

# Skill Council for Persons with Disability Expository for Speech and Hearing Impairment E004

## Definition

**According to The Rights of Persons with Disabilities Act, 2016 Hearing Impairment is defined as:**

- (a) **"Deaf"** means persons having 70 DB hearing loss in speech frequencies in both ears;
- (b) **"Hard of Hearing"** means person having 60 DB to 70 DB hearing loss in speech frequencies in both ears;

**"Speech and Language Disability"** means a permanent disability arising out of conditions such as laryngectomy or aphasia affecting one or more components of speech and language due to organic or neurological causes.

## Severity Levels

The hearing sensitivity is measured in dB (HL) at frequencies from 250Hz to 8000 Hz, which is important for understanding the speech. The degree of hearing impairment in dB (HL) is calculated by averaging the hearing thresholds at 500Hz, 1kHz, 2kHz obtained from pure tone audiometer. Hearing impairment may be of various degrees.

**Mild Hearing Loss (26 to 40 dB (HL)):** A person with mild hearing loss may have trouble in hearing and understanding soft speech against background noise.

**Moderate Hearing Loss (41 to 55 dB (HL)):** The person may have difficulty in hearing conversational speech.

**Moderately Severe Hearing Loss (56 to 70 dB (HL)):** Persons with moderately severe hearing loss may have difficulty in hearing conversational speech even at close distances.

**Severe Hearing Loss (70 to 90 dB (HL)):** They may only hear loud environmental sounds.

**Profound hearing loss (91 dB (HL) and above):** Persons with profound hearing loss may only hear very loud environment sounds.

## Training Tools

Training Tools mentioned below, are Accessible Tools/Appliances/Software, which enable a Person with Disability (PwD) to carry out their training corresponding to the National Occupational Standards (NOS) of the Qualification Pack. While the learning outcomes from the Qualification Pack will remain the same, the methodology stated below will assist the trainers to train the trainees in the best suitable way according to their level of functioning. These suggested training tools facilitate the learning process of a Person with Disability to perform at par with their peers in a conducive and enabled environment.

### Tools recommended for the Training of Persons with Speech and Hearing Impairment

Accessible Tools/Appliances/Software	When to use this tool	Tools Description	How to use this tool	Tool Names
Live Captions	<p>While teaching any of the NOS's mentioned above, if it is seen that a Person with Hearing Impairment (HI) has difficulty in hearing conversations, audio recorded voices, then he/she can use this tool.</p> <p>To facilitate enhanced comprehension, it is preferable to have an interpreter for meetings</p>	<p>Captions can be displayed as a full screen of text in real-time, or embedded alongside your presentations or videos.</p> <p>A person will be transcribing what is spoken in real time</p> <p>There is direct access to spoken conversation which is converted into text for deaf or Hard of hearing persons</p>	<p>There are captioning software's to provide the service. In the training environment and meetings, one can volunteer. The person with Speech and Hearing Disability (Hearing Impaired) should have reading proficiency and speed.</p>	<p>Any of the following tools may be used:</p> <ul style="list-style-type: none"> <li>• Assistive Aid/Service</li> <li>• Ai-Live</li> <li>• Captions First</li> <li>• Captions 2020</li> </ul>
Closed Captions	<p>While teaching any of the NOS's mentioned above, if it is seen that a Hearing-Impaired person has difficulty in conversations, audio recorded voices in that case he/she can use this tool. This would work the best for HI persons and</p>	<p>Closed Captioning (CC) and subtitling are both processes of displaying text on a television, video screen, or other visual display to provide additional or</p>	<p>Can be used to pre-record videos and audios to make the person with Speech and Hearing Disability (Hearing Impaired) understand the same audio by</p>	<p>Any of the following tools may be used:</p> <ul style="list-style-type: none"> <li>•Ai-Live in partnership with Echo360 platform is providing</li> </ul>

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	is being done across the world to make barrier free communication.	interpretive information.	reading the caption or subtitle.	<p>Educational Institutions with Captioning services</p> <p>Many social media sites have inbuilt captioning systems like Facebook or Video platforms such as YouTube and Vimeo</p>
Speech to Text	<p>While teaching any of the NOS's mentioned above, if it is seen that a Persons with Hearing Impairment has difficulty in hearing conversations, audio recorded voices; in that case, he/she can use this tool.</p> <p>This tool is recommended on the basis of literacy level of the Hearing-impaired candidate.</p>	Convert speech into text. This can be used by a person who does not know sign language, which will help in communication with a person with Speech and Hearing Disability (Hearing Impaired).	<p>Trainer or team member can use this instead of typing.</p> <p>The person with hearing or speech impairment should be able to read.</p> <p>The accuracy of many accents needs to be taken into consideration.</p>	<p>Any of the following tools may be used:</p> <ul style="list-style-type: none"> <li>• Assistive Aid/Service</li> <li>• Closed Capp</li> <li>• Let's Talk</li> <li>• Google Now for Android,</li> <li>• Siri for Apple IOS</li> </ul>
Assistive Listening Device	While teaching any of the NOS's mentioned above, if it is seen that a Person with hearing impairment has difficulty hearing conversations, audio	Converser assistive listening device which helps for people with mild to moderate Speech and Hearing Disability (Hearing	Used in the meetings, class room and other places where one cannot listen properly. FM	<p>Any of the following tools may be used:</p> <ul style="list-style-type: none"> <li>• Personal amplifiers</li> </ul>

