





Enable Network of ICT Supported Learning for Disabled People

Deliverable D2.2

State of the art in the use of ICT to support lifelong learning by disabled people

Work Package 2: Data Collection - The Current State of the Art Work Package Leader: Partner 3, HTW Berlin, Prof. Dr.-Ing. Hans-Heinrich Bothe

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Definition of terms and acronyms

Definitions of terms and acronyms				
Accessibility	According to the W3C Web Accessibility Initiative (2010) ¹ , accessibility is about ensuring an equivalent user experience for people with disabilities and older people.			
CRIS	Centrum Rozwoju Inicjatyw Społecznych			
ENABLE	Enable Network of ICT Supported Learning for Disabled People			
FTB	Forschungsinstitut Technologie und Behinderung of Evangelische Stiftung Volmarstein			
HTW Berlin	Hochschule für Technik und Wirtschaft Berlin			
ICT	Information and Communication Technologies			
Jisc TechDis	A UK advisory service on technologies for inclusion			
LimeSurvey	Free and open source survey application			
W3C WAI	The Web Accessibility Initiative (WAI) ¹ develops strategies, guidelines, and resources to help make the Web accessible to people with disabilities.			
WCAG 2.0	Web Content Accessibility Guidelines (WCAG) 2.0 covers a wide range of recommendations for making Web content more accessible. ²			
WP	Work Package			

¹ W3C WAI <u>http://www.w3.org/WAI/ [accessed 16 February 2013]</u> last accessed 30th April 2013

² WCAG 2.0 <u>http://www.w3.org/TR/WCAG20/</u> . last accessed 30th April 2013

Executive summary

This report deals with the initial data available according to the project plan. It presents ICT tools collected by the ENABLE network partners and provides data for WP3 "Data Analysis and Evaluation: Principles for the Use of ICT to Support Lifelong Learning by Disabled People and the Future Research Agenda" and WP4 "Data Application: Training, Conference Organization and the Future Research Agenda". It will be integrated into D5.5 "Data Base of ICT to Support Lifelong Learning by Disabled Adults".

The needs assessment, which provided the basis for the Enable project proposal, identified a lack of expertise in adult education and ICT supported learning for endusers. The field is fragmented with a number of different approaches and different ICT systems available. The knowledge and information is not evaluated and classified with appropriate presentation to raise awareness of end-users. Professionals as teachers and trainers have limited knowledge about ICT supported teaching and learning. End users are adult learners with their families, teachers, trainers, learning designers.

WP2 with D2.2 brings data about ICT supported learning for a range of learning situations in formal, non-formal and in-formal settings. It presents ICT tools with didactical, assistive and accessibility characteristics within a variety of cultural, national, orinternational environments.

1. Introduction

1.1 Background

The ENABLE European project started on the 1st November 2011 and finishes 31st October 2014. An ENABLE network of 14 European Partners and three third country partners will develop an EU wide platform to gather information and investigate how ICT is currently used to support lifelong learning by disabled adults and how it could best be used to overcome barriers and increase opportunities. The collaboration with overseas countries Australia and Korea will provide worldwide perspective

1.2 Purpose, Target Groups, and Methodology

Purpose

This is the first systematic report produced by the project; it provides the background data, from which a majority of the other project outcomes are developed. The report provides an overview of the data collection activity carried out in WP2 of the Enable project. It also draws on data from the 14 different Network Partner countries in Europe as well as three third country network partners. This enables the report to make first comparisons and give indications of best practice to date. The case studies jointly described in deliverable D2.3 and the resulting conclusions from this Report feed into the development of methodological and pedagogical principles in WP3 and recommendations for good practice in WP4.

The target groups

The focus is on learning for disabled adults; however, there will be some discussion of ICT for disabled children, young people and university and college students and non-disabled adults and the possibilities of modifying and adapting this technology to disabled adult learners. In recognition of the diversity of disabled people, the report considers factors such as gender, race or ethnicity, language, nationality, and sexual orientation, which could affect the use of ICT to support learning or learners' experiences.

The methodology

An online questionnaire was developed by WP2 leader in joint cooperation with WP3 leader, consisting of 48 questions related to each ICT tool. Each partner surveyed a range of providers, teachers, or other professionals in adult education, including adult education centres, distance learning centres, colleges, universities, hospitals, prisons and community centres, in the partner countries to investigate the following issues:

- a. The different ways in which ICT is used to support learning, particularly by disabled people, in their organisations,
- b. What they consider good and bad practice and how this good practice is illustrated in their organisations,

- c. The ways in which ICT is made accessible and useable to disabled adults. This should include the use of assistive learning solutions designed specifically for (particular groups of) disabled people and learning for all approaches,
- d. Pedagogical, methodological and end-user issues relating to the use of ICT to support learning by disabled adults, including the ways in which ICT can be used to increase rather than reduce the inclusion of disabled learners.

All surveys were carried out in the national language and obtained both qualitative and quantitative data. This material was translated into English for discussion by the Network Partners using the networking tools.

1.2 Online Questionnaire

An online questionnaire was developed by WP2 leader HTW Berlin (P3). The questionnaire is presented on LimeSurvey (<u>http://www.limesurvey.org/</u>) and consists of 48 systematic questions that can be grouped in seven principal sections in order for the Network to systematically collect data on the use of different types of learning technologies. The questionnaire was developed in close cooperation with University of Glasgow (P5) and installed on a server at the site of FTB Volmarstein (P9) for online use. An English and a German version are available via the following URLs;

- <u>http://umfrage.ftb-net.de/limesurvey/index.php?sid=52659&newtest=Y&lang=en</u>

- http://umfrage.ftb-net.de/limesurvey/index.php?sid=52659&newtest=Y&lang=de.

The written questionnaire was translated by partners into Slovenian, Lithuanian, Polish, and Serbian language; other partners mainly used telephone interviews.

The questionnaire has been drawn up to support the collection of this information. It is anonymous and does not contain personal information that could be used to identify the contributors, with the exception of the name of the contributing organization. The seven major sections of the questionnaire are:

- Section 1: Basic details of learning technology or tool
- Section 2: Target end-users of this technology
- Section 3. Knowledge and skills required for the use of the tool
- Section 4: Training and documentation
- Section 5: Accessibility features and customization
- Section 6: Evaluation
- Section 7: Any other comments

The function of the questionnaire is to gather as much structured detailed information as possible on the tools/technologies and on their use, and to combine this information with evaluations by the end users or user groups when available. Partners can include information and evaluation results of the ICT tools online during the lifetime of the project, which they may have been gathering, for example, in round table or individual discussions.

A first final deadline for inclusion of the state-of-the-art results was set to the end of February 2013 in order to compile this deliverable, but the websites will remain open for further input during the lifetime of the project in order to complete deliverable D2.4 by the end of the project ("ICT to support lifelong learning by disabled people: innovations over the project lifetime"). The questions/requests stated in the questionnaire are in brief:

Section 1: Basic details of learning technology or tool

- 1.1 Name of learning technology or tool
- 1.2 Please provide a brief statement of what the learning technology or tool does and what sort of technologies it involves.
- 1.3 Type of learning support the tool can be used in
- 1.4 Type of learning setting the tool can be used in
- 1.5a Main subjects the tool be used with
- 1.5b Indicate the topics if the tool is suitable for only some of the topics above.
- 1.6 Most suitable learning level of the subjects for the users

Section 2: Target end-users of this technology

- 2.1 For what ages is the tool suitable
- 2.2 Is the tool equally suitable for women and men?
- 2.3 Is the tool suitable for both disabled and non-disabled students?
- 2.4 Is the tool suitable for a particular group or groups of disabled students?
- 2.5 Suitability for learners with a particular learning style
- 2.5 Possible cultural assumptions
- 2.6 Suitability for minority racial or cultural groups?
- 2.7 Suitability for people with particular interests or hobbies?
- 2.8 Other factors which may affect the target end-users.

Section 3: Knowledge and skills required for tool use

- 3.1 Required level of ICT knowledge by users of the tool
- 3.2 Required knowledge of the language by users of the tool
- 3.3 Required level of subject specific knowledge by users of the tool
- 3.4 Any other required knowledge
- 3.5 Required physical skills
- 3.6 Any other required knowledge

Section 4: Training and documentation

- 4.1 Do you consider that effective and satisfying tool use requires training?
- 4.2 Is any training provided and is it accessible?
- 4.3 Is any documentation available, in what format?

Section 5: Accessibility features and customization

- 5.1 Are there any customization options e.g. the ability to alter features
- 5.2 Can the tool be used with assistive input devices e.g. on-screen keyboard or switch?
- 5.3 Can the tool be used with assistive output devices e.g. screen reader
- 5.4 Are you aware of any accessibility problems for disabled users using the tool?

Section 6: Evaluation

- 6.1 Please provide any evaluations of this tool.
- 6.2a Have you used the tool by yourself?
- 6.2b Are you a disabled person, a teacher or tutor, an adviser for disabled students, an educational expert, the parent of a disabled person, other?
- 6.3 How easy the tool is to use?
- 6.4 Are there any accessibility problems?
- 6.5 How well does the tool teach the intended material?
- 6.6 To what extend did you enjoy using the tool?

Section 7: Any other comments

The questionnaire has been used to continuously draw up our user-evaluated database of currently 153 ICT learning technologies or tools, and to design specific statistics for comparison, and draw conclusions, where possible. In the following section, such comparisons, possibilities or hints for modifications are made and shown alongside a consideration of factors like gender, ethnicity, language, or nationality. Appendix C shows the detailed questionnaires in English, German, and Polish.

2. Statistics on Data and Data Collection

From the 153 valid ICT tools reported to date by the partners, the average number of tools submitted per partner is nine with four partners above average. There is little overlap of the tools presented from different countries, namely between the programs i) JAWS, a screen reader often used in the blind community, and ii) KON-Zen, a software for the training of cognitive skills and concentration. Most tools were reported only by a single partner and many were reported to be usable in other languages or countries with a clear focus on English. It is therefore difficult to estimate cultural influences on the user evaluations across cultures or countries, and the report will focus on statistics concerning the collected tools.

2.1 ICT Tools or Websites with Tools

The summary of the types and tools collected in the database is presented in table 2.1. The full list is presented in appendix A, which shows the list of all collected ICT tools in alphabetical order together with a brief description; at present, the database is with 153 entries and 151 different tools so large that it is not possible to present all details, descriptions, and evaluations of the collection in one table.

Table 2.1 is the result of an initial trawl of the database that presents an overview; more analytic information will be provided after the categorization of the data in WP3.

