Achievement- Related Beliefs of College Students With Disabilities

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Abstract

The purpose of this study was to create a descriptive account of the factors college students with disabilities view as important to their academic success. Thirty-six college students with disabilities receiving services from a northwestern university's Disabled Student Services Office were asked to describe the basis of their academic success or failure. An ethnographic open-ended interviewing technique was employed to allow the students to describe their academic performance and the experiences the considered important in their own terms. In addition to psychological belief factors, the participants in this study assessed their performance in terms of the supportiveness of family, faculty, and students with whom they worked. The implications of these results for university programs for students with disabilities are discussed.

This project was designed to study college students' with disabilities perceptions of those factors that affect their academic success or failure. The starting point for the study was evidence that nontraditional college students' beliefs about the factors that influence their academic success go beyond psychological belief factors, covering a broad range of areas including social support factors, campus climate factors (e. g., interaction with other students and faculty), and achievement-related beliefs such as effort, discipline, ability, and ambition (Cheng, 1990; Holland & Eisenhart, 1988; Kraft, 1991; Van Stone, Nelson, & Niemann, 1993). The recognition that psychological belief factors are not entirely predictive of educational attainment has also been made in the case of school-age students (Allen, 1987; Comer, 1980; Goodlad, 1984; Green, 1989; Sizer, 1985). College students with disabilities sometimes require assistance and/or accommodations, and the possibility is great that a broad array of social support, campus climate and psychological belief factors influence the academic success of college students with disabilities. This information is especially important since growing numbers of students with disabilities are pursuing a postsecondary education (Decker, Polloway, & Decker, 1985; Nelson & Lignugaris-Kraft, 1989; Ostertag, Baker, Howard, & Best, 1982; Ugland & Duane, 1976). For example, the number of these students entering institutions of higher education doubled in the 1980s. One and one-third million or 10.5% of the 12.5 million students enrolled in postsecondary education during the 1988 - 1989 academic year reported that they had a disability (Wilson, 1992).

Special support services reflect one dimension of social support and campus climate that may be important to the academic success of these students. College and university officials have developed support programs in response to the influx of students with disabilities on college campuses (Nelson & Lignugaris-Kraft, 1989). The major impetus for establishing support programs was the enactment of Section 504 of the Rehabilitation Act of 1973. The development of services at the college level is also a natural outgrowth of the services provided initially by elementary, junior, and senior high schools (Decker et al., 1985; Gray, 1981; Mangrum & Strichart, 1983; Nelson & Lignugaris-Kraft, 1989; Sedita, 1980). In addition, lobbying efforts by national and local organizations, combined with individuals' with disabilities interest in attending institutions of higher education, have brought pressure on college and university personnel to develop programs to assist these students (Nelson & Lignugaris-Kraft, 1989).

Although there are differences in how support services are provided to individuals with disabilities attending institutions of higher education, these services typically include three general types of accommodations: counseling, instructional, and administrative. According to Nelson and Lignugaris-Kraft (1989) institutions of higher education usually provide personal or social counseling, academic or program counseling, and career counseling. Instructional accommodations include course modifications (e.g., modifications in testing procedures) or support services (e.g., tutors, notetakers, taped textbooks). Administrative accommodations often include program funding mechanisms to support services for students with disabilities.

Interaction with faculty and other students represents another dimension of social support and campus climate that is likely to affect the academic success of students with disabilities. Although it appears that faculty report that they are willing to provide accommodations to students with disabilities (Matthews, Anderson, & Skolnick, 1987; Nelson, Dodd, & Smith, 1990; Nelson, Smith, & Dodd, 1991), there is little or no information regarding the extent to which faculty and nondisabled students facilitate the integration of students with disabilities into the academic community. The failure to achieve a sense of membership or integration within such a community may cause some capable students with disabilities to leave college campuses.

The support of family is still another social support, campus climate factor that might be important to the academic success of these students. Though the support of family does not directly impact academic performance, other nontraditional students have discussed its importance to their academic and social success (Holland & Eisenhart, 1988; Kraft, 1991; Van Stone et al., 1993). Kraft, for example, found that a majority of African-American students attending a predominantly white college believed that the emotional support of their family positively impacted their academic and social performance.