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	<p>recorded voices, then he/she can use this tool.</p> <p>The tool can be recommended for all hearing-impaired persons, depending on affordability of the Person.</p>	<p>Impaired) who uses hearing aid to listen better. These help in listening by clearing out the background noise</p>	<p>systems can also be used</p>	<ul style="list-style-type: none"> <li>• Frequency Modulation (FM) Systems Bluetooth</li> <li>• Infrared systems</li> </ul>
<p>Group Assistive Learning Device</p>	<p>While teaching any of the NOS's mentioned above, if it is seen that many persons with hearing impairment have difficulty hearing then this tool can be installed in the classroom or conference hall or assembly halls.</p> <p>It can be used for hearing impaired (having Tele-coil settings in their Hearing aids or atch cord for those with) during meetings, conferences or group trainings</p>	<p>It The audio induction loop provides a magnetic, wireless signal that is picked up by the hearing aid when it is set to 'T' (Telecoil) setting</p>	<p>The instruments need to be purchased and installed in the class rooms &amp; labs, conference halls of community places.</p>	<p>following tools may be used:</p> <ul style="list-style-type: none"> <li>• Hearing Loop</li> </ul>
<p>Cochlear implants</p>	<p>While teaching any of the NOS'S mentioned above, if it is seen that a person with hearing impairment has profound or severe difficulty in hearing</p>	<p>A cochlear implant is an electronic medical device that replaces the function of the damaged inner ear.</p>	<p>The Cochlear implant needs to be Surgically implanted if the hearing loss is due to damage to the inner ear.</p>	<p>Cochlear implants are surgically implanted devices for people with</p>

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	<p>conversations, audio recorded voices; in that case, he/she can use this tool.</p> <p>The implant works on children especially during the critical years when the brain is at the stage of learning and growing so that they can be taught to understand sound and articulate the same and then get integrated in mainstream schools.</p>	<p>Unlike hearing aids, which make sounds louder, cochlear implants do the work of damaged parts of the inner ear (cochlea) to provide sound signals to the brain. Cochlear implants bypass the damaged part of the ear and stimulate the hearing nerve directly.</p>		<p>severe or profound hearing loss due to damage to the inner ear</p>
Hearing aids	<p>While teaching any of the NOS's mentioned above, if it is seen that a Person with Hearing Impairment has difficulty in hearing conversations, audio recorded voices; in that case, he/she can use this tool.</p> <p>This type is appropriate for people of all ages and those with almost any type of hearing loss.</p>	<p>Hearing aids use the same basic parts to carry sounds from the environment into your ear and make them louder. Most hearing aids are digital, and all are powered with a hearing aid battery. The sound from the instrument is routed acoustically or electrically to the ear.</p>	<p>The instrument needs to be purchased for use. An audiologist will assess your hearing and help choose the most appropriate hearing aid and adjust the device to meet individual needs.</p> <p>(Hearing aid training is a prerequisite for use of hearing aids)</p>	<p>Any of the following tools may be used:</p> <ul style="list-style-type: none"> <li>• Completely in the Canal (CIC)</li> <li>• In the Canal (ITC)</li> <li>• In the ear (ITE)</li> <li>• Behind the ear (BTE)</li> <li>• Receiver in canal (RIC) or receiver in the ear (RITE)</li> <li>• Open-fit</li> </ul>

Activity	Activity Type	When to use Activity	Activity Description	How to use tool	Activity tool
Sensitization of the Trainer	Sign Language	Hearing impaired persons are naturally inclined to this visual language and are natural 'signers. This is yet the best a commonly used method to make all kind of trainings /meetings /services accessible to him/her.	Signs or gestures are used to communicate instead of verbal communication.	Both the parties need to know the sign language. In the training setup, better to have a sign language interpreter.	ISL Training
Environmental Adaptability	Pictorial/ Diagrammatic Communication Chart/ Board or Book	Useful tool for learning during training days. Can be recommended to all hearing-impaired persons.	Helps a Person with speech impairment to communicate routine things using written language and pictures. A person with Speech and Hearing Disability (Hearing Impaired) can use set of options while communicating by selecting the message (either by pointing, nodding, pushing a button, looking with his/her eyes at the desired buttons, or indicating when someone else has chosen the	Communication books and boards vary for each individual the persons should be able to understand the messages that he/she is choosing to communicate about.  Be able to see or feel each item on the book or board, in order to choose the messages he/she wants.  Remember what messages the book or board can be used for.	Need to be prepared based on the requirement of the individual and the environment. In form of <ul style="list-style-type: none"> <li>• Cards</li> <li>• Charts</li> <li>• Boards</li> <li>• Books</li> <li>• Digital</li> </ul>