Table 2.1 Quick summary of the types of tools collected in the database

Types of Tools	Frequency
	in Database
Information or teaching materials aimed solely at disabled people	16%
Curriculum materials (inclusive but not aimed solely at disabled people)	13%
Communication aids including synthetic and text-to-speech	13%
Accessible documents and alternative formats (eg DAISY)	12%
Dictionaries and translators, including Sign Language	9%
Learning Management Systems	5%
Classroom and Lecture tools (for student: eg note taking)	5%
Computer input tools	4%
Screen readers	4%
E-learning creation or presentation software	3%
Literacy and grammar aids	3%
Reminders and memory aids	2%
Collections of useful software (eg memory stick collections)	2%
iPads	2%
Accessibility analytics and metadata aids	2%
Other	5%

2.2 Types of Impairments

Table 2.2 presents a breakdown of the types of beneficiary impairments mentioned in the questionnaire; it is the result of an initial trawl of the database that presents an overview; more analytic information will be provided after the categorization of the data in WP3

Table 2.2 Quick summary of the types of impairment beneficiaries mentioned in the database entries

Type of impairment	Frequency as Beneficiary in Database
Blind and Visual Impairment	27%
Deaf and Hard Of Hearing	18%
Dyslexia, Cognitive Impairment and Learning Disability *	13%
All Disabilities	13%
Learning Difficulty, Intellectual Disability, Down's Syndrome *	11%
Mobility, Dexterity and Physical Impairments	6%
Print Impairment (Blind, VI, Dyslexia, Dexterity)	4%
Autism and Asperger's Syndrome	4%
Speech and Communication	2%
None Stated	2%

Further work shall be carried out in WP3 to separate tools aimed at people with dyslexia and people with intellectual and developmental disabilities, because terms like "Learning difficulty", "Learning disability" and "Cognitive impairment" have been entered to describe both groups in the database entries.

2.3 Education Subjects

The frequency of education subjects in the database is shown in Appendix B. Figure 2.1 below illustrates the most popular subjects (in percentages of the complete list of collected ICT tools). The majority of collected tools is concerned with mathematics, languages, chemistry, and geography and was evaluated by teachers or single users. Other topics include tools for carpenters, tailors, painters, metal workers, hotel workers and other specialties of vocational school, Braille, chemistry for deaf or hard of hearing students, Lithuanian spoken language words and LSL words, computer games design, computer games programming, web programming, e-mail, Estonian grammar, Estonian ortography, European Computer Driving Licence (ECDL) certificate, counselling of students and unemployed deaf people, tools for peoples with movement disability, for deaf, for parents of pupils with mental disability, fields like history, physics, ancient Greek, ICT, active citizenship, employability, Italian sign language, joystick coordination, controlling of e-powered wheelchair, biology, politics, religion, arts, physics, sports, medicine, law, psichology, international words, mathematics for deaf or hard of hearing persons, general problems in communication

and learning, sign language, software iused for text reading from the computer screen, storagement logistics or warehouse logistics, trilingual Greek sign language (GSL), a Greek – English dictionary, an authoring tool for writing help programs based on PROBAT search mask, lessions for MS Office, Estonian, English, motivation for learning, concentration training for persons with learning deficits, a Finnish state-owned special library which produces and provides literature in accessible formats for people who are unable to read standard printed books, including visually impaired persons, persons suffering from dyslexia and learning disabilities, developmental disabilities and muscular diseases; special vocational education, signs and labels, speech production, phonetics, and hearing by doing.





The proportions of tools associated with each education subject are shown in Table 2.3. In each category there are other, less frequent subjects, as well as many tools with no specific subject given.

Table 2.3: Levels of education required for the tools focused on specific
subjects.

Level	Geogr aphy	Mathe matics	Langu ages	Chem	Other subject s	No specific subiect
Level 1 (Primary, 1 st stage of						,
basic education)	6%	6%	29%		41%	18%
Level 2 (Lower Secondary, 2 nd						
stage of basic education			22%		50%	28%
Level 3 (Upper Secondary)		12%		12%	13%	63%
Level 4 (Post-Secondary, Non-						
Tertiary)					50%	50%
Level 5 (Higher Education)					30%	70%
Not Known		1%	11%		23%	65%

Table 2.4 shows the number of ICT tools associated with levels of education and to specific groups of users, taking all database entries into account, i.e. also multiple entries for a tool from different partners. Among the tools designed for a specific user group, the most frequent ones were aimed at blind or visually impaired and deaf or hard-of-hearing persons. There were also substantial numbers of tools aimed at users with autistic spectrum disorders, with print impairment, with dyslexia, with mobility and dexterity impairments, and with learning (intellectual) disabilities.

Table 2.4 Proportion of database entries designed for a specific user group, per education level.

		No of
Educational Level	Response	Responses
Level 1 (17 total)	Not stated	5
	Design for all	6
	Design for specific user group	6
Level 2 (18 total)	Not stated	3
	Design for all	8
	Design for specific user group	7
Level 3 (8 total)	Not stated	6
	Design for all	2
	Design for specific user group	0
Level 4 (2 total)	Not stated	
	Design for all	1
	Design for specific user group	1
Level 5 (10 total)	Not stated	5
	Design for all	4
	Design for specific user group	1
No specific level (94		
total)	Not stated	27
	Design for all	41
	Design for specific user group	26

The number of collected tools relating to different education levels is shown in Figure 2.2 below. For the majority of tools, the education level is unknown or the tool is applicable to all education levels (orange).





Detailed diagrams with education levels referring to main training topics are shown in figures 2.3 a-f.









Fig. 2.3 a, b, c, d, e, f: Main topics in percentages related to education levels 1-5 and no specific level.

The types of learning in relation to the learning levels are shown in Figure 2.4 a, b, c; the relevant choices of the evaluators were i) virtual learning, ii) blended learning, and iii) content sharing. Most of the tools were classified as 'requested level of learning unknown', but there is still a significant variety of associations to specific learning levels for each type of learning. The answers seem to indicate that most of the tools may be used for any learning level or age as long as other requirements are fulfilled as, for instance, accessibility and general intellectual abilities.



Fig. 2.4 a, b, c: Types of learning in relation to the learning levels.

2.4 Other Relevant Data

- Most of the tools may be used for any learning level or age as long as other requirements are fulfilled as, for instance, accessibility and general intellectual abilities.
- Changes and improvements to ICT tools there was a wide range of changes and improvements put forward. These were highly-tool specific and it is not possible to see an emerging pattern.
- Cost most tools were freeware, but others cost up to some hundred € or even approximately 2000€.
- Platforms most tools run on Windows PCs, but there are also some running on Apple or on smartphones under Android.
- Other for many tools, details were supplied for purchasing the tools, website addresses, licenses, and necessary or potential input-output devices.

3. Consideration of Factors like Gender, Culture, and Others

In this section there is a more in-depth consideration of factors such as gender and culture and how they relate to the education and training setting. These factors will be considered in more depth in WP3.

Earlier views of learners as empty slates to be written on have been rejected and it is now recognised that a number of factors affect the learner context (Benson and Samawickrema, 2007; Kirkwood, 2000), motivation and experiences, including the relationship with learning technologies. They include learner characteristics such as gender, ethnicity, race, age, culture, sexual orientation, previous experiences with technology, social and educational background, including the learning institution attended work and power and social, political, economic and cultural influences on students' lives (Benson and Samarawickrema, 2007; Muilenburg and Berge, 2005), as well as learning style and interests. In addition, these factors are likely to interact with each other and with disability. Since the learners' reality is part of the context of their learning experience, learning technology designers should try to perceive the world from the learner's perspective (Marton, 1981) and the use of learning technologies should involve contextually relevant real world tasks (Benson and Samarawickrema, 2007),

While it is generally not possible to totally customise ICT-learning technologies for a particular user, it is possible to take account of gender and other factors in their design and implementation. However, it should also be noted that learners are individuals and do not necessarily always share the ICT-learning technology preferences of their gender, ethnicity, cultural, social class and age group.

There are indications that gender based differences in access to computers and basic skills are decreasing, at least in countries where computers are well-established (Gunn et al., 2003). However, they are likely to still be relevant in countries where computers are less established and amongst older people. Women are more likely to prefer connected learning in groups and collaborative and cooperative learning and men separate and more individualistic learning (Blum, 1999).

Studies indicate that similar gender based interaction, social relationships and inequalities occur in face to face and computer supported learning (Herring, 1997) and that women talk and contribute less frequently, receive less positive feedback for their contributions and use different sources of support from men in computer mediated communication (Barrett and Lally, 1999; Herren 1993; Herring, 1997). Studies have found that male online educational communication tends to be more certain, assertive and slightly arrogant, whereas women tend to be politer, use more elegant language and less slang and provide more personal information and that male styles and domination of communication often silence and exclude women (Blum, 1999).

A combination of literature surveys, studies and interviews indicate that girls and young women prefer (educational) games with story lines based on adventure, friendship and creativity rather than action, violence and playing to win and complicated plots and design assignments to 'rule based die and start over' scenarios. They enjoy exploration of their feelings and problems and other people's reaction to them as people, dislike stereotypes and very 'girly' games, want active tough female characters, the choice of girl and boy main characters and sports, helicopter games and races (Fiore, 1999; AAUW, 2000). Women have been found to prefer 'exploratory and developmental' approaches to technology and men 'practical and instrumental' ones (Gunn et al., 2003).

Women and older students have been found to be more motivated and better at scheduling learning and communicating online and women to generally view more course web pages, attempt more self-assessment quizzes and post and read more bulletin board messages than male students, though young men are more confident about their online learning skills (McSporran and Young, 2001). Wome have been found to have greater computer based anxiety (Durndell and Hagg, 2002) and men higher ratings of perceived usefulness, ease of use and computer self-efficacy and intention to use mobile learning (Wang et al. ,2007). However, self-efficacy and ease of use are more important to women as determinants of e-learning acceptance (Ong and Lai, 2006).

Culture has been recognised as one of the five essential factors in student-centred learning environments and to have a significant role in the design of ICT-based learning systems (Chen et al., 1999). It affects manners and interests and socially

determined ways of thinking and acting and verbal and non-verbal language is an important part of it (Chen et al., 1999).

Culture can be considered to have a number of different dimensions which could affect the use of ICT-based learning systems. They include the collectivist-individual and high-low context dimensions (Hall, 1976; Hofstede, 1980). The collectivistindividual dimension has been defined in terms of the extent to which people prefer to work as individuals or members of a group (Hofsted, 1980). In low context cultures, Germany, the UK and the USA, relatively little time is spent on getting to greeting rituals, becoming acquainted and developing trust before the start of learning activities, but additional information is shared, as it is assumed it is not already known. In high context cultures, such as the Arab countries, the converse is true (Hall 1976; Malhotra et al 1997).

Learning should take account of learners' culturally influenced mental structures, as well as national and regional differences in the use of notation and terminology (Melis et al, 2009). A respectful approach is required to students' cultures which draws on their strengths and challenges their limitations (Gustein et al., 1997). ICT-based learning provides several features which can be used to make learning culturally relevant. In addition, approaches which have worked successfully in traditional learning contexts can be adapted. This could include the use of problems arising from local community situations (Tate, 1995) and the use of active learning approaches and students' cultural and other knowledge to support critical discussion and explanation of subject-based ideas and problems, including verbalising the approaches used to solve problems (Gutstein et al., 1997; Nelson, 1996).

4. Conclusions

One of the major aims of WP2 was to collect and provide data for WP3 "Data Analysis and Evaluation: Principles for the Use of ICT to Support Lifelong Learning by Disabled People and the Future Research Agenda" and WP4 "Data Application: Training, Conference organization and the Future Research Agenda".

As can be seen, there has been a considerable amount of data collected by each partner related to 153 ICT tools for disabled people. At this stage, it has been possible to carry out an initial analysis of a number of factors including type of tool, end user, learning and teaching situation, subjects, accessibility and usability issues, and possible improvements.

