Skill Council for Persons with Disability
Expository for Locomotor Disability
E001

Definition

According to The Persons with Disabilities Act, 2016 Locomotor Disability defined as:
Locomotor disability is defined as a person's inability to execute distinctive activities associated with movement of self and objects resulting from affliction of musculoskeletal or nervous system or both including:

(a) Leprosy Cured Person means a person who has been cured of leprosy but is suffering from:

- Loss of sensation in hands or feet as well as loss of sensation and paresis in the eye and eye-lid but with no manifest deformity;
- Manifest deformity and paresis but having sufficient mobility in their hands and feet to enable them to engage in normal economic activity;
- Extreme physical deformity as well as advanced age which prevents him/her from undertaking any gainful occupation, and the expression "leprosy cured" shall construed accordingly.

(b) Dwarfism means a medical or genetic condition resulting in an adult height of 4 feet 10 inches (147 centimeters) or less.

(c) Acid Attack Victims means a person disfigured due to violent assaults by throwing of acid or similar corrosive substance.

Note: Keeping in view the diverse nature of abilities vis-a-vis training needs of individuals, a separate Expository has been created for the purpose of skilling/ training under the disability type **Cerebral Palsy & Muscular Dystrophy.**

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.

SCPwD
Skill Council for Persons with Disabilities

N·S·D·C
NSDC
National
Skill Development
Corporation

Tools recommended for the training of Persons with Locomotor Disability

Accessible Tools/Appliances/Software	When to use this tool	Tools Description	How to use this tool	Tool Names
Ease of Access Center	While teaching any of the NOS's mentioned above, if it is seen that a Person with Locomotor Disability (LD) has difficulty in certain movement, then he/she can use this tool. This can be recommended to all Persons with Locomotor Disability. The candidate must be able to read and write for using this tool.	Has many tools like on screen magnifier, color contrast (high contrast themes for color blind or low vision), sticky keys, on-the screen keyboard, mouse pointer settings, speech recognition, etc.	Inbuilt on a Windows operating system. Through these various options can be enabled for people with different disabilities.	Technology is the tool
Sticky Keys	While teaching any of the NOS's mentioned above, if it is seen that a Person with Locomotor Disability has difficulty in certain movement, then he/she can use this tool. This can be recommended to all Persons with Locomotor Disability The candidate must be able to read and write for using this tool.	Sticky Keys is a Windows Ease of Access feature that makes it possible to use keyboard shortcuts or type capital letters without needing to press more than one key at once.	Inbuilt on a Windows operating system. This can be used for a person who has very few or one functional finger.	Technology is the tool

Accessible Tools/Appliances/Software	When to use this tool	Tools Description	How to use this tool	Tool Names
On the Screen Keyboard	While teaching any of the NOS's mentioned above, if it is seen that a Person with Locomotor Disability has difficulty in certain movement, same please correct then he/she can use this tool. This can be recommended depending the ability of the candidate to touch, feel and if the candidate is comfortable in using a screen. The candidate must also be able to type for using this tool.	The keyboard will be displayed on the computer screen. A person with fine motor movement challenge can type using the mouse or touch pad by clicking on each key. This has built-in word prediction feature which makes the typing quick and easier.	Inbuilt on a Windows operating system. This can be used for a person who has one or no finger and also fine motor impairment.	
One-Handed Keyboard	While teaching any of the NOS's mentioned above, if it is seen that a Person with Locomotor Disability has difficulty in certain movement, then he/she can use this tool. The tool is to be recommended if the person has at least one function limb. The person must be able to read and write by using this tool.	It helps a person with one hand to practice the typing and keyboard orientation with efficiently.	This hardware need to be attached to a computer. The person needs to have all five functional fingers in one hand.	Technology is the tool
Foot Pedals	While teaching any of the NOS's mentioned above, if it is seen that a	This hardware solution can be used by a person without hands who has	Attached to the computer.	

Accessible Tools/Appliances/Software	When to use this tool	Tools Description	How to use this tool	Tool Names
	Person with Locomotor Disability has difficulty in certain movement, then he/she can use this tool. The tool is to be recommended if the candidate has a functional leg. The candidate must be able to read and write for using this tool.	functional leg. This helps to type and operate computer through foot and toes.		
Access Switches	While teaching any of the NOS's mentioned above, if it is seen that a Person with Locomotor Disability has difficulty in certain movement, then he/she can use this tool. It can be recommended to all persons with various degrees of locomotor disability	A person without upper and lower limbs can operate the computer using one of these kinds of switches. A person can use these switches either through mouth, limited movement of an organ to press a key to give input to the computer.		Technology is the tool

