Skill Council for Persons with Disability
Expository for Intellectual Disability
E005

Definition

The Rights of Persons with Disability Act, 2016, defines Intellectual Disability as follows:-
"Intellectual disability, a condition characterized by significant limitation both in intellectual functioning (reasoning, learning, problem solving) and in adaptive behavior."

Sometimes, due to incomplete development of the brain, intellectual/cognitive functions are not fully developed in some people. Children with Intellectual Disability usually have delayed milestones, tending to sit, crawl or walk more slowly than other children. Delays in language development are common. The amount of training required by the candidate will increase if the exposure for the candidate since childhood has been less.

Intellectual Functioning

Intellectual functioning—also called intelligence—refers to general mental capacity, such as learning, reasoning, problem solving, and so on.

Adaptive Behaviour

Adaptive behavior is a set of age appropriate behaviors which enable a person to function independently in society. It is a collection of conceptual, social, and practical skills that are learned and performed by people in their everyday lives. Some of the measured skills include travelling alone, counting money, keeping time, etc.

Severity Levels [wherever applicable]

The various levels of severity are defined on the basis of adaptive functioning, and not IQ scores, because it is adaptive functioning that determines the level of support required.

Mild

- Slower than typical in all developmental areas
- Will be able to learn practical life skills when provided with the right kind of exposure
- Able to blend in socially and function normally in day to day life

A person who can read, but has difficulty comprehending what he or she reads represents one example of someone with mild intellectual disability.

Moderate

- Noticeable developmental delays (i.e. speech, motor skills)
- Can communicate in basic, simple ways
- Able to learn basic health and safety skills
- Can complete self-care activities
- Can travel alone to nearby, familiar places

People with moderate Intellectual Disability have fair communication skills, but cannot typically communicate on complex levels.

Severe

- Considerable delays in development
- Understands speech, but little ability to communicate
- Able to learn daily routines

People with severe Intellectual Disability can only communicate on the most basic levels. They might need daily supervision and support in performing activities such as traveling using public transport, interacting with strangers, etc.

Profound

- Significant developmental delays in all areas
- Requires close supervision
- Might require an attendant to help in self-care activities

People with a profound level of Intellectual Disability might require round-the-clock support and care.

Training Tools

Provision of assistive devices is dependent on the nature of the job role as well as the individual needs of the employee. Selection of assistive devices should be done in consultation with the job coach, trainer and employer.

In addition to providing assistive devices, the trainer may also have to make certain modifications to the tools and machinery used by the employee with Intellectual Disability.

Tools recommended for the training of Persons - Expository for Intellectual Disability

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 respective 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. These tools can be used in combination or isolation as per the requirement for the NOSs:

Accessible Tools/Appliances/ Software	When to use this Tool	Tool Description	How to use this Tool	Tool Names
Headphone	While teaching if it is seen that a person has issues with extraneous environmental noise leading to overstimulation issues then this tool can be used.	The Noise cancelling headphones minimize extraneous environmental noises.	The device enables the trainee to focus on the task at hand and minimizes distracting, extraneous environmental sounds.	Any of the following tools may be used: • NoiseLESS Earphones • Howard Leight Multiple Positioning Earmuff • Protection Folding Earmuffs from 3M
Personal Digital Assistant and Touch Screen	While teaching, if it is seen that a person has difficulty in grasping objects, such as a mouse; then this tool can be used.	A touch screen allows persons with ID to navigate and interact with the computer by replacing mouse actions with a tap or touch on the screen. It can be used through the day while carrying out work. It provides flexibility and confidence to a person to perform work to the best of their ability.	The device enables the trainee to type and interface with the computer faster and in a more efficient manner.	Any of the following tools may be used: • Smartphones • iPod • Tablets

Accessible Tools/Appliances/ Software	When to use this Tool	Tool Description	How to use this Tool	Tool Names
		A PDA may also include other tools such as appointments, calendar, to-do list, address book, calculator and a menu program.		
Alternative Keyboards	While teaching, if it is seen that a person has difficulty in typing and using the normal keyboard, then this tool can be used.	Alternative keyboards are particularly useful for persons with ID as they make use of large, well-spaced, color-coded keys. Large keys are easier to press and the colors help with easier identification. For example, in some keyboards, consonants are colored differently from vowels. They can be used in the same way as a regular keyboard and help individuals to identify keys, colors, spaces and various other aspects while working.	The device enables the trainee to type and interface with the computer faster and in a more efficient manner. The device needs to be a part of/downloaded on a desktop/laptop/phone.	Any of the following tools may be used: • WordBoard Keyboard • MyScript Stack Handwriting Keyboard • Keeble & Keedogo Plus
Word Predictor	While teaching, if it is seen that a person has difficulty in faster writing and editing of documents, then this tool can be used.	The device can be used to predict the next word that one is about to type. It does this by using a combination of basic English grammar and a person's personal	The software requires a device such as a laptop/desktop or a tablet. It enables faster typing.	Any of the following tools may be used: • SoothSayer Word Prediction • ClaroRead • WriteOnline