Psychological belief factors may impact the academic performance of students with disabilities. Beliefs about the causes of success and failure in academic settings, and expectancy of future success have been the subject of continuing interest (Borkowski & Krause, 1985; Dweck, 1975,1986; Nicholls, 1989). Research has also shown that there is

a significant correlation between causal beliefs and academic achievement (Weiner, 1985).

Though researchers have examined other nontraditional college students' perceptions of factors that affect their academic success (Cheng, 1990; Holland & Eisenhart, 1988; Kraft, 1991; Van Stone et al., 1993), there appears to be no research to date conducted with students with disabilities. Thus the goal of the present study was to create a descriptive account of some of the sociological and psychological belief factors college students with disabilities view as important to their academic success or failure. The value of such an account rests in its capacity to capture general patterns that may be missed in quantitative studies of academic experience. Because the students interviewed in the present study were in a unique position being the only "insiders" privy to the history of interactions that occurred across a wide variety of private and public contexts, we speculated that their perceptions would provide unique and valuable information about their personal impressions and evaluations of their academic experiences.

A semi-structured interview was used in the present study to allow students to discuss the factors in their own terms. This interview process was used because some researchers have noted that typical belief taxonomies contained in theories of achievement motivation do not fully account for the broad array of factors that are necessary to adequately represent individuals' beliefs about academic success (e.g., Covington & Omelich, 1984; Kraft, 1991). They have argued that typical taxonomies of causal beliefs about academic success or failure fail to adequately capture beliefs about academic success or failure.

Method

Participants

Participants included 36 (of 48) students with disabilities who had sought services from the Disabled Student Services Office at a northwestern university.

The director provided the investigators with the names and telephone numbers of 48 students who had requested services during one academic quarter. The investigators attempted to contact each of the students by telephone. Of the 12 nonparticipants, 10 could not be contacted because they had moved or had dropped out of school and two declined to participate because of the time commitment involved. Fifteen(42%) of the students interviewed were female and 21 (58%) were male. There were 2 (6%) freshmen, 6 (17%) sophomores, 11 (31 %)juniors, 14 (39%) seniors, and 3 (8%) graduate students. The mean reported grade point average (GPA) of participants was 2.95 (range 2.0-3.8). Their ages ranged from 19 to 54 (mean=26.2). Fifteen (42%) of the students were social science majors, 12 (33%) were business or economics majors, and 9 (25%) were majoring in a science related field.at the university. Eighteen (50%) of the participants reported they had impairments in mobility, 2 (6%) in hearing, 7 (19%) in visual acuity, and 9 (25%) indicated that they had a learning disability.

Interview Procedure

Participants were randomly assigned to one of three interviewers (first and second author, and a graduate student in psychology) who met with them individually. The rationale interviewers provided to students, orally and in informed consent forms, was that the information gained from the study would help university administrators, faculty, and other professionals to better understand what factors college students with disabilities thought influenced their academic success or failure.

All interviews followed a 12-question protocol which was based on a review of the literature on factors that influence college academic success (Boyer, 1984) and on achievement motivation (Dweck, 1975; Nicholls, 1984; Weiner, 1985). Each interview lasted approximately one hour and covered three areas: a) demographic information as reported in the Participants subsection (Questions 1 - 4); b) beliefs about academic performance (Questions 5 - 7), and c) social support and campus climate factors (Questions 8 - 12). The questions, presented verbatim, were:

1. What is your class standing (e.g., freshman, sophomore, junior, senior, graduate)?
2. What is your current GPA?
3. What is your disability?
4. How long have you attended the University?
5. What is your area(s) of study?
6. Have you ever changed your area of study? If so, why?
7. What does it mean to be academically successful?
8. Why do you think that some college students with disabilities are more successful than others?
9. Other students have talked about the importance of ... (ability, ambition, effort, discipline, luck, self-confidence, and interest). What influence if any, has...had on your success as a student?
10. Other students have talked about the importance of ... (family, faculty, other students, and university services). What influence if any, has ... had on your success as a student?
11. Who would you talk to if you were having difficulty with your work or other matters (or who would you advise someone with disabilities to talk to)?
12. What are the obstacles students with disabilities face in trying to succeed in colleges and universities?
13. Compare your experience in high school with your experience at the University.
14. Have you ever thought about leaving the University? If so, why?

