

This is a reprint of the Journal on Postsecondary Education and Disability, volume 12, #1, Summer 1996, published by the Association on Higher Education And Disability.

Speaking Out: Perceptions of Students with Disabilities Regarding Adequacy of Services and Willingness of Faculty to Make Accommodations

Jennifer Leigh Hill
University of Victoria

Abstract

This article examines the perceptions of 264 students with disabilities attending universities in Canada regarding the "adequacy" of services from the Office of Students with Disabilities (OSD) at the postsecondary settings they attend and the "willingness" of faculty to make accommodations for their unique needs in the classroom. The majority of students rated services as good or excellent. Thirty-five percent indicated their needs were not being adequately met, with nearly one quarter of the students reporting that lack of service from the OSD had seriously impacted their ability to pursue a postsecondary education. Even though approximately two-thirds of the respondents reported that faculty were very willing to make accommodations to meet their needs, lack of accommodation from instructors had seriously impacted the ability of roughly one third of the respondents to pursue a postsecondary education. Twelve percent responded that faculty were unwilling to make accommodations and 9% reported taking some type of action as a result of lack of accommodation (e.g., lodging a complaint with the Academic Vice-President). Recommendations to improve the quality of services from the OSD and to foster willingness of faculty to accommodate students with unique learning needs are given.

The purpose of the present study was to examine the perceptions of students with varying disabilities at the postsecondary level. By means of a detailed questionnaire, this study, which involved 264 students attending universities across Canada, endeavored to examine how students view the attempts by others (i.e., administrators, service providers, and faculty) to welcome them to the institution and to assimilate them into the academic milieu. The focus of this article is the perceptions of students regarding the quality of services from the Office of Students with Disabilities (OSD) and the efforts by faculty to

modify their teaching in order to provide the optimal learning environment for students with disabilities.

Need for Services from the OSD

It has long been recognized that the provision of specialized services is vital to the success of students with special learning needs in overcoming barriers to achieving a postsecondary education (Marion & Iovacchini, 1983; Stilwell & Schulker, 1973). However, as recently as 1990 concern has been raised that some postsecondary institutions "will respond to federal regulations *with minimal* levels [emphasis added] of compliance accomplished in the most expedient way possible" (Scott, 1990, p. 404). Most of the research to date relating to the provision of services by staff from the OSD to students with disabilities at the postsecondary level has focused on: (a) examining the types of services offered (Hill, 1992; Marion & Iovacchini, 1983; Sergeant, Sedlacek, Carter, & Scales, 1987); (b) attitudes held by coordinators of disabled student services (Kelly, 1984); (c) roles and functions of coordinators (Hill, 1992; Michael, Salend, Bennett, & Harris, 1988); and (d) training of personnel (Aksamit, Morris, & Leuenberger, 1987; Norlander, Shaw, & McGuire, 1990). Even though there have been numerous attempts to document the availability of specific services by OSD staff, there have been few attempts to examine, from the students' perspective, the need for and adequacy of such services. In a manner similar to that of West and his colleagues (1993) who examined the satisfaction of students in the state of Virginia, the present study attempted to examine the attitudes of students with disabilities across Canada. Specifically, the present study was designed to answer the following research questions:

1. Are students aware of the services available from the OSD? How did they learn about the availability of services? Did they learn about services prior to or after admission? Did they encounter any difficulties finding out about available services?
2. In general, how would students rate the services provided by the OSD? What would be the basis for their judgments?
3. Would certain student variables (e.g., academic standing; type of program; gender; type of disability) impact on students' overall rating of adequacy of available services?
4. Which services do students use most frequently? Are there services required that are not provided by the OSD? Are they provided by other staff? Are students satisfied with these arrangements?
5. Has lack of services ever impacted seriously on students' ability to pursue a postsecondary education? If so, in what manner?

As the availability of services has been shown to differ widely on the basis of enrollment of students with disabilities (Hill, 1992), type of institution (Bursuck, Rose, Cowen, & Yahaya, 1989; West et al., 1993), and availability of funding (Gajar, Goodman, & McAfee, 1993), the effect that size of institution (i.e., small universities in which the total

student population is fewer than 10,000 students vs. large universities in which the total student population is greater than 10,000 students) had on adequacy of services was also investigated.

Need for Accommodations by Faculty

Not only do students with disabilities need services from the OSD in order to achieve success in their postsecondary education, there must also be a willingness on the part of instructors to accommodate students in their classroom. Such a willingness undoubtedly comes from a positive attitude regarding the integration of nontraditional students into the academic setting. Fichten (1988) commented that while professors, in general, have "moderately favorable attitudes toward disabled students on campus ... their attitudes are somewhat less positive about having such students in their own department" (p. 177). Nelson, Dodd, and Smith (1990) stated that willingness "is a crucial factor, since individual faculty members control whether or not students are provided instructional accommodations" (p. 186).

Previous research findings have indicated that there is a "hierarchy of preference" for students (i.e., some students are more readily accepted than others) (Fichten, 1988; Leyser, 1989; Newman, 1976). While most studies have investigated the receptivity of teachers at the elementary and secondary levels (Center & Ward, 1987), faculty in institutions of higher education appear to be more accepting of students with sensory and physical needs and less receptive of those with learning disabilities, mental retardation, and social and emotional disabilities (Leyser, 1989). Similarly, there appears to be a "hierarchy of accommodations" (i.e., some modifications are more readily provided than others) that may be related directly to the acceptance of certain groups of students with disabilities or to the amount of effort required for implementation (Leyser, 1989; Nelson et al., 1990). While Nelson et al. (1990) looked at faculty willingness from the perspective of individual faculty members who have had, or will have, students with learning disabilities in their classrooms, there have been few attempts to examine faculty willingness to accommodate students with other special learning needs (e.g., blindness, hearing impairment). Nor have there been many attempts to ask students how they view the efforts of others to meet their unique needs. The present study was designed to address this void by investigating the following research questions:

1. In general, how would students rate instructors' willingness to make accommodations to meet their unique learning needs? Would certain student variables (e.g., academic standing; type of program; gender; type of disability) impact on students' overall rating?
2. From the students' perspective, in terms of instructional, assignment and test/examination accommodations, are there accommodations that faculty are more or less willing to make?
3. Has lack of accommodation by instructors ever seriously impacted students' ability to pursue a postsecondary education? What action, if any, have students taken if they felt they had been discriminated against?

4. What factors (e.g., age, gender, faculty membership), in the opinion of the students, contribute to the willingness of instructors to accommodate students with disabilities in the classroom?

As it has been suggested "that more students with disabilities choose to attend smaller institutions rather than larger ones (Bursuck et al., 1989; Hill, 1992; Sergent et al., 1987), the effect that size of institution (i.e., small vs. large) had on willingness of faculty to accommodate students with special learning needs was also investigated.