This data material is currently being used for WP3 with the following objectives:

 To obtain a methodology for the categorisation and evaluation of ICT to support learning by disabled adults and to apply it to the technologies identified in WP2,

- To identify and publicise good practice in the use of ICT to support learning by disabled adults, including methodological, pedagogical and end-user issues,
- To carry-out a comparative analysis across the Network partner countries of the legislative context and the different pedagogical and methodological approaches.

It is recognised that with 18 months left to go of the project there will be a significant number of tools added to the database so that the final analysis with detailed conclusions will only be complete by the end of the project. This final analysis will be presented at the final ENABLE conference to be held in the York (UK) on June 17-18th, 2014.

References and Appendices

References

- 1 AAUW Educational Foundation Research (2000). Tech-savvy: educating girls in the new computer age. Washington DC: American Association of University Women Educational Foundation.
- 2 Barrett, E. and V. Lally (1999). Gender differences in an online learning environment. J. Computer Assisted Learning, vol. 15, pp. 48-60.
- 3 Benson, R. and G. Samawickrema (2007). Teaching in context: some implications for e-learning design. Proc. Ascilite, Singapore, pp. 61-70.
- 4 Blum, K.B. (1999). Gender differences in asynchronous learning in higher education: learning styles, participation barriers and communication patterns. JALN, vol. 3(1).
- 5 Chen, A-Y., A. Mashhadi, D. Ang and N. Harkrider (1997). Cultural issues in the design of technology-enhanced learning systems. British J. Education Technology, vol. 30(3), pp. 217-230.
- 6 Durndell, A. and Z. Hagg (2002). Computer self efficacy, computer anxiety, attitudes towards the internet and reported experience with the internet, by gender, in an East European sample. Computer in Human Behavior, vol. 18(5), pp. 532-535.
- 7 Fiore, C. (1999). Awakening the tech bug in girls. Learning and Leading with Technology, vol. 26(5), pp. 10-17.
- 8 Gunn, C., M. McSporran, H. Macleod and S. French (2003). Dominant or different? Gender issues in computer supported learning. JALN, vol. 7(1), pp. 14-30.
- 9 Gutstein, E., LipmanP., Hernandez, P. and de los Reyes, R. (1997). Culturally Relevant Mathematics Teaching in a Mexican American Context. Journal for Research in Mathematics Education 28(6), 709-737
- 10Malhotra, A. and M. Mather. 1997. "Do Schooling and Work Empower Women in Developing Countries? Gender and Domestic Decisions in Sri Lanka."Sociological Forum 12(4), p. 599-630
- 11 Marton, F. (1981). Phenomenography describing conceptions of the world around us. Instructional Science, 10(1981), 177-200
- 12 Muilenburg, LY., and Berge, ZL (2005) Student Barriers to Online Learning: A factor analytic study, Distance Education Vol. 26, No. 1, May 2005, pp. 29–48
- 13 Wang, Y. S., Wang, H. Y., & Shee, D. Y. (2007). Measuring e-learning systems success in an organizational context: Scale development and validation. Computers in Human Behavior, 23 (4), 1792-1808.

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Appendix A - List of Collected ICT Tools

No	Name of the ICT tool	Short description
1	10dita	10dita is a free software that allows blind and visually impaired people to use the keyboard
2	A software for speech synthesis in Serbian "AnReader AlfaNum 4.0"	A system for speech synthesis intended particularly for the visually impaired persons. As it supports Microsoft SAPI4 and SAPI5 interface, it can be used in combination with any of the popular screen-reading programs (JAWS, NVDA, Windows Eyes). AnReader has all the functionalities of the AlfaNumTTS system. It allows to choose a speaker, voice speed and altitude, reading of interpunction signs. The latest version 4.0 is functional on 32bit and 64bit versions of Window XP, Windows Vista and Windows 7.
3	ABBYY FINE READER	Optical Character Recognition software which help to scan the printed text materials and convert it into editable text which can be read by using screen readers like JAWS
4	ABCD SW	ABCD SW is an open source software to support teaching low- functioning autistic children; specifically ABCD SW is designed to facilitate the execution of Applied Behavior Analysis (ABA) Intervention with low-functioning autistic children. The SW is based on Augmentative and Alternative Communication (AAC) and Discrete Trial Training (DTT).
5	AccessApps	A collection of Open Source applications that can be run from a memory stick in order to support writing, reading and planning as well as sensory, cognitive, and physical disabilities.
6	AMIS	AMIS is a software program that you can use to read DAISY books. It is self-voicing, meaning that no specialized screen-reading software is needed in order for it to be used by visually impaired people.
7	ATBAR	This provides access for disabled students to EMPTECH database of assistive technology software, around 2,000 packages. This EMPTECH. info database was developed from an earlier EASTON Network which collated a range of assistive software packages with ratings and comments by users and assistive technology practitioners. They also have links with Daily Living Foundation, part of the Easton Network providing advice on disability.
8	ATutor	ATutor is an Open Source Web-based Learning Management System (LMS) used to develop and deliver online courses. Administrators can install or update ATutor in minutes, develop custom themes to give ATutor a new look, and easily extend its functionality with feature modules. Educators can quickly assemble, package, and redistribute Web-based instructional

		content, easily import prepackaged content, and conduct their courses online. Students learn in an accessible, adaptive, social
		learning environment (see: http://elearning-
		india.com/content/view/104/38/)
9		etc., and then navigate, annotate and organise the resulting audio files. It displays audio file segments as coloured bars, offering a visualisation of the recorded audio, and allows users
		to organise the material as required, use colours to highlight structure, create overviews, and listen to the speech at various speeds. The audio can be recorded directly into Audio
		Notetaker or downloaded from a digital recorder or from other sources, such as the internet. It is mainstream software, aimed at journalists, students, lawyers, etc., but it is also widely used
		by people with disabilities.
10	Automatic Structuring Text for Audio Learning System	It is a Web system for transforming digital documents into structured (following the structure of the document) audio podcasts (each one representing a section of the document). The goal is to improve the critical going over phase of learning for blind users. Structured audio podcasts can be loaded on a personal mp3 player and listened anytime and everywhere. The
		system extracts tables from a document and inserts them in a podcast. The system emphasizes also the bold and italic texts inside the original document using sounds before and after the related text to emphasize. Voices of titles associated to each podcast use an opposite gender voice respect to the voice gender chosen by the user. A blind user can understand the topic of a podcast, listening to the first seconds of each podcast, and by means of next/previous track buttons of the mp3 player, the user can skip from a podcast to another on the basis of her/his interest. The tool provides support for Rockbox and DAISY
11	azzapt	azzapt enables you to personalise your documents to suit your
		reading preference and helps you access files on different devices and computer - whether you are trying to read on a mobile phone, a friend's computer or a tablet device. With azzapt you can receive documents automatically converted into e-books, audio versions or simply with a font style, size and colour of your choice.
12	Balabolka	Balabolka is a Text-To-Speech (TTS) program. All computer
		voices installed on the system are available to Balabolka. The on-screen text can be saved as a WAV, MP3, MP4, OGG or WMA file. The program can read the clipboard content, view the text from AZW, CHM, DjVu, DOC, EPUB, FB2, HTML, LIT, MOBI, ODT, PRC, PDF and RTF files, customize font and background color, control reading from the system tray or by the global hotkeys.
13	Blue Sign Translator	Translation from written Italian text to LIS (Lingua Italiana dei Segni - Italian Sign Language) by means of an animated avatar. The avatar can be displayed on a smartphone, on a PC or on a MediaCenter TV.
14	Book4All	This tool provides a semi-automatic support to operators who adapt e-documents for visually impaired students. Book4All can be used to convert a PDF e-book into a more suitable accessible and usable format readable on desktop computer or on mobile devices like XHTML and DAISY.
15	CABito	Information system for people with problems in comprehension of reading and/or text and/or speech. Could be used as information system, talker or educational gateway. Current information and news, speech training and educational films could be arranged displayed with support of text and pictures.

		Assignment of keys necessary for use could be changed in a simple way (besides operation via touchscreen)
16	Celia Library	Celia is a Finnish state-owned special library which produces and provides literature in accessible formats for people who are unable to read standard printed books, due to illness or disability – including visually impaired persons, persons suffering from dyslexia and learning disabilities, developmental disabilities and muscular diseases.
17	Chemistry with signs	Bilingual (written Greek-GSL) educational Software for the teaching of Chemistry on secondary school for the hearing impaired students.
18	Children's Dictionary of Greek Sign Language	Educational support tool for the GSL vocabulary teaching at early stages of primary education
19	ClaroRead	Designed for people with Dyslexia – text to speech live on PC (docs, email, web etc), or whole Document speech output saved as sound file to play back on phone or recorder (not very reliable), spell check with Google© look up facility, images and examples of use; control of text size and fonts and background colors, scanning from paper (if scanner attached) or image PDF and result put directly into Word; text prediction. It is a toolbar that sit alongside other mainstream technology to aid reading and writing. There are additional apps that come with it – one for putting screen color filter on PC, one for cutting pasting text and it records the bibliographic information e.g. which file or web page it came from.
20	DAF Assistant	DAF Assistant implements Delayed Auditory Feedback and Frequency-shifting Auditory Feedback techniques. The software can be used by people with stuttering to control speech fluency, slow down speech rate, increase confidence level and develop good speaking habits. It is application for everyday use, can also be useful in educational settings.
21	Daisy flash-player plextalk Pocket PTP1, version 3.0.	Plextalk is lightweight (110 g - 3,9 ounces), pocket size (112x55x16 mm - 2,2 x 4,4 x 0,6 in) DAISY (digital accessible information system) digital talking books reader, voice and music book recorder. It provides means for recording and playing of multimedia contents. Also, it can be used in a wide spectrum of activities and it's completely accessible to visually impaired and persons with learning disabilities. Furthermore, this tool some other features, such as: DAISY books playback (recorded in DAISY 2.02 and 3.0 standards); DAISY books, music and voice recorder according to 2.02 standard, mono or stereo; voice recorder with DAISY navigation; text HTML reproduction by built-in text to speech support; voice reminders recorder; player of MP3 files; AMR-WB+; OGG worbis; WMA and Wave PCM music and sound recordings; supports variable SD, SDHC cards and USB memories up to 32 GB; transferring content from PTR1 and PTR2 (book in DAISY format on a CD, for example) and from the other USB devices without computer. It has built-in high quality microphone and a speaker, supply line for external microphone, line in and line out ports, stereo headphones connection, rechargeable battery (can be charged by AC adapter or USB).
22	Definition dictionaries of Lithuanian sign language	15 dictionaries in Lithuanian Sign Language, available on CD and online.