Participants were allowed to fully discuss each question or to raise other issues they believed were important. The protocol was used only as a guide by the interviewers. This allowed the participants the opportunity to discuss their own personal experiences within a semi-structured format. At the end of each interview, the important points made by the student were summarized by the interviewer. These points were then verified with the participant as to whether the summary was an accurate assessment of the experiences (factors) that influenced their academic success. The interviews were also audiotaped.

Analysis

The interviews were transcribed and an analytic deductive strategy was employed in the analysis of the information provided by the participants (Goetz & LeCompte, 1984). This method was used to identify a priori categories of factors and to generate explanations and emerging factors that are not typically included in achievement- motivation taxonomies. Once again, in this study, we were most interested in students' spontaneous comments about factors that they thought influenced their academic success. Specifically, the interview notes were examined for comments about factors that are often included in achievement-motivation taxonomies such as personal ability, level of effort, task difficulty, luck, prior preparation, and interest in a topic. The interviews were also examined for comments about factors or beliefs that did not into fit into these categories. Simultaneously, there was a constant comparison across categories (Glaser & Straus, 1967) that supported the refinement of the factors. The data were then coded into categories, and written interpretations of the categories were constructed. This resulted in 10 factors that students indicated were important to their academic success (see Table 1).

A two-step process was used to ensure the reliability of the interpretations. This included the initial verification of the responses by the interviewer and each participant (described under Interview Procedure section) and intercoder agreement between the primary researcher and second author. The intercoder agreement of each category was estimated by dividing the number of agreements by the number of agreements plus disagreements. The number obtained was then multiplied by 100. The mean percent agreement across the 10 categories was .97 (range=.88 to 1.00). Any disagreements were resolved through discussion by the coders.

A question-by-question summary is not presented because students' discussions of factors important to academic success were not limited to any particular question and because they often responded to questions by elaborating on points made in response to previous questions. In addition to a summary of the factors that influence academic success presented in Table 1 and discussed in the next section, some of the typical experiences that participants described are also included. The terms and/or expressions used by the students themselves are indicated by quotation marks.

Results

The 10 factors that college students with disabilities interviewed in this study cited as important to their academic success can be divided into two general categories: psychological belief and sociological factors (see Table 1). The six factors under the psychological belief category included discipline and effort, acceptance of their disability, personal ambition, self-confidence, prior knowledge and experience, and ability. The four factors included under the sociological category included family support, interaction with other students, interaction with faculty, and university support services.

Table 1 Percentage of Students Identifying Factors Important to their Academic Success

Factors	Percentage (of students citing factor)
Psychological beliefs	
Discipline and effort	100
Acceptance of disability	88
Personal ambition	72
Self-confidence	52
Prior knowledge and experience	33
Ability	14
Sociological	
Family support	92
Interaction with other students	70
Interaction with faculty	30
University support services	30

Note. There were 36 participants. Percentages total more than 100% because respondents were not restricted to one response.

There were no discernible patterns in the participants' responses in terms of their class rank, GPA, or major area of study. With the exception of accessibility issues, there were also no discernible patterns related to disability classification.

Students in general indicated the importance of four or more factors to their academic success (e.g., supportive family, interaction with faculty, ability, self-confidence, and past experience). They were as likely to cite psychological belief factors as being more important to their academic performance than the sociological factors. Participants' responses regarding the psychological belief, social support and campus climate factors are detailed next.

Psychological Belief Factors

Discipline and effort. All of the students mentioned discipline and effort as an important basis for academic success (see Table 1). These two qualities were always discussed together. Participants typically made reference to working hard to master the material and the need to evaluate the significance of course requirements in relation to the final grade in a course. This means scheduling study time in relation to the appropriate amounts of time needed for the adequate completion of academic tasks as well as avoiding the temptation to socialize during study times. "You really have to think about what needs to be done and when you are going to do it [assignments]. Professors tend to schedule

everything at the same time so you really have to be studying all the time. I can't do all-nighters and do well."

