Classroom Accessibility for Students who are Deaf and Hard of Hearing
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Introduction

The Barrier-Free Education Initiatives Project was developed by the Canadian Hearing Society (CHS) and is funded by the Ministry of Education. The purpose of the project was to assist the education sector in creating an accessible and barrier-free learning environment for students who are Deaf\(^1\) or hard of hearing in publicly-funded schools in Ontario. The overall goal was to support access to education and, as a result, improve educational outcomes and student success.

CHS developed a framework for accessibility based on Five Building Blocks which were developed as a result of:

- Best practices accumulated over 75 years of experience by CHS developing and promoting accessibility standards;
- Information from organizations such as the Canadian Association of the Deaf, Ontario Association of the Deaf, Canadian Hard of Hearing Association, Ontario Hospital Association, Canadian Hotel Association, Scarborough Hospital, Ministry of Community and Social Services, Canadian Audiology and Speech Language Pathology Initiative on Classroom Acoustics;
- Requirements in the Accessibility for Ontarians with Disabilities Act, the Ontario Building Code, the Ontario Human Rights Code and Canadian Standards Association;
- Lessons learned from academic literature.

Accessibility for students who are Deaf and hard of hearing is concerned with breaking down barriers to language. With the assistance of technology, some of these students use spoken language to access the curriculum. Others, who access language visually, use signed language to access the curriculum. The information in this paper considers

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\(^1\) Upper case D is used in Deaf to indicate a group of children who share cultural experiences with the adult Deaf cultural and linguistic minority. This is a community that uses visual language and comprises both those who acquire language in their homes and those who do not. A quick internet search will provide a plethora of resources on Deaf culture and identity.
ways to make language accessible to Deaf and hard of hearing children – those who use spoken language and those who use signed language.

Before considering ways in which the classroom can be made accessible to students who are Deaf and hard of hearing, there is a description of a continuum on which these students fall. Regardless of whether these students use a spoken language or a signed language, they can fall anywhere on this continuum. What makes the difference is how much language has been learned in the early years and how much direct access to the curriculum students have once they enter school.

**The Student Population**

The variable nature of language access in the early years is quite complex and creates a continuum of students who are Deaf and hard of hearing and who have extremely diverse needs and abilities. The following description provides a picture of how this complexity impacts language accessibility in the classroom and how educators can create a language accessible education environment for all students who are Deaf and hard of hearing.

At one end of the continuum are students who, like most children, learn oral communication or signed language naturally in their families. These children are socialized through the behaviours and interactions of others. The language of these interactions provides context for the behaviours they see and are the foundation for their acquisition of language. Whether these children access a spoken language or a signed language, they will acquire language and use it in age-appropriate ways by the time they enter school. Once the language of the school is accessible to them, the opportunity for achieving academic success will also be accessible to them.

At the other end of the continuum are students who, during the early years, cannot hear (or process) the spoken language used by their families and have no access to a signed language. Their socialization is limited to experiencing the behaviours of others and how others interact with them; however, these experiences are not accompanied by language. Without language to provide them with a context for the behaviours they see,
there is great risk to their language acquisition along with the development of identity and a sense of belonging to their families, the community, the culture and the society at large. Most importantly though, these children will enter school without age-appropriate first language mastery and constitute a unique group in our society – *late first language learners*. Whether spoken or signed language is used at school, they will not understand it. Therefore, before they can access the curriculum, they must acquire a first language.

The following section provides educators with a further delineation of the continuum to be aware of if they teach students who are Deaf and hard of hearing. This continuum of students comprises an extremely diverse language population - from those who identify as members of the Deaf community or hearing community to those who may never fully develop a first language because they did not receive sufficient linguistic input early enough in their lives.

