Annex 3 – Description of Methodology

Introduction

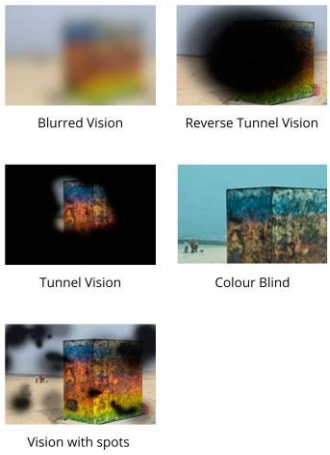
This document explains how to test the accessibility of public buildings. It explains what to look for for each type of limitation. The method is divided into groups of experts with practical experience. Based on discussions with these groups, the most important points to consider for each limitation have been listed.

The limitations discussed are:

1. Visual impairment (visually impaired or blind)
2. Hearing impairment (hard of hearing or deaf)
3. Intellectual disability
4. Physical disability
5. ASD (Autism Spectrum Disorder)

1. Visual impairment

People with visual impairments may have difficulty seeing in various ways. These forms are shown in the image below:



Some people have difficulty seeing in the dark or in bright light, such as those with night blindness or light sensitivity.

1.1 Assistive devices

The following aids are available for people with visual impairments:

- White cane: this serves as a recognition stick, not a walking aid
- Tactile cane: a cane with a special tip or ball for blind and visually impaired people
- Guide dog
- Braille
- Large-print books
- Audiobook
- Screen reader: software that reads text aloud. Navigation is done via the computer keyboard or a Braille display. The screen reader provides information about what is on the screen.
- Filter glasses: people with poor eyesight often have trouble with bright light. Filter glasses can protect the eyes. These glasses have orange/yellow-tinted lenses and shield the eyes well from light.
- Magnifying glass

1.2 Points to consider

Contrasts and colours: Make sure that signage, for example, uses a combination of a dark colour on a light background or vice versa. Also use colours that are easy to distinguish from each other, such as black and white or red and green.

Avoid too many colours: Too many colours can be confusing. It is better to use a few colours with a clear function.

Lighting: Avoid glare. Use dimmed lighting.

Markings: Tactile markings to indicate steps or show the way to the counter, for example. This also includes guide lines to the building and contrasting markings on glass doors.

Lift: Audible signals and lift buttons in relief so that you can feel the numbers.

Signage: Use large, easily legible letters and pictograms. Ensure that information boards are at eye level and well lit.

Walking routes: Remove obstacles.

Braille and relief: Make sure that signs for toilets, for example, are in Braille or relief.

Handrails: These should continue at the beginning and end of stairs to help people find and use them. They indicate the transition from a sloping to a horizontal surface.

Counter number: Make sure this is also spoken and not just displayed on a screen.

Service: Make sure that a physical person is present in case certain assistance is required.

2. Hearing impairment

Hearing impairment also comes in different forms. These forms are distinguished by decibel level:

Mild hearing loss: 16 to 40 dB
The person has difficulty hearing and/or understanding soft speech and whispering. Understanding speech from a distance or in a noisy environment is also difficult.

Moderate hearing loss: 41-55 dB
The person has difficulty hearing and/or understanding speech at a normal volume. Understanding speech at close range is also difficult, and speech in quiet environments causes problems. Telephone calls are also difficult.

Severe hearing loss: 56-70 dB
The person also has difficulty understanding loud speech and warning signals such as police or ambulance sirens are no longer heard (properly). Telephone calls are very difficult.

Very severe hearing loss: 71-90 dB: Understanding speech is very difficult. It is still possible to some extent, but lip reading is necessary. The person also no longer hears louder noises around them, such as the sound of a drill or a truck engine. Talking on the phone is no longer possible.

Deafness: 90-120 dB
The sound of speech alone is insufficient to understand anything. Most ambient sounds are also no longer audible.

Total deafness: 120 dB and above
This is referred to as total deafness. Only very loud noises (and vibrations) can be perceived.

2.1 Assistive devices

The possible aids used by people with hearing impairments are:

- Hearing aid: A hearing aid amplifies soft sounds and suppresses loud sounds.
- Solo devices: Solo devices reduce the distance between the speaker and the listener.
- Alarm and warning systems: An alarm and warning system allows you to see or feel when something is happening in your environment, such as when the doorbell or telephone rings. You see a flash, hear a sound or feel a vibration. A combination is also possible. There are systems for all kinds of situations: when the alarm or doorbell rings, when your baby cries, when there is a fire, etc.
- Telephones with amplifiers
- Induction loop
- Interpreter

2.2 Points to consider

Ring circuit ensures that people with hearing impairments can hear the sound from the television and radio or the speakers or music in a theatre, auditorium or concert hall with their hearing aid without being disturbed by ambient noise.

Lighting for speech reading: sufficient lighting to enable someone to read lips or see non-verbal communication.

Acoustics: structural noises that may cause discomfort, e.g. a printer, lots of people, a telephone, etc.

Flashing light: When the fire alarm goes off, the flashing light also goes off.

(Written) interpreter: the option of live transcription or sign language via an interpreter.
Service: Make sure that a physical person is present in case certain support is needed.

3. Intellectual disability

The forms of intellectual disability are classified according to IQ level:

Mild intellectual disability (IQ 50-75):
People with a mild intellectual disability have difficulty with abstract thinking, planning and money management, for example. They are able to tackle problems and find solutions to a certain extent, but this can be difficult. Their communication, conversation skills and language use are often less mature.