Method

For a detailed description of the methodology used in the present study and information on the participant universities at which the students were enrolled, the reader is referred to a previous article published in the *Journal of Postsecondary Education and Disability* (Hill, 1994).

Participants

Twenty one of the 69 public degree-granting institutions in Canada met criteria for inclusion in the study (i.e., had an overall enrollment greater than 500 students; offered a wide variety of programs to the general student population; had students with disabilities in attendance; and had a specific person designated to assist students with disabilities, either on a full- or part-time basis, who was willing to participate in the distribution of questionnaires). A total of 264 students at 14 of the 21 institutions (66.7%) located in eight of the ten provinces in the nation returned the questionnaire. The response rate varied by institution, from a low of 7.5% to a high of 95%; the mean rate was 66.7%. One hundred and forty-eight students (56.1%) were enrolled in small universities; 116 respondents (43.9%) were enrolled in large universities.

Instrumentation

A four-part questionnaire was developed by the author following a review of literature on the needs of students with disabilities at postsecondary settings. The instrument included a series of forced choice questions (e.g., Yes/No/Don't Know), Likert-type items (e.g., Very Often, Often, Occasionally, Rarely, Never), and open-ended, short answer questions. Descriptive information about the student (e.g., institution attended, academic standing) was obtained. The students were not asked to identify themselves, and complete anonymity was assured in the cover letter sent with the questionnaire. Even though the questionnaire was 12 pages in length, in all cases, at least 80% or more of the questions were answered; consequently, all returns were judged to be usable for the purpose of the statistical analysis. Copies of the questionnaire used in the present study can be obtained from the author.

Results

Findings are based on returns from 264 students with disabilities attending universities throughout Canada. The characteristics of the respondents are shown in Table 1

Services from the Office for Students with Disabilities

Knowledge regarding availability of services. Students were asked a series of questions regarding when and how they learned about services available from the OSD. Four students (1.5%) did not respond to these questions; 47% indicated they found out about services prior to arrival on campus; the remaining students (51.5%) stated they learned about services subsequent to arrival on campus.

For students who indicated they learned about services prior to arrival on campus, the following were the most common methods for obtaining information: personal visit to campus before application and/or letter written by student, parent, counselor or teacher (37.9%); information printed in the university calendar or unsolicited information distributed with registration materials (33.9%); and information obtained from others (e.g., high school counselor, friends and/or off-campus service provider) (33.1 %). Several students indicated they obtained information from more than one source. Students at large institutions reported, in greater numbers than students at small universities, they had obtained information directly from the OSD staff who made personal visits to their high school; however, the number of students reporting such direct contact was very small (9 and 4, respectively).

For students who learned about services subsequent to arrival on campus, the most common means of obtaining information at both large and small institutions was through referral (78.7%). Referrals came from course instructors (26.5%); other students, both those with disabilities and able-bodied (18.4%); administrative staff such as the Registrar, Dean, or Financial Aid Officer (14%); staff at Health and Counseling Centers (11%); and other off-campus service providers such as rehabilitation counselors (8.8%). Only 15.4% of the students became aware of services from written materials produced by the OSD (e.g., pamphlets, articles, and advertisements in the student newspaper). There were no significant differences in the manner that students learned about services based on size of institution; however, students at small universities reported more frequently than students at large institutions that non-instructional staff (i.e., administrators, nurses, dormitory staff) were instrumental in making appropriate referrals .

Adequacy of services. Students were asked to rate, in general, the adequacy of services available from the OSD. Students were directed to consider such factors as ease in obtaining services and quality of services. Their responses were coded on a 5-point scale ($1 = \text{Poor}$; $3 = \text{Good}$; $5 = \text{Excellent}$). The mean rating was 3.76 ($SD = 1.40$) based on responses from 252 students (95.4% of the total sample). Ratings by various sub-groups are shown in Table 1. The overall mean rating indicated that, on average, students felt that services were adequate (i.e., *good to excellent*). There were no significant differences in ratings based on size of the institution ($t(250) = -1.41, p = .16$).

Table I Characteristics of Respondents (N=264) And Mean Ratings of Satisfaction with Services from OSD and Willingness of Faculty to Accommodate Students

Maximum Score = 5 (Excellent)

Maximum Score = 5 (Very Willing)

	<i>n</i>	%	Mean (<i>SD</i>) Ratings Services from OSD*	Mean (<i>SD</i>) Ratings Willingness of Faculty**
Size of University				
Fewer than 10,000 students	148	56.1	3.65 (1.35)	3.97 (1.32)
Greater than 10,000 students	116	43.9	3.90 (1.45)	4.11 (1.48)
Academic Standing				
Undergraduate	232	87.9	3.73 (1.39)	4.02 (1.38)
Graduate	28	10.6	3.86 (1.48)	4.14 (1.48)
Unknown	4	1.5		
Status of Program				
Degree	244	92.4	3.72 (1.43)	3.96 (1.40)
Certificate/Diploma	12	4.5	4.33 (0.98)	5.00 (0.00)
Unknown	8	3.0		
Program of Studies				
Arts	124	47.0	3.62 (1.41)	4.11 (1.37)
Education	56	21.2	3.92 (1.51)	3.92 (1.28)
Social Sciences	40	15.1	4.00 (1.36)	4.20 (1.34)
Sciences	32	12.1	4.00 (1.02)	3.57 (1.29)
Business	12	4.5	3.00 (1.71)	4.33 (0.98)
Gender				
Female	164	62.1	3.63 (1.46)	3.74 (1.20)
Male	100	37.9	3.96 (1.29)	3.96 (1.20)
Type of Disability				
Physical Disability	60	22.7	3.83 (1.00)	5.00 (0.00)
Multiple Handicap	56	21.2	3.71 (1.64)	3.23 (1.69)
Learning Disability	52	19.7	4.08 (1.28)	3.92 (1.51)
Auditory Handicap	40	15.0	3.20 (1.68)	4.11 (0.17)

Visual Handicap	32	12.1	3.50 (1.34)	3.50 (1.34)
Chronic Health Problem	24	9.1	4.33 (0.96)	5.00 (0.00)
Degree of Disability				
Mild	80	30.3	4.00 (1.21)	4.06 (1.56)
Moderate	96	36.4	3.87 (1.30)	4.09 (1.32)
Severe/Profound	88	33.3	3.45 (1.60)	3.95 (1.33)

Students were asked to describe the reasons they had encountered difficulty in finding out about and/or accessing services. Three primary reasons for problems encountered were offered by students at both small and large universities: (a) difficulties resulting from lack of awareness of the OSD by faculty, staff, and/or other students (e.g., people not knowing where to refer the student for assistance) or lack of publicity of services available to students with disabilities (e.g., services not well advertised in college brochures, calendars, or public relations material); (b) difficulties resulting from inadequate staffing at the OSD or staff simply being too "busy" to provide the services students reported they needed; and (c) staff at the OSD not having the proper information the student needed, not understanding the student's needs, or giving the student the "run-around." Several who commented on lack of awareness by staff suggested that personnel were either untrained or inexperienced in dealing with students with their specific disability. Those students that rated services as excellent most often commented on the willingness of staff to "bend over backwards" to be of assistance.