**TYPICAL FIRST LANGUAGE LEARNERS**

Like hearing children, typical first language learners who are Deaf and hard of hearing acquire language because they receive sufficient access to spoken language and/or signed language in their families and from the community around them. In addition, they develop identity and a sense of belonging in their hearing or Deaf families, their communities, and the society at large. With the cultural awareness and knowledge of the world that language accessibility brings, they will have the potential to develop literacy skills equal to those of their hearing peers.

For students who access spoken language, even a mild hearing loss can create language inconsistencies that negatively affect literacy development. Due to this, students accessing spoken language can benefit from speech language pathologists who understand the connection between phonological awareness and literacy, recognize how the hearing loss can impact language assessments, and can develop strategies to compensate for lack of full phonological access to spoken language.
With phonological awareness considered one of the most important criteria for literacy development, signing students can benefit from teachers who understand the implications of learning to read and write a written system based on a phonology (sound combinations) signing students cannot access. With this understanding, teachers can apply appropriate strategies.

Once the learning environment responds to the auditory needs of students who use spoken language and the visual need of those who use signed language, students who are Deaf and hard of hearing too can experience an accessible education.

**LATE FIRST LANGUAGE LEARNERS**

As mentioned above, when technology (hearing aids, cochlear implants, etc.) provides sufficient access to spoken language or when children receive sufficient access to signed language, they acquire age-appropriate first language mastery and, except for the use of some strategies that provide access to students who are Deaf and hard of hearing, learning can simply move forward when the children enter school. This is not the case for late first language learners.

Generally speaking, children learn the language that is around them. Children who are Deaf and hard of hearing are no different. They are just as capable of learning language as any other child; however, special care is needed to ensure the language around them is accessible to them. If it is not accessible during the early years, they will have already passed the optimum first language acquisition period (birth to five years old) by the time they enter school.

There are two common case scenarios for late first language learners who are Deaf and hard of hearing. In both cases, children have access to spoken language only.

In the first scenario, children are fitted with hearing aids or cochlear implants. For some reason, these technologies fail to provide them with enough linguistic input to acquire spoken language.
In the second scenario, and for many and varied reasons, some children have no technology available to them. In both cases, these children enter school without age-appropriate first language mastery.

Because these children will not have access to the education going on around them when they enter school, the critical task is to create a first language acquisition environment. (See the section Creating a First Language Acquisition Environment.)

THE FIVE BUILDING BLOCK FRAMEWORK FOR LANGUAGE ACCESSIBILITY

The CHS Accessibility Framework identifies five building blocks as strategies for defining issues of how to remove barriers and provide language accessibility. These are: 1) the built environment, 2) access to information, 3) language access, 4) technology, 5) education and training.

BUILDING BLOCK ONE: THE BUILT ENVIRONMENT

The built environment of the classroom and school can have a significant impact on the overall education of students who are Deaf and hard of hearing. Providing built environment access for students who depend on their eyes involves both simple and complex planning strategies. For example, simple adjustments to lighting can increase clarity and decrease visual fatigue and the use of coverings to muffle the sound of chairs on tiled flooring can help create a quieter learning environment. Other examples include carpeting and tiled ceilings which can be used to minimize intrusive ambient noise, convex mirrors which can be placed strategically to increase visual access, and the inclusion of a visual announcement system that presents information in English/French print and ASL/LSQ which can compensate for a multitude of safety issues.
Increasing Accessibility to Education through the Built Environment

The following is a list of considerations for school design that, with the help of classroom teachers, can help ensure schools are barrier-free and able to provide accessible education to Deaf and hard of hearing students.