23	Dialogo Attivo	This software allows the users with cognitive deficits, motor
		PC through the voice. The SW requires the Windows XP
		Operating System and the Service Pack 2 or 3, a professional
		microphone and a professional sound card. It is endowed with a
		voice-independent speech recognizer and a speech synthesis
		by disabilities improving the life guality and the social
		integration.
24	DIOLKOS	The DIOLKOS training software provides educational content
		for basic computer skills (7 ECDL topics) with 350 trilingual
		terminology items and 650 demonstrators of term usage,
		thematic units
25	DiPerLis	This self-learning software allows teachers, specialized
		communication assistants and parents of deaf persons to learn
		the Italian Sign Language (LIS). It endows with didactic modules
26	Dragon Distate	and exercises.
26	Dragon Dictate	enabling pc-operation with speech input
27	DSpeech	DSpeech is a TTS (Text To Speech) program with functionality
27	Dopeech	of ASR (Automatic Speech Recognition) integrated. It is able to
		read aloud the written text and choose the sentences to be
		pronounced based upon the vocal answers of the user. It is
		specifically designed to quickly and directly provide the
		by this kind of program. In the meantime, the invasiveness and
		resource consumption is minimal. (DSpeech does not install
		itself, is very light, starts in a second and doesn't write anything
		to the registry). Some notable features of DSpeech are: 1.
		Allows you to save the output as a .WAV, .MP3, AAC, WMA or
		combine them, or juxtanose them in order to create dialogues
		between different voices. 3. DSpeech integrates a vocal
		recognition system that, through a simple script language,
		allows you to create interactive dialogues with the user. 4.
		Allows you to configure the voices in an independent way. 5.
		the features of the voices during the playback (speed volume
		and frequency), to insert pauses, emphasize specific words, or
		even to spell them out. 6. Allows you to capture and reproduce
		the content of the ClipBoard. 7. DSpeech is compatible with all
		vocal engines (SAPI 4-5 compliant). 8. Al dialog system. Not
28	e-Book Readers - HEAT	This project evaluated several e-book readers including iPads
20	case study	for use by students with SpLD. The second phase focusses on
	-	iPads as these were found to be the most useful devices.
29	E-learning portal 'How to	Portal provides e-learning material covering various aspects
	get a job?'	which are important when searching for job (writing CV,
		application letter). This information is also translated into
		sovenian sign language. Communication is managed by tools, translated in Slovenian language, as chat videoconference and
		videoforum, where users can record themselves and post
		answers in sign language.
30	eArena	eARena guide the user through 20 training steps concerned
		with better hearing with hearing-aids in divers situations. Each
		exercise requires approx. 30 minutes. The DVD contains the
		everyday sounds, basic auditory skills, word recognition, better

		speech understanding, sound discrimination, speech in noise.
31	Easy E-mail	Easy E-mail is a web based email program, which is simple to use. It has big icons and it allows to add fotos to the address book. Testaccount is online available.
32	Easy ICT - online testing tool of ICT skills	The on-line testing portal for youngsters with intellectual disability to assess their ICT skills. The tool has the following options: Definition of competences, creation of test-questions, assign test-questions to a competence test (a competence test consists of several questions, testing a specific competence), assign the competence test to a candidate. The competence test will be supervised by a coach testing tool which will be used by teachers assessing ICT skills of people with intellectual disabilities as well as for those being in charge of administration of certified examinations.
33	ECDL Educational Site for Deaf	ECDL educational site provides learning material to fulfill the needs of teaching skills required to obtain ECDL certificate. The learning material is prepared in advance with an added sign language interpreter video. The content is organised into four modules or thematic sections, namely: Introduction to Information Technologies, Computer use and file management, Word processing, and Information and communication. In addition to media content, each of the modules included the following basic activities: forum, dictionary and the initial and final examinations to monitor progress of participants.
34	EF-1 Exekutive Funktionen	The program offers diverse set training modules for comprehending reading, action planning, action execution, action control, and working memory (executive functions) and is due to its high demand character especially for vocational rehabilitation (working under time pressure, work despite distractions) suitable.
35	elgg	elgg is a easy to use social networking tool serving as a training tool to give people the opportunity to make first experiences with a social network in a safe and secure environment. There is a Demo login available.
36	ELoQ - E- Learningbasierte Logistik Qualifizierung	Main goal of the project ELoQ is the support of future-oriented education of people with impairments realised by transferable concepts of the application of new media in job-related qualification. Trainees with impairment should get qualified in the field of logistics supported by e-learning. This sould not be a replacement of the regular vocational education but rather expand established training concepts. E-Learning should be established as a component of education also for people with impairments. Main focus of the work in the ELOQ-project is the designing of barrier-free learning content. Barriers-free means that the resulted product is not tailored to a special group, e.g. visually impaired or hard of hearing people. Barriers-free e- learning means that the content and activities could be used by people with impairments in the common way, without particular difficulties and without the need for help. In the process aspects of Universal Design of Learning (UDL) and the Universal Design of Instruction (UDI) will be considered. For sustainable anchoring of the use of e-learning didactic scenarios will be produced, proved and evaluated and the training staff of partners will be qualified respectively. The whole work is accompanied by evaluation and transfer actions. Eloq will develop learning content for education in the field of storage logistics. For this an authoring tool for e-learning content is developed. Barriers-free learning content is developed with this authoring tool. Content will be available free of charge. The authoring tool could also be used. To get an impression how the content is presented in education ELOQ will develop learning

		scenarios. These scenarios will be find in the learn management system Moodle, which was adapted for the project.
37	Essential Estonian Dictionary	Online Estonian language dictionary contains more than 150 000 entries. It is descriptive dictionary not prescriptive.
38	Estonian TTS (Text-to- Speech) synthesizer	Estonian Text-to-Speech synthesizer for blind people. It provides easy access to the electronic information and internet- based services. The speech synthesizer converts text information on the computer screen to an audible speech signal and supports communication with a computer.
39	Excel-Seite	Suggestions, exercises and solutions for successful working with Microsoft Excel
40	Eye-blink controlled Human-Computer Interface (b-Link)	The developed vision-based eye-blink controlled human- computer interface automatically detects the eye blinks of a person sitting in front of the monitor and gives a user a possibility to communicate with the computer by making intentional blinks. System is built from off-the-shelf components: web camera and a PC computer. It is designed for the disabled, paralyzed persons, who are not able to use typical user interfaces such as keyboard or mouse. It offers the following functionality: - loading and navigating web pages; - controlling mouse cursor and emulating keyboard and mouse keys; - entering text to arbitrary text editor, spreadsheet or messenger.
41	Freshminder 2	Freshminder 2 trains short and long term memory, concentration, selective attention, auditory and visual perception, logical and goal-oriented thinking, reaction and word memory. It uses 14 training modules and numerous single tasks, e.g., face recognition, searching and comparing symbols, pathfinder, search for the beginnings of words, etc. The degree of challenge adapts automatically to the reactions of the user, the user feedback can be integrated via speech output, statistics on individual performance are calculated and can be printed.
42	Game Mate	Game Mate is a Speech Recognition software for Italian language which allows users to press keyboard keys combinations by means of voice. It comes with a setup phase in which the user can associate combination of keyboard keys to voice commands associated to digits from 0 to 9. The system is pre-trained so that it can be directly used once the keys have been setup. The voice recognizer will provide to press the keys on behalf of the user. The software interacts with the Operating System in order to emulate the keyboard. The applications of this platform can vary from Videogames to standard programs which need complex keys combinations to be pressed. Feedback was supplied on the forum by disabled people which found the tool very helpful.
43	Getting Started with Computers	Getting Started with Computers is a learning program to support people with learning disabilities in their first steps using a computer. It was developed during the EU project "online" www.on-line-on.eu This learning program helps people without any experiences with computers to make their first steps. It starts with a chapter about the mouse and leads up with first steps using the internet. It was developed during the EU Project online. www.on-line- on.eu
44	Ginger	Ginger is a suite of tools that enables users to write texts in English and ensure they are error-free. It corrects grammatical errors, misused words, and spelling mistakes, and uses high- quality text-to-speech to allow users to check pronunciation and

		hear how the corrected version of a text sounds compared to the original. Each word is highlighted as it is read. The developers claim that Ginger is more accurate and useful than rival software because it uses NLP to analyse sentences in order to establish the correct context for each word. The suite of tools includes an English Tutor which identifies writing mistakes (in any application) and indicates which English topics the user needs to practice. Also included are multi-media lessons on grammar, etc., and a series of quizzes to test knowledge. For use as a teaching tool, Ginger can provide reports detailing the progress of each learner. These reports allow teachers to track and analyze each student's progress, modify learning assistance when necessary, and compare and evaluate different methods of instruction.
45	Global AutoCorrect	The software automatically corrects the user's spelling as they type in any program. It is designed for people with dyslexia and literacy issues, but also used by non-disabled people. Could use it to expand words. but not choices. Leaves for you if unsure. Can override if disagree. Dialogue box – gives choices.
46	Goodfeel	Goodfeel is a suite of programmes that enables music teachers and students, both blind and sighted, to prepare Braille music scores. Lime, a music notation editor, makes it possible to create Braille music scores without knowledge of Braille or Braille music notation. Lime Aloud works with screen-readers, allowing blind students and musicians to create their own scores. Printed scores can be scanned into Lime using SharpEye. Music scores can also be imported into Lime from other formats, including Finale, Sibelius, MusicXML and MIDI: libraries of music scores in these formats are accessible via the internet. The MIDI compatibility also allows musicians to create scores by playing a MIDI instrument, such as a synthesiser.
47	Hanna & Co	Hanna & Co is a software on PC with a large variety of exercises for people with weaknesses in reading and writing. It had been developed specifically for children but can well be used for persons with learning or mental disabilities. It contains the words known in basic school class 2 in a large number of sentences, stories, including the respective audio files.
48	HIPERMEDIA BASED VIRTUAL LECTURE ROOM	Web app that allows students with special needs to watch lectures over the internet in an adapted way. With this app the student is able not only to listen to lectures live, but also has the opportunity to listen to lectures later. It consists of the following elements: - video and sound of the professor who teaches in the real classroom - visual subtitles for students with lack in hearing - lectures presented in sign language - audio subtitles for students with blindness or low vision - a table of contents - presentation slides
49	Hitachi StarBoard FX-77- Duo Interactive White Board	Hitachi StarBoard FX-77-Duo is a interactive whiteboard with a great viewing comfort, 77 inches effective screen size, and over 5,000 learning objects: ready-to-go templates, graphs, maps, clip arts, math tools, science diagrams, and more. It supports sharing, saving and printing work in many universal file formats: PDF, JPEG, HTML. It has standard options for object management such as undo, redo, cut, copy, and paste. Connects to computer via USB 1.1 or 2.0 ports, working on Windows 2000, XP and Vista operating systems.
51	I. Computer software for learning of Lithuanian sign language	Computer based learning program for dactylic learning of sign language.