Effects of certain student variables. Several analyses were conducted to determine whether specific program variables (i.e., academic standing, program of studies) or student variables (i.e., gender, nature of disability, severity of disability) had a significant impact on the overall rating of adequacy of services from the Office for Students with Disabilities. Given the nature of the data (e.g., unequal sample sizes), both parametric and nonparametric tests were used in the analyses. The mean values for each group are shown in Table 1.

Graduate students were more satisfied than undergraduate, and students in a Certificate/Diploma program were more satisfied than those in a degree-granting program; however, the differences, using the Mann-Whitney U Test, were found to be nonsignificant ($p = .59$ and $.21$ respectively). Similarly, the type of program a student was enrolled in (e.g., Arts vs. Education) did not result in a significant difference between mean ratings of adequacy of services $H = 7.10$, $p = .13$) using the Kruskal-Wallis test of one-way analysis of variance.

In terms of student variables, there were no significant differences between males and females ($t(250) = 1.83$, $p = .07$); however, type of disability and severity of disability contributed to a significantly different rating. Students with a chronic health problem appeared to be more satisfied with the available services than any other group while those with an auditory disability (i.e., hard of hearing and deaf) indicated the greatest

dissatisfaction ($H = 12.54, p = .03$) using the Kruskal-Wallis test. Students with a mild level of disability rated the adequacy of services at a significantly higher level than both students with moderate and severe/profound disabilities $F(2, 249) = 3.49, p = .03$.

Use of available services and need for unavailable services. Students were asked to indicate how frequently (i.e., *Very Often, Often, Occasionally, Rarely or Service Not Needed*) they needed various services available from the OSD. Twenty-two different services were listed. As expected, certain services which were disability specific (e.g., "obtaining personal assistance aides," needed most often by those with a physical disability) were used most commonly by the group for which the service was appropriate. Of particular interest were the services which were nondisability specific, in that they could be used by any student, regardless of the disability. Ten such services were listed. The percentage of students using these services varied widely. The most commonly used services were: general advising and/or counseling (used by 77.3% of the students); staff serving as liaisons with faculty and/or administration (66.7%); academic counseling (56.1%); staff acting as a student advocate (43.9%); and vocational and career counseling (37.9%). The most infrequently used generic service was staff who facilitated group "rap" sessions (19.7%). In terms of the various generic services, students with multiple handicapping conditions used the services more frequently than any other group, followed by those with visual impairments, physical disabilities, and learning disabilities, respectively. Interestingly, the group that gave the highest rating for adequacy of services, those with chronic health problems, used the fewest number of services, both disability specific and generic.

Also of interest were the services itemized by students as necessary but not available through the OSD, as well as services not available from the office but available from other departments within the institution. A majority of students (65.5%) indicated their needs were being met adequately by the OSD staff; a small number of students (4.9%), predominantly from small universities, indicated some of the services listed were needed but not available. The remaining students listed the following additional necessary services most frequently: (a) providing professional notetakers/tutors (i.e., those with training vs. volunteers/paid classmates) and/or providing "back-up" notetakers/tutors (i.e., available when regular person is ill or out of town); (b) offering specific instruction by specialized staff (e.g., a teacher of students with a hearing impairment to help with language aspects of course work or a teacher of students with learning disabilities to provide training in such areas as study skills, time management, and notetaking); (c) supplying adapted equipment, in particular computers for students with visual impairments and amplification devices for students with hearing impairments; (d) obtaining closed captioned videos or films; and (e) transcribing tape-recorded lectures. Although not a service, per se, the need for an accessible lounge, study area or resource room was mentioned by several respondents. One student offered a novel idea, that of having a 'flag' on class lists to indicate to instructors that the student was eligible for certain considerations such as preferential registration, extra time on tests, or the use of notetakers. According to the respondent, this "service" would save a lot of time and effort.

The most common service that was mentioned as being offered by staff other than at the OSD, by both students at small and large universities, was that of "Counseling," both general counselling and vocational/career counselling. Several students mentioned that while counselors were available from the Student Counselling Service, on the whole they were **not** satisfied with this arrangement. Several expressed concern that counselors without specific training in the area of disability issues did not understand the situations that students with disabilities often encounter (e.g., difficulties regarding dating, finding employment). Other services provided by non-OSD staff included financial aid counselling and academic advising (both offered by on-campus staff) as well as the provision of special materials such as brailled books (offered by off-campus service agencies). On the whole, students indicated that they **are** satisfied with such arrangements.

Impact of lack of services. Students were asked whether lack of services had ever impacted seriously on their ability to pursue a postsecondary education (e. g, forced the student to withdraw from a course or forced a change in the program of studies). Twenty-one percent of the students responded that such was the case. The responses came from students at both small and large institutions in approximately the same proportions. Several students commented it was not "lack" of services, per se, that had impacted on their ability to pursue higher education; rather it was lack of understanding and negative attitudes that had been troublesome.

Finally, students were given the opportunity to offer suggestions that might result in an improvement to services available from the OSD at the university they attended. The most common suggestion involved the provision of additional funding in order to hire more staff, which might in turn, according to the students, increase the speed with which services could be procured and the number of services that could be made available.

Faculty Willingness to Accommodate Students with Disabilities

Overall rating of faculty willingness. Students were asked to rate, in general, the willingness of instructors to modify their instructional techniques in order to meet their unique learning needs. Responses were coded on a 5-point scale (1 = *Unwilling*; 3 = *Somewhat Willing*; 5 = *Very Willing*). The mean rating of 4.03 (*SD* = 1.39) based on the responses from 236 students (89.4% of the total sample) indicated that, on the average, students felt that instructors' level of willingness was in the *good to excellent* range. There were no significant differences in ratings based on size of the institution ($t(234) = -.782, p = .43$). The ratings, by group, are shown in Table 1. Students were also asked to explain their ratings, and 42% offered written statements. As there were no significant differences based on size of institution, written comments were not examined separately. Lack of willingness was most often attributed by the students to lack of knowledge and/or understanding on the part of faculty. Many students commented on the negative attitudes of faculty toward any students who did not "fit the norm;" however, an equal number of students also commented on the positive attitudes held by instructors and their willingness to do everything possible to assist all students in the pursuit of knowledge.

Effects of certain student variables on overall rating. Several additional analyses were conducted to determine whether other specific program variables (i.e., academic standing, status of program, program of studies) or student variables (i.e., gender, nature of disability, severity of disability) had a significant impact on the overall rating of the willingness of faculty to provide accommodations. Given the nature of the data (e.g., unequal sample sizes), both parametric and nonparametric test were used in the analyses. The mean values for each group are shown in Table 1.