The school environment requires a visually and auditorily accessible design:

- clear sight lines to all speakers/signers
  - visual access to signed-language
  - speech-reading, facial expressions, natural gestures used by students who use spoken language and signed language

- computer room with students able to see the teacher
  - capacity for some computers not facing walls

- spotlights for large areas
  - accessibility to the speaker, signer, and/or interpreter

- lighting, Plexiglas barriers and countertop heights designed to:
  - provide access

- natural lighting
  - consistent throughout the space (reduces glare)
  - no hotspots (overly bright areas)
  - comfortable face-to-face interaction in all spaces

- blinds on windows (to reduce glare)

- windows in doors

- visually supported PA systems
  - capable of captioning
capable of providing ASL/LSQ versions

• TTYs in key areas (e.g. main entrance)
• public telephone with a volume control
• convex mirrors in hallway intersections
• permanent interactive white boards
• quiet heating/ventilation systems
• acoustic baffling
• acoustic flooring
  o carpet
  o cork flooring (or sound absorbing floor materials on existing tiled flooring)
• acoustic tiles (ceilings)
• soundfield and other types of sound amplification systems

KEEPING STUDENTS SAFE IN THEIR SCHOOL ENVIRONMENT

Today’s climate has led to increased preparation and protocols for emergency situations. Schools are expected to have plans in place, know that there are different emergency situations that call for different responses, and practice for these eventualities each semester. Professionals who understand the needs and abilities of students who are Deaf and hard of hearing can be instrumental in the hands-on preparation of students to ensure they are not at risk during emergency situations.

Very specific school announcements alert students to which protocol is to be followed. For example, they will receive an announcement for a “hold and secure” situation. At that time, window coverings are put into place, all cell phones and text technology is turned off, heating systems are turned off, students go to a designated “safe place” in the classroom/school or, in the case where students are out of the classroom, they will
go to a pre-determined “safe place,” and then everyone waits for the police to give the sign that all is clear.

At these times, students who are Deaf and hard of hearing may not be accompanied by a teacher or anyone else who can communicate with them; therefore, they need to be well prepared for and understand all school protocols. They may also require more practice than hearing students because they may be isolated from access to the information other students are receiving and, therefore, be affected differently by the emergency situation.

To compensate for this eventuality and to lessen the potential risk to the student, it is suggested that:

- they have access to any and all information concerning the emergency
- they be fully informed of the emergency protocols to the satisfaction of someone who is fluent in ASL for signing students and someone knowledgeable about the language access needs of students who use spoken language prior to any incidents
- they be emotionally prepared to wait, possibly in the dark, and trust the group they are with
- those who explain the protocols to Deaf and hard of hearing students be able to judge if the students understand and are ready to cope with an emergency situation.

A “buddy system” may be used to complement the listed strategies.

**Increasing Accessibility to a Safe Student Environment**

Both technology and professionals that can enhance student safety include:

- visual emergency alarm/notification systems
  - signal simultaneously with auditory alarms
in all classrooms, offices, hallways, washrooms, and stalls
strategically placed for optimum visibility (even from bathroom stalls)
colour-coded for different types of emergencies
to indicate or identify different types emergency situations
in every classroom and throughout the whole school
placed strategically throughout the school
ensure appropriate placement
within line of sight
vibrating text messaging
all students receiving emergency information simultaneously
information in a form they understand
visual electronic displays for English print and ASL/LSQ
alarm systems in elevators
with visual indicator to call for help and receive confirmation that help is on the way
push button alarms in the stalls
to call for help
to receive confirmation that help is on the way
print versions of materials
at a comfortable literacy level for individual students
visual notification systems and emergency announcements, etc.
pre-arranged announcements
instant announcements
• interactive white boards
  o patched into PA system
  o pre-arranged announcements
  o instant announcements
• ASL/LSQ versions of materials
  o conveyed/explained by fluent ASL/LSQ signers
• ASL/LSQ fluent interpreters/signers
  o with signing students throughout an emergency situation

BUILDING BLOCK TWO: ACCESS TO INFORMATION

Students are presented with a large amount of information on a daily basis, ranging from classroom instruction to emergency procedures. By presenting all information in an accessible way, schools help ensure the safety of all students, including those who are Deaf and hard of hearing.