52	IBM SpeechViewerTM III	Program provides audio and video feedback of person's voice. In this way person can monitor and gain control over such speech attributes as voicing, pitch, loudness, phoneme accuracy, and speech timing. The aim is to repeat the sounds and words as similar as one can. SpeechViewer III (SPV III) consists of: • Speech exercises • Clinical management functions for keeping client records
33	CERAMIC DESIGN	recorded in audio and video form. Video lectures are equipped with subtitles and translated into sign language.
54	Impara Braille	The aim of the free SW Impara Braille is to allow people to learn the Braille. It is useful for teachers and parents of blind people.
55	In-Folio (Accessible e- Portofolio system	E-portfolios are widely used across all areas of education. An e- portfolio is a way for people with a learning difficulty or disability to demonstrate their skills, interests and support needs whilst at the same time building their self-esteem and confidence. Research had shown that none of the existing e-portfolios were accessible to many users with a learning difficulty or disability. The first phase of In-Folio saw design of the prototype interface with a switch access facility, a gallery of images and objects, both assisted and graphical log on mechanisms and models showing the proposed text-to-speech and administration facility. This was tested extensively with the four colleges involved within the development team These are the basic elements in an application that will provide a simple robust application capable of being 'tuned' to suit the level of the user. The objective was to have a model based on the 'loose-leaf binder' approach, able to be set so that it has a variety of folders available to the user or just one. The structure of each installation can be decided by the college to suit their students' needs. Students can add content to their pages by uploading themselves or by choosing from a gallery of materials. The application is as accessible as possible with systems to allow easy logging on and the self-voicing of content and navigation for the learner.
56	InBook	InBook is a training platform for social networking activity. The InBook project aims to have a more controlled (limited access) membership To be used in both a classroom environment and more widely Be a training tool for establishing the principles of safe social networking Provide much of the familiar web 2.0 functions Provide a forum for e-safety discussions
57	Inspiration	Visualisation tool; users can make notes, organise and link them, create diagrams, use built-in symbols as mnemonics, and combine the results into presentations, reports, etc.
58	INTERACTIVE GAMES BIM BAM	Simple interactive games for solving easy mathematical (counting) or language (recognising the word) problems. Games are originally designed for children with no disabilities that are older than 5. Instructions are in audio and video form. For each step a person get an immediate feedback.
59	Interactive Promethean Board	The interactive promethean board is used primarily to display video, images and websites, which form the basis for class discussion. It can also be used for interactive activities in a range of ways, most recently using the Boardmaker software, which for example I have used to design a number of matching activities, and have also used to create a graph for recording data gathered in a student survey.
60	iPad	An iPad is a tablet computer designed and developed by Apple Inc. It is a cross between the Smartphone and the laptop in that it is a platform for audio and visual media and runs the same

		operating system as the iPhone. It features a touch-screen control as well as a virtual onscreen keyboard and accesses the internet via the Wi-Fi connection. The iPad is a mainstream technology that has many inbuilt assistive technologies that many people are not aware of. Further to this there is the opportunity to download many applications and attach through Bluetooth technology devices to enhance accessibility such as a Braille display.
61	iPads as e-book readers	
62	ISheds- HOME OF DYSLEXIA SUPPORT FOR STUDENTS IN THE BALKANS AND CENTRAL EUROPE	Web site provides information for students with dyslexia and their professors. It also contains self-assessment tool, free online concept mapping, free online reminders system and policy reviews.
63	IVA - Web-based learning management system	IVA is a Web-based learning management system, which is developed in Tallinn Pedagogical University in order to advocate constructivist approaches and practices in e-learning. IVA is a modification of another open-source Zope product called Fle3.
64	Ivona Text to Speech (Accessibility package)	Speech synthesizer, naturally reading voices package, and screen reader. Many options for various users.
65	JAWS 13 Screen reader	JAWS 13 is used for reading text from the computer screen.
66	JAWS for Windows	JAWS monitors user activity on the computer (pressed buttons and controls) and reads the content of the screen. User activity and the content of the screen are turned into text and sent to braille display or speech synthesizer. With this app people are always aware of what they are doing on the computer.
67	Kajetek SD	Braille note taker with speech output. It let to lear Braille alphabet, Mathematics (calculator), take notes, read txt books files, listen to audio books, exchange notes on SD cards. It also has additional functions: radio, colours indication, date, clock, stop-watch, timer, dictaphone, mp3 player, Daisy books player, remote control.
68	Kako do prijaznejšega študija za študente s posebnimi potrebami?	Web site contains video lectures for professors that have contact with university students with special needs. The site provides general information on lecture adaptation as well as specific information about disorders (e.g. students with mental disorders).
69	Klawiatura	Online programme for learning how to use a computer keyboard, accessible and mainly used by blind and partially sighted persons. At any moment, the student can check the number of errors and the speed of writing.
70	klikin	Klikin is an easy-to-use Web 2.0 package for creating personal rich media websites. It is part of the EU Project "W2ID". It is a unique peer-learning network that enables people to build and share personal experiences, knowledge and information. Klikin uses photographs, video, audio, graphics and simple text to communicate and share ideas. It has been developed with people with intellectual disabilities and tried and tested in European countries by organisations who specialise in education, care and support.
71	NUN-ZEN	in thinking in general. After presentation of specific complex patterns, also simple numbers or letters, in different colours,

		tasks like quick sorting or finding of pairs must be solved. The training effects are related to an improvement of cognitive skills in general, of optical differentiation, concentration, spacial imagination, and short-time memory.
72	KON-ZEN 2.0	In three different game modes - "Fast Mapping", "Find couples" and "Fast figures" - skills such as visual differentiation, room location, Short-term memory, attention and concentration are trained and improved. The program is characterized by a highly differentiated adjustability of the material and the degree of difficulty and aimed at children, teenagers and adults who want to train their visual and cognitive skills.
73	Kurzweil 1000	The SW allows the users to read, study and write texts through the use of speech synthesis
74	Kurzweil 3000	The SW allows the users to read, study and write texts through the use of multiple functions like speech synthesis, notes, highlighters etc.
75	learning and mobility	Purpose of learning outside of the classroom ('from desk to outside learning')
76	Leksykonia – computer dictionaries	Bilingual dictionaries. Etery dictionary is on CD-rom. After installing it, the user doesn't need the CD. On the web site there is a demonstration version possible to download. For some languages few dictionaries are available, including with specialized vocabulary, e.g. computer, science, economics.
77	LIPPS	LIPPS is a computer animation programme presenting a speaking face that communicates with the user. An embedded dialogue system enables the user to start (audio-visual) dialogues with the system. There are in principle no text limitations since the animation is model-driven from the input of the user, and the user can react to the output of the system. While communicating, the user may ask for help or a different argumentation and thereby trains his abilities for speechreading.
78	Lithuanian Sign Language ICT Grammar	Explanation of the difference between Lithuanian spoken language words and words- signs of LSL. Explanation given in sign as video for Deaf people.
79	Livescribe Smartpen	Captures audio (e.g., lecture or conversation) while user writes on special paper. Running pen over (e.g.) a word causes the pen to replay audio recorded whilst that word was being written.
80	Mahara e-portfolio	Sees class for 2 hours a week. Log what has been done during the week and maintain contact with tutor. Also for collaborative working.
81	Math lexicon for Estonian Schools	Android application "Lexicon of Mathematics" for Estonian primary and secondary schools. The program contains all necessary formulas, figures and tables with brief explanations for required curriculum. The materials are divided into classes and courses, which make it easy to find necessary information. Features: •All required materials with figures and explanations for primary and secondary school level •Simple, but powerful search functionality •All the materials are stored locally in the phone
82	Markeno ta Noimata 1 (MtN 1) - (Learn the Signs 1)	Educational environment allowing for development of Sign Formation mechanisms and vocabulary teaching for the Greek Sign Language (GSL).
83	Max DaisyPlayer	Max DaisyPlayer is a software program that you can use to read DAISY books. It is self-voicing, meaning that no specialized screen-reading software is needed in order for it to be used by visually impaired people.
84	Moodle	Moodle is a software package for producing internet-based courses and web sites (Open Source Web-based Learning Management System (LMS). Moodle's basic structure is organised around courses. These are basically pages or areas within Moodle where teachers can present their learning resources and activities to students. They can have different layouts but they usually include a number of central sections where materials are displayed and side blocks offering extra features or information. Courses can contain content for a year's studies, a single session or any other variants depending on the teacher or establishment. They can be used by one teacher or shared by a group of teachers. How students enroll on courses depends on the establishment; for example, they can self-enroll, be enrolled manually by their teacher or automatically by the administrator. Courses are organised into categories. Everyone who logs into Moodle has no special privileges until they are allocated roles (e.g. as student or teacher) by the administrator according to their needs in individual courses or contexts. Some typical features of Moodle are: Assignment submission, discussion forum, file download, grading Moodle instant messages, online calendar, online news and announcement (college and course level), and nline quiz.
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85	MQAS ORANGE	This tool is a development tool for teaching staff to ensure that their courses are developed in such a way that students using assistive technologies can have seamless access.
86	Multimedialna Encyklopedia Geografii Europy - Multimedial encyclopedia of geography of Europe	Full version of encyclopedia contains: computer programme adapted to blind users, Braille book with maps of European countries and Braille book with their flags. Demonstration version is just the programme with the possibility of open it 15 times on one computer. Encyclopedia contains information about 46 European countries: their monuments, principal cities etc. and 3 quizzes.
87	MULTITEXT	Software for communication and education: writing, calculation, speaking, executing scanned formulary. Optional: with build-in onscreen-keyboard with word prediction (adapter available for operation with 1 - 5 switches) or/and with built-in speech- synthesizer for communication. Simplified word-processor equipped with most important functions of word-processing- software. Many handicapped accessible functions for creating text, for illustration and calculation of arithmetic problems, completing forms, drawing, displaying of music notes.
88	MUSKAT	MUSKAT is a software programme for hard-of-hearing users or persons with sudden deafness, aiming to improve communication and speechreading skills. It presents a set of communication strategies based on a diversity of different exercises in different situations of life.
89	MyStudyBar	MyStudyBar is designed to help overcome problems that students commonly experience with studying, reading and writing. It is aimed at learners with literacy-related difficulties such as dyslexia, but can also be useful for mainstream learners. It consists of set of applications including: a tool for planning and organization; a tool for customising font and background colours; a talking dictionary; a typing assistant with word-prediction to help with text input; a text-to-audio converter; and a speech-to-text application. The tools are combined into one package with an easy-to-use interface. MyStudyBar can be stored and loaded from USB-stick, allowing users to work with a familiar learning environment on all the computers they use.
90	Napo CD	Computer animation with characters acting in dangerous work environments. The hero Napo is managing these situations.

