



Inclusive LIFE

The users know their needs the best

Created tactile books are given to the Estonian library for the blind

In the "Inclusive Life" project, students from different disciplines were able to apply their knowledge by creating user-friendly tools to support learning, taking into account different special needs. The tools were developed and tested in close collaboration with the future users of these tools, based on the "user knows what he needs best" principle.

Tactile books for the visually impaired people

The level of development of both healthy and the blind child determines which books they like. The younger the child is, the less text should be in the books and the more laconic the illustrations presented within the books.

From the perspective of a blind child, it is important that the touchable image evokes thoughts, curiosity, sensations. The variability of different materials, backgrounds, possible sounds, aromas become more important regarding the picture.

As a part of the project, a group of students created 4 Braille system tactile books with audio enhancement and an app: "**Laundry day**", "**Wash your teeth!**", "**Wash your hands!**", "**Magic brush**".

The goal of the tactile book creators is that all materials and shapes used should be as identical as possible to the real life, so that a blind child will experience the right visions of the environment around him. The text tells stories, providing more food for thought and the image supports the world of the senses. At the same time, you should not overdo it with details, as it will cause fast fatigue and interest will fade away.

The design of the books was guided by the fact that the tactile shapes and objects would be as simple and as familiar as possible, with the contrasting material shapes / outlines and contrasting colour tones.

The images were created clear understandable and, as different as possible in material use, with some parts of the page moving from page to page, adding action possibilities to the page.

When making the books it was important to ensure that all materials used were non-toxic, not dangerously sharp, and that the objects in the pictures stayed firmly on the pages. The readability and usability of the books were tested with the students of the Tallinn Helen School's target group before the final use.

The teaching material of mathematics: “Making math teaching more playful and easier”

In inclusive LIFE project students created teaching / guiding materials in mathematics for the 1st grade (grades 1-3) to support math teaching. First, the students identified which teaching aids teachers have missed the most in the math class, and accordingly focused on problematic topics. The finished material was given to users for testing in order to modify it according to the feedback received.

Following assignments were created

- Ask daily practitioners 1-3. grade teachers what kind of teaching aids they would need (a questionnaire was compiled listing all the topics they had to pass through in the first grade, and the teachers indicated according to the topic what kind of tools they needed).
- Making the learning tools according to the „order“ and teachers needs.
- Creating a blog.
- Putting the learning tools up to the blog.
- Testing the teaching aids on the blog in practice (with first-grade students at the school).

The end result

- A website <http://hevoppematerjal.weebly.com> with different teaching aids to to make math learning easier. It offers interesting samples and reference materials, worksheets, board and digital games. The games on this website are designed for the 1st grade (grades 1-3).
- The website has different games that can be used by teachers and parents.
- The templates, resources, worksheets, and board games found on the website are easy to download.

Teachers, parents and students are seen as active users.

The students who completed the course were able to contribute to the knowledge that finding solutions is always easier in collaboration the user and that making objects, environments, etc. accessible is important to everyone, not just to people with special needs.

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