Increasing Accessibility to Information through Technology

• Audio announcements enhanced with ASL/LSQ and text
  o displays positioned throughout the school
    ▪ within line of sight
• group amplification systems (e.g. soundfield systems)
• captioning for CDs, DVDs, and internet videos and other types of media (e.g. webinars), upon request
• all print on pamphlets, signage, school information, and school or school board websites:
  o provided in ASL/LSQ for students whose literacy level is not high enough to access
  o ensure auditory only information has print and/or ASL/LSQ versions
• paper and pens placed in strategic places throughout the school
• signage to highlight where technology is and how to use it
• ASL-English and LSQ-French dictionaries strategically placed through the school
• reduction of noise (even music) that can interfere with assistive technology
• reduction of busy areas that can interfere with access to spoken language and signed language
• interactive white boards
• background music minimized or turned off altogether

Increasing Accessibility to Information through Building Capacity for Professionals

• teachers fluent in ASL/LSQ
  o to provide direct instruction to signing students
• in cases where teachers fluent in ASL/LSQ are not available
• AVLIC\(^2\) certified interpreters with appropriate academic background
  o provide indirect access to education

\(^2\) AVLIC – Association of Visual Language Interpreters of Canada
BUILDING BLOCK THREE: LANGUAGE ACCESS

Primary access to the curriculum is through language. By ensuring that students have access to their first language in the classroom, whether that language is signed or spoken or the combination of spoken and signed, schools can meet the needs and abilities of all students and provide appropriate access to education.

For hard of hearing students who are proficient in spoken language, access generally requires amplification and/or English/French text provided at the literacy level of the individual student.

For signing students, direct instruction and access to the curriculum would require teachers and other professionals to know ASL and LSQ. Indirect instruction would require well-trained, fluent, and proficient ASL-English/LSQ-French interpreters.

Late first language learners and children who enter school without first language mastery require targeted resources to help them learn language at school. If they do not know a language, both the information in spoken language and signed language will elude them.

Increasing Access to Education through Access to Language

Providing access to language would include:

- group amplification systems (soundfield systems) for students who use spoken language:
  - wireless transmitter
  - body-worn and handheld microphones
  - lapel, and boom microphones
  - batteries and charger
- U-shaped seating arrangements with good sight lines for
- speech-reading
- seeing the signed language being used
- seeing presenters
- seeing interpreter
- group interactions

- computer room with students having access to the teacher/instruction
  - not facing the wall

- sound dampening materials on chairs

- interactive white boards:
  - can patch assistive technology
  - provide captions and ASL/LSQ
  - enhance visual supports

- access to print (at the students literacy level) using visual supports
  - captioning
  - real-time captioning
  - electronic note takers

- direct instruction in ASL/LSQ

- AVLIC certified ASL-English or LSQ-French interpreters work in the following areas:
  - child language acquisition
  - late first language learners
  - child development

- connections with the Provincial Schools Branch of the Ministry of Education
professionals who can provide a range of services including:

- ASL assessment teams
- specialists in late first language acquisition
- psychologists fluent in ASL

- a Language Accessibility Policy at the school board level
  - direct access to the language of instruction
  - full access to the language of the classroom, meetings, assemblies, all media formats
Strategies and Supports for the Education of Deaf and Hard of Hearing Students

Insofar as parents are involved in the decision-making processes for the education of hearing students, so too should parents of Deaf and hard of hearing children be involved in the decision-making process for the education of their children. In the latter case, parents may need very specialized information from qualified professionals before making “fully informed” education decisions.
Deaf and Hard of Hearing Students who use English/French

Need the following to access the curriculum and sustain a barrier-free education:

- trained professionals to work with intricate audiological needs
- teachers and other professionals who understand and can compensate for the consequences of having hearing loss (from mild to profound) on literacy development
- teachers who recognize and can manage the complexity of balancing the “culture” of hearing students with their music, chatter, and general tolerance for a certain level of noise, with the sense of distraction these sounds create for oral Deaf and hard of hearing students
Deaf and Hard of Hearing Students who use ASL/LSQ

