DOCUMENT RESUME

ED 363 038 EC 302 494

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TITLE Factors that Influence the Academic Success of

College Students with Disabilities.

PUB DATE Apr 93

NOTE 21p.; Paper presented at the Annual Convention of the

Council for Exceptional Children (71st, San Antonio,

TX, April 5-9, 1993).

PUB TYPE Reports - Research/Technical (143) --

Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *Beliefs; College Environment; College Students;

*Disabilities; Higher Education; Influences; Peer Relationship; *Performance Factors; *Self Evaluation

(Individuals); Social Support Groups; *Student Attitudes; Student College Relationship; Student Motivation; Student Personnel Services; Teacher

Student Relationship

ABSTRACT

This descriptive study attempted to identify those factors that college students with disabilities view as important to their academic success. Thirty-six college students with disabilities (in the areas of mobility, vision, hearing, and learning) were individually interviewed concerning: (1) demographic information, (2) beliefs about academic performance, and (3) social support and campus climate factors. Students identified six factors under the personal beliefs category: discipline and effort (cited by 100 percent of students), acceptance of their disability (88 percent), personal ambition (72 percent), self-confidenc? (52 percent), prior knowledge and experience (33 percent), and ability (14 percent). Four social support and climate factors were identified: family support (92 percent), interaction with other students (70 percent), interaction with faculty (30 percent), and university support services (30 percent). Implications of results for university programs serving students with disabilities are discussed. (Contains 38 references.) (DB)



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Factors that Influence the Academic Success of College Students With Disabilities

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Paper presented at

The Annual Council for Exceptional Children, San Antonio

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Running Head: POSTSECONDARY STUDENTS WITH DISABILITIES

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Abstract

The primary purpose of this study was to create a broad 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 they considered important in their own terms. In addition to personal characteristics, 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.



Factors that Influence the Academic Success of College Students With Disabilities

This project was designed to study college students' with disabilities conceptions of those factors that affect their academic success or failure. The starting point for the present study was evidence that nontraditional college students' beliefs about the factors that influence their academic success go beyond cognitive ability, covering a broad range of matters 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 (e.g., Cheng, 1990; Kraft, 1991; Holland & Eisenhart, 1988; Van Stone, Nelson, & Niemann, in press). The recognition that cognitive 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). Because college students with disabilities sometimes require assistance and/or accommodations, the possibility is great that a broad array of social support/campus climate and achievement-related belief factors might also influence college students with disabilities. This information is especially important because 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 during the 1988 to 1989 academic year reported they were disabled (HEATH Resources, 1991; Wilson, 1992).

Though researchers have examined other nontraditional college students' conceptions of factors that affect their academic success (e.g., Cheng, 1990; Kraft, 1991; Holland & Eisenhart, 1988; Van Stone et al., 1993), there appears to be no research to date conducted with students with disabilities. Thus the central goal of the present study was to create a broad descriptive account of the factors college students with disabilities view as important to their academic success or failure.



Method

Participants

Participants included 36 (of 49) students with disabilities who had sought services from the Disabled Student Services Office at a Northwestern university. Eligibility criteria for receiving services include having a disability recognized by the Americans with Disabilities Act (1990) and formal written documentation of their disability from another institution (e.g., high school) or professional such as a physician, psychologist, or other qualified professionals.

The director provided the investigators with the names and telephone numbers of 49 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 2 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 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. Five (15%) of the students reported that they had changed their major at least once since enrolling at the university. Eighteen (50%) of the students 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

Participants were randomly assigned to one of three interviewers (first and second author, and a graduate student in psychology) who interviewed them individually. The rationale interviewers gave to students, orally and in informed consent forms, was that the information gained from the study would help university administrators, faculty, and others



to better understand what factors college students with disabilities thought influenced their academic success or failure.

