

# REDUCING THE BARRIERS FACED BY DEAFBLIND POST-SECONDARY STUDENTS

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## A Resource Guide for Access Service Professionals

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[Image description: a black and white photo of a walkway in a library that curves to the left. Shelves of books line the right side of the walkway]

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PCAS

## Introduction

DeafBlind<sup>1</sup> post-secondary students face a significant number of barriers to equitable inclusion in post-secondary institutions (Arndt, 2011; Chanock, 2010; Ingraham, Belanich, & Lascek, 1998). This resource outlines key questions, considerations, and knowledge that are fundamental to both understanding and reducing the barriers faced by DeafBlind students. Through this resource, we hope to support post-secondary access professionals who are working with DeafBlind students.

The following sections outline key questions to consider when working with DeafBlind students and a list of some of the services and technology commonly used by the DeafBlind community. However, it is very important to note that the DeafBlind community is extremely diverse and varied and that DeafBlind people use a wide range of approaches to communication and navigation (Arndt, 2011; Chanock, 2010; Mason & Smith, 2007; Stoffel, 2012; Vancouver Community College, 2014; Watters, Owen, & Munroe, 2004). Due to this diversity, the lived experience and expertise of each DeafBlind student must be respected. DeafBlind students are experts of the barriers they face, and, as such, their experience should be valued above the content of this paper. As Theresa Smith, an early DeafBlind researcher and educator, highlighted: “Deaf-Blind<sup>2</sup> people are competent to run their own lives... help without understanding and involvement of Deaf-Blind people is just more oppression” (2002, p. 6).

## The Physical Campus

Post-secondary institution campuses are designed for people with specific types of vision and hearing in mind, which presents significant barriers to those who do not meet these assumptions. Therefore, it is very important to discuss the navigation of the campus with each DeafBlind student. During these discussions with DeafBlind students, it is particularly important to understand and support each student in accessing the areas of the campus that they desire to, including those that do not directly relate to classroom content. Post-secondary institutions are designed to be full of vibrant academic and social spaces, and it is important to understand and support equitable access to these.

Below is a non-exhaustive list of key questions to consider when developing an effective accommodation plan for a DeafBlind student. It is recommended that access service

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<sup>1</sup> The term DeafBlind, as used in this paper, is meant to connote individuals who have a combination of reduced hearing and vision such that they face barriers to the equitable inclusion in society as a whole (adapted from Watters, Owen, & Munroe [2004]). This purposefully includes DeafBlind people who may have some vision or hearing.

<sup>2</sup> This was previously a common way to spell the term DeafBlind. Though still used, it seems to have fallen out of favor in British Columbia.

professionals reflect on these questions first, and also ask these questions to each DeafBlind student they work with. Related considerations, exceptions, and recommendations have been included below each question in the grey boxes.

### Key Questions:

- **What information would help the student to equitably navigate the campus? How is this information best communicated to them?**

How DeafBlind students navigate is likely to be different based on their lived experience, their vision, and hearing. The provision of a room number and building name may not be sufficient to support their equitable access to the campus. Indeed, to reduce barriers, technology or professional guiding and description service may be needed, such as through a **DeafBlind intervenor** (see definition in the Common Services section).

Additionally, it is important to understand how each DeafBlind student uniquely navigates through the campus. Without this understanding, location information given to each DeafBlind student may not match how they navigate through space.

Finally, it is important to plan for how a DeafBlind student will be notified in the event of an emergency. Many post-secondary emergency response plans actively exclude DeafBlind students through their lack of consideration of DeafBlind students needs and thus need to be re-evaluated.

- **Is their vision affected by lighting? If so, what kind of lighting helps them to best navigate the campus?**

Some DeafBlind students experience significant changes in their vision based on both internal and external lighting. Insufficient, or the wrong type of, electric lighting may affect their ability to navigate the campus or specific rooms on campus. Similarly, the amount of sunlight may affect how they can navigate the campus. So, it is important to understand, and plan for, variation in the experience of barriers based on location and time of day/year.

