



Adapting the environment

Step “Taking action” into the educational approach

Relevant for different types of disabilities



Part One “Visual impairment”

Step by step description

Our environment, in most cases, makes it more difficult for people with impaired vision. To make it more accessible we have to take into account many factors, the most important of which are:

Colors

Contrasts

Designations

Lighting

Glare and reflections

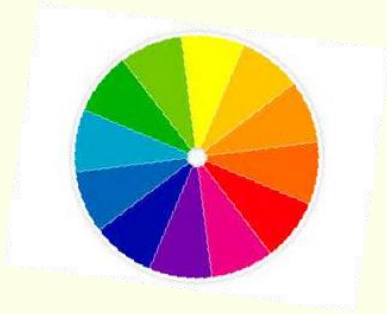
Flooring

Noise

Excess items (clutter)

1. Use of colors

Colors standing opposite each other give the best contrast



2. Using contrast

Opposite colors give the best contrast, but we also need to consider how bright and clear these colors are. The brighter the colors the greater the contrast.



3. Important recommendations when using colors and contrast

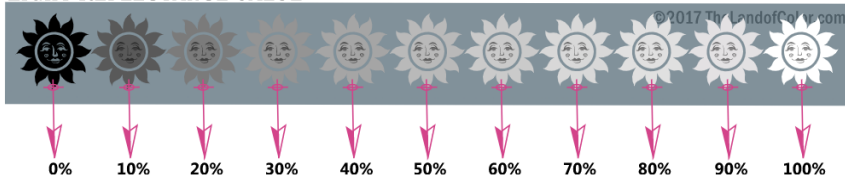
3.1. It is important to have a contrast between

- Door handles - the doors themselves
- Doors - walls
- Door frames - walls
- Auxiliary backrests and handles - walls and floor
- Walls - floor

3.2. How to measure color strength and contrast:

- Light reflectance value (LRV) measurement
- Contrast = $(B1 - B2) \times 100 / B1$ where
- B1 = LRV of the brighter zone
- B2 = LRV of the darker area
- LRV = 0 is literally black and LRV = 100 is white.
- **We are looking for color combinations that have a contrast value of at least 70.**

LIGHT REFLECTANCE VALUE



4. Designations/signs

When placing signs, it is necessary to take into account their size, contrast, and how easily they can be understood. It is also important where they are placed so that they can be easily distinguished.



5. Lighting - Different visual conditions require different lighting for people to see as well as possible.

Some people need more light – others (e.g. with albinism) need less light.

Always ask what the preferred lighting is for each member of the group.

6. Glare and mirrors

Glare can cause discomfort for people with certain vision conditions.

Mirrors can be very confusing, and frameless ones create a false impression of what is in front of us.

7. Surfaces - different types of surfaces can help people with vision loss to orient themselves - grass, additional pavement, and other tactile elements on the pavement.

8. Noise - noise can be distracting, disorienting, and confusing for people with vision loss.

9. Extraneous objects (clutter) - too many belongings, objects, or elements in the environment make it difficult for people with impaired vision.

Part Two “Physical disabilities”

Usually, when we think of people with physical disabilities, the first thing that comes to mind is the icon of a person in a wheelchair. And this is the most common notion connected with them. But actually, physical disabilities are many more and different in type. They can be related to both limited physical mobility and reduced dexterity.

In general, people with physical disabilities have difficulty moving and performing various movements - raising a hand, standing, sitting, walking, picking up, etc.

Next, the damage can be either to a specific part of the body (for example, a leg or an arm) or the whole body.

Another distinction we can make is related to the duration of the disability. It can be short-term (temporary), long-term and permanent. Such injuries are widespread and can usually be related to various accidents.

In addition to this type of disability, some are genetic or related to diseases that lead to physical disabilities.

The main problems of people with physical disabilities are their movement in an urban environment, access to public buildings and public transport. There are various solutions to facilitate them.

When we talk about getting around in an urban environment:

- Obstacle-free routes
- Lowered curbs of the sidewalks
- Wider and level sidewalks for wheelchairs
- Accessible pushbuttons for traffic lights for people in wheelchairs
- Non-slippery stairs and handrails stairs to help people with reduced mobility
- Specially designated parking spaces for people with physical disabilities
- Reducing the speed limits in densely populated areas

For public places like shops, restaurants, hotels, etc.:

- Access ramps,
- Elevators,
- Escalators,
- Large doors,
- Secured stairs
- Accessible restrooms
- Specially designated parking spaces for people with physical disabilities

For public transport:

- Access ramps,
- Elevators,
- Escalators,
- Large doors,
- Secured stairs
- Lowered stop buttons for wheelchair users,

- Visual and audio information about the stops so that riders with reduced mobility know when they need to prepare to get off the train or the bus.

Part Three “Intellectual disabilities”

When we talk about intellectual disabilities, we need to know what they are and how they are defined. The definition for them is as follows: Intellectual disability is a term used when there are limits to a person's ability to learn at an expected level and function in daily life.

People with similar disabilities have problems with problem thinking, conceptualizing, communicating and making decisions.

In order for them to feel included and have free access, it is necessary to provide them with an environment in which they feel safe and protected.

In public places such as shops, restaurants, hotels, etc. it is necessary to have accessible and easy-to-read information that people with intellectual disabilities can easily understand and use.

This can be achieved easily by using short sentences, without ambiguous expressions, and using examples.

For easy orientation, especially in larger complexes, maps and photos of parts of the building come in handy. Separately, pictograms are a great way for visitors with intellectual disabilities to navigate the environment.

Safe stairs - for the free movement of this type of visitors, it is necessary that the stairs be provided with appropriate lighting, and contrasting and anti-slip edges.

In public transport, the use of audiovisual presentation of information along the route (e.g. next stop, possibility to transfer to another transport, etc.) is being used with greater frequency. Work can also be done to simplify the actions required of passengers and those with intellectual disabilities in particular to facilitate their movement.

Go to the video for the material: <https://youtu.be/zw0zHI0oNik>

Links to other resources:

<https://www.ukcoaching.org/resources/topics/toolkits/supporting-people-with-a-visual-impairment-toolkit/what-makes-an-accessible-environment>

https://www.inclusivecitymaker.com/accessibility-solutions-different-types-physical-disabilities/?fbclid=IwAR3jxiJk3fGWI__APjRN4KcfpGZSJYwEP11X2ZvhTMJtlqBt7E6DXnw4SZQ

<https://www.inclusivecitymaker.com/accessibility-people-physical-disabilities-public-venues/>

<https://www.cdc.gov/ncbddd/developmentaldisabilities/facts-about-intellectual-disability.html>

<https://www.inclusivecitymaker.com/transport-accessibility-intellectual-disability/>

<https://www.inclusivecitymaker.com/9-tips-welcome-person-intellectual-disability/>