All interviews followed a 12-question protoco! which was based on a review of the literature on factors that influence college academic success (e.g., Boyer, 1984) and on achievement motivation (e.g., Dweck, 1975; Nicholls, 1984; Weiner, 1985). Each interview lasted approximately one hour and covered three areas: 1) demographic information which is presented above in the "Participants" subsection (Question 1 through 4); 2) beliefs about academic performance (Questions 5 through 7), and 3) social support/campus climate factors (Questions 8 through 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?
- 3. What is your area(s) of study?
- 4. Have you ever changed your area of study? If so, why?
- 5. What does it mean to be academically successful?
- 6. Why do you think that some college students with disabilities are more successful than others?
- 7. 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?
- 8. 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?
- 9. 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)?



- 10. What are the obstacles students with disabilities face in trying to succeed in colleges and universities?
- 11. Compare your experience in high school with your experience at the University.
- 12. 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 as only a guide by the interviewers and participants. This allowed the participants to discuss their own personal experiences within a semi-structured format. At the end of each interview, the important points made by the informant were summarized by the interviewer. These points were then verified with the informant 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 comployed 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 participants' spontaneous comments about factors that they thought influenced their academic success. Specifically, the interview notes were examined for participants' 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.



Results

The ten factors that college students with disabilities interviewed in this study cited as important to their academic success can be divided into two general categories: personal beliefs and social support/campus climate. The six factors under the personal 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 social support/campus climate category included family support, interaction with other students, interaction with faculty, and university support services. The six personal belief and four social support/campus climate factors are presented in Table 1.

Insert Table 1 about here

There were no discernible patterns to 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 to the participants' responses in terms of their disability classification. The differences in accessibility issues are discussed below.

Students in general attributed or 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 personal belief factors as campus climate factors as being important to their academic performance. Participants' responses regarding the personal belief and social support/campus climate factors are detailed below.

Personal Beliefs

<u>Discipline and effort</u>. All of the students mentioned discipline and effort as an important basis for academic success (see Table 1). These two factors 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



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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 individual. They, however, often commented that having to set up scheduled times helped them to be more organized and helped them to avoid putting course requirements off. "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. The comments of an individual who was wheel chair bound echo the comments of many of these students, "It just takes me a long time to get to the University. 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. A majority of the students interviewed believed that it was important to accept their disability (see Table 1). These participants thought that the ability to deal with not being fully accepted by nondisabled persons was critical to their success. Students believed this was because most people don't know what to say to them. "You don't have to be popular, but it is nice to be accepted by people. It's hard spending time in the PUB [student center]. It seems like people don't know how to accept you." These students often mentioned the importance of family in accomplishing this. This issue was especially evident for those students that had more noticeable handicaps such as mobility,



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hearing, and visual impairments. Students identified as learning disabled, for example, did not report that they were unaccepted by nondisabled peers.

Personal ambition. Twenty-six of the participants attributed their academic success to personal ambition (see Table 1). Most of these individuals' (n=20) 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 individuals commented on the importance of satisfying internal standards of competition. These individuals strived 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 was described by some of the participants as important to their academic performance (see Table 1). 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 of the participants discussed ability as a factor that influences their academic success (see Table 1). 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."

Social Support/Campus Climate

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 was 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 directly made 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 do the best that I can at what ever I do. They never cut me any slack".

It is important to note that with only one exception, those participants who indicated that although their family supported them, they encouraged them to be autonomous.

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 and to subvert the course requirements (e.g., one student goes to class to take notes and monitor the course requirements for a group of students). Coupled with the informal academic tutoring, students relied a great deal on informal academic counseling from other students regarding which classes and professors to take. Having someone to go 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 of these 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 educative 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 was important to their academic success. Of lessor importance to these students was obtaining actual help from faculty with 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 of these 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 that were visually or hearing impaired.

Conversely, the most common complaint about faculty from those students that 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 thought that the University's support services were important to their academic success (see Table 1). These students typically utilized the university's support services such as tutors, notetakers, enlarged text, etc. 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 the availability of special computer tables and desks. They believed that the University had failed to eliminate all of the barriers for the disabled. 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 confined to a wheelchair.