- **What service or technology has the DeafBlind student used in the past? What do they think might help reduce the barriers to equitable navigation at your institution?**

While some students may become DeafBlind during their post-secondary studies (Ingraham, Belanich, & Lascek, 1998), many will have significant experience navigating

spaces as a DeafBlind person. Therefore they may have specific suggestions on how barriers at your institution can be reduced.

**Orientation and Mobility Specialists** (see definition in the Common Services section) may also help identify and provide services and technology to reduce the barriers presented by the campus.

### **Classroom Instruction and Academic Success**

Many DeafBlind students find that the attitudes and level of knowledge that staff and faculty have about DeafBlind people can present significant barriers to their equitable inclusion. Indeed, even in the limited research available on the experiences of DeafBlind students, a number of DeafBlind students reported experiencing significant discrimination from staff and faculty (Arndt, 2011; Mason & Smith, 2007; Stoffel, 2012; Wolsey, 2017). Therefore, **it is recommended that relevant staff and faculty be educated on how to respectfully interact and include each DeafBlind student.**

Classrooms are not the only place that learning and meaningful interactions take place in post-secondary institutions. However, they are still a major site of meaningful interaction and learning worthy of significant consideration. Below is a list of some questions to consider and discuss with each DeafBlind student.

#### **Key Questions:**

- **How does the DeafBlind student prefer to access classroom instruction? What sense(s) do they want to utilize to access classroom instruction and interaction?**

DeafBlind students may best access classroom interactions in a number of ways, including via vision, hearing, touch, or a combination of these. Additionally, for these students, the way they best access information may or may not change based on context. So, it is important to understand if, when, and why this may change.

This is also an important question for determining which services they wish to use in class (like interpretation) and the format of their textbooks.

- **In order to support their academic success, what information does the DeafBlind student want in advance of each class?**

For many DeafBlind students, accessing two different sources of information at the same time (such as a PowerPoint and accompanying lecture) presents a significant barrier. So, they may

prefer to receive any PowerPoint presentations or classroom readings in advance, in order to review them before class.

Similarly, many may find it helpful to understand the general topics that will be reviewed during each class. This advance notice can help improve their reception of information and reduce potential mental and physical fatigue that some DeafBlind students experience.

- **How can the physical and virtual classroom be designed to reduce the barriers that the DeafBlind student faces?**

The layout of virtual and physical classrooms may present a significant challenge for some DeafBlind students. For example, the arrangement of chairs or where the instructor is located may be an important consideration for some DeafBlind students. Web-oriented classrooms should follow best practice guidelines for blind people to reduce barriers when navigating these digital spaces. A fair amount of research exists on the topic of accessible website design and may be helpful for staff and faculty to review.

### **Campus Services**

The post-secondary student experience goes beyond classroom instruction. For many, their success and enjoyment of post-secondary education come from a wide variety of events, interactions, and services on campus. Indeed, these extracurricular activities may help to support networking and the development of soft skills (a topic that has gained a fair amount of attention in recent years). Barriers to these important aspects of the post-secondary experience may result in decreased enjoyment and academic success and must also be considered and addressed.

The non-exhaustive list of questions below is designed to identify the types of services and events that each DeafBlind student may wish to utilize or participate in. By identifying these elements, you can best target training to specific staff, enhancing their ability to include and interact with the DeafBlind student. In a perfect world all staff and faculty would be trained, however, heavy caseloads may make a targeted approach to such training more practical. Like all questions in this resource, these questions should be regularly revisited with each DeafBlind student, as their answers may evolve and change as they gain experience.

#### **Key Questions:**

- **What services and events does the DeafBlind student know of? Are the event announcements accessible?**

Advertisements, signage, and notifications for events and services are often inaccessible to DeafBlind students. Without information on these, a student will be unable to identify which they would be interested in using or exploring. As a result, it may be important to review the

various available services and events with the student. In the long run, it is important to find ways to make this information more accessible to all students.

Some DeafBlind students may find it beneficial to be shown and introduced to some of the staff in the areas they are keen to visit, though this will vary greatly between each student.

- **What services are they interested in using? What type of events do they enjoy?**

By understanding these, your training and education can be targeted to specific departments and areas, rather than to all faculty and staff. For example, knowing that a DeafBlind student enjoys playing sports could help identify the need for you to work to educate and collaborate with the staff in this area.