Moderate intellectual disability (IQ 35-50):
People with moderate intellectual disabilities need support in applying academic skills in both work and daily life. There is a clear difference in social and communicative behaviour, but they are able to form relationships with others. Significant support is often needed to meet social expectations and work-related matters such as planning, transport, health and money management.

Severe intellectual disability (IQ 20-35):
People with severe intellectual disabilities have little understanding of written language, numbers, quantities, time and money. Throughout their lives, they need extensive support in solving problems. Spoken language is severely limited in this group and focuses mainly on the here and now and on daily events. Support is needed for all daily activities, such as eating, dressing and washing. However, it is possible to develop a variety of leisure skills.

Very severe intellectual disability (IQ below 20):
People with a very severe intellectual disability have little understanding of symbolic communication, spoken language or sign language. However, they may sometimes understand a few simple instructions or gestures. They are completely dependent on others for all aspects of personal care, health and safety.

3.1 Assistive devices

The possible aids that can be used by people with intellectual disabilities are:

- Communication card: A communication card helps to convey a message. Someone who has difficulty speaking, reading, writing and understanding points to pictures, words and symbols in the book that represent the message.
- Language level: people with intellectual disabilities have an adapted language level (B1).

3.2 Points to consider

Signage: Use simple and clear pictograms and colours to indicate rooms and routes. Place information at eye level for optimal visibility and ensure consistent signage throughout the building.

Spaces: Create quiet spaces without excessive stimuli. Use soft colours and avoid busy patterns on walls and floors.

Lighting: Provide good, non-glare lighting. Use dimmers to adjust the light intensity to the needs of users.

Language: Use simple words and sentences, and don't speak too quickly to get your message across. Ensure that, in addition to digital channels, there are always people physically present as accessible points of contact.

Service: Ensure that a physical person is present if certain support is needed.

4. Physical limitations

When someone has a physical (or motor) disability, their ability to move is impaired. This diverse group of disabilities includes people with involuntary movements (spasms or tremors), coordination problems, paralysis, arthritis and people with missing limbs.

4.1 Assistive devices

The possible aids used by people with physical disabilities are:

- Electric wheelchair
- Manual wheelchair
- Rollator
- Scooter
- Orthotics: such as braces, corsets and orthopaedic shoes
- Arm support

4.2 Points to consider

Entrances: Ensure wide, threshold-free entrances and automatic doors. Ensure that automatic revolving doors and escalators are adjusted to a suitable speed. Install access ramps with a suitable angle and non-slip surface. This also applies if there are raised areas due to cables or other work. In this case, ensure a suitable angle of inclination.

Signage: Use clear and highly visible signage. Always place information at eye level and ensure consistent signage throughout the building.

Movement space: Ensure sufficient space between furniture and in corridors to facilitate free movement. Avoid obstacles and ensure a flat floor without thresholds. Provide a lower counter for wheelchair users, including for payment.

Sanitary facilities: Provide spacious toilets with sufficient handrails and simple locks. Ensure washbasins are at a suitable height and with sufficient legroom underneath.

Stairs and lifts: Install lifts that are large enough for wheelchairs and equipped with clear controls. If there are stairs that cannot be bridged by a lift, provide a wheelchair lift with a platform. Provide stairs with handrails on both sides that continue at the beginning and end and have non-slip steps.

Ass**istance dogs:** Assistance dogs are permitted in the building.

Service: Ensure that a member of staff is present in case assistance is required.

5. Autism spectrum disorder

Since the introduction of the DSM 5, the manual for psychiatric disorders, no distinction is made between the different forms of autism. Therefore, there is now only one disorder: autism spectrum disorder.

However, there are some symptoms that are common in people with ASD:

- Difficulty speaking, writing and reading
- A limited vocabulary
- Difficulty starting and maintaining conversations
- Difficulty expressing thoughts or feelings
- Not always understanding what people are feeling
- Difficulty empathising with others
- Often talking about the same subject for a long time
- Becoming completely absorbed in a single hobby
- Attaching great importance to structure, order and clarity

5.1 Tools

The following aids can be used by people with ASD:

- Autism Passport: a personal document that clearly outlines the support needs of someone with autism on a single double A4 sheet.
- Headphones: people with autism often find unexpected loud noises or ambient noise in their environment, over which they have no control, disturbing. This can result in reduced concentration or total overstimulation.

5.2 Points to consider

Spaces: Create quiet spaces without excessive stimuli. Use soft colours and avoid busy patterns on walls and floors. Sufficient space to avoid meeting other people too closely and to avoid eye contact.

Lighting: Ensure good, non-glare lighting. Use dimmers to adjust the light intensity to the needs of the users.

Signage: clarity and structure through the use of the same pictograms, signage, colours, clear wording, clear communication about complex buildings, etc.

Colour: choose neutral or pastel colours.

Social stories: provide a clear description in advance, e.g. on the website, of the social situations that a person with autism can expect at the location and what behaviour is appropriate in those situations. For more information: https://nl.participate-autisme.be/

Service: Ensure that a physical person is present in case certain support is needed.

6. Knowledge questions

Based on the above information, there are a number of knowledge questions that will ensure that you have understood the content.

1. Name two types of visual impairment and two aids used by people with visual impairments.
2. Name two points to consider regarding accessibility for people with visual impairments.
3. Name two types of hearing impairment and two aids used by people with hearing impairment.
4. Name two points to consider regarding accessibility for people with hearing impairments.
5. What is important in terms of accessibility for both people with intellectual disabilities and people with ASD?
6. Name two types of physical disability and two aids used by people with physical disabilities.

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