Using the Mann-Whitney U Test, it was found that there were no significant differences between graduate and undergraduate students in their rating of faculty willingness ($p = .52$); however, a significant difference was found when students in degree programs were compared to those in certificate/diploma programs ($z = -1.92, p = .05$). Students in diploma programs rated faculty willingness higher than those in certificate/diploma programs; however, the small sub sample of students from diploma programs limits the external validity of this finding. The type of program that students were enrolled in (e.g., Arts vs. Business) did not yield any significant differences in responses. Male students rated faculty willingness significantly higher than female students ($t(234) = 3.999, p = .0001$). Self-reported level of disability (i.e., mild, moderate, severe/ profound) did not have a significant impact on ratings regarding faculty willingness; however, type of disability did yield significant differences ($H = 43.28, p = .0001$). While students with chronic health problems and physical disabilities gave a rating of 5.00 (i.e., *Very Willing*), students with multiple handicaps rated the degree of faculty willingness to be only 3.23 (i.e., *Somewhat Willing*).

Rating of faculty willingness regarding specific accommodations. To examine whether or not a hierarchy actually existed, students were asked to rate the willingness of instructors to perform each of 44 specific accommodations listed. Five choices were given: 1 = *Very Willing*; 2 = *Often Willing*; 3 = *Occasionally Willing*; 4 = *Rarely Willing or Not at All Willing* and 5 = *Accommodation Not Needed*. Students were advised to make their choices with the following instructions: "Please note that some of the accommodations listed are needed by ALL students. Please circle your response after giving thought to how instructors treated YOU specifically, not how they treated all of the students in the class. Remember, if the accommodation is not needed, circle 5." The accommodations were grouped into three categories: those related to instruction, assignments, and examinations/tests.

Ratings are shown in Tables 2, 3 and 4. The number of students who indicated that they required the specific accommodation (n) is given along with the percentage of students who rated the degree of willingness (e.g., *Very Willing* vs. *Not at all Willing*) of instructors to provide the specific accommodation. The accommodations are listed in rank order, from high to low, on the basis of the percentage of students that indicated the instructor was very willing to make the specific accommodation.

Table 2 Instructional Accommodations: Number of Students indicating Need for Accommodation (n) and Percentage

indicating Degree of Willingness for Faculty to Provide Needed Accommodation

Accommodation	Degree of Willingness				
	<i>n</i>	Very Willing	Often Willing	Occasionally Willing	Rarely/Not Willing
Allow student to tape record lecture	132	58.8	17.6	8.8	14.7
Provide list of textbooks/readings prior to the start of class	192	47.9	27.1	12.5	12.5
Provide detailed syllabus outlining specific dates for specific topics	184	47.8	39.1	10.9	2.2
Accept and encourage student	220	41.8	25.4	23.6	9.1
Speak directly to the student, not to the interpreter, sighted guide, friend, etc.	88	40.9	36.4	18.2	4.5
Offer opportunities to meet student to discuss issues/concerns	196	36.7	28.6	20.4	14.3
Regularly clarify points that are misunderstood	213	32.1	32.1	28.3	7.5
Arrange for preferential seating, if needed	140	31.4	14.3	28.6	25.7
Provide rest breaks in classes longer than 90 minutes	152	28.9	39.5	10.5	21.0
Rephrase points for clarity	212	28.3	35.8	24.5	11.3
Ensure class ends on time to allow travel to next class	148	27.0	18.9	21.6	32.4
Encourage/solicit questions/discussion	216	25.9	27.8	27.8	18.5
Arrange for classmate to take notes	100	24.0	20.0	16.0	40.0
Give student photocopies of overheads	152	21.0	13.1	28.9	36.8
Review key concepts	184	19.5	34.8	21.7	23.9

regularly					
Allow private viewing of films/hands- on access to materials, etc.	124	19.3	16.1	19.3	45.2
Read out material printed on board/on overheads	160	17.5	45.0	25.0	12.5
Provide additional orientation to learning environment (e.g., laboratory)	104	15.4	23.1	19.2	42.3
Ensure face is visible (i.e., for speech reading)	84	14.3	38.1	9.5	38.1
Provide student with copies of lecture notes	160	12.5	17.5	15.0	55.0
Use a variety of media suitable for the student's disability	136	11.8	29.4	29.4	29.4
Provide student with copies of board notes	112	3.6	7.1	21.4	67.9
Ensure writing (e.g., on board/ overhead) is legible	152	2.6	28.9	28.9	39.5
Arrange for classmate or another student in the same faculty (but not in the same class) to provide tutoring	76	0.0	21.1	21.0	57.9
Assist student "get ready" for class (e.g., help set up communication board, help remove coat	36	0.0	11.1	33.3	55.6

Table 3 Assignment Accommodations: Number of Students indicating Need for Accommodation (n) and Percentage indicating Degree of Willingness for Faculty to provide Needed Accommodation

Accommodation	Degree of Willingness				
	<i>n</i>	Very Willing	Often Willing	Occasionally Willing	Rarely/Not Willing
Provide student with a detailed syllabus to give ample lead time to complete	168	42.9	23.8	21.4	11.9
Loan students material from private library for research	160	35.0	12.5	27.5	25.0
Allow student to complete alternative assignment (if necessary)	116	31.0	13.8	24.1	31.0
Extend deadlines for completion	176	29.5	20.4	25.0	25.0
Endorse student use of a proofreader in correction of grammar/punctuation	76	26.3	26.3	10.5	36.8
Allow student to give oral tape-recorded presentation rather than written	80	15.0	15.0	10.0	60.0
Endorse the use of a proofreader to assist in formulating drafts of assignments	56	14.3	14.3	14.3	57.1
Allow student to do an extra credit assignment (option not available to non disabled students)	92	13.0	0.0	8.7	78.3
Allow student to give a written presentation rather than oral	64	6.2	25.0	18.7	50.0

Table 4 Test/Examination Accommodations: Number of Students indicating Need for Accommodation (n) and Percentage indicating Degree of Willingness for Faculty to provide Needed Accommodation

Accommodation	Degree of Willingness				
	<i>n</i>	Very Willing	Often Willing	Occasionally Willing	Rarely/Not Willing
Allow extra time for completion	180	64.4	20.0	6.7	8.9
Allow/arrange for test to be taken in an alternative location	184	63.0	10.9	13.0	13.0
Allow/arrange for test in alternative format (e.g., braille, large print, tape)	56	42.9	14.3	0.0	42.9
Allow student to use calculator, spell-checker, computer, etc. during test	132	39.4	9.1	21.2	30.3
Allow student to dictate answers to a proctor	68	35.3	5.9	11.8	47.1
Allow student to tape essay question	66	30.3	21.2	15.1	33.3
Base grade on process (i.e., correct computation) as well as product (i.e., correct answer)	104	19.2	26.9	29.8	24.0
Allow student to take an alternative form of test (e.g., multiple choice rather than essay)	104	19.2	0.0	15.4	65.4
Allow a proctor to rephrase test questions (e.g., for clarity)	68	17.6	11.8	11.8	58.8
Allow misspellings, incorrect punctuation, poor grammar without penalty	136	8.8	14.7	23.5	52.9

In terms of **instructional accommodations** (see Table 2) only one item, "Allow student to tape-record lectures", was rated by more than half of the respondents as being performed *very willingly* by instructors. The fact that, for example, 67.9% of the students

indicated that faculty were *rarely* or *not at all willing* to provide the student with copies of board notes, compared to 2.2% who were unwilling to provide a detailed syllabus outlining specific dates for specific topics, indicates that, according to students, there is a "hierarchy" of accommodations. None of the students indicated that faculty were willing to "arrange for classmate/another student in the faculty to provide tutoring" or to "assist student to get ready for class (e.g., help set up communication board, help remove coat)."