The scheduling of study time was more complicated for those students (n= 12) that required the assistance of another individual such as a reader or note taker. These individuals had to coordinate their study times with those of another student. They, however, often commented that having to set up scheduled times helped them to be more organized and to avoid putting off course requirements. "Sometimes it is difficult to fit everything in, but it really helps me to be more systematic in my studies. It makes me get things done."

The scheduling of study time for those participants (n= 18) with mobility problems was also very difficult. These students made reference to the amount of time necessary just to get to the university as well as around campus. "I really have to be careful to schedule enough time to get everything done. It just takes me longer to get around."

*Acceptance of disability.*As indicated in Table 1, a majority (88%) of the students interviewed believed that it was important to accept their disability. These participants thought that the ability to deal with not being fully accepted by nondisabled persons was critical to their success. "You don't have to be popular, but it is nice to be accepted by people. It seems like people don't know how to accept you." These students often mentioned the importance of family in accomplishing this. For example, in the words of a student with a hearing loss:

I accept my disability, I am not embarrassed to talk about it. My parents really helped me become comfortable with myself. They always encouraged me to inform people when I couldn't understand what people were saying. When people see that I am comfortable with it, they are.

This issue was especially evident for those students who had more noticeable disabilities such as mobility, hearing, and visual impairments. Students identified with learning disabilities, for example, did not report that they were unaccepted by nondisabled peers.

Personal ambition. Twenty-six of the participants (72%) attributed their academic success to personal ambition. Most of these individuals' references to ambition were made in terms of a desire to obtain a job enabling them to "make lots of money" and advance their economic status. "When I get done [completion of baccalaureate degree], I just want to get a job that pays well. Then I can buy the things that I want." The remainder of these students commented on the importance of satisfying internal standards of competition, often striving to be one of the top students. "I want to be in the top three in my courses. I have a high GPA and there is no way that I will let that drop. I want to graduate at the top of my class."

Self-confidence. A little over one-half of the participants discussed the importance of self-confidence or self-reliance in their academic success. These students commented that they took responsibility for their performance on course requirements. This included

setting academic goals and having the confidence to meet those goals as well as making decisions about their course of studies. As one student put it, "I think that I have the attitude that I can do it. Some students don't think they can-that's why they don't do well."

Prior knowledge and experience. Adequate preparation in high school and previous experience were described by a third of the participants as important to their academic performance. When students talked about their academic preparation they often made reference to a special interest course they had taken in high school or the lack of an adequate academic background. "I took a psychology course in high school that was really interesting, but I wish that I had taken more math. I am struggling with my statistics courses."

Almost as important as academic preparation for some students (n=5) was the importance of social maturity. Those students who had experience working, prior to enrolling in college, often made reference to the importance of "knowing what they wanted to do." "You know, I have experienced more than most of the students in college. I take my courses more seriously. I am more focused and committed to my studies."

Ability. Few (14%) of the participants discussed ability as a factor that influenced their academic success. Two students made reference to specific skills and not to their intelligence. In the words of a counseling major, "I can work with people. I have good interpersonal relationship skills. I listen well and can communicate with people."

Only three other students described ability as a factor that distinguishes successful college students from unsuccessful college students They believed that successful students are "brighter" than students that fail to do well. In response to the question "What does it mean to be academically successful?" a student replied, "Being smart, that is what it takes to be successful in college. People who have a high GPA are usually brighter than those that don't."

Sociological Factors

Family support. Though support from family does not directly affect academic performance, with few exceptions, students attributed their academic success to the support of their family (see Table 1). They typically described family support in terms of emotional support and encouragement as well as high expectations rather than in terms of financial support. These participants noted that emotional support and encouragement from their parents were critical to their academic performance. They believed that they might discontinue their academic pursuits at times if their families did not provide them support. As one participant commented, "I don't know if I would keep going at times if my parents did not tell me I could do it [complete a baccalaureate degree]. It [encouragement] really helps me when I am down."

A few of the participants (n=5) also commented on the importance of their parents' academic expectations to their academic success. They made direct reference to the influence of their parents' high expectations throughout their high school and college

careers. "They have always expected me to do well in school. They said that it was important for me to do the best that I can at whatever I do. They never cut me any slack."