- **How can staff in each of these areas be educated on interacting with the DeafBlind student? What do they need to know in order for them to better include the DeafBlind student?**

This question is meant for reflection, not for discussion with the DeafBlind student.

It may be worth having a discussion with key staff in each of the areas identified by the DeafBlind student. By understanding the concerns and strengths of staff in these areas, your education can be aligned with their needs. This will help to reduce the barriers that these areas and services at your institution present to the DeafBlind student. It is particularly worthwhile to work to reduce potential attitudinal barriers that staff in these areas may have towards DeafBlind people.

### **Common and Key Technology and Services**

This section contains two non-exhaustive lists: one of common technology and the other of common services used within the DeafBlind community. Both of these lists were constructed based on the author's 12 years of experience in the DeafBlind community and additional research on the topic. In some cases, DeafBlind students may prefer to use a technology or service in a different way than it is listed here. Similarly, a DeafBlind student may prefer to use a service not listed here. In either of these cases, the DeafBlind student should be treated as an expert.

As these lists are non-exhaustive, and as services and technology evolve over time, it is recommended that consultation with professionals who are well versed in these technologies and services be conducted regularly when working with DeafBlind students (such as ATBC). It is likely that additional strategies or services may already be available or will become available over time.

## Technology

- **Braille Displays** convert digital information into braille. It is important to remember that while visual readers read word for word, braille is read one letter at a time. Additionally, not all visual formatting and information may be effectively converted into braille. So it is worth regularly checking in with the DeafBlind student to see if they are experiencing any challenges accessing written content.
- **DeafBlind communicators** are designed to decrease barriers for the general public to communicate with the DeafBlind community. These communicators typically include a paired screen and keyboard, one that the DeafBlind person uses and one that the non-DeafBlind person uses. One display is in a format that matches the DeafBlind person (such as braille), and the other is in a format that matches non-DeafBlind people (such as a visual written language). Some DeafBlind students who are fluent in written English (or another language) may enjoy this option to directly communicate with members of the academic community.
- **Electronic Magnifiers (or CCTVs)** are digital devices that magnify objects that are put underneath their lenses. They also, often, provide high-contrast, color inversion, and other settings that help to make the magnified image more visible. There are a wide variety of electronic magnifiers, including those that are more portable. DeafBlind students with some vision may use these to magnify text or images on paper, but can also use them to aid in small, detailed activities (such as threading a sewing needle).
- **FM, Bluetooth, or Amplification Systems** use microphones and specific broadcasting equipment to more effectively transmit signals to a student's hearing aid(s) or cochlear implant(s). If a DeafBlind student uses their hearing to communicate in post-secondary environments, this may be a very helpful category of technology. Additional information on this topic is available on the PCAS website.
- **iPads or Tablets** are popular among the DeafBlind community. Many tablets have the ability to zoom in on anything displayed on screen and include a digital camera. In combination, these features may allow DeafBlind students to see distant objects or otherwise inaccessible print. However, for many DeafBlind students, this does not replace accessible formats or electronic magnifiers.
- **Navigation Beacons** are a technology that can be used to transmit orientating information to a cellphone. They are highly programmable and may be used to provide a wide variety of information, including the location of, directions to, and information about nearby rooms, services, or places of interest. Thus, for some, these beacons may help to decrease the barriers to equitable navigation of a campus. For most, however, these cannot be used to replace navigation services.
- **Magnification Programs** allow individuals to digitally enlarge their display in several ways and change the display properties of the screen. Many of these programs include **Screen Reader** functions as well. A popular magnification program is ZoomText.

- **Screen Sharing Programs** allow one computer to share visual information with other computers or internet-connected devices. There are many programs and apps that provide this service, including Team Viewer, Google Remote Desktop, and screen mirroring on iOS. DeafBlind students with some vision may find this a helpful technology to view PowerPoints or classroom demonstrations. Due to the increased need to attend to multiple visual elements in the classroom, these programs may not be practical for all situations and individuals.
- **Screen Reader Programs** convert the text-based and navigational elements present on a computer screen into audio. They read out loud the accessible text on a screen, and help with navigation menus and programs. Many of these programs also include Magnification Programs as well. Popular screen reader programs include JAWS and ZoomText with Speech.