Need the following to access the curriculum and sustain a barrier-free education:

- teachers who can provide direct access to the curriculum
  - using ASL/LSQ as the language of instruction
  - using Association of Visual Language Interpreters of Canada certified interpreters
- educators with knowledge of how to develop literacy skills in students who use a signed language
  - some hearing five-year-olds who have had access to English/French since birth can have difficulty developing literacy skills
  - for ASL/LSQ students who have not had access to spoken language, developing literacy skills will be a much more complex task
  - educators must compensate for lack of spoken language phonological awareness (which is considered one of the most essential ingredients for literacy development)
Deaf and Hard of Hearing Students who use English, French, ASL and/or LSQ

- have learned language naturally in their homes
- have had access to a critical mass of language and culture models
- have acquired age-appropriate first language mastery
- have developed a sense of belonging and knowledge of the world
- have generally had typical preschool experience with literacy development

Need the following to access the curriculum and sustain a barrier-free education:

- teachers who use and monitor technological equipment
- teachers who can recognize and compensate for visual fatigue
- skilled captioning/note-taking services
- professionals who understand the significance of language development on literacy
- teachers who can attend to speechreading skill development
- speech-language pathologists who have additional training to work with Deaf and hard of hearing students
Deaf and Hard of Hearing Students who use ASL/LSQ and Late First Language Learners

Need the following to access the curriculum and sustain a barrier-free education:

- access to Deaf culture at school
- access to ASL/LSQ at school
- professionals, such as psychologists, speech-language pathologists, and audiologists, who are either:
  - fluent in ASL/LSQ, or
  - from the Provincial Schools Branch, or
  - accompanied by AVLIC certified interpreters
- ASL/LSQ classes for hearing teachers, students, and parents
Late First Language Learners

Establishing a language acquisition environment for late first language learners will be quite an arduous task for any public school. The environment would best be modelled after what we know about the language acquisition of children acquiring their first language naturally in their homes. A first language acquisition environment would include:

- a critical mass of ASL/LSQ adults and children
- access to professionals with a deep understanding of how children acquire a first language:
  - who know first language milestones
  - who can provide child-directed language which includes millions of pieces of grammar over a five-year period

This language would:

- be couched in narratives and discourse
- be about a multitude of different topics
- use a variety of language genre
- be filled with opportunities for play with ASL/LSQ adults who would provide constant language stimulation
- would present vocabulary in rich contextualized environments
- professionals who understand the implications of late first language acquisition on overall development and academic achievement
- ASL/LSQ classes for parents of these students
BUILDING BLOCK FOUR: TECHNOLOGY

Many students who are Deaf and hard of hearing who use spoken language benefit from group and personal amplification systems that amplify the voice of the teacher and/or other students while reducing background noise. In this way, students who access spoken language receive better voice to background noise ratio and better access to the language used in the classroom.

Soundfield systems are portable sound systems that use microphones and loudspeakers to provide even sound coverage within a classroom. They can also interact with students’ personal hearing aids. The soundfield system:

• maximizes vocal input
• increases potential for accessing speech
• monitors speaker’s own voice
• increases ease while listening
• increases seating options
• decreases fatigue

Access for the classroom can also provide access to other areas of the school and include:

• assistive technology tied into the PA system in:
  o all classrooms
  o all offices
  o the library
  o the gym
  o the auditorium
  o school assemblies
extracurricular activities and school trips

- text- and video-creating technologies for teacher-student and student-student interactions, such as:
  - smartphones and tablet computers using
    - Skype
    - ooVoo
    - certain types of apps
  - face-to-face communication technology
  - UbiDuo emergency notification systems

These technologies can be most effective when there are:

