

# Access to and Success in Post-Secondary Education for Students with Visual Impairment and Blindness

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## EXECUTIVE SUMMARY

Success at post-secondary institutions requires that students with visual impairment are afforded accommodations which meet individual need and that these students are allowed to fully integrate into the post-secondary environment. To achieve full access and full integration in the post-secondary environment, a better understanding of the unique situation of Canadian post-secondary students with visual impairment/blindness is needed. The main objective of this study is to better understand students with visual impairment/blindness in terms of:

- The make-up of students at Canadian post-secondary institutions
- Their pre-college/university preparation
- The barriers that exist to accessing higher education
- The accommodations provided by Canadian colleges and universities and whether these accommodations are meeting the students' unique needs.
- The unique experiences of these students in integrating academically and socially into the post-secondary environment

## METHODOLOGY

To meet these objectives a three phase project was designed. In the first phase, college and university disability program administrators were queried about their experiences providing services to students with visual impairment/blindness. In the second phase, secondary school teachers were queried about their experiences teaching students with visual impairment/blindness and asked about their opinions of access to higher education for these students. In the third phase, students with visual impairment/blindness studying at Canadian colleges and universities were interviewed about their experiences accessing and succeeding in higher education. Students also provided their opinions of barriers to success at Canada's post-secondary schools. In all 193 surveys/interviews were completed (55 administrators, 68 teachers, 70 students).

## ADMINISTRATOR RESULTS

Fifty-five administrators from post-secondary schools in ten provinces and one territory reported that 3.1% of students registered with their disabilities program have visual impairment/blindness. The number of students currently registered with disabilities services varied greatly across institutions, ranging from 0 to 45 students and more students in Western and Central Canada are registered than in Eastern Canada. Further, administrators stated that the average age of registered students with visual impairment/blindness was 24.7 years and these students usually take about 2.5 extra terms to complete their education. Administrators reported that 54% of registered students have low vision, rather than blindness. Administrators estimated that about 83% of fulltime students with visual impairment complete their program of study.

### Access

Administrators speculated that students with visual impairment may not try to access higher education because they are unaware of services available to them, they may not have the support and advice needed to apply, they may lack funding or have had experiences at secondary schools that discourage continued education (e.g. low GPA, lack of independence). However, many administrators believed that current recruitment practices were not effective with students with

visual impairment or blindness because recruiters may not be familiar with accommodations and recruitment materials are often not accessible. Administrators acknowledged that recruitment could be improved with more direct contact with individual school counselors, teachers and foundations such as the CNIB.

Less than half of the administrators reported that they have special admission or transition services for students with visual impairment/blindness. When offered, the services for admission were most often help with applications or forms and services for transition were informal due to lack of funding and resources.

### **Accommodations**

Administrators reported what accommodations were available at their institution for students with visual impairment/blindness. The majority of administrators reported that they have a disability counselor, e-text/text on tape/CD, exam accommodations, note sharer services and adaptive technologies (Zoom Text, JAWS, Dragon), tape recorders, laptops and exam/study rooms. Administrators reported that students often have difficulties with their accommodations because they do not receive accessible materials in a timely manner or they are not trained to use technology. Administrators suggest that while students need better access to adaptive technologies, alternate formats and technologist services across the campus, accommodation needs to be individualized.

### **Barriers**

Social, academic and physical barriers to full participation in post-secondary studies were identified by administrators. Socially, these barriers included a lack of understanding about visual impairment on the part of sighted students and faculty and social isolation because students with visual impairment are not confident in initiating contacts in the post-secondary environment. Academically, barriers included access to materials in alternate format, faculty resistance to provide accommodations, difficulty accessing and using adaptive technologies and accessing opportunities in field and work placements. Physically, these barriers included mobility issues due to complex campus designs, difficulties with stairs, signs, ramps, snow removal and the lack of communication with students and faculty about emergency procedures. Administrators believed that barriers at their institution could be addressed by better awareness and education about visual impairment/blindness for the entire post-secondary community.