		The SW can be adapted to a large number of European languages, even though the characters themselves use interjections for communication rather than any language.
91	Nessy	Nessy educational software for children aims to rebuild self confidence, rediscover self esteem and establish a love of learning.
92	NOEMA	3.000 signs and their equivalent lemmas in Greek, GSL Antonyms and Synonyms, explanation of concepts, over 1.200 icons, search options by means of written Greek, GSL hand shapes and semantic categories, bilingual use instructions, bilingual presentation of GSL grammar and vocabulary main elements.
93	NVDA	screen reader for the Microsoft Windows operating system. Providing feedback via synthetic speech and Braille
94	OASES	The Online Accessibility Self Evaluation Service (OASES) allows you to benchmark your organisation's accessibility practices to widely accepted 'reasonable adjustment' recommendations as well as the practice within other institutions. The service is quick, free and anonymous.
95	OCT program for learning of Lithuanian Sign Language	Online learning tool
96	odt2braille	odt2braille provides automatic Braille transcription of OpenDocument Text (ODT) files. Documents can be printed with a Braille embosser, or they can be exported to various Braille file formats. The user has full control over the Braille layout, just like he has over the normal print layout. odt2braille is an extension for Writer, the word-processing part of the office suites OpenOffice.org and LibreOffice. All functionality is embedded in the authoring environment itself. The goal of this approach is to make Braille available to anyone who knows how to use a word processor.
97	odt2daisy	Odt2daisy is an OpenOffice.org Writer extension, enabling to export in DAISY 3 format, including support of Mathematical content conforming to the MathML standard. DAISY is an NISO Z39.86 standard for blind, visual impaired, print-disabled, and learning-disabled people
98	online English-Estonian Dictionary	Online English-Estonian language contains more than 90 000 English words and expressions. The initial goal was to use it as the online translator.
99	ÕS - Estonian Grammar Dictionary (online)	Estonian Grammar Dictionary is the online dictionary - the basis of normative Estonian written language.
100	Рароо	Content management system (CMS) with an accessible administration design for the frontend and backend, easier to operate than most CMS. Project and other homepages can easily be administrated by impaired people.
101	Papunet Games	Games, exercises and stories for people of different ages have been collected on this site. The games can be played as pastime learning and entertainment, and they can also be used in rehabilitation or teaching. The games can also serve as tools for practicing interaction and communication skills or communication means that support or substitute speech (augmentative and alternative communication, AAC). This Website was developed by FAIDD - The Finnish Association on Intellectual and Developmental Disabilities (www.faidd.fi)
102	Passport	The Accessibility Passport is a way of encouraging people who commission or design learning objects or software to: Record the quality of their current practice Be guided towards

		better practice More effectively communicate accessibility features to users Get feedback from users Accessibility is	
		not just about standards, it's about how materials get delivered	
		from the user and the deliverer to the commissioners and	
		designers to encourage productive interaction. The Passport is	
		it is carried within the learning object or software. Content	
		developers can sign up to the free accessibility passport	
102	Destriand	generator tool.	
103	Peninena	feedback – create Braille grid for each subject for each course •	
		To organise appointments/calendar/assignments etc Record	
104	Portable Recording	label, stick on item and use Penfriend to read label	
104	Devices (HEAT case	equipment - a Flip Video camera and Pulse SmartPen - to	
	study)	evaluate which would be most useful for learners. The Flip	
		video camera is a small, portable video camera. The Pulse SmartPen captures audio (such as a lecture or conversation)	
		while the student writes on special paper. The student then taps	
		on an item written in his or her notes to replay the portion of the	
		diagrams. The page is calibrated and synchronized by location	
		to the audio recording.	
105	Prezi	Prezi is a web-based presentation tool using a map layout and	
		of the shortcomings of Microsoft PowerPoint.	
106	Primary School	Visualised mathematics exercises Covers basic algebraic and	
100	Mathematics (Mathimatika	geometric notions. Educational Software for the teaching of	
107	Dimotikou)	Mathematics in primary school (Grades 1 - 6)	
107	PRODAT AULOI	helping-programs based on PROBAT search mask. Operating	
		and input of search topics of the PROBAT search mask is	
		optimised to be displayed on braille-displays. Programming skills are not affordable trainers have only to be familiar with	
		MS Word. The trainer could make the whole administration and	
		organisation of the helping-programm with PROBAT Autor. It is	
		CD (if a CD-writer and programme is available).	
108	PROBAT MS Office XP	PROBAT MS Office XP is a program on CD-ROM. In this tutor	
		programme, there are about 120 lessions for MS Office XP,	
		MS Word. Operating and input of search topics is optimised to	
		be displayed on braille-displays. Lections are about simple	
		macros and more. Main functions of Word. Excel. Internet	
		Explorer and Outlook are described.	
109	Profesor Marcin	Programme to support teaching of global reading of words,	
		small child". The programme shows a picture of a person,	
		animal, activity etc and pronounces the name of this object. On	
		the screen, next to the picture, there is shown a certain number of push-buttons with different words between which there is	
		also the correct word describing the picture and pronounced by	
		the programme. The task is to choose the correct push-button.	
		and the correct one is shown under the picture with red colour.	
		Then the student can continue with next picture. The images	
		are shown at random, so the same image can appear on the screen several times and the student can memorize it. The	
		teacher can reduce the number of keys to one, receiving the	

		classical model proposed by Doman. Increasing the number of keys, the degree of difficulty is bigger. The advantage is to add pictures of animals or persons known by the student. The programme is in exe, so it doesn't need many space. A typical couple sound-picture is about 300 kb.
110	Pulse Smart Pen	• The Pulse SmartPen captures audio (such as a lecture or conversation) while the student writes on special paper. The student then taps on an item written in his or her notes to replay the portion of the audio clip recorded while the student was writing those words or diagrams. The page is calibrated and synchronized by location to the audio recording.
111	RoboBraille	RoboBraille is a free email and web service capable of converting electronic documents into a range of high-quality, alternative formats including Braille, mp3 and Daisy full text/full audio. The service can also be used to convert otherwise inaccessible documents such as image-only PDF-files or scanned documents into more accessible formats.
112	rozsypanka (Scrambled sentences)	Programme supporting learning of reading and active building of sentences. The programme screens a picture with a role play, usually situation or activity, but it can also be person or object. It pronounces a sentence or sentences describing the picture shown on the screen. Next to this picture are screened the words composing the sentence. A student, using computer mouse, has to create the same sentence which was pronounced by the programme. When it's correct, he can continue with the next picture.
113	"Save as DAISY" add-in for Microsoft Office Word	"Save as DAISY" add-in for Microsoft Office Word incorporates a "Lite" version of the DAISY Pipeline. You can select to generate the DAISY XML for further processing, or you can create a fully conforming DAISY file set with full navigation and full text synchronized with audio. The audio is generated by the default text-to-speech (TTS) engine on your Windows computer. When you install the add-in, the DAISY Translator folder is added to your Start menu with the Instruction Manual as well as a Getting Started tutorial. The download is available for both 32- bit and 64-bit Office. You may also want to read a Microsoft article on the topic of choosing a 32-bit or 64-bit Office.
114	See and speak (Ziurek ir kalbek)	Lithuanian sign language learning program include two Lithuanian national fairy tales in pictures and video- visual explanations of signs and phrases
115	Sense Reader	Sense Reader is a full0fledged screen reading software for MS Windows desktop environments.
116	Sicher im Verkehr - Save on the road	The goal of this software programme is to increase road safety for persons with or without cognitive or learning disabilities. The users get to know important vehicles on the road, traffic signs, and traffic rules. They learn how to react in ordinary traffic situations. There a a theoretical part with exercises and a 'practical' one from the perspective of a traffic participant. When the exercises are successfully solved, a 'drivers license' can be printed and handed over to the participant.
117	Skrybot home	Programme to speech recognition. Skrybot recognizes speech and transcribes it into written text. It can transcribe speech and recordings made with Skrybot or another application, e.g. recorded phone calls or lectures.
118	SOFTWARE MULTIMODALE DFB	I his multimodal SW allows to access the same content both in verbal language and in "verbal language for deaf persons" through the use of the Dattilologia Fonologica Bimanuale (DFB). In this way, the deaf students can simultaneously access the same information of hearing students, improving the learning

119 SÖNAR - Estonian Orthography Wizard Sönar is Estonian orthography application for mobile phone. Enables to find quickly appropriate orthography rule. Valuable tool in Estonian language lessons for learning orthography rules and for daily office work to check the orthography of Estonian language. 120 SPEAKING DYNAMICALLY PRO It is a dynamic screen communication software that allows the user to employ a computer as a powerful speech output device. SD Pro can also be used to create interactive educational activities. 121 Specialty students for online tests 122 Sprachlabor - Wissenschaft auf CD The CD demonstrates the influence of coordinated motion of the articulators on the production of speech (signals, sounds) by short and distinct lims. It enables the user to optimize the own articulators on its an international sign language dictionary. American Sign Language and baby signs are also included in this dictionary. The primary objective is to make national sign languages available to people with hearing disabilities, the overall ambition is to make sign languages accessible to everyone. 123 SymWriter SymWriter is a symbol-supported word processor that any writer, regardless of increacy levels, can use to author documents. Writers of any age or ability cause the Widgit Symbols to see the meaning of words as they type, supporting access to new or challenging vocabulary. 126 TechDis Toolbox The TechDis Toolbox us a disord allowing users to learn oser writer, regardless of just-in-time information can be leaving understood and absorbed allowing users to learn somethic symobla tecchonologies and capulains how to get the mosto			and the social integration.	
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	128	The Finnish Deafblind Association; deaf persons' sign languages learning of ICT use and communication	Sign language of ICT and computer use for communication and use of information and learning	

129	Thunder	Thunder is free screen reader talking software for private use for people with little or no sight. User will have full speech feedback for most text-based word processing tasks including editing documents in Microsoft Word, WordPad or Notepad. The software has fully comprehensive user documentation. In the documentation the user will find out how to navigate in the programmes (MS Word and MS Outlook Express) with the screen reader and how to surf the web with the screen reader
130	TOBII COMMUNICATOR	Communicator converts text and symbols into clear speech. It also gives access to environmental and computer control. It enables communication in everyday life, including in educational settings (e.g. communication with professors).
131	Touch-for-Autism (t4A)	t4A is a set of tools and software, specifically developed to be used with the touch and with other natural interfaces, that allows to improve some key factors as learning, communication, personal skills and manage educational software at the service of the individuals with autism, for their parents, for the network of social and health workers and for the school.
132	Travel in nature with signs	Learning and exercise material in the area of Natural History and Human Physiology. Bilingual (written Greek-GSL) educational Software for the teaching of Natural History and Human physiology for the hearing impaired students.
133	Travel in time with signs	Learning and exercise material covering Mythology, ancient Greek History, Byzantine History and modern Greek History. Bilingual (written Greek-GSL) educational Software for the teaching of Mythology and History (Ancient Greek history, Byzantine History, modern Greek History) for the hearing impaired students.
134	Travelling around the globe with signs	Bilingual (written Greek-GSL) educational Software for the teaching of Geography for the hearing impaired students. Learning and exercise material covering the teaching of Geography in primary school
135	UNRIIS web portal- Universal informational system for rehabilitation and integration of disabled	Disabled peoples can find many information, for example people with movement disability can ask municipality for rebuilding their surrounding area and adjusting for the needs of person in wheel cheer. Information about available support centers or hospitals for peoples with arthritis, diabetes, CNS paralysis and many other diseases. Many tools for Deaf peoples.
136	VELOCITy: Video Enhanced Learning Opportunities in Computing and Information Technology	The VELOCITy strategy integrates three approaches to video- enhancement of learning, assessment and feedback. Instructional tutorial videos are employed to scaffold learning, while video-diaries enable learners to generate reflective self- assessment of the development of skills and expertise. A learner-tutor video feedback loop sits at the core of this strategy, with an ongoing, asynchronous conversation around feedback and/or feed-forward facilitating a dialogic approach to learning within a conversational framework.
137	Video Repository	Teaching staff created short 2-4 minute video clips on aspects of British Sign Language (BSL) which could be accessed via YouTube or the University's VLE (Moodle).
138	Virtuelles BBW -DLS DistanceLearningSystem® Version 12.0.5	"Virtuelles BBW" is an E-Learning-mangement-system, specially built and developed for "Berufsbildungswerke" (BBW). It is based on "DLS DistanceLearningSystem®", a browser based E-Learning-magaement system. Features: Forum, E- Mail, News, Chat, Instant Messaging, Hotline or Internet-Phone, Webcam; Word-Documents as whiteboard; virtula conference- room of Learn-Linc (http://www.netucate.com/loesungen/learnlinc.htm)