It was discouraging to note the perceptions of students regarding instructors' acceptance and encouragement of students with disabilities, particularly when this item was examined by a sub-group. Overall, 41.8% of the students indicated that faculty were *very willing*, to accept and encourage the student; however, only 20% of those students with learning disabilities indicated that faculty accepted them very willingly, compared to 58.3% of students with physical disabilities. The percentages for other subgroups were as follows: chronic health problems, 50%; multi handicapping conditions, 46.1%; auditory problems, 44.4%, and visual disabilities, 28.6%. These findings indicate, at least in the minds of students, that there is also a "hierarchy of preference" of disability, even for an accommodation that was not disability-specific.

In terms of **assignment accommodations** (see Table 3), none of the items were endorsed by more than half of the respondents as being modifications that instructors performed very willingly. Only 42.9% of the students indicated that faculty were *very willing* to provide detailed syllabi to give ample lead-time to complete the assignment. This finding is of particular interest when examined with the perceptions of students regarding time extensions; only 30% of the students indicated that faculty were *very willing* to extend deadlines for completion of assignments. As in the case of instructional accommodations, a difference was found on the willingness of instructors to make specific accommodations based on the disability, even for non-disability specific accommodations. For example, 66.7% of students with chronic health problems reported that faculty were willing to extend deadlines for completion of assignments, compared to only 8.3% of students with learning disabilities. The percentages for other subgroups were as follows: visual disabilities, 60.0%; auditory problems, 60%; physical disabilities, 25%; and multi handicapping conditions, 18.2%. Interestingly, 66.7% of students with visual impairments indicated that faculty were willing to loan them materials from their private library for research, whereas only 14.3% of students with physical disabilities indicated that this was a common practice.

In terms of **test or examination accommodations** (see Table 4), only two items were endorsed by more than half of the students. Sixty-four percent indicated that faculty were **very willing** to allow extra time for completion; 63% indicated that faculty were **very willing** to allow having the test taken in an alternative location. Only 8.8% of the students indicated that instructors would allow misspellings, incorrect punctuation, or poor grammar without penalty during the testing situation. When the degree of willingness to make accommodations in the area of testing or examination was examined by disability group, there did not appear to be the same degree of difference as in the areas of instructional and assignment accommodations. For example, in terms of extended time for completion (the most commonly provided accommodation), at least 70% of all

students with a visual impairments, physical disabilities, chronic health impairments or with learning disabilities rated faculty as being very willing (87.5%, 80%, 75% and 72.7% respectively) to allow extra time. However, two groups, those with auditory impairments and those with multiple impairments rated the willingness below 35% (33.3% and 22.2% respectively).

Impact of lack of accommodations. Students were asked whether lack of accommodations had ever impacted seriously on their ability to pursue a postsecondary education. Thirty-four percent of the students responded that such was the case. In some cases lack of accommodation by instructors was cited as a main reason, but in most cases it was a combination of situations (e.g., lack of accommodation and problems with accessibility) that caused the student to withdraw (or consider withdrawing) from courses and/or programs. Many students commented on the lowered grades they had obtained in comparison to their non-disabled peers as a result of, in their mind, lack of accommodation. Students were also asked "what action" they would take if they felt they had been discriminated against, and if they in fact had considered taking, or had taken, such action. Overwhelmingly, students responded that they knew exactly who they would contact (e.g., the Ombudsperson, the Academic Vice President, the media, the Human Rights Commissioner); however, they also commented that, in the majority of cases, there had been no need or that the situation had been resolved (or, in some cases, ignored). Nine percent reported they had taken action (e.g., contacted a lawyer).

The final set of questions related to factors (e.g., age, gender, faculty membership), which, in the opinion of the students, contributed to the willingness of instructors to accommodate students with disabilities in the classroom. As anticipated, there was great disagreement among students. In terms of age, some students suggested that "younger" staff were more accommodating because they are more energetic and enthusiastic, whereas, "older" faculty were seen to be more patronizing and rigid. However, others suggested that younger faculty were less accommodating because they have had little prior experience dealing with students with disabilities and that older faculty were more accommodating and adaptable because they were more relaxed as a result of being more "secure" in their position. With respect to gender, some students indicated that female professors were more sympathetic and compassionate, but it was more common for students, particularly females, to comment that because there were so few female instructors, it was difficult to generalize. Many students noted they had never had contact with a faculty member who him/ herself was disabled, regardless of age or gender. Faculty membership (e.g., Arts vs. Education), and status of instructor (e.g., tenured vs. untenured, full-time vs. sessional) did not, on the whole, according to students, affect the willingness to make accommodations. There appeared to be more agreement regarding the type of course (e.g., lecture vs. laboratory, elective vs. required) and level of course (undergraduate vs. graduate). Laboratory instructors were cited by many to be very unaccommodating; several commented that students with disabilities were seen to be an "inconvenience." Many graduate students indicated that faculty were more willing to make accommodations during their graduate programs than during their undergraduate programs.

Overwhelmingly, students commented that no specific variable (e.g., age, gender) was highly correlated with willingness, but rather it was the "attitudes" of students and/or faculty members that had the most impact. Several students commented on the need to approach instructors early in the course in order to discuss potential areas of difficulty before problems arose. Such a meeting, according to the students, would help establish rapport with the instructor and allow the faculty member opportunity to see them as "typical" students who are concerned about how they might do in the specific course.

Discussion and Recommendations

The major purpose of the study was to examine of perceptions of students with disabilities at Canadian universities regarding the adequacy of services from the Office of Students with Disabilities and the willingness of faculty to make accommodations. The following discussion is organized around these two areas, and specific recommendations are given as they relate to these areas. It should be noted that the purpose of the present study was limited to examining the perceptions of students attending universities in Canada. No attempt is made to examine the perceptions of students at other types of institutions providing a program of higher education (e.g., community colleges, trade schools) or the perceptions of students who are attending university in another country (e.g., United States, Britain).