It is important to note that with only one exception, those participants who indicated that their family supported them also reported family encouragement to be autonomous. The importance of autonomy is illustrated in the following response by a business major:

My parents have helped a great deal. They have helped me to deal with my disability. They supported and encouraged me to try anything that I wanted to do. My parents always encouraged me to be independent, they never told me that I should not try things. It was important to them for me to be independent. I am not sure that I would have tried many of the things that I did without them pushing me some. I might not have accomplished the things that I have. Yeah, my family really helped me.

Interaction with other students. Seventy percent of the participants noted that interaction with other students was important to their academic success. Students' interaction with other students typically centered around informal academic study groups and counseling sessions. Students viewed study group sessions as important in the sense that it made college easier or more efficient. These students often talked of the importance of working with other students to prepare for examinations and projects. Although it may not appear to be a positive coping strategy, some students in the study did report negotiating with other students who would attend class in order to get notes and monitor course requirements for the larger group. Having someone to go to for academic advice was seen as important to their academic success. "Other students can help you with what professors to take and some of them [professors] you want to avoid."

Two students also commented that interacting with other students was more than an efficiency issue. These students believed that interaction with other students was, in itself, an educational experience. In the words of one of these students, "It [interacting with other students] is more than just working together. We spend a great deal of time talking about social and political issues. I consider these discussions an important part of my education."

Interaction with faculty. Only 30% of the participants reported that faculty were supportive or made attempts to work closely with them. For these students, developing a professional relationship, being encouraged by, and/or receiving feedback and information from faculty were important to their academic success. Of lesser importance to these students was obtaining actual help from faculty regarding academic concerns. One participant in graduate school said, "He [major professor] cheers me on and motivates me to continue my studies. This is more important than getting help from him." Five students also indicated that faculty were willing to make accommodations for them. These accommodations often centered around changes in a professor's classroom presentation style for students who were visually or hearing impaired. For example, a student with a hearing impairment stated:

My math professor spoke in a low voice, had a beard and mustache and faced the board when he talked. I talked to him about my hearing problem and he told me to sit in the corner in front. He talked to me and turned his head instead of facing the board. If I don't have a problem hearing in a class I don't worry about it. Most say, 'if you don't get something come to my office after class, and we will fill in the gaps.'

Conversely, the most common complaint about faculty from those students who did not indicate faculty were important to their academic success was that faculty did not take the time to help students outside the classroom with questions about course requirements or they did not provide any encouragement to them. As one participant put it, "They [faculty] just don't seem to care about the students. I don't know, maybe they just have too much to do. They really need to be more responsive to students [including those with disabilities]."

University support services. A relatively small number of the participants (30%) thought that the University's support services were important to their academic success. These students typically utilized services such as tutors, notetakers, and access to enlarged text, and made reference to the importance of these services to their academic success. "I wouldn't be able to go to college without assistance. These services are very important."

However, those students with visual impairments indicated that there is a need for technology to enlarge text, computers that accept verbal commands, and alternative ways of accessing the campus computing network. Further, students with mobility problems talked about the availability of parking and special computer tables and desks. They believed that the University had failed to eliminate all of the barriers for persons with disabilities. These students indicated that they were unable to fully access the computerized card catalog systems and campus computing network. The major problem centered around poorly designed workspaces for those students using a wheelchair. As one student stated:

You know I am really happy that improvements are being made. There are places and things that I can do now that I couldn't have done only a few years ago. don't know what they are doing. The things they design just don't work very well. These people should talk to the persons that are going to use them and include them in their testing and inspection processes. I think this would help them to design things that work.

Discussion

The purpose of the present study was to create a descriptive account of some of the factors college students with disabilities view as important to their academic success. This work contributes to previous work conducted with other nontraditional college students which has indicated that it might be profitable to expand achievement-motivation research beyond students' psychological beliefs about factors such as ability, level of effort, and task interest to include a broader array of social support and campus climate factors (Covington & Omelich, 1984; Kraft, 1991; Tracey & Sedlacek,1987; Van Stone et al., 1993). It also provides practical information regarding the achievement

related beliefs of college students with disabilities. This information might be used by university officials and others to develop programs or refine existing programs for such students.