### **Systemic Practices and Supports**

The majority of administrators reported that they are invited to consult on policies and procedures that affect students with visual impairment. One quarter of administrators felt that some institutional policies act as barriers to higher education, including high grade admission cut offs, application forms that are not accessible, lack of policy around web sites, clickers and alternate formats, and lack of policy to deal with mobility issues.

## **TEACHER SURVEY RESULTS**

### **Access**

Sixty-eight teachers from secondary schools in six provinces and one territory suggested that students with visual impairment and blindness might choose not to continue to higher education because of a lack of confidence, lack of independence and fear due to a lack of knowledge about higher education. Teachers noted that post-secondary institutions do not clearly communicate accommodations available at their institutions and that lack of communication discourages students.

The majority of teachers stated that post-secondary recruitment efforts are not effective for students with visual impairment. Teachers suggested that accessible recruitment materials are needed and specialized recruitment in a one-on-one fashion would help students to better know higher education options. More than one-third of teachers stated that they were not at all knowledgeable about services offered at post-secondary institutions and classroom teachers were less knowledgeable than specialist (e.g. itinerant) teachers. Teachers suggested that knowledge of services at post-secondary institutions could be achieved with more direct communication between schools, students and institutions. Almost half of teachers stated that their school offers some post-secondary transition service. Teachers suggested that students need to be much better prepared for higher education, including early access to accommodations, more orientation and mobility training, trips to potential schools to meet with professors, independent living skills education and a better understanding of academic requirements.

### **Accommodations**

Teachers reported accommodations that were available at their school for students with visual impairment/blindness. Frequently, teachers reported that Zoom Text, JAWS and Kurzweil were available for student use. Two-thirds of the teachers reported that students have difficulties accessing accommodations. Often student access to alternate format was not timely, or formats chosen by classroom teachers were not accessible. Some teachers highlighted that students sometimes do not understand transcribed materials (i.e. Nemeth code) or refuse to use assistive technology because they are self-conscious about using them in front of peers. Many teachers believed that more itinerant and Braille teachers would improve student services. Teachers believed that services across Canada need to be more consistent and students should have more standardized assessment for accommodations. Teachers also noted that teachers need more effective training in adaptive technologies and more professional development and this need was stronger for classroom teachers than specialist teachers.

### **Barriers**

Social, academic and physical barriers to full participation in secondary schools were identified by teachers. Teachers noted that students with visual impairment/blindness often have poor knowledge of peer interactions; including when to interject opinion, how to locate and begin peer friendships, sighted peer interests in terms of music, fashion and television, and social behaviour among peers. In addition, school clubs often are not set up in a way that a student with visual impairment could participate and sighted students do not understand visual impairment and thus misinterpret students with visual impairment/blindness. Academic barriers included access to materials in alternate format, some classroom teacher resistance to provide accommodations, and difficulties in accommodating in areas such as mathematics and science. Teachers suggested that the heavy load of the high school curriculum can become a barrier, given the students need extra time in a limited school year. Teachers believed that academically some students become frustrated and very dependent on adults to learn. Physical barriers included difficulties with long cluttered hallways, school design and poor lighting. Teachers felt that increased access to professional development, itinerant teachers, and more access to teaching resources would improve learning for students. Teachers also believed that supportive training in social interactions, that involve the student's family, would benefit the students socially. Finally, teachers felt that sighted students and teachers should be given a better education in understanding visual impairment/blindness.

## **Teacher Experience**

Teachers commented on their experiences working with students with visual impairment in terms of learning needs and ability to succeed in higher education. While many teachers spoke of student success, some teachers commented that students who are not successful in moving to higher education often have a lack of support in terms of social supports, self advocacy and supportive planning for higher education. Teachers spoke of the shock that students experience leaving a more sheltered high school environment to the rigors of higher education.

