



Adapting learning materials to make them accessible to learners who are blind or have visual impairments while retaining the original level of instruction

The context for the use of ICT for Inclusion

The EDDA Project is responsible for providing learning materials that are optimally accessible for pupils with severe visual impairments, and provides tailor-made advice, according to the pupil's potential. 'Optimal' refers to materials that are technically and didactically appropriate to the pupil's developmental age.

The goal is to adapt learning materials in such a way that the original level of instruction is retained. Another of the EDDA Project's goals is to compile didactic and technical adaptations to written and digital learning materials so that teachers and parents do not have to adapt materials themselves and instead can focus on the primary tasks of teaching and childrearing.

The three-year project consists of four sub-projects:

- The didactic adaptation of methodological material (textbooks, workbooks, study guides)
- The development of good guidelines for digital adaptation
- Research into these provisions' effects on outcomes
- The establishment of an expertise centre so that the developed knowledge base can benefit all those involved in the development of learning materials.

The stakeholders are:

- The network organisation for people with visual impairment
- Educational institutions for people with visual impairment
- National manufacturers of adapted materials
- A large number of alliance partners, including the Ministry of Education, Culture and Science and the Kennisnet Foundation (the national educational portal).

The policy context

Learning materials are becoming increasingly visual in content. Publishers can aid visually impaired (and colour-blind) readers in orienting 'visual' lesson materials by adopting an easily readable font, clear page layout and appropriate use of colour and contrast.

In order to follow mainstream learning methods, pupils who are blind or have severe visual impairments require alternative formats for visual elements of the curriculum. The alternative formats that are developed must be didactically appropriate.

Adapted (mainstream) learning materials produced as part of the provisions for educational and vocational reading should be made available in a timely manner, should be user-friendly and should not entail extra costs for the user.

The use of ICT

Digital media and the internet play an increasingly important role in conveying information, and in particular can enable individuals with a visual impairment to access and acquire knowledge independently. One requirement, however, is that the content of digital materials meets usability and accessibility criteria and that the user is equipped with the necessary assistive technology to have the content read aloud.



Key outcomes and benefits

1. Guidelines

The EDDA Project will adopt guidelines for:

- Technical adaptation of written learning materials and technical adaptation of digital learning materials; and
- Didactic adaptation of written learning materials and didactic adaptation of digital learning materials.

2. Unlocking written learning materials

The adaptation of written materials involves offering an appropriate alternative for those elements of the lesson materials that are otherwise inaccessible to pupils with visual impairments.

During the production process, didactically adapted learning materials (modular alternatives) are compiled in a database. The database of didactic adaptations consists of standard components which can be utilised to simplify the adaptation of future learning materials, or which can serve as the basis for the development of new didactic adaptations.

3. Unlocking digital learning materials

- Advising teachers and pupils about learning materials that they are having difficulties accessing and working together with them to find a solution to enable the pupil to access the curriculum
- Developing a simple script for screen readers to resolve accessibility problems
- Developing a software or web interface for inaccessible programs
- Training and educating pupils and teachers about the efficient use of screen readers in combination with digital learning materials
- Educating publishers and policy-makers about the development of accessible learning materials
- Building up and maintaining expertise
- Contributing to the development of guidelines based on the newly-developed expertise.

4. Advice and support

As soon as the development of the first products (adapted learning materials and guidelines) begins to take shape, the specifications of the definitive EDDA expertise centre will be finalised.

Main challenges and obstacles

The goal is to adapt learning materials in such a way that the original level of instruction is retained. Another of the EDDA Project's goals is to compile didactic and technical adaptations to written and digital learning materials so that teachers and parents do not have to adapt materials themselves and instead can focus on the primary tasks of teaching and childrearing.

Additional information

<http://project-edda.nl/>