Activity	Activity Type	When to use Activity	Activity Description	Activity Planning	Activity Tool
Sensitization of the Trainer	Sensitization Towards-Disability, Equipment, Aid & Appliances, Behaviors	It can be recommended to all persons with various degrees of locomotor disability	The trainer should understand how Persons with Disability (PwD) do different activities, Gain Knowledge of disability, assistive aids & accessibility in the environment Learn to assess candidates (before training). Make an inclusive training environment and material.	Trainer should undergo training with specific disabilities and should be able to change his/her approach according to the needs of the student. Training in transfer skills and communication skills.	Any of the following tools may be used: • Communication • hand gestures • touch sensitivity • BEHAVIOUR • sensitivity • patience • customized approach to students
Environmental Adaptability	Ramps/ Rails	It can be recommended to all (especially for persons with lower limb disability) persons with various degrees of locomotor disability. Helps in easier and better movement.	Ramps/ Rails in public buildings; adaptation of toilets and drinking water point for wheel chair users to ensure easy access for all persons.	These facilities should be provided for easier access to all.	NA
	Lifts	It can be recommended to all persons with various degrees of locomotor disability (especially for persons with lower limb disability). Helps in easier and better movement.	An elevator (lift in British English) is a type of vertical transport equipment that moves people or goods between floors (levels, decks) of a building, vessel, or other structure. Elevators are generally powered by electric motors.	These facilities should be provided for easier access to all.	

Assessment Guidelines

Lab Assessment:

Upper Limb – One limb:

- This may require re-arrangement of equipment based on nature of disability for ease of access – like placing tools on left-hand-side or right-hand-side.
- May require left handed lab equipment (like left-handed scissors).

Upper Limb – both limbs:

- May require process changes based on the nature of the assessment – for example, if the person uses their feet for different tasks.

Lower limb – Without aids/Crutch User/Calliper User:

- The floor needs to be skid-proof and elevators need to be provided if assessment room is not on the ground floor. All staircases and steps need to have railings for support on both sides. Elevator facility would be preferred.
- Accessible restrooms must be provided.

Lower limb - Wheelchair user due to polio:

- The lab needs to have wide entries, exits and space between different tables to ensure that the wheelchair can be used without barriers.
- The floor needs to be in level with no obstacles, the building needs to have ramps, accessible elevators, and accessible restrooms meeting standard specifications.
- The floor needs to be skid-proof and elevators need to be provided if assessment room is not on the ground floor.
- All shelves must be at an appropriate height for wheelchair users.

Lower limb – Wheelchair user due to Spinal Cord Injury:

- The lab needs to have wide entries, exits and space between different tables to ensure that the wheelchair can be used without barriers.
- The floor needs to be level with no obstacles. The building needs to have ramps, accessible elevators, and accessible restrooms meeting standard specifications.
- The floor needs to be skid-proof and elevators need to be provided if assessment room is not on the ground floor.
- All shelves must be at an appropriate height for wheelchair users.
- Many persons with spinal cord injury are unable to sit for extended periods of time. This should be taken into account, and extra time should be allocated to the person for completion of the assessment.

- Persons with spinal cord injury may require helpers for personal work. This must be taken into consideration on a case-by-case basis.

Computer Assessment:

Upper Limb – One limb:

- May require modified/one-handed keyboard or mouse, based on preference
- May need computer configured with Sticky Keys for ease of using keyboard shortcuts.

Upper Limb – Both limbs:

- May require keyboard placed at foot level for persons using foot typing.
- May require computer compatibility with speech recognition software or camera-mouse.

Lower limb – Without aids/Crutch user/Calliper User:

- The floor needs to be skid-proof and elevators need to be provided if assessment room is not on the ground floor. All staircases and steps need to have railings for support on both sides. Elevator facility would be preferred.
- Accessible restrooms must be provided.

Lower limb – Wheelchair user due to polio:

- The floor needs to be skid-proof and elevators need to be provided if assessment room is not on the ground floor.
- The floor needs to be in level with no obstacles, the building needs to have ramps, accessible elevators, and accessible restrooms meeting the standard specifications.
- The tables for the computers need to be placed at the right height for wheelchair users to be able to access the computer system.

Lower limb – Wheelchair user due to Spinal Cord Injury:

- The floor needs to be skid-proof and elevators need to be provided if assessment room is not on the ground floor.
- The floor needs to be in level with no obstacles, the building needs to have ramps, accessible elevators, and accessible restrooms meeting standard specifications.
- The table for the computers need to be placed at the right height for wheelchair users to be able to access the computer system.
- Many persons with spinal cord injury are unable to sit for extended periods of time. This should be taken into account, and extra time should be allocated to the person for completion of the assessment.
- Persons with spinal cord injury may require helpers for personal work. This must be taken into consideration on a case-by-case basis.

- In assessments, some trainees may prefer using a laptop over a desktop due to movement constraints.

General Guidelines:

- 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. The person with locomotor disability would prefer to have accessible environment which is suitable for access training, assessment and workplace. 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 with locomotor disability whose lower limbs are affected may need some kinds of adaptation during assessment. Moreover, a person with locomotor disability whose upper limbs are affected, need some kind of support during assessment. He/she may not be able to write properly then they need a writer/scriber to support his/her during assessment. Do account for these individual needs during your assessment hour?
- It should be ensured that all equipment required during the assessment are within close reach/easily accessible by the person.
- 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.
- The assessor has the option to use any of the tools appropriate 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 going to work with persons without disabilities. Pitying, belittling or lowering the standards would defeat the purpose.