The findings of the present study converge with previous evidence that suggests that achievement-motivation belief taxonomies should be expanded (Covington & Omelich, 1984). The achievement- related beliefs of students interviewed in this study were not limited to personal beliefs about ability, discipline and effort, and so forth. Though students commented that these matters were important to their academic success, social support and campus climate factors such as family support, interaction with other students and faculty, and university services were also considered to have an effect on their academic performance. Further, though the comments of students regarding their personal beliefs about academic success tended to fit achievement-motivation belief taxonomies, they sometimes talked about them in ways that did not directly correspond to the typical conceptual frameworks articulated by researchers (Dweck, 1975; Nicholls, 1984; Weiner, 1985). Students with disabilities also talked about the importance of accepting one's disability to academic success, a factor specific to this group of individuals.

The students in the present study did not talk of effort as being made up of a variable dimension which depends on the nature of the task or the student's emotional state (Weiner, 1985). Instead, they talked about balancing the difficulty of the particular course requirements with the overall impact it would have on their final grade as well as the importance of a given course to their overall course work. In addition, students who required assistance from another individual or those who had mobility impairments coordinated their efforts with course work demands as well as with the time constraints associated with their disability.

Even when directly asked, a majority of students interviewed in this study did not think that ability was critical to their academic success. Only three of the students talked directly about ability as a basic factor that influences academic success. In addition, the comments of two students regarding this factor were made in reference to particular skills rather than general intelligence. Presumably students understand that although ability plays a part in academic success, it is not sufficient to fully explain it.

The students interviewed in this study also talked about the importance of accepting one's disability as a basis for academic success. They made reference to this issue in regard to a sense of acceptance by other students. These students believed that it was important for them to be comfortable with their disability if they were to be accepted by other students. It appears that many nondisabled students are unsure of how to interact with students with disabilities.

The most significant contribution of this study concerns students' with disabilities beliefs about the importance of sociological factors. College students with disabilities perceive the quality of their academic experience in broad terms. They see the importance of a sense of integration into an academic community or a sense of belongingness (Boyer,

1984). These findings support previous work conducted with other traditionally underrepresented groups that has shown that these factors are critical to their acceptance and academic success (Covington & Omelich, 1984; Kraft, 1991; Tracey & Sedlacek, 1987; Van Stone et al., 1993). For example, Tracey and Sedlacek (1987) also described the importance of a sense of acceptance by one's student peers to the persistence of persons of color.

The tendency of these students to view the support of their family and interactions with other students and faculty as important to their academic success provides practical information with which to develop or refine programs for college students with disabilities. For example, faculty awareness programs should be developed to enlighten faculty on how to interact and work with students with disabilities in addition to providing instruction on how to implement instructional and institutional accommodations. Institutions of higher education should also consider incorporating issues associated with persons with disabilities into their cultural diversity programs. This would provide students with important information to promote better understanding and acceptance of students with disabilities.

Though few students indicated that the university support services were important to their academic success, comprehensive programs for students with disabilities should and often do influence faculty members' awareness and access. Programs for students with disabilities should also work closely with campus planning, library, and computing services staff to eliminate barriers for persons with disabilities. This work should go beyond the removal of physical barriers and include devising systems to ensure that students with disabilities have full access to computerized card catalog systems and campus computer networks.

It is important to note several limitations to the study. First, the present study only presents an analysis of a diverse group of students with disabilities enrolled at one institution. Thus, conclusions regarding the generalizability of the findings must be made with caution. Second, although this trend is not obvious in Table 1 which reports on percentage of students verifying the importance of factors to their academic success, it was clear in students' spontaneous comments that sociological factors were perceived as more important in academic outcomes. Students reported that social networks via campus interactions with other students and family support were paramount to their success. Third, though the semi-structured interview allowed students to discuss the factors in their own terms, it tended to restrict their responses to only those factors asked about. It is clear that a more open-ended interview process might have resulted in a different set of findings. Finally, there was no viable institutional data base with which to verify the response of the participants. Nevertheless, the consistency of the participants' responses provided, at least in part, a measure of the trustworthiness of the data.

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