Discussion

The findings of the present study converge with previous evidence that suggests that achievement-motivation belief taxonomies should be expanded (e. g., Covington & Omelich, 1984). The achievement related beliefs of students interviewed in this study were not limited to personal beliefs about ability, discipline and effort, etc.. Though these students commented that these matters were important to their academic success, social support/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 these 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 (e.g., Dweck, 1975; Nicholls, 1984; Weiner, 1985). Further, 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 that required assistance from another individual or those that 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. This is consistent with the beliefs of black college students



regarding ability (Kraft, 1991) and single-mother college students (Van Stone et al., in press). 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 regards 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 social support/campus climate 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 (e. g., Covington & Omelich, 1984; Kraft, 1991; Tracey & Sedlacek, 1987; Van Stone et al., in press). 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, interactions with other students and faculty, and university support services as the basis of 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



Postsecondary students with disabilities

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provide students with important information with which to better understand and accept students with disabilities.

Programs for students with disabilities should also work closely with campus planning, library, and computing services staff to eliminate barriers for the disabled. This work should go beyond physical barriers and include devising systems to ensure that students with disabilities have full access to computerized card catalog systems and campus computer networks.



References

- Allen, W. (1987). Black colleges vs. white colleges: The fork in the road for black students. Change, 28-34.
- Americans With Disabilities Act of 1990, 101, 42 U.S.C., 12111-12117.
- Anaerson, C. (1983). The causal structure of situations: The generation of plausible causal attributions as a function of type of event situation. <u>Journal of Experimental Social Psychology</u>, 19, 185-203.
- Borkowski, J. G., & Krause, A. J. (1985). Metacognition and attributional beliefs. In the Psychology, 557-568. Amsterdam: Elsiever Science Publishers.
- Boyer, E. L. (1984). <u>College: The undergraduate experience in America.</u> New York: Harper & Row.
- Cheng, B.D. (1990, June). <u>Breaking the Bonds of Poverty: A Motivational Profile of Selected Welfare Single Mothers Entering College.</u> Paper presented at the Education and Training Conference: The Route to Self-Sufficiency for Single Parents, Lexington, KY. (ERIC Document Reproduction Service No. ED 322 327.
- Comer, J. (1980). <u>School power</u>: <u>Implications of an intervention project</u>. New York: The Free Press.
- Covington, M.V., & Omelich, C.L. (1984). An empirical examination of Weiner's critique of attribution research. <u>Journal of Educational Psychology</u>, 76(66), 1214-1225.
- Decker, T., Polloway, E., & Decker, B. (1985). Help for the LD college student.

 Academic Therapy, 20, 339-345.
- Dweck, C. S. (1975). The role of expectations and attributions in the alleviation of learned helplessness. <u>Journal of Personality and Social Psychology</u>, <u>25</u>, 109-116.
- Dweck, C. S. (1986). Motivational processes affecting learning. <u>American Psychologist</u>, 41, 1040-1048.



- Dweck, C.S., & Elliott, E.S. (1983). Achievement motivation. In E.M. Hetherington (Ed.), Socialization, Personality, and Social Development. New York: Wiley.
- Furman, W. (1984). Some observations on the study of personal relationships. In J.C. Masters & K. Yarkin-Levin (Eds.), <u>Interfaces between development and social psychology</u> (pp. 15-42). New York: Academic Press.
- Glaser, B., & Straus, A. (1967). The discovery of grounded theory. Chicago: Aldine.
- Goetz, J., & LeCompte, M. (1984). Ethnography and qualitative design in educational research. New York: Academic Press, Inc.
- Goodlad, J. (1984). A place called school: Prospects for the future. New York: McGraw-Hill.
- Gray, R. A. (1981). Services for the LD adult. A working paper. <u>Learning Disability</u>