139	VOGS+Deaf Tandems counseling tool	Tandem is method, created in Austria, when two counselors- Deaf and Hearing- works together and they are counseling Deaf person in the field of vocational orientation and future career.
140	Voice Reader Home	Voice Reader Home is a text to speech program. It converts any kind of text into good quality audio files. Available in up to 15 languages depending on the version.
141	Web based player	Web based player for listening (streaming on downloading) zipped audio books, newspapers and journals.
142	WheelSim	Wheelsim-computer-simulation should support the acquisition of controlling an e-powered wheelchair. Safety to traffic should be raised. (also possible: use as reflex game or because detailed evaluation possibilities in diagnostic and therapy)
143	Widg@t	A toolkit to enable teaching staff to create widgets for learners and allow them to personalise their learning, without the need for specialist technical knowledge.
144	Widgat	A toolkit to enable staff to create widgets for their learners which allow more personalised learning.
145	WIMBA, now re-launched as Blackboard Collaborate	The newly released Blackboard Collaborate, built on Wimba and Elluminate, is a collaboration platform for learning. It provides a virtual classroom, online participation with audio and visual content in a web conferencing environment. It supports chat, face-to-face, audio or text based messaging, podcasts, voice email, vocal feedback to students and certain foreign language assignments. It is designed for all users but has good emphasis on accessibility and users with special needs. Available within a course management system environment, with normal username and logon process. Wimba can be used with a variety of course management systems, including Sakai, Moodle, Desire2Learn, Pearson Learning Studio, Fronter as well as the Blackboard Learn environment.
146	WinLucy	The software was created to enable blind people to use a computer in a "simplified" manner. The blind user interacts with WinLucy thanks to the fact that the program manages a braille display (TouchMe5) and, in case of residual hearing, may also use speech synthesis
147	WriteOn	The tool is aimed at adults who wish to improve their literacy, numeracy and learning skills, including those with SLDs. Users select a literacy level to work towards, a skill category (literacy, numeracy, learning skills), and a topic (e.g., health, sport, technology). They are then presented with a series of questions (mainly write-in, matching and multiple-choice). On completion of a topic a grade is awarded, allowing users to work over time to improve their scores.
148	www.papunet.net	Useful with many kind of material for ICT for people who have problems communication and speaking etc.
149	Xenith	A highly usable, highly accessible interface for navigating content on a variety of devices and platforms. Xenith includes an extensible framework for templates, allowing new templates to easily be added to the system by developers, extending the functionality. There is a wide range of templates supporting different types of media and interactivity. Xenith is a version of Xerte - see other database entry

		http://www.nottingham.ac.uk/xerte/xerte.htm
150	Xerte	Xerte Online Toolkit (XOT) is a free Open Source tool developed by the Information Services team at the University of Nottingham. JISC Techdis has supported development and dissemination of XOT in a range of different ways because: It allows staff with limited technical skills to create rich online content. It can be used: To support distance learning. To support collaborative creation and sharing of subject content. To support active classroom/lecture contexts, especially with interactive whiteboards. To support learners in being active content creators. It has a range of accessibility benefits (colour and font change, keyboard access and text to speech) built into it.
151	Zoom-Ex camera (portable text to speech technology	The Zoom-Ex camera is a small potable camera mounted on a tripod that automatically scans pages, brochures and books. When connected to a computer, with the Zoom-Ex software, the user can listen to the text read back to them in a voice and speed of their choosing. The text can also be enlarged on the computer screen and highlighted as it is read out. The Zoom-Ex camera is a portable OCR scanner, and reader.
152	ZOOMTEXT 10	Magnifying and reading program. It reads all that we touch with cursor.
153	ZoomText Magnifier	ZoomText Magnifier is an advanced screen magnification program that enlarges and enhances everything on the computer screen. The program functions as magnifier. It enlarges the selected part of the screen.

Appendix B - Categories of Subjects Reported in the Survey

The majority of collected tools are concerned with mathematics, languages, chemistry, and geography and were evaluated by teachers or single users:

Categories of subjects reported in the survey
Ancient Greek language
Biology, politics, religion, arts, physics, sports, medicine, law, psichology
Braille
Chemistry for deaf or hard of hearing students
Computer games design
Computer games programming
Counselling of students and unemployed deaf people
Concentration training for persons with learning deficits
E-mail
Estonian
English
Estonian grammar
Estonian ortography
European Computer Driving Licence (ECDL) certificate
Greek – English dictionary
History
International words
ICT, active citizenship, employability
Italian sign language
Joystick coordination
Lithuanian spoken language words and LSL words
Mathematics for deaf or hard of hearing persons
MS Office

Categories of subjects reported in the survey
Phonetics
Physics
Signs and labels
Special vocational education
Speech production
Sign language
Software jused for text reading from the computer series
Software lused for text reading from the computer screen
Storagement logistics or warehouse logistics
Trilingual Greek sign language (GSL)
Web programming

Appendix C - Online Questionnaire (English, German, Polish Versions with Standardized Answers)

The Enable Network is looking at the use of information and communications technologies to support disabled learners, with a particular focus on adult education. Amongst other activities, the network has been collecting data on the use of different types of learning technologies to support disabled learners. This questionnaire has been drawn up to support the collection of this information. It does not contain personal or other information that could be used to identify the contributor with the exception of the name of the organisation. The results of the questionnaire are the basis for our database of ICT learning technologies or tools.



Dear Partner,

This questionnaire with 48 single questions is used for data collection for our ENABLE project. Each of the assistive ICT learning tools or systems that you discover should be described by its own questionnaire. Please focus on **adult education** for people with a lack in hearing, vision, learning, or motion, but also other ages and learning states may be interesting as long as they can be applied to adult education of disabled persons.

Please search for respective state-of-the-art ICT tools or systems that are in practical use (this is the main focus) or are being developed in your own country or neighboring countries. If you find-out about interesting tools used in other countries, please get in contact with the partner in this country (if applicable) and with WP2 leader (bothe@htw-berlin.de), so that we can start a short discussion and do not collect tools multiple times. For data collection, you may directly ask or discuss with single users, teachers, user organizations, by telephone interviews, invited round-table discussions, or other recherches. You are in principle free to explore the tools on your own and use a set of methods of your own choice. Further details can be found in the project application and in the Grant Agreement Annex A, WP2, see attachment.

To acquire and record a learning tool, please choose at first your organization and then continue with the other 47 questions. A question that cannot be answered should be marked with the sign '%'. You may buffer or store temporally a partly or fully filled-in questionnaire (press 'Resume later') before submitting it (press 'Submit'). Please double-check the answers before submitting; after submission, the correction of a questionnaire is not possible. If you need to correct it nevertheless, you must fill-in a new questionnaire and submit it.

There are 48 questions in this survey.

0			
A. Identification			
• A.1 Please select the name of your organisation:			
Choose one of the following answers			
Please choose			
Please choose			
3.0 Title			
* 301 Name or labelling of the tool:			
Answer			
3.1 Type of assistive ICT tool			
* 311 Subject of education			
Choose one of the following answers			
Please choose Please choose			

312 Topic(s) (only if the tool is rfeferring to special topics, e.g. complex algebra, Spanish) Answer 313 "Type of learning setting" Check any that apply □ self-learning / individual learning □ only with teacher □ support for learning groups Other: * 314 Type-in short description Answer 3.2 Target group and end-user factors 321 Type of impairment Answer

* 322 Learning level (ISCED-Level)

Choose one of the following answers

- not known
- independent of any learning level
- Level 0 (pre-primary education)
- Level 1 (primary education: first stage of basic education)

- Level 2 (lower secondary education: second stage of basic education)
- Level 3 ((upper) secondary education
- Level 4 (post-secondary non tertiary education)
- Level 5 (higher education: first stage of tertiary education (not leading directly to an advanced research qualification))
- Level 6 (Second stage of tertiary education (leading to an advanced research qualification))

323 Language skills



324 Specifications about age



* 325 Specifications about gender

Choose one of the following answers

- independent from gender
- rather for female learners
- rather for male learners

326 other gender specific information

Answer

327 Preferred learning approaches

Check any that apply

Virtual learning



_	▼
Answer	

334 Date of launch

Answer

*335a Support available?

Choose one of the following answers

- C yes
- 🗖 no
- not known

335b Details for availability of support

	<u> </u>	
	-	
Answer		

336 Current version

Answer

337 Open source or commercialised?

Choose one of the following answers

•	C Open source
•	commercialised
•	C Other:
•	No answer

338a Costs

- if known, costs of purchase
- if known, costs of running

338b Other information about costs



339b Other producer and contact details



3310 Information about legislation for access and/or use



3.4 Accessibility features

341

Compatibility with other standard ICT (e.g. screen reader)



342 Customisation options (e.g., the ability to turn features on and off, font size or type, audio/visual/audiovisual/text, help)



343a

Choose one of the following answers

- C design for all
- design for a specific group of users



351 Please select operating system(s) and specify if known

Check any that apply

• hei	Windows	Make a comment on your choice
•	Apple	Make a comment on your choice here:
•	Linux	Make a comment on your choice here:
• hei	re:	Make a comment on your choice
• hei	Android	Make a comment on your choice
• hei	Blackberry	Make a comment on your choice
• hei	Symbian	Make a comment on your choice

•	Other:
	352 Memory
	Only numbers may be entered in these fields
•	minimal required random access memory (RAM)
	(MB)
•	minimal required capacity on hard disc (MB)
	353a Necessary input devices
	Check any that apply
	4
•	input device arbitrary
•	keyboard or alternative keyboard obligatory
•	mouse or alternative mouse obligatory
•	Other:
	353b Necessary output device
	Check any that apply
	5
•	output device arbitrary
•	Screen (or screen reader) obligatory
•	speakers obligatory
•	printer obligatory
•	Other:
	354 Conditions of use/licence
	Answer

355

Maintenance

Answer



362 Level of learning subject/topics knowledge



363 Necessary physical skills



364 Necessary other skills



365

Accessibility requirements



366 Requirement for support



3.7 Experience and recommendations

371 Type of evaluator

Choose one of the following answers

•		organisation
•		teacher
•	0	individual user
•		Other:
•	Ø	No answer
	372 Ext	ent of use

		 	 A
			_1
Answer	-		Þ

373 Types of users



374 Evaluations and recommendations



375 Desired improvements



Lieber Partner,

dieser Fragebogen mit 48 einzelnen Fragen dient zur Datenerfassung für unser ENABLE-Projekt. Dabei geht es um begleitende IKT-Tools zum Erlernen bestimmter Fähigkeiten für Menschen mit eingeschränkten Möglichkeiten. Jedes Tool wird durch einen eigenen Fragebogen erfasst. Wir wollen uns hauptsächlich auf **Erwachsenenbildung konzentrieren, aber auch andere Alters- oder Lernstufen außer formaler Schuloder Berufsbildung sind mit gefragt**.

Bitte suchen Sie in Ihrem Land oder in Nachbarländern die wichtigsten Lern-Tools für Menschen mit eingeschränkten Fähigkeiten zu hören, sehen, lernen oder sich zu bewegen.

Wenn Sie interessante Tools aus anderen Ländern finden, dann informieren Sie bitte den entsprechenden Partner aus diesem Land und den WP2-Leiter (bothe@htw-berlin.de).