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			<p>correct item on the person's behalf).</p> <p>The picture Communication books and boards are usually small enough to be portable, so that they can be taken with a person wherever that person goes</p>	<p>This is especially important for sophisticated books that may have many pages.</p>	

## Assessment Guidelines

### Lab Assessment:

- Ensure that the lab is accessible for the Persons with Hearing Impairment with proper use of signages.
- Ensure that the equipment in the lab are clearly labelled, so that persons with hearing impairment can read and understand.
- Ensure that Sign Language Interpreter Is available during the assessment
- Ensure that the room is well lit and illuminated, especially where the Sign Language interpreter is giving instructions so that the pupils are able to clearly observe the finger movement and body language of the interpreter
- Arrangement for sitting should be in 'C' shape to ensure effective flow of instructions to the candidates via Sign Language.
- Instructions should be in written with pictures /diagrams wherever necessary
- Internet connection should be provided to each computer/laptop to enable search if required
- Extra Time, 20 minutes per hour should be provided to the candidates if the required, which can be further extended if the demand is deemed genuine.

### Computer Assessment:

- Extra time should be given in case the candidate is taking time to understand text /instructions. Extra time recommended is 20 minutes per hour, which can be further extended if the demand is deemed genuine.
- The Room should be well lit. Lighting should fall on the Sign Language Interpreter for clarity of finger movement and body language
- Instructions /Text should be simple with pictures/diagrams wherever required.
- Written instructions to the candidates are permissible in case the candidate need some more clarity.
- Ensure that the Sign Language Interpreter is available during the assessment.
- The signages should be clearly labelled/pasted and visible
- The Computer should be fixed along with the wall, during assessment
- Candidates should be oriented to the digital tool in advance to avoid last minute problems.
- Internet connection is recommended for each computer/laptop, if required during the assessment
- Ensure that the questions are relevant and applicable to persons with hearing impairment. Eg. If a question appears on the tab, where a candidate with hearing impairment has been asked, how will you greet a person on call? Is not applicable for candidates with Hearing Impairment
- Questions should be multiple choice "Yes-No/True- False", with pictures and precise instructions.
- In order to maintain fair practice, if the question sets have been designed with different sequence of questions, in this case more than one Interpreter may be required. Inform the Training Partner in advance or give extra time in case the TP is not able to manage with more than one interpreter especially in small towns and rural areas.



## General Guidelines:

- The Assessment guidelines given below are only to enable the assessor to conduct the assessment smoothly. Adherence to the guidelines is not mandatory but preferred.
- Do ask questions openly. Do not assume anything. For example, ask your trainees with disabilities if they need any change in the kind of assessment setup provided. It could be if the person with Speech and Hearing Disability would prefer to have normal environment or sound proof environment for better hearing conditions. This would encourage honest conversation, helping you to assess the person based on their true abilities.
- Be prepared to make your assessments person-specific. For example, there may be a person who is hard of hearing who may need no process changes to your standard assessment, while other persons who are hard of hearing may need quiet rooms. Do account for these individual needs during your assessment?
- The assessor has the option to use any appropriate tool from the list of tools mentioned in the expository, to conduct the assessment. He/she also has the choice to use other options that will help conduct the assessment with sanctity.
- Remember that your trainees with disabilities are going to be working on par with persons without disabilities. Pitying, belittling or lowering the standards would defeat the purpose.
- If there are any audio elements as part of the assessment, there should be alternate arrangements such as pictures or text to be given. If there are video elements, subtitling is the key and use of sign language is preferred.
- Check on sign language compatibility between interpreter and trainees for best assessment processes. For example, within Indian Sign Language, there are many differences based on location. Further, words in Indian Sign Language (ISL) and American Sign Language (ASL) are frequently very different, and not all Persons with Speech and Hearing Disability (Hearing Impaired) may understand both. This may lead to misinterpretations.
- To communicate with a person who Can lip read, it is important for you to face the person while communicating. You also need to get other details (for example, in which languages they lip-read, from which ear they can hear better and how much enunciation they require, whether they prefer closed room discussions, or silence without background noise etc.
- We strongly recommend not doing telephonic assessments. However, this may vary based on the functional assessment of the person
- Assessment through presentation should be replaced with practical or by conducting regular interviews.
- Consider extra time because of the interpreter, communication takes more time during assessments. Written assessment should be done keeping in mind that the person might have language constraints. For example, an E-Mail writing task may focus more on the content message being conveyed rather on the formatting and punctuations.