Accessible Tools/Appliances/ Software	When to use this Tool	Tool Description	How to use this Tool	Tool Names
		writing style. The word predictor produces a list of twelve possible words to follow the ones already written. Features include on-screen keyboard, screen reading, lexicon editing and the ability to learn new words as one types.		• Co:Writer, Co:Writer University Edition • Kurzweil 3000 • WordQ • Penfriend XP, Penfriend XL, Penfriend W3, Penfriend Portable • Typing Assistant • Read & Write • WordLogic

Besides, the training tools/assistive devices listed above, the following points should also be kept in mind at the time of training and at the time of employment:

S.No.	Parameter	Details
1	Training requirements	• Before starting training for skilling the candidate, certain pre-training requirements need to be met • Pre-trainings could include modules on life skills including personal grooming, understanding the needs of oneself as well as of others, conceptual and cognitive tasks and interpersonal skills. • Basic skills such as seeing time, counting currency, maintaining hygiene, etc. should be taught as early as possible. • The level of complexity of the training should be progressive, moving from simpler to more complex tasks. • Employer visits during pre-training ensures a smooth transition into the workplace. • Trainings should also comprise of familiarizing the trainee with the future workplace and prospective colleagues. This would enable the individual to gain orientation of the workplace. • This also helps in beginning the process of employer sensitization.
2	Communicating clearly and unambiguously	• Individuals with Intellectual Disability might have difficulty in transferring learning from training and generalizing it to work situations. The peers and job coaches of the person must help them in this process for a certain period of time, till they understand the work situations completely • All communication and instructions need to be clear, concise and unambiguous Hands-on training

		is necessary for the individual to be able to grasp the job specifications.	
3	Job and skill mapping	• This step of job mapping starts with the process of workplace accommodation that consists of two sub-processes. It requires the trainer to be well informed about the demands of the job role as well as have understanding of the disability. — The first step consists of job and skill mapping wherein the trainer, job coach and the employer identify and observe the jobs to which the person can be aligned. — The second step is to break the identified job into a series of sequential tasks. The tasks are then studied for their complexity and modifications as well as accommodations required are discussed.	
4	Process of concept building	• It is important for a trainer/ employer to not rely completely on verbal instructions while imparting training. This is because Persons with Intellectual Disability are mostly, better visual learners. • The objects/ instruments being used for training, and later at the time of employment, need to be first visually shown to the individual. • The key characteristics and features need to be explained along with instructions for use, safety instructions, etc. • After demonstration, the individual with Intellectual Disability needs to be asked to practice the activity just like it has been demonstrated. • This helps individuals to internalize concepts. Once they are able to understand the logic behind a task or activity, they are able to remember and apply it better.	

		• While the individual is practicing the activity, the trainer might need to provide physical and verbal prompts and cues.
		• Repeated trials help the person with Intellectual Disability gain perfection of the task/ activity. For example, an individual who is being trained in block printing can be given physical cues when required such as a tap on the shoulder or the amount one has to bend to be able to apply the right amount of pressure.
		• Besides physical and verbal prompts and cues, individuals also need to be given regular feedback while performing an activity.
		• The most important part of concept building is on-the-job training. This is the final and most crucial stage for transfer of learning from the training center to the work environment.
5	Provision of job specific adaptations/ devices that can improve the quality of work	• In certain cases, an adaptation/device can be provided to the candidate to improve the quality and efficiency of work • For example, in case of block printing, an object/ stencil is given that helps in keeping the right amount of space between one block and the other.
6	Providing reinforcement at frequent time intervals	• Individuals feel a sense of achievement when they accomplish a task and their self-image is enhanced if they are productive. They may withdraw if they are spoken rudely to or screamed at. Trainers and employers need to deal with them in a sensitive and considerate manner. • Weekly, monthly and quarterly feedback and guidance from the job coach as well as the supervisor is necessary for positive reinforcement.

		• The frequency of the feedback can be reduced over time, but the job coach/ trainer should be made available when required.
7	Managing change	• Change needs to be dealt with tactfully for Persons with Intellectual Disability. A change could be in the nature of work, day schedule or even a change in the supervisor or manager at the workplace. • When informing them of the impending change, giving the rationale is important.
8	Job coach	• A job coach is very important at the workplace (especially in case of mainstream employment) as s/he is able to not only understand the demands of the employer but also the strengths/ weaknesses of the candidate. • The role of the job coach can be gradually reduced once the candidate becomes comfortable with the work and workplace.
9	Buddy system	• Each individual could be paired with a 'buddy' at the workplace – someone with whom s/he can share her/his experiences and reach out to when required. • Individuals with Intellectual Disability should be encouraged to talk to their buddies especially if they need help, feel any discomfort or want to report their feedback.
10	Safety	• Safety issues need to be put in place for candidates with Intellectual Disability with much more care compared to other employees in the organization. • Safety protocol should be broken into smaller steps to make it explicit. • Individuals should be provided training in gender sensitization and all possible forms of harassment at workplace.