Need for Services from the Office of Students with Disabilities

It was encouraging to find the results of the present study show that on the whole students with disabilities were satisfied with the services available from the OSD. The overall mean rating of 3.76 ($aQ = 1.4$) falls in the category of *_good to excellent*. Even though there were differences in ratings between the various subgroups, none of the groups rated the services below 3.00 (i.e., *good*). These findings are similar to those reported by Patterson, Sedlacek, and Scales (1988) and West et al. (1993). It was disheartening, however, to note that more than 20% of the students reported that delays in obtaining services and/or the lack of services had seriously impacted on their, ability to pursue a program of higher education. Interestingly, in the study by Patterson et al. (1988), delay in obtaining services and/or lack of services were not given as "likely" reasons for leaving university prior to obtaining a degree. In that study, the most common reasons given were "health- related" (21%), "cost to family" (10%), and "disinterest in studies" (9%). Further research is needed to identify the cause(s) of the delays and/ or lack of service. Similarly, long-term, follow-up studies that examine the extent of the impact of accessing services Is required to investigate the magnitude of the problem, As all of the respondents were, at the time of the present study, attending university, it is unknown if the situation is so severe that students have, in fact, been forced to withdraw and in what numbers.

For many services, ample lead time is necessary in order to make the arrangements (e.g., hiring tutors or interpreters), however, in the present study over half the students reported that they only became aware of services from the OSD after they arrived on campus, when the service was needed urgently as classes were ready to commence. For "first

time" students, it appears there may be several reasons for limited awareness by the OSD staff. Some students may simply not want to be recognized (perhaps out of fear of possible negative consequences) and consequently have decided not to identify themselves; others may not know how or where to initiate contact. While little can be done, after the fact, regarding those who decide not to identify themselves, those students who recognize the need for services, in advance, should be reassured that self-identification is to their benefit.

Recommendation 1: Staff from the OSD should review how students at their institution are expected to learn about available services. To this end, the following suggestions are made:

1. Students should be encouraged to self-identify prior to arrival on campus. Several approaches can be utilized, either at the time of application or, ideally, from the perspective of some students, at the time of acceptance: (a) space can be provided on the application form for students to voluntarily self-identify (with follow-up by the OSD staff); (b) a special form, to be returned directly to staff at the OSD, can be sent to all potential applicants along with the usual application forms; and (c) a special form can be sent to all successful applicants at the time of acceptance whereby students with disabilities can indicate their needs, provide a phone number, and return the form for follow-up by the OSD staff.
2. Information about available services should be made widely available to potential applicants and persons in contact with such applicants (e.g., high school counselors, career/vocational counselors, rehabilitation workers). Staff from the OSD should develop pamphlets, brochures, and/or advertisements describing the types of services available and how to access such services. These materials should be distributed to high schools, trade schools, community colleges, and various disability-related community agencies. Similar information should be sufficiently visible in the institutional calendar and in any brochures describing the university and its programs (e.g., alumni magazine).
3. Staff from the Office of Students with Disabilities should be part of the recruitment team that visit "feeder" high schools to solicit applications from qualified applicants (e.g., as part of "career awareness" days). At the time of initial contact the staff person could discuss with the students and the Special Education Coordinators/Service Providers in the schools the types of specific arrangements that might be needed (e.g., wheel-chair accessible housing) and how they might be obtained (i.e., who to contact). During this initial contact it is important that there be a frank discussion of the types of services that will or will not be available at the particular institution the student is considering applying to.
4. For "non-identified" students with disabilities on campus (i.e., students with disabilities whose presence is unknown by staff of the Office of Students with Disabilities), special efforts should be made to ensure that persons in contact with students (e.g., health services personnel, administrative staff, other students, instructors, counselors) know where to refer for assistance. Information on services from the OSD

and on how to access them should be made readily available in various on-campus publications (e.g., student newspapers, faculty newsletters, instructors' handbooks). Orientation meetings for all new students and staff should include information on services for students with disabilities. West et al. (1993) suggested that the students' "Bill of Rights" be posted in conspicuous places such as classrooms. Posting of such a document in places where faculty tend to congregate (e.g., faculty lounges) would increase awareness of faculty to the need for early referral.

For "continuing" students, last minute requests are always problematic. In some cases, difficulties cannot be avoided; however, in many cases, advanced preparation by the student could prevent some of the possible delays and eventually decrease students' reliance on assistance in obtaining services from others. It has been suggested by Brown, Clopton, and Tusler (1991) that students should be encouraged to assume responsibility for planning to meet their own needs, rather than relying on the OSD staff, who have in the past treated academically qualified students as "dependent children." In comparing the "older" traditional Service Delivery Model which promotes dependence of the student on services from the OSD to the "newer" Student Development Model which stresses the development of student skills and independence, Brown et al. (1991) made the following comparisons:

In [the traditional Service Delivery Model] the student approaches the professional [OSD staff person] in an inferior posturing position which says in effect, "Please take pity on me and help me with your knowledge and power." The professional is seen as the only one who can solve the problem. In the role of helper and expert, the professional passes out wisdom, makes phone calls, fills out forms, and in various ways does everything to take care of it

In [the Student Development Model] the student seeks to find an equal participant in the process of gaining information, making decisions, and carrying out functions necessary to achieve a desired goal. The professional is seen as a resource for sharing specialized information and the how-to methods of getting things done in a system. The student approaches the professional from an equal position which says in effect, "Share your knowledge and expertise with me so that I will be able to develop the skills I need to function more independently." (p. 265)

The issue of dependence/independence has also been raised by Brinckerhoff, Shaw, and McGuire (1992). In discussing the needs of students with learning disabilities at the postsecondary level, the authors made the following comments:

It is clearly quicker and easier for a service provider to make a telephone call or write a note explaining a student's disability, request an accommodation or make arrangements for modified testing. It is preferred, however, that the service provider share the diagnostic data with the student, help the student understand and learn to explain his or her disability, and model and practice approaches for the student to identify and request the necessary accommodations. (p. 425).

Interestingly, in the present study between 60% and 80% of the students, depending upon the presenting disability, reported that they either *needed* or utilized assistance from the OSD staff to function as a liaison with faculty and or administration. However, the greatest number of students suggested that such assistance was needed only occasionally. Students with auditory problems reported needing this type of assistance most frequently.