- equipment checklists
- onsite maintenance of technology
  - check daily
    - hearing aids
    - amplification systems
    - cochlear implants, etc.
- identified individual(s) responsible for all equipment:
  - hearing aids and cochlear implants
  - amplification systems
  - onsite backup for all amplification
  - other communication devices
  - maintenance of back-up equipment
  - repairs
o checking equipment every day
o using audio sound meter
  • to ensure noise levels are appropriate for learning

• School Board Language Accessibility Policy

CREATING A FIRST LANGUAGE ACQUISITION ENVIRONMENT

To acquire language in a school setting is a complex task for late first language learners. But with support from schools and teachers through the creation of an appropriate learning environment with access to language, children can access instruction, the curriculum and have meaningful interactions.

In addition to a physical space, a language acquisition environment would include:

• an extensive amount of child-directed language from and interaction with fluent signers

• numerous specialized professional resources who:
  o are fluent signers
  o understand language acquisition
  o understand the implications of having passed the critical first language acquisition period
  o are particularly cognizant of the lifelong negative effects of not acquiring a first language in the early years

• a school board commitment that children who have been deprived of language during the critical language acquisition period will be given the opportunity to acquire a first language at school

Cautions here include:

• having only one language model may limit the progress of language acquisition
• using individuals who are not fluent in the language the child is learning may decrease potential for learning a first language

BUILDING BLOCK FIVE: EDUCATION AND TRAINING

Professional development opportunities can provide classroom teachers with ongoing information about the needs and abilities of Deaf and hard of hearing students.

Providing Ongoing Education for Classroom Teachers

The range of topics for classroom teachers to explore who have no background or experience with students who are Deaf and hard of hearing may include the following:

• the diverse language population of students who are Deaf and hard of hearing
• creating equal education for students who are Deaf and hard of hearing
• the needs and abilities of students who are Deaf and hard of hearing who use spoken language
• the needs and abilities of students who are Deaf and hard of hearing who use signed language
• ongoing technology developments
• current research findings concerning students who use spoken language and those who use signed language
• negative effects of limited access to language and language deprivation prior to entering school
• negative effects of limited access to language and language deprivation at school
• the use and maintenance of assistive technology
• advances in technology that provide access to language
• roles and responsibilities of teachers and professionally-trained educational interpreters

• responsibility of psychologists
  o assessing students who use spoken language
  o assessing students who use signed language

• anti-audism and anti-ableism practices

• language access and safety concerns

• where to find professionals who can:
  o assess students who are Deaf and hard of hearing
  o understand and monitor technology
  o communicate fluently with signing students
  o assess teachers of signing students for
    ▪ their ASL or LSQ proficiency
    ▪ their understanding of the needs and abilities of ASL- or LSQ-proficient students
    ▪ their understanding of the needs of late first language learners
    ▪ assess those hired to interpret
    ▪ their ASL or LSQ proficiency
    ▪ their interpreting skills
    ▪ their knowledge about the language needs and abilities of Deaf and hard of hearing students
    ▪ their academic knowledge about language and curriculum
  o assess education and support staff to determine the types of education and training they nee
Resources:

Assessing signed language


Language and Deaf and hard of hearing students


To learn about and purchase technology:

http://www.chs.ca/corporate-products (UbiDuo, Paging, Soundfield)

http://www.scomm.com/ (UbiDuo)

http://gofrontrow.com/ (soundfield)

http://simeoncanada.com/ (soundfield)

http://multitonewireless.com/contact_us.htm (wireless paging systems, electronic displays)

https://www.phonakpro.com/ca/b2b/en/home.html (soundfield)
Glossary

**Ableism**: Prejudice, stereotyping, and discrimination directed against people who have developmental, emotional, physical, sensory, or health-related disabilities. Ableism may be evident in organizational and institutional structures, policies, procedures, and programs, as well in the attitudes and behaviours of individuals. *(Ministry of Education, Equity and Inclusive Education in Ontario Schools, Guidelines for Policy Development and Implementation, 2014)*

**Access**: The creation of an environment where people, regardless of their abilities, can communicate clearly and participate actively. *(CHS Accessibility Guide to Business & Service Providers, 2012 and CHS Reference Guide, Barrier-Free Education, 2009)*

**Accessibility**: Refers to a barrier-free environment. In particular, it means identifying and removing barriers and creating an environment so that its use and interaction with people is maximized regardless of culture or abilities. Accessibility also includes ensuring policies and services are free from barriers.

