodations are becoming more commonplace and perhaps standardized, it is still necessary for the individual student to request, and sometimes demand, that they receive the supports required for their academic success. The personal stories of the participants interviewed in this study indicate that receiving the necessary accommodations was fundamental to academic identity development for students with learning disabilities—and also required self-advocacy and sometimes conflict resolution skills.

Limitations

The results from this study should be interpreted with caution for a number of reasons. First, the sample from this study was a convenience sample, and the participants were provided a small stipend (\$25) for their participation, which may have biased the sample and results. Second, there is no ethnic diversity reflected in the sample, and the results should not be generalized to persons of color with learning disabilities who may have a vastly different experience due to many factors such as discrimination and prejudice. Third, the data were not triangulated with the participants (beyond obtaining their official GPAs from the registrar's office), meaning the results may have been subjectively interpreted by the researchers.

Implications for Practice

First, the participants in this study possessed a high level of self-knowledge regarding their disabilities, abilities,

goals, and interests. As with all persons, self-knowledge is developed through experiences and opportunities for discovery, and these students possessed the critical ability to incorporate their current experiences into their self-knowledge, enhancing their self-realization. Similarly, Gerber, Ginsberg, and Reiff (1992) discussed this as a process of reframing wherein the individual is "reinterpreting the learning disability experience in a more positive and productive manner" (p. 481). Second, the participants were able to develop social support networks that facilitated their persistence and resilience (Kerka, 2002). Third, the participants advocated for themselves with the DRC and with professors to ensure they received appropriate accommodations and assistive technologies. As such, results from this study suggest that secondary education teachers must incorporate self-knowledge opportunities and competencies into transition planning, monitor social support development, and teach and evaluate students' self-advocacy skills.

In conclusion, this study provides a model of academic identity development for college students with learning disabilities from the integrative self-determination themes of persistence, competence, career decision making, and self-realization. The developmental nature of these themes as manifested in college students with learning disabilities is instructive to future and current students, special education teachers, vocational rehabilitation counselors, and disability service providers. The field demands more evidence and examples of successful young adults with learning disabilities who have developed a positive academic identity, and the personal histories of the 19 self-determined and high-achieving college students in this study not only provide this but also offer direct support of self-determination as an element of resilience (Miller, 2002) and confirm self-determination theory (Deci & Ryan, 2002; Field & Hoffman, 1994; Wehmeyer, 1995).

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