Recommendation 2: In order for students to become less reliant on services from the OSD, staff should work with students to increase their level of independence (i.e., to "empower" them to be their own advocate). The following approaches may assist in this process:

1. Staff from the OSD should attempt to secure funds for the purpose of providing "orientation" programs for both "new" and "continuing" students. Specific courses (e.g., study skills courses) that stress self-advocacy and appropriate interactions with faculty/staff will benefit all students with disabilities. Several such courses have been described in the literature on postsecondary education (Barbaro, 1982; McGuire & Litt, 1989, cited in Brinckerhoff et al., 1992; Scott, 1991).
2. Since some of the services provided by staff from the OSD are, in fact, available to the non-disabled student population by others in the university setting (e.g., academic advising, financial advising, vocational/career counselling) OSD staff should work with administrators, faculty, and staff to ensure that the needs of students with disabilities are understood by various campus personnel. This could be accomplished by holding regular in-service sessions with staff. For example, OSD staff could meet with academic advisors in the various disciplines (e.g., Arts and Sciences, Education) to discuss the implications of certain disabilities on course selection and course load. Universities should consider hiring a staff person to work in the Counselling Department who has expertise in dealing with students with disabilities.

Lack of services that result from lack of funds for staff and resources or equipment is a major concern both to staff (Hill, 1992) and to students (West et al., 1993) particularly in present and future periods of fiscal restraint. While encouraging students to become more independent and thereby freeing available OSD staff to deal with the most urgent needs will be of assistance, the fact still remains that certain services students are entitled to are not always available at all postsecondary educational settings. Lack of services is of particular concern since the number of students with disabilities is expected to increase in the future (HEATH Resource Center, 1992). While none of the respondents in the present study stated they feared they would be "less competitive than their nondisabled cohorts" because of poor services as was the case for respondents in the study by West et al. (1993, p. 464), it should be recognized that, in some situations, student success may be dependent upon the availability of services. Postsecondary institutions should strive to insure that students with disabilities have the opportunity to compete on the basis of their strengths, not their weaknesses.

Recommendation 3: Staff from the Office for Students with Disabilities should ensure that, at minimum, the basic services required by students with disabilities and mandated by legislation are readily available. Specifically, the following measures should be taken:

1. Universities should develop written policies to ensure the provision of necessary services and equipment and training of staff. Policies should be enforced in a manner that is fair and equitable to all students with disabilities. Accurate records should be maintained to "track" the speed with which services are supplied. If there are delays, the cause should be noted (e.g., increasing number of requests by students vs. lack of staff to provide the service), and actions should be taken to rectify the situation (e.g., hiring more staff, training more tutors). Staff should document situations in which services have been requested and not provided, along with the reasons for the denial of service (e.g., lack of staff with specific expertise or training vs. unavailability of specific materials). If essential services are being denied, or legally mandated services are being provided by volunteers, such situations should be addressed to ensure that the legal rights of students are not abrogated (West et al., 1993). Outright violation of existing legislation should not be tolerated for any reason.

2. Staff from the OSD should lobby the administration of the university to ensure that operating budgets are sufficient to hire necessary staff and to provide equipment required to meet the needs of students. In times of funding cuts, OSD staff should act proactively to ensure that the future academic careers of students are not jeopardized. If it is necessary to supplement the number of paid staff by volunteers, OSD staff should ensure that they are trained in the area of working with individuals with disabilities. It has been suggested by Salend, Salend, and Yanok (1985) that special education faculty can become involved in advising students and training tutors. Additionally the authors suggested that special education students could provide tutoring to students in the postsecondary setting who have a disability as part of their supervised practicum. Members of student chapters of the Council for Exceptional Children and the Association on Higher Education and Disability are another potential source of assistance.

3. Some services may be available in the community at no cost (or minimal cost) to the university. Staff from the OSD should strive to avoid duplication, and where appropriate, use existing services to the maximum extent possible, in an attempt to reduce the demands on their limited resources.

4. Staff from the Office of Students with Disabilities at all higher education institutions should be required to evaluate the level of services available to students with disabilities on a regular, ongoing basis to ensure that the needs of students are being adequately met. Such an evaluation should be part of the internal review, as well as part of the external review process (i.e., for accreditation purposes) of a postsecondary institution, with input from student consumers. The Association for Higher Education and Disability should consider taking a leadership role in developing accreditation standards that could be used by all higher education facilities (e.g., universities, colleges, trade schools) to ensure that appropriate aids and services are available to all eligible students.

Need for Accommodations by Faculty

It was encouraging to find that on the whole students with disabilities were satisfied with the willingness of faculty to accommodate them in their classrooms. The overall mean rating of 4.03 ($SD = 1.4$) indicates that students have found instructors to be *somewhat* " or *willing* to modify their teaching, assignments, or testing situations to accommodate students with unique needs. It was discouraging, however, to note the overall lack of willingness by instructors to provide certain accommodations. In only three areas were faculty deemed to be willing to make a specific accommodation by more than 50% of the students (i.e., allow student to tape record lecture; allow extra time for completion of a test or examination; and allow/arrange for test to be taken in an alternative location). It should be noted that for each of these accommodations the faculty member, in fact, does not have to make any major effort to alter their normal instructional techniques in order to accommodate the student. It was also disheartening to note the apparent differences in the provision of accommodations based on the disability of students. This finding is similar to those reported by others (Fichten, 1988; Leyser, 1989); however, since a consistent pattern across disability groups was not established in the present study, further research is warranted.

Recommendation 4: Faculty must become aware of the needs of students with disabilities. Inservice sessions provided by the OSD staff and/or faculty members in the area of special education should be provided on a regular basis for both new staff and those with continuing appointments.

The amount of contact and experience in teaching students with disabilities differs widely among faculty members, consequently, there are different needs for inservice. Similarly, faculty members who currently have a student with a specific disability in their classroom have a more urgent need for in-depth knowledge than an instructor that has no students with disabilities in his/her classroom at that time.

Recommendation 5: In-service sessions should be of two types: (a) general sessions, offered periodically throughout the school year, which attempt to sensitize faculty to the needs of students with disabilities in an attempt to modify their attitudes towards the various groups that have often been considered to be "less desirable" on campus, and (b) follow-up, in-depth, disability-specific in-service sessions, ideally offered before the beginning of term, that focus on the needs of a particular group such as students with learning disabilities or hearing impairments. The emphasis of both types of continuing education should be on how specific accommodations will not give students with disabilities any type of "advantage," but rather provide them with sufficient assistance to allow them to compete on the basis of ability, not disability. In both types of in-service programs, the entitlement of students to such accommodations determined on a case-by-case basis should be stressed.

Students with disabilities are not the only type of "non-traditional" student attending university with unique learning needs (Council of Ministers of Education, Canada, 1987). Older students are returning in greater numbers as are students from different cultural and

linguistic backgrounds (e.g., First Nation students). These students are entering university for the same reasons as "traditional" students, that is, to fulfill personal goals, to allow for effective competition in the job market, and to contribute to independence and financial security (Fichten, 1988). Faculty members, undoubtedly, will continue to be challenged by the presence of such a diverse group of students, just as elementary and secondary school teachers who have seen the composition of their classes change as a result of increased efforts to integrate children with varying unique needs (Goodlad & Lovitt, 1993).