 <u>Ouarterly</u>, 4, 426-434.
- Green, M. (1989). <u>Minorities on campus: A handbook for enhancing diversity</u>. Washington, D. C.: American Council on Education.
- HEATH Resources, (1991). National Clearinghouse on Postsecondary Education for Individuals with Disabilities, 10(3), 1.
- Holland, D., & Eisenhart, M. (1988). Women's ways of going to school: Cultural reproduction of women's identities as workers. In L. Weis (Ed.), Class, Race, and Gender in American Education (pp. 266-301). Albany, New York: State University of New York Press.
- Kraft, C. (1991). What makes a successful black student on a predominately white campus? American Educational Research Journal, 28(2), 423-443.
- Lincoln, Y. & Guba, E. (1985). Naturalistuc inquiry. Beverly Hills, CA: Sage.
- Mangrum, C.T., & Strichart, S. S. (1983). College possibilities for the learning disabled: Part Two. <u>Learning Disabilities</u>, 2(6), 69-81.



- Mathews, P., Anderson, D., & Skolnick, B. (1987). Faculty attitude toward accommodations for college students with learning disabilities. <u>Learning Disabilities</u>

 Focus, 3, 46-52.
- Nelson, J. R., Dodd, J. M. & Smith, D. (1990). Faculty willingness to accommodate students with learning disabilities: A comparison among divisions. <u>Journal of Learning Disabilities</u>, 23, 185–189.
- Nelson, R. & Lignugaris/Kraft, B. (1989). Postsecondary education for students with learning disabilities. Exceptional Children, 56(3), 246-265.
- Nelson, J.R., Smith, D.J., & Dodd, J.M. (1991). Instructional adaptations available to students with learning disabilities at vocational community colleges. <u>Learning</u>

 <u>Disabilities: A Multidisciplinary Journal, 2(1), 29-33.</u>
- Nicholls, J. (1984). Conceptions of ability and achievement motivation. In R. Ames & C. Ames (Eds.), Research on Motivation in Education (Vol. 1). New York: Academic Press
- Nicholls, J. (1989). <u>The competitive ethos and democratic education.</u> Cambridge: Harvard University Press.
- Ostertag, B. A., Baker, R. E., Howard, R. F., & Best, L. (1982). Learning disabled programs in California community colleges. <u>Journal of Learning Disabilities</u>, <u>15</u>, 535-538.
- Sedita, J. (1980). <u>Help for the learning disabled college students.</u> Prides Crossing, MA: Landmark School.
- Sizer, T. (1985). <u>Horace's compromise: The dilemma of the American high school.</u>
 Boston: Houghton Mifflin Company.
- Tracey, T., & Sedlacek, W. (1987). A comparison of white and black student academic success using noncognitive variables: A LISREL analysis. Research in Higher Education, 27(4), 332-348.



- Ugland, R., & Duane, G. (1976). Serving students with specific learning disabilities in higher education. A demonstration project at three Minnesota community colleges.
 (ED. 135434). Washington D.C.: Office of Education.
- Van Stone, N., Nelson, J.R., & Niemann, J. (in press). Single Mothers' University Experience. <u>Journal of Higher Education</u>.
- Wilson, D. L. (1992). New federal regulations on rights of the handicapped may force colleges to provide better access to technology. <u>The Chronicle of Higher Education</u>, <u>38(1)</u>, 1-21.
- Weiner, C.S. (1985). Motivational process affecting learning. <u>American Psychologist.</u> 41(10), 1040-1048.
- Wimer, S., & Kelley, H. (1982). An investigation of the dimensions of causal attribution.

 <u>Journal of Personality and Social Psychology</u>. 43(6), 1142-1162.



Table 1

<u>Percentage of Students Identifying Factors Important to their Academic Success</u>

Factors	Percentage of students who cited factor
Personal beliefs	
Discipline and effort	100
Acceptance of disability	88
Personal ambition	72
Self-confidence	52
Prior knowledge and experience	33
Ability	14
Social support/campus climate	
Family support	92
Interaction with other students	70
Interaction with faculty	30
University support services	30