## **STUDENT INTERVIEW RESULTS**

### **Access**

Seventy post-secondary students from eight provinces and one territory explained that they felt they had the same opportunities for access to higher education as their peers, but post-secondary institutions often do not provide application materials in an accessible format. Students explained that accessing education requires self confidence and students with visual impairment/blindness often find the environment intimidating due to a lack of information on expectations and accommodations. Less than one third stated they received good advice from teachers and guidance counsellors about higher education attendance. In addition, three quarters to one-half of students rated post-secondary recruiters, materials and communication as ineffective. Students suggested that sometimes students with visual impairment/blindness do not have the social and academic skills required to function in higher education because these skills are not taught to them during their high school years or they are taught to depend on teachers or other adults. In addition, students explain that in higher education there is less social and academic support and students sometimes fear they will be overwhelmed. Students explained that during their high school years, they were blocked from taking or fully understanding particular courses; especially in math and science. In high school, some teachers did not know how to accommodate them, thus affecting students' ability to move on to higher education. Only nine percent of students stated that they received transition services but many students suggested that early transition services could help students overcome the difficulties in higher education.

### **Accommodations**

Students frequently reported using adaptive technologies (Kurzweil, JAWS and Zoom Text), exam accommodations and electronic text books. Three-quarters of students stated that they are confident using adaptive technologies and noted that their institution provided consultation with an adaptive technologist. Students felt that their exam and essay accommodations contributed to their success and the largest barrier to their success was when accommodations were not followed. Students were at times denied use of accommodations by faculty and accommodations for alternative print formats were often late in arriving.

### **Barriers**

Students saw the ability to self-advocate as being important to overcoming barriers in higher education. Students believed they were in the best position to advocate for their needs but acknowledged that advocacy is a learning process where students need to know both what to advocate for and when to advocate. Three-quarters of students stated that social barriers affect their learning at their post-secondary institution. Students felt excluded from extracurricular activities because of the effort and planning needed to participate. Students perceived that sighted students are nervous about those with visual impairment/blindness and many sighted students do not have any

knowledge of visual impairment. While many students experienced social barriers, most students noted that they worked hard to 'fit in' to the higher education environment.

Students described academic barriers that affect their success in higher education. Half of these students noted the difficulties in keeping up with reading, especially when readings had to be converted to alternate formats, or the reading was required in class. More than half of the students with low vision reported headaches and eye strain related to reading and computing and believed that headaches/eyestrain resulted in less timely production of work. Students also felt the visual nature of the class environment often disadvantaged them. While the majority of students stated that their professors are willing to accept their accommodations, students described that faculty often forgot to read out loud what is written, gave pop quiz, forgot to send tests to disabilities centers, rely on inaccessible web sites or required them to work on visual concepts in groups (i.e. typing, reading, and formatting). Some professors, students recalled, seemed worried that the accommodation would increase workload or affect their ability to teach. Students found that communication between their professors/programs and their disabilities center was not clear, which left students vulnerable to academic barriers. In addition, to these in class difficulties, the majority of students perceived that they do not receive the same academic opportunities as their peers in terms of study placements and exchange programs. These students acknowledged that employers seem to fear accommodating students and lacked education about visual disabilities.

Students also described the campus design as a major physical barrier to learning. Signage did not meet their needs, stairs were not well marked, lighting was poor and classroom design was not accessible. Students suggested that community/campus education about visual impairment could help to reduce most barriers (social, academic and physical). Students also suggested that access to counsellors and transition training/planning would help to prevent some barriers.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study showed great variability in the numbers of students with visual impairment and blindness across institutions, with fewer attending schools in Eastern Canada. In general, these students are older than other student groups and it takes these students about 1.5 academic years longer to complete their program. Previous research suggested that students with visual impairment do not complete their education; however, administrators at Canadian schools suggest that the majority of students with visual impairment and blindness do complete. The difference in completion rates could reflect a unique Canadian trend or could reflect methodologies of counting students. For example, students who move to part-time status in order to take fewer courses may be considered drop-outs, when in fact they are still studying (hence the longer time to complete).