The World Health Organization states that “much of what disables people from participation is not the disability itself but rather the environment or aspects of the environment, external features of society created by people.” *(CHS Position Paper on Accessibility and Accommodation, April 2007)*

**Accommodation**: An adjustment made to policies, guidelines, or practices, including adjustments to physical settings and various types of criteria, that enables individuals to benefit from and take part in the provision of services equally and to participate equally and perform to the best of their ability in the workplace or an educational setting. Accommodations are provided so that individuals are not disadvantaged or discriminated against on the basis of the prohibited grounds of discrimination identified in the Ontario Human Rights Code or other factors. *(Refer to the Ontario Human Rights Commission’s Guidelines on Accessible Education and Policy and Guidelines on Disability and the Duty to Accommodate, at www.ohrc.on.ca). Equity and Inclusive Education in Ontario Schools: Guidelines for Policy Development and Implementation, Realizing the Promise of Diversity, 2014.*
**American Sign Language (ASL):** A visual language with its own grammar and syntax, distinct from English, used by Deaf people primary in Canada and the United States. Meaning is conveyed through signs that are composed of specific movements and shapes of the hand and arms, eyes, face, head and body posture. In Canada, there are two main sign languages: ASL and Langue des signes Québécoise (LSQ). *(CHS Starting Point: A Resource for Parents of Deaf or Hard of Hearing Children, Second Edition, 2004)*

**Assistive technology:** Also known as assistive listening devices or ALDs, assistive technology helps reduce background noise and compensate for poor room acoustics or distance from the sound source. Assistive technology can be portable or permanently installed. It includes FM, Infrared and loop systems. It is designed to connect to the public address system or any audio sound source and send the signal directly to hearing aid and wireless receivers worn by people with hearing loss. The receivers allow individuals to adjust the volume to their comfort level and can be used with a variety of headsets or neckloop listening accessories for those who have a T-switch compatible hearing aid. They are recommended for all meeting assemblies including tours, lectures, small to large meeting venues, classrooms, places of worship, etc. *(CHS Accessibility Guide to Business & Services Providers, 2012)*

**Audism:** A form of discrimination based on a person’s ability to hear or behave in the manner of one who hears, including the conveyance of beliefs that a hearing person or a deaf person who behaves in a manner more similar to a hearing person, in appearance, communication and language use, and/or function, is more intelligent, qualified, well-developed, and successful than another individual who may be culturally Deaf and/or have a preference for the use of a signed language or a communication mode dissimilar to that used by hearing people. *(CHS Reference Guide Barrier-Free Education, 2009)*

**Cochlear implants:** A cochlear implant is an electronic device that can help to provide a sense of sound to someone who is deaf or hard of hearing. It consists of an external piece that sits behind the ear as well as a second piece that is surgically implanted under the skin and sends and receives electronic impulses from the auditory nerve to
the brain. The sensation of sound from a cochlear implant is unique and requires people who use them to learn new ways of processing sound. Each implant user will experience different levels of success in processing sound and hearing spoken language. (CHS Accessibility Guide to Business & Services Providers, 2012)

**Communication:** Includes languages, displays of text, Braille, tactile communication, large print, accessibility multimedia as well as written, audio, plain-language, human-reader and augmentative and alternative modes, means and formats of communication, including accessible information and communication technology. (United Nations Convention on the Rights of Persons with Disabilities, December 2006)