### Services

- **DeafBlind Interpreting** is a unique subset of signed language interpreting. As DeafBlind interpreters must evaluate and include visual information and adapt their language use to the DeafBlind individual's visual or tactile preferences, DeafBlind interpreting requires an additional set of skills distinct from general signed language interpretation. Thus, simply hiring a Registered Sign Language Interpreter is insufficient to ensure equitable inclusion, and institutions need to ensure those hired have sufficient DeafBlind training, knowledge, and experience.
  - There are a number of distinct subsets of DeafBlind interpreting, including: tactile, tracking, frame-restricted signing, and pro-tactile. It is important to ensure a DeafBlind interpreter has experience in the specific technique preferred by the student. It may be worthwhile introducing potential candidates to the student in advance of the semester, to allow both participants the opportunity to ensure they are a good fit.
  - Due to the demands that processing both visual and auditory information can place on an interpreter, DeafBlind interpreters may need to work in teams of three.
- **Intervention or Support Service Providers (SSPs)** are distinct from interpreters and act as an impartial link between the aural-visual world and a DeafBlind person by communicating in their preferred method of communication. Intervenors/SSPs also provide guiding services as well. In two national surveys of the experience of DeafBlind Canadians, intervention was seen as the most vital and important element to ensuring equitable inclusion in society (Task Force on Services to DeafBlind Persons in Canada, 1984; Watters, Owen, & Munroe, 2004), thus, it is very likely that many DeafBlind post-secondary students will find benefit in this service. It is exciting to note that, at the time of writing, at least three post-secondary institutions in British Columbia have



provided this service as an accommodation to DeafBlind students, including during non-instructional time. That said, there is a limited pool of individuals who are skilled and experienced in this service, making advanced planning very important.

- **Oral Interpretation** is a type of interpreting service in which a professional sits directly across from a person and mouths the conversation taking place, with or without some signs included. This may help some DeafBlind students who utilize speech reading. Additional information on this service is available on the PCAS website.
- **Orientation and Mobility (O&M)** is a service that supports individuals who are blind or visually impaired to develop navigation skills within specific contexts. These professionals can also provide auditing services, identifying and recommending solutions to the navigational barriers DeafBlind students face. DeafBlind students may find their services helpful for developing the skills and confidence needed to orientate themselves to specific areas and services on campus, or to navigate their commute to campus. More information on this service can be found in Ingraham, Belanich, & Laseck (1998).
- **TypeWell Transcribing** is a service that provides real-time speech-to-text services. It is likely that many TypeWell transcribers would not have experience including visual information into their service, or working with DeafBlind students in particular, so additional training and modifications to service style may be required. That said, for those DeafBlind students who prefer to access communication through written English, this may be an effective service. For more information on this service please see the PCAS or TypeWell website.

### Conclusion

This resource is designed to provide fundamental information on available technologies and services for DeafBlind students, as well as some key areas of consideration for post-secondary institutions seeking to reduce the barriers DeafBlind students face. Due to the diversity in the DeafBlind community, a simple prescriptive approach to accommodations is unlikely to be successful (Arndt, 2011; Chanock, 2010; Mason & Smith, 2007; Stoffel, 2012; Vancouver Community College, 2014; Watters, Owen, & Munroe, 2004). Additionally, this means that no one resource can be considered to be exhaustive, including this document. Therefore, it is our intention that this resource serve as a foundation for the development of a living document on this topic shared between institutions within your region.

DeafBlind students face significant barriers to equitable inclusion in post-secondary institutions in British Columbia and, as a result, the equitable obtainment of the human right of education (United Nations, 2006). It is the responsibility of all public organizations to work towards the reduction of these barriers (United Nations, 2006). It is our hope that this resource helps to reduce the barriers that your institution presents to DeafBlind students. For additional information or advice please contact PCAS at [PCAS@bcit.ca](mailto:PCAS@bcit.ca).

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[Image description: a black and white photo looking down at a library with rows of bookshelves that are curved like waves.]



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