Students suggest that they do have equal access to higher education but that they lack information about it. They cite that there is little information provided about accommodations, expectations, and workload prior to entering. Students suggest that materials provided to them are not accessible, and recruiters and high school teachers/guidance could offer them little assistance. Lack of information decreases student confidence in their ability to succeed. Teachers concur that students do not receive enough information about post-secondary learning and teachers acknowledge that they are not always knowledgeable about post-secondary education for students with visual impairment/blindness. Teachers suggest that there is not enough direct communication about accommodations, workload and expectations, coming from post-secondary institutions. Similarly, administrators at post-secondary schools in Canada agree that more direct communication with school counsellors and teachers is needed to encourage students towards higher education.

Some students suggest that they are not well prepared for the rigors of a post-secondary education. Teachers explain that information affecting their learning needs arrives too late for many students. In addition, students state that in high school, students struggle with some subject areas (e.g. mathematics and science) because of their visual nature, and thus assumptions that professors at college and university make about their background knowledge are erroneous. Teachers argue that transition planning is needed to ensure that the student is academically and socially prepared for higher education, however, administrators report that very few post-secondary schools offer formal transition programs targeted to the unique needs of these students. Students themselves believe that transition services prior to admission could help them to better understand what they need to do to be successful in higher education.

Both high schools and post-secondary schools offer a variety of accommodations for students with visual impairment/blindness and adaptive technologies are widely used amongst students. However, past literature, administrators and teachers suggest that often students are not properly trained to use these technologies, in part because teachers and disability centers do not have easy access to adaptive technologies to train them. Regardless, the majority of students state that they are confident in their abilities to use adaptive technologies. Students argue that their problem with adaptive technologies is not in using them but access to them on campus.

Students discussed that while many professors were willing to accommodate them, at times teaching faculty denied their use. Textbooks were often slow to arrive (often well into the semester), faculty at times would not provide notes or slides or read out what was on the blackboard. Administrators and students discussed the lack of understanding for the use of accommodations that faculty sometimes have.

Many students reported that they felt isolated in their post-secondary studies and this isolation may start well before higher education. Teachers expressed that sighted high school students often misinterpret students with visual impairment/blindness. In addition, students with visual impairment often lack information about sighted peers in high school (e.g. popular fashion, music, television). This lack of understanding of one another can lead to social isolation. Students and administrators concur that sighted college and university students seem not to understand visual impairment. Both students and teachers believe that community education on visual impairment could benefit both sighted and visually impaired students.

Students perceive that their heavy reading load in higher education disadvantages them. Reading takes longer, often requires slow-to-produce alternate formats, and is difficult to do in class for pop quiz or in-class readings. In addition, many students with low vision report headaches and eyes strain that further slow down their reading, making timely production of assignments and taking tests on time difficult.

Students believe that they are often not given equal opportunities to other students in terms of work placements, exchange programs and practicum. Students acknowledge that it is usually employers who shy away from having them participate because of the logistics of accommodating them. Students believe that this lack of support leads to a loss of education for them.

Students suggest that self advocacy is one of the most important skills they need to learn to succeed in higher education. Certainly teachers acknowledge that students who move on to higher education have social support to do so, but students believe that social support is not enough. However,

students acknowledge that advocacy needs to be trained. Students need to know when to advocate and for what. While previous research shows that administrators believe advocacy is important (see Reed et al, 2003), very few have program practices that address advocacy for this unique group of students.

## **RECOMMENDATIONS**

The following represent recommendations that could be incorporated as standards of practice