		• In case they feel harassed or feel the need to report any issue immediately, they should be trained to reach out to the concerned supervisor/ job coach/buddy.
11	Facilitating Communication	• Limitations in language skills can sometimes come in the way of communication for Persons with Intellectual Disability. • Their communication can be facilitated using live examples and pictures in a help/communication book or by providing an assistive device.
12	Self-advocacy training	• It is of utmost importance that the trainee is trained to speak for himself/herself when facing an uncomfortable situation or when experiencing physical pain.
13	Training on workplace code of conduct/ etiquettes	• The individual should be taught the basic rules and regulations of the organization such as work timings, transport provided, etc. at the time of training.

Assessment Guidelines

People with an IQ score of 70 or less are termed as Persons with Intellectual Disability. However, experience of several experts has shown that functional assessment is a much better method to design learning interventions than IQ score as it biases developmental work with them. They have much more potential for development than commonly recognized. Their capacities are sometimes grossly underestimated which at times prevents them from full realization of their potential.

Lab Assessment:

Intellectual Disability can be summarized as a disability characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. The disability originates before the age of 18.

- **Intellectual functioning**—also called intelligence—refers to general mental capacity, such as learning, reasoning, problem solving, and so on. There are variations in the levels of intellectual disability too. Even though most people have mild to moderate difficulties, a few inevitably need higher levels of support.
- **Adaptive behavior** is a set of age appropriate behavior which enable a person to function well in society. It is a collection of conceptual, social, and practical skills that are learned and performed by people in their everyday lives.
    - Conceptual Learning— Refers to categories that we use to organize our perceptions, thoughts, etc. It refers to various concepts that we learn as we grow which helps us in understanding the world around us and also assists in communication.
    - Social Learning — Refers to understanding others' behavior and the demands of social situations. This includes developing interpersonal skills and social grooming including the ability to follow rules, social advocacy and being aware of social vulnerabilities.
    - Practical Learning — Refers to activities of daily living skills or personal grooming, occupational skills, healthcare, travel/ transportation, schedules/ routines, safety, use of money, communicating over the telephone, understanding of money, etc.

For all practical assessments being carried out in a lab, the following guidelines should be kept in mind:

- The person must be familiarized with the general layout of the lab, including the entry, exit points, seating spaces prior to the assessment
- It should be ensured that all equipment required during the assessment are within close reach/easily accessible by the person
- Both written and verbal instructions must be provided
- The instructions of the assessment should be customized to the maximum extent possible, making them more visual/pictorial/graphical to enable ease in understanding by the person
- Information regarding accessible restrooms must be provided to the person

- Special needs and lab accommodation alternatives that maybe required, prior to the assessment must be enquired about
- Extra time to the person for set up and completion of assigned lab work, whenever required, must be allowed
- The person must be familiarized with lab safety procedures including provision of visual lab warning signals
- Laboratory signs and equipment labels in large print, with high contrast, as and when required should be made
- Lab should be kept uncluttered
- Utility and equipment controls must be kept within easy reach from a standing or seated position, for the person
- The person should be allowed to take frequent but brief breaks
- Preferential seating to the person must be given to avoid distractions and minimize extraneous stimuli

Computer Assessment:

Computer Access Technology (CAT) allows people who have trouble using a standard computer keyboard, mouse or monitor to access the computer. CAT includes relatively inexpensive devices like trackballs and small-footprint keyboards as well as sophisticated technologies like automatic speech recognition, eye gaze tracking, and brain-computer interfaces. CAT services are provided by a range of rehabilitation professionals, special educators and vocational rehabilitation counselors.CAT is critical for enhancing the educational and vocational opportunities of people with disabilities. The same maybe used when Persons with Intellectual Disability undergo computer assessment which may consist of the following:

- Typing in entry boxes
- Clicking checking boxes
- Clicking parts of graphics
- Dragging and dropping answer choices into targets on screen
- Selecting answer choices form a drop down menu

The person undergoing computer assessment must be provided support in the following areas:

- Frequent doubt clarification
- Frequent Breaks
- Extended test taking time
- Well organized and concise instructions
- Reading or scribe serviced when required

- Alternative times and locations for test taking
- Enlarged size of questions on screen

General Guidelines:

Preliminary information to be taken into consideration while assessing persons with Intellectual Disability are as follows:

S. No.	Parameter	Details
1	Myths to be disregarded	• Persons with Intellectual Disability have learning potential as opposed to certain myths
2	Awareness regarding Intellectual Disability in trainers and employers	• While assessing an individual, the focus should be on his/her capability and not the categorization made as per any definitions. • Trainers and employers need to have an overall understanding and knowledge about Intellectual Disability in order to be able to train/ employ individuals with Intellectual Disability. • Trainers/Employers should have an understanding of the nature of the disability, general diagnosis, strengths and potential for development that individuals with Intellectual Disability have. • Functional assessment methods are considered one of the most accurate tools in order to arrive at the level of intellectual functioning of an individual. • Functional Assessment methods also enable the trainer/facilitator to customize the training programs to the needs of the individual to ensure optimization of performance of the individual. • The family of the candidate needs to be involved to reinforce at home whatever is taught at the workplace. • Family members should duly inform the employer of any change in medications so that any emergency at the workplace can be managed effectively.