**Computerized notetakers:** Facilitate communication by typing out the main points of discussions or presentations. A laptop computer is set up near the person who will be accessing the notes so they can read the conversation as it scrolls on the screen. Unlike CART (Communication Access Realtime Translation), this support is not a word-for-word, simultaneous transcription of the discussion. (CHS Accessibility Guide to Business & Services Providers, 2012)

**Deaf culture:** The celebration of a signed language (in Canada, ASL and LSQ) and other values, traditions, and behaviours specific to the Deaf community. Deaf culture offers a strong sense of belonging and takes a socio-cultural point of view of deafness, rather than a pathological perspective. (CHS Reference Guide Barrier-Free Education, 2009)

**Hearing aids:** Hearing aids are devices that amplify sound which are worn behind the ear, in the ear or in the ear canal and are composed of a microphone, amplifier, receiver, battery, earmold (or the casing), hook and the tubing. Although they amplify spoken language, they do not improve the clarity of how speech is heard by someone with a hearing loss. Even when sound and speech are amplified, it is not always possible to discern distinct words. Unlike glasses that can restore 20/20 vision, hearing aids do not restore hearing; they amplify sound. Hearing aids are effective in managing hearing loss for many people. Advancements continue to be made in hearing aid design to improve the ability to understand and differentiate between speech and sound, and to
determine the direction from which they are coming. *(CHS Accessibility Guide to Business & Services Providers, 2012)*

**Langue des signes Québécoise (LSQ):** A visual language with its own grammar and syntax, distinct from French, used by Deaf people primarily in Quebec and other French Canadian communities. Meaning is conveyed through signs that are composed of specific movements and shapes of the hand and arms, eyes, face, head and body posture. In Canada, there are two main sign languages: American Sign Language (ASL) and LSQ. *(CHS Starting Point: A Resource for Parents of Deaf or Hard of Hearing Children, Second Edition, 2004)*

**Speechreading:** Uses visual clues to understand a spoken message. The speechreader watches a speaker’s lips, teeth and tongue, along with many other cues, such as facial expressions, gestures, context and body language. When used alone, the effectiveness of speechreading varies since more than half the movements involved in sound formation occur within the mouth and cannot be detected by the eye. Forty to 60% of English words are homophones (words which look identical on a speaker’s face) and there is not a single sound that has a distinct lip/jaw movement/position of its own. Thirty-three to 35% of speechreading depends on many factors including visual acuity, personality and when hearing loss occurred. Speechreading is most successful when used in conjunction with other communication strategies. *(CHS Accessibility Guide to Business & Services Providers, 2012)*

**Spoken language:** Uses sounds produced with the vocal tract to convey meaning, as opposed to written or signed language. Deaf, deafened and hard of hearing people who use spoken language speak for themselves. Their residual hearing is often augmented by hearing aid(s), cochlear implants, or other communication devices and/or speechreading. They may or may not have a noticeably unmodulated voice or “hearing loss accent” in their speech production. *(CHS Accessibility Guide to Business & Services Providers, 2012)*
**Written/typed and read communication**: Involves writing back and forth on paper or typing back and forth using a device with a keyboard and display, or via text messaging. It can be a convenient, portable, and effective means of communication with Deaf people or people with hearing loss. This method of communication is best suited to everyday, simple interactions (e.g. ordering at a restaurant, checking into a hotel, paying for a product in a retail outlet, etc.) but is not recommended for complex communication.

When writing back and forth use straightforward, conversational language, stating your point clearly. English or French is not the first language of all Canadians. The majority of culturally Deaf people function to a great extent bilingually – they are proficient, to a greater or lesser degree, in written English or French and ASL or LSQ. ASL and LSQ do not have written forms and sometimes the written skills of a person whose first language is a signed language might appear stilted. A person’s written English or French skill should not be perceived as an indicator of education, ability, or intelligence. *CHS Accessibility Guide to Business & Services Providers, 2012*