1. Studies suggest that students who enter post-secondary education do not complete their education. However, administrators and Canada's institutions suggest they do complete, but take longer than other students to do so. Tracking the number of drop-outs, whether they are attending part-time, reasons for leaving, and whether those who leave choose to move to another school is important. True drop-out rates should reflect those who do not continue. Understanding what happens to both groups (non drop-outs/drop-outs) in terms of employment and education could help in better transition and curricular planning.
2. Higher education recruitment does not target students with visual impairment, making it harder for students to apply and understand what is needed to succeed. Secondary school teachers note that they receive very little communication from Canada's post secondary sector about assisting these students towards higher education and students in the post-secondary system recall difficulties in gathering accurate information about applying and succeeding in higher education. Given that data suggests that those who complete higher education have better opportunities for employment, encouraging students towards higher education is critical. More direct communications between schools and higher education institutions is needed. Communication should include information about academic rigor, accommodations available, campus environment and academic/social opportunities. In addition, post-secondary institutions need to make accessible the application processes and the recruitment materials.
3. Planned transition is important for these students moving from a sheltered high school environment into the post-secondary system. Students would benefit from transition planning that includes academic, social and mobility/transportation planning. Students need earlier visits to campuses, meetings with professors, information about sighted students, information about workload, information and training on independent living and the campus environment, early training on available technologies, early orientation and mobility training, early access to academic materials and inclusion of family and social supports into this transition process. Currently, few schools offer such transition courses, especially early transition planning in conjunction with secondary schools. An examination of the best form of transition planning for students with visual impairment is needed.
4. Difficulties with access to accommodations are reported at both the secondary and post-secondary level. Administrators and teachers suggest that these difficulties may lie in training for adaptive technologies. Yet, students report that they are confident in their use and their difficulties are in accessing these technologies across campus. Many students in the current study were not first year students and their confidence may reflect the time they have had to learn these technologies. It is important to better understand the training of these adaptive technologies for first year students. The first year undergraduate student who is not trained on technologies may quickly fall behind in their studies and would therefore be

at higher risk to drop-out. The investigation should include training prior to entry and effective methods to assist in this training at the secondary school level.

5. At secondary and post-secondary levels timely access to materials in alternate formats is required. The loss of time results in students being behind in their studies. Most often, it appears that the late access is due to materials arriving for transcription at a late date (e.g. course textbooks are not chosen until August for the September start, students do not register in courses until late, teachers' workload does not permit early development of materials). Clearly, these issues are systemic and require institutional policy around accommodating students with disabilities. Reviewing policies or developing policies that allow better access to materials would greatly benefit students with visual impairment/blindness.
6. Administrators, teachers and students report social isolation of students with visual impairment from their peers. It appears that there are two issues that result in this isolation. Faculty, students (at both secondary and post-secondary) and staff do not understand those with visual impairment. This lack of understanding is reflected in faculty resistance to accommodations, students shying away from those with visual impairment, and the daily difficulties experienced by students with visual impairment. A second reason for isolation may also be a lack of confidence in socializing on the part of the student with visual impairment. At the secondary level, students may find the visual nature of socializing (e.g. visual recognition of friends, eye contact, visual activities such as sports) limits their access. In the larger post-secondary campus these problems are magnified given the large body of students and few high school friends attending with them. The visual nature of extra-curricular activities can be intimidating. Much research suggests that social integration into the post-secondary environment is one of the keys to success. Clearly, methods such as mentoring, inclusive social activities, encouragement to extra-curricular activities is important and should be investigated. However, improved information about visual impairment is also needed for all community members.
7. Students report great difficulties in keeping up with the high reading load at post-secondary institutions. While little can be done about the required reading in higher education, very early access to materials would help. In this way, students may begin some of their readings prior to the beginning of term and if necessary have time to put these readings into formats that minimize eye strain and headaches (e.g. auditory formats). In addition, communicating to professors a better understanding of the reasons why in-class readings are difficult for these students may encourage professors to allow early access to these readings.
8. Work study/ practical opportunities provide students with valuable and marketable experience. Unfortunately, due to accommodation issues, these opportunities are often limited for students with visual impairment, in part due to reluctance on the part of employers or placements. Placements may not understand the real ability level of students with visual impairment and this education needs to take place. Exploring opportunities and explaining to placements how adapting them for visual impairment could benefit both the placement and the student may increase the types of opportunities available.
9. Students seem to manage many barriers they face because, according to administrators, they do graduate. A key to this management may be in student self-advocacy. Students are not always sure when and what to advocate. More training at the secondary and post-secondary level in advocacy would increase student independence and make advocating more effective.

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