

Blind/Low Vision and Deaf/Hard of Hearing Accessibility Guidelines

This starter-set of guidelines for informal science education (ISE) venues and visitors to them who are blind, low vision, deaf, hard of hearing, and deafblind (BLVDHH) was developed by a REVISE-sponsored Interest Group. The group consisted of six members —two are deaf, two have low vision and two, as is the leader of the group, are sighted and hearing. Since ISE settings are often set up for use by persons who are both sighted and hearing, adjustments to presentations are often needed to make them accessible to various populations. BLVDHH's purposes for venues are to provide information that enables them to find the middle point between organizer and user; give them what they need to know to take the first steps; realize they cannot accommodate everything; and know the little things they can do to improve what they already have in place. Its purpose for visitors is to provide them with information to enable them to make decisions about their involvement in the experience.

Accomplishing this involves integrating features into the various elements into venue offerings to make them accessible to BLVDHH visitors. A scale is provided that runs from *minimal* to *adequate*, to *ideal* for venues to use in conjunction with the integration process and for visitors to use to make appropriate and useful decisions about participation. We have defined *minimal* as just enough but perhaps insufficient. For example, for BLVDHH visitors, *minimal* is intended to enable such things as: To get something out of the experience, I need to bring someone with me who is sighted and hearing and communicates in English or English and ASL. I see evidence that I will be able to ask additional questions and make requests. The staff has an awareness of my needs, and I expect to feel welcome. I am interested in attending, but the experience will require interpretation by a sighted person or by a person who communicates in ASL. *Adequate* means: I still need to bring someone to assist me, but the accommodations included allow me to learn and engage directly. I will not need to have everything mediated for me. *Ideal* means: I can attend the event on my own. Assuming my orientation and mobility skills are good, I should be able to navigate the space, interact with materials, and learn with the same support that is provided for a typically abled visitor or with minimal additional support.

The tables on the next several pages are designed to help venues make their offerings accessible or more accessible to BLVDHH visitors and to help visitors make decisions about the accessibility of a venue. When using it, it is important to realize that the features included in a previous category carry over to the next. When using it, it is also important to keep in mind that it is intended to provide a frame and that persons with disabilities who use the table represent a continuum that includes some persons with multiple disabilities.

Element	Accessibility Scale		
	Minimal	(Minimal) & Adequate (Includes the items listed under Minimal plus the items listed for Additional)	Ideal (Includes the items listed under Minimal & Adequate plus the items listed for Ideal)
Before the Visit Information	There is easily available information about the venue and the level of BLVDHH accessibility. The website, or other advertising, provides specifics about the depth of the accommodations. Areas that may represent barriers and for which accommodations are limited are explicitly stated. Captions and transcripts are provided.	Examples are incorporated that engender a high level of confidence that BLVDHH accessible materials are provided.	An avenue to provide feedback, specific invitation and/or introduction to the space, and front loading of information about what BLVDHH visitors will encounter is provided. The availability of assistance upon arrival is stated on the website and on all advertising.
The Venue	Clear information about how to get to the venue, how to enter it easily, and someone to answer questions upon arrival are provided. The front desk includes a writing pad and pen to facilitate communication or a device to type back and forth. Information about setting up sign language interpreters is available and mobile listening devices are provided.	Basic information about the space is available. People are available to provide information in advance, via a phone call or other means, about getting around the venue space and access to information. A tablet with an app that can be used to set up sign language interpreters is available at the front desk as is Bluetooth technology for hearing devices.	Information is available in advance about the parking, surroundings, layout of the space, design of the space, and access to information. Upon arrival, a tactile map or system clearly indicates where a BLV person can travel. A sign language interpreter is on staff or a person fluent in ASL is available. Loops for connection with hearing aids or other hearing devices are provided.
Artifacts	Good description is available about the features of the object in a location that is easy to find and predictably located. The description is usable, relevant, and explains where the object fits in the story being communicated.	A predictive system is in place that allows a person to quickly assess where they are in the story. All information is available in different modalities (print, audio, braille, ASL via a device, ASL via an interpreter etc.). The	A docent to provide information and a way to signal that person are available.

		ability to touch the object or a model of it is often provided.	
Videos	The option to sit close to an assistive device and have someone sitting close by whisper in an ear, captions, and transcripts are provided.	Audio descriptions are included. There are no silent gaps, music with important unexplained visuals, and fast pacing with multiple scene changes. Videos are captioned.	Options to pause, rewind, ask questions, and a box of tactiles that are part of the video are provided. The video is made in a way that is very clear. An onscreen ASL interpreter, captions, and transcripts are provided.
Lighting	Flickering, flashing, use of red light, glare on things that need to be read, and glaring windows are avoided. Care is taken to ensure the lighting is adequate for the reading of text, photos and sign language interpretation. There is sufficient light to enable communicating in sign language and/or lipreading.	Someone in the area, particularly in areas that are purposefully dark, is available. Use of natural light or soft light is promoted. Information is provided before lights are turned off.	A lanyard that includes a flashlight to add light to specific objects or text and allows observation of shadows at different angles is provided.
Space Design	With assistance, it is easy to navigate the space. The space is free of physical hazards. Even with a guide, it is possible to find objects with a cane.	Tactile maps, texture cues, and audio clues are consistently applied, predictable, and clearly communicated.	A blind person can navigate the space completely and independently in a way that is safe for the artifacts and themselves.
Auditory Interferences (Noise)	Noise level expectations for different spaces, reasons for and benefits of the rules, and means to ensure only one person is talking at a time and/or that everyone needs to be quiet are provided.	Physical steps to constrain extraneous noise that could interfere with the auditory experience as intended and ability to converse have been taken. These include incorporating a designated area for noise reduction and use of a visual noise recognition device as a reminder.	Technical support is in place to support clear auditory communication without having to overcome background noise. Examples are an amplitude modulation (AM) system or use of bone conduction headphones. Sound-absorbing fabric and such materials on walls and

			ceilings have been used.
Staff Tours	Virtual Remote Interpreting (VRI) using a tablet or similar device and staff training in its use are provided.	There is an in-person ASL interpreter and staff training on how to work with the interpreter.	A person fluent in ASL available to give the tour is available.
Self-guided Tours	Transcripts are included.	Bluetooth technology for hearing devices is provided. A downloadable museum app with captions for exhibits is available.	A pre-recorded on-screen signer is included.
Programs/Events	The option to request ASL interpreters for deaf members who plan to attend is incorporated	Staff with ASL fluency to lead the program/event for deaf members of the community are included.	A space for both deaf and hearing members to interact and learn together with staff that are fluent in ASL has been created.
Emergency Preparedness	Clear signage in print, pictures, audio, tactile maps, and braille is posted.	Gestures are incorporated to communicate directives.	Light strobe fire alarms and clear instructions in ASL as to what to do in case of emergencies is provided. Text alerts for emergencies have been set up.
Staff Training	Awareness of transcripts and how to use them is provided on an as needed basis.	How to work with ASL interpreters and with various pieces of equipment (e.g., AM systems) are included as is the learning of some basic signs.	A staff member who is well-versed with deaf culture and the deaf community, has a basic knowledge of deaf culture and various communication modes has or is being hired.

Supplementary Information

State associations for the Deaf as well as those for the Blind often provide connections to appropriate service providers. They can be a good source of outreach for disseminating offerings with relevant members of the community. Each state also has educational components for deaf and hard of hearing and blind/low vision students under the state’s department of education that provide resources to support deaf and hard of hearing and blind/low vision youth from age 0 to 21. Nationwide organizations to contact for these purposes include the National Association of the Deaf and the National Association of the Blind.