Recommendation 6: Faculty should be encouraged to speak to their class as a group early in the term, issuing an invitation to all students to discuss concerns or issues about the course with the instructor, thereby "legitimizing" the belief that it is acceptable to approach instructors about such matters (Fichten, Goodrick, Tagalakis, Amsel, & Libman, 1990). Similarly, students with unique learning needs including those with disabilities should be encouraged to contact instructors before the course begins to discuss their needs and any possible modifications that will assist in maximizing their learning potential in the classroom, in completing assignments, and in taking tests. To assist in the process, an individualized list of accommodations appropriate for the student could be prepared by the student, in conjunction with staff of the OSD, and used as a basis of discussion with instructors. There are a variety of handbooks that are available to assist in developing such a list (Fichten, Goodrick, Amsel, & Libman, 1989; Hill, 1991).

Finally, although few students (9%) in the present study reported having actually taken action on the basis of alleged discrimination by faculty members, it should be recognized that many students reported incidents of resistance and/or discrimination similar to that found by West et al. (1993). Approximately one third of the respondents indicated that lack of accommodation from instructors had seriously impacted on their ability to pursue a postsecondary education.

Recommendation 7: University wide policies should be developed to assure that students with disabilities are entitled to the required accommodations as mandated by law. Faculty members who repeatedly are unwilling to make the necessary accommodations should be reprimanded, and appropriate corrective measures should be determined (West et al. 1993).

References

Aksamit, D., Morris, M., & Leuenberger, J. (1987). Preparation of student services professionals and faculty for serving learning disabled college students. *Journal of College Student Personnel*, 28, 53-59.

Barbaro, F. (1982). The learning disabled college student: Some considerations in setting objectives. *Journal of Learning Disabilities*, 10, 599-604.

- Brinckerhoff, L. C., Shaw, S. F., & McGuire, J. M. (1992). Promoting access, accommodations, and independence for college students with learning disabilities. *Journal of Learning Disabilities, 25* 417-429
- Brown, D., Clopton, B., & Tusler, A. (1991). Access in education: Assisting students from dependence to independence. *Journal of Postsecondary Education and Disability 2*,264-268.
- Bursuck, W. D., Rose, E., Cowen, S., & Yahaya, M. (1989). Nation-wide survey of postsecondary education services for students with learning disabilities. *Exceptional Children, 56*, 236-245.
- Center, Y., & Ward, J. (1987). Teachers' attitudes toward the integration of disabled children in regular schools. *The Exceptional Child, 34*, 41-56.
- Council of Ministers of Education, Canada. (1987). *Opportunities: Postsecondary education and training for students with special needs*. Toronto, ONT, Canada: Author.
- Fichten, C. S. (1988). Students with physical disabilities in higher education: Attitudes and beliefs that affect integration. In H. E. Yuker (Ed.) *Attitudes toward persons with disabilities*. (pp. 171-189). New York: Springer.
- Fichten, C. S., Goodrick, G., Amsel, R., & Libman, E. (1989). *Teaching college students with disabilities: A guide for professors*. Montreal, PQ, Canada: Dawson College.
- Fichten, C. S., Goodrick, G., Tagalakis, V., Amsel, R., & Libman, E. (1990). Getting along in college: Recommendations for college students with disabilities and their professors. *Rehabilitation Counseling Bulletin, 34* 103-125.
- Gajar, A., Goodman, L., & McAfee, J. (1993). *Secondary schools and beyond: Transition of individuals with mild disabilities*. New York: Merrill.
- Goodlad, J. I., & Lovitt, T C. (Eds.). (1993). *Integrating General and Special Education*, New York: Merrill.
- HEATH Resource Center, (1992, September-October), *Information from HEATH: Percentage of college freshmen with disabilities increases*. Washington, DC: Author.
- Hill, J. L. (1991). Accommodating a student with a disability suggestions for faculty. Victoria, BC, Canada.- University of Victoria. (ERIC Document Reproduction Service No. ED 339 290)
- Hill, J. L. (1992). Accessibility: Students with disabilities in universities in Canada. *Canadian Journal of Higher Education, 22*, 48-83.

- Hill, J. L. (1994). Speaking out: Perceptions of students with disabilities at Canadian universities regarding institutional policies. *Journal of Postsecondary Education and Disability*, 11,1-14.
- Kelly, B. A. (1984). Attitudes toward disabled persons of selected collegiate coordinators for disabled students. *Journal of College Student Personnel*, 25, 255-259,
- Leyser, Y. (1989). A survey of faculty attitudes and accommodations for students with disabilities. *Journal of Postsecondary Education and Disability*, 7, 97-108.
- Marion, P. B., & Iovacchini, E. V. (1983). Services for handicapped students in higher education: An analysis of national trends. *Journal of College Student Personnel*, 24, 131-138.
- Michael, R. J., Salend, S. J., Bennett, R. S., & Harris, A. J. (1988). The roles and functions of coordinators of services in higher education. *Journal of Learning Disabilities*, 21, 191-192.
- Nelson, J. R., Dodd, J. M., & Smith, D. J. (1990). Faculty willingness to accommodate students with learning disabilities: A comparison among academic divisions. *Journal of Learning Disabilities*, 23, 185-189.
- Newman, J. (1976). Faculty attitudes toward handicapped students. *Rehabilitation Literature*, 37, 194-197.
- Norlander, K. A., Shaw, S. F., & McGuire, J. M. (1990). Competencies of postsecondary education personnel serving students with learning disabilities, *Journal of Learning Disabilities*, 23, 426-432.
- Patterson, A. M., Sedlacek, W. E., & Scales, W. R. (1988). The other minority: Disabled student backgrounds and attitudes toward their university and its services. *Journal of Postsecondary Education and Disability*, 5, 86-94.
- Salend, S. J., Salend, S. M., & Yanok, J. (1985). Learning disabled students in higher education: The roles of the special education faculty. *Teacher Education and Special Education*, 8, 48-54.
- Scott, S. S. (1990). Coming to terms with the "otherwise qualified" student with a learning disability. *Journal of Learning Disabilities*, 23, 398-405.
- Scott, S. S. (1991). A change in legal status: An overlooked dimension in the transition of higher education. *Journal of Learning Disabilities*, 24, 459-466.
- Sergent, M. T., Sedlacek, W. E., Carter, R. T., & Scales, W. R. (1987). *A national survey of services provided for disabled students in-higher education* (Research Report No. 19-

87). College Park, MD-University of Maryland. (ERIC Document Reproduction Service No. ED 297 668)

Stilwell, W. E., & Schulker, S. (1973). Facilities available to disabled higher education students. *Journal of College Student Personnel*, 14, 419-424.

West, M., Kregel, J., Detzel, E. E., Zhu, M., Ipsen, S. M., & Martin, E. D. (1993). Beyond Section 504: Satisfaction and empowerment of students with disabilities in higher education. *Exceptional Children*, 59, 456-467.