Die Recherche kann beispielsweise durch Befragung von Einzelnnutzern, Lehrern, Nutzer-Organisationen, durch Telefoninterviews, die Einrichtung von Round-Table-Diskussionen oder sonstige Recherchen erfolgen. Weitere Details und Möglichkeiten finden Sie im Annex A unseres ENABLE-Antrags oder im Grant Agreement jeweils für das WorkPackage 2 (data collection).

Zur Erfassung eines Lerntools wählen Sie bitte zunächst Ihre Organisation mit Partnernummer (P1-P20) aus und beantworten dann die einzelnen Fragen.

Sie können den teilweise oder vollständig ausgefüllten Fragebogen auch zunächst mit 'Später fortfahren' zwischenspeichern. Bevor Sie den Fragebogen absenden ('Absenden'), kontrollieren Sie bitte sorgfältig alle Einträge. Die Korrektur eines abgesendeten Fragebogens ist nicht mehr möglich - sie müssten ihn dann noch einmal ausfüllen und absenden.

Diese Umfrage enthält 48 Fragen.

● A. Identifikation * A.1 Bitte wählen Sie den Namen Ihrer Organisation aus:

Bitte wählen Sie eine der folgenden Antworten:	
Bitte wählen	
Bitte auswählen	▼
3.0 Titel	
* 301 Name oder Bezeichnung des Tools:	

Antwort

3.1 Art des begleitenden ICT Tools

* 311 Lehrgebiet

Bitte wählen Sie eine der folgenden Antworten:

Bitte wählen.

312 Themengebiet

(nur falls sich das Tool auf bestimmte Themengebiete bezieht, z.B. complex algebra, Spanisch)

Antwort

313 Lernumgebung

Bitte wählen Sie einen oder mehrere Punkte aus der Liste aus.

•	Selbstlernen (auch ohne Lehrer möglich) / individuelles Lernen
•	Lernen nur mit Lehrer möglich
•	Lerngruppen unterstützt
•	Sonstiges:
	* 314 Bitte Kurzbeschreibung eingeben

3.2 Zielgruppe und Endanwenderfaktoren

321 Art der Beeinträchtigung



* 322 Learning level



Bitte wählen Sie eine der folgenden Antworten:

- , 🗖 unbekannt
- C Lern-Level-unabhängig
- Level 0 (Vorschulische Erziehung: Kindergarten/Vorschule; 3 6 Jahre)
- Evel 1 (Grundbildung: Grundschule; 6 10 Jahre)
- Level 2 (Sekundarstufe I, i.d.R. Hauptschulabschluss; 10 16 Jahre)
- Level 3 (Sekundarstufe II, Oberstufe: Allgemein- und Berufsbildung bzw. Realschule; 16 - 18 Jahre]
- Level 4 (Postsekundäre Bildung: Berechtigung zu Level 5 durch z.B. Abendgymnasien, Kollegs, Fachoberschulen (1-jährig), Berufs-/Technische Oberschulen,; 19 - 21 Jahre)
- Level 5 (Tertiäre Bildung, erste Stufe: mind. 2-jährige Studiengänge [FH, Uni, Berufsakademie etc.; 19 - 24 Jahre)
- Level 6 (Tertiäre Bildung, Forschungsqualifikation: Promotion/Habilitation; 25 - 29 Jahre)

323 Anforderungen an sprachliche Fähigkeiten



324 Angaben zur Altersgruppe

	-
Antwort	×

* 325 Geschlechtsspezische Angaben

Bitte wählen Sie eine der folgenden Antworten:

- unabhängig vom Geschlecht
 - eher für weibliche Lernende
- eher für männlich Lernende

326 Sonstige geschlechtsspezische Information

Antwort

327 Bevorzugte Lern-Ansätze

Bitte wählen Sie einen oder mehrere Punkte aus der Liste aus.

	12	
•		Virtuelles Lernen
•		Blended Learning
•		Content Sharing
•		Learning Communities
•		Computer-Supported Cooperative Learning
•		Web Based Collaboration
•		Virtuelles Klassenzimmer
•		Whiteboard (Smart Board)
•		Business TV
•		Rapid E-Learning
•		Microlernen



328 Kulturelle Faktoren oder Belange



* 335a Support verfügbar?

Bitte wählen Sie eine der folgenden Antworten:

- 🖸 Nein
- 🖸 Unbekannt

335b Detailangaben zur Verfügbarkeit von Support



336 Gegenwärtige Version

Antwort

337 Open source oder kommerziell?

Bitte wählen Sie eine der folgenden Antworten:

•	C Open Source
•	C kommerziell
•	Sonstiges:
•	keine Antwort
	338a Kosten
•	Wenn bekannt: Anschaffungskosten

Wenn bekannt: Betriebskosten

338b Weitere Information über Kosten



Antwort

339b Sonstige Hersteller- und Kontaktangaben



3310 Information über Zugangs- und/oder Benutzungsrecht



3.4 Zugänglichkeitsmerkmale

341

Kompatibilität mit anderen anderen Standard-ICT (z.B. Screenreader)



342 Anpassungsoptions (z.B.., the ability to turn features on and off, font size or type, audio/visual/audiovisual/text, help)



343a Design für Alle oder Design für bestimmte Benutzergruppe

Bitte wählen Sie eine der folgenden Antworten:

- 🗖 Design für Alle
 - Design f
 ür bestimmte Benutzergruppe

🖸 keine Antwort

3.5 Technische Voraussetzungen

351 Bitte Betriebssystem(e) wählen und falls bekannt Versionsnummern angeben

Bitte wählen Sie einen oder mehrere Punkte aus der Liste aus.

	14
•	Windows Bitte schreiben Sie einen
	Kommentar zu Ihrer Auswahl
•	Apple Bitte schreiben Sie einen Kommentar
	zu Ihrer Auswahl
•	Linux Bitte schreiben Sie einen Kommentar
	zu Ihrer Auswahl
•	iPhone Bitte schreiben Sie einen Kommentar
	zu Ihrer Auswahl
•	Android Bitte schreiben Sie einen
	Kommentar zu Ihrer Auswahl
•	Blackberry Bitte schreiben Sie einen
	Kommentar zu Ihrer Auswahl
•	Symbian Bitte schreiben Sie einen
	Kommentar zu Ihrer Auswahl
•	Sonstiges:

352 Speicherkapazität

In diese Felder dürfen nur Ziffern eingetragen werden.

- minimal erforderlicher Arbeitsspeicher (RAM) (MB)
- minimal erforderliche freie Festplattenkapzität (MB)

353a Notwendige Eingabegeräte

Bitte wählen Sie einen oder mehrere Punkte aus der Liste aus.

	4	
•		bliebiges Eingabegerät
•		Tastatur oder Tastaturersatz zwingend erforderlich
•		Maus oder Mausersatz zwingend erforderlich
•		Sonstiges:

353b Notwendige Ausgabegräte

Bitte wählen Sie einen oder mehrere Punkte aus der Liste aus.







361 Level des ICT-Wissens

		A
		T
Antwort	4	

362 Level des Themenbereichs-Wissens



363 Notwendige körperliche Fähigkeiten



364 Notwendige andere Fähigkeiten



365 Zugänglichkeitsvoraussetzungen



366 Voraussetzungen für Support

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Antwort					
3.7 E	Erfahrungen und Empfehlun	igen			
371 Art des Evaluato	ors				
Bitte wählen Sie eine d	ler folgenden Antworten:				
C Organisation					
C Lehrer					
C einzelner Anw	vender				
Sonstiges:					
C keine Antwor	t				
372 Umfang der Nut	zung				
Antwort	× •				
373 Arten der Nutzer					
Antwort	× •				
374 Bewertungen und Empfehlungen					



375 Erwünschte Verbesserungen

2013-08-05



Powered by LimeSurvey



Sieć Enable – technologie informacyjne i komunikacyjne wspierające edukację osób niepełnosprawnych (Enable Network of ICT supported Learning for Disabled People)

Ankieta

Technologie informacyjne i komunikacyjne stosowane w edukacji

dorosłych osób niepełnosprawnych

Enable to sieć szesnastu partnerów z Europy i czterech spoza Europy, współfinansowana przez agencję Grundtviga w ramach programu "Uczenie się przez całe życie". Celem projektu jest stworzenie bazy danych technologii informacyjnych i komunikacyjnych wykorzystywanych w nauczaniu osób niepełnosprawnych, zwłaszcza dorosłych. Ten kwestionariusz pomoże w stworzeniu bazy. Odpowiedzi prosimy zaznaczać znakiem "x". W kwestionariuszu nie ma żadnych osobistych pytań, które umożliwiłyby identyfikację ankietowanego. Prosimy o odesłanie wypełnionej ankiety na adres: hanna.pasterny@cris.org.pl.

- 1. Nazwa programu lub narzędzia
- 2. Rodzaj pomocy, programu komputerowego lub urządzenia (np. słownik, gra edukacyjna, platforma e-learningowa itp.)

- 3. W nauczaniu jakich przedmiotów narzędzie może być stosowane? Zaznacz wszystkie pasujące odpowiedzi.
 - nie odnosi się do konkretnego przedmiotu
 - języków
 - matematyki
 - biologii
 - chemii
 - fizyki
 - geografii
 - ekonomii
 - nauk politycznych / WOS-u
 - historii
 - filozofii
 - religii
 - sztuki
 - muzyki
 - sportu
 - inny (jaki?)
- 4. Jeśli narzędzie jest przydatne tylko do nauki konkretnych tematów z danych przedmiotów, np. algebry, wskaż te tematy.
- 5. W nauczaniu jakiego typu narzędzie może być pomocne? Zaznacz wszystkie pasujące odpowiedzi.
 - nauczanie indywidualne
 - tylko z nauczycielem
 - uczenie się w grupach
 - inny (jaki?)
- 6. Opisz krótko narzędzie.
- 7. Dla osób z jaką niepełnosprawnością przeznaczone jest narzędzie?
- 8. Dla jakiego poziomu nauczania przeznaczone jest narzędzie?
 - brak informacji
 - niezależnie od poziomu
 - przedszkolnego (poziom 0)
 - podstawowego (poziom 1)
 - gimnazjalnego (poziom 2)
 - licealnego (poziom 3)
 - policealnego (poziom 4)

- wyższego licencjackiego (poziom 5)
- wyższego magisterskiego (poziom 6)
- 9. Jaki poziom znajomości języka powinien mieć użytkownik narzędzia?
 - minimalny
 - podstawowy
 - średni
 - zaawansowany
 - bardzo zaawansowany
- 10. Dla jakiego wieku jest przeznaczone narzędzie?
- 11. Narzędzie jest bardziej odpowiednie dla:
 - -- niezależnie od płci
- -- raczej dla kobiet
- -- raczej dla mężczyzn
 - 12. Jeśli narzędzie jest przeznaczone bardziej dla kobiet lub mężczyzn, na czym polega jego przystosowanie dla jednej płci?
 - 13. Typ nauczania, w jakim narzędzie może być stosowane:
 - nauczanie wirtualne
 - nauczanie kombinowane
 - dzielenie się materiałami dydaktycznymi
 - nauczanie w grupach
 - nauczanie w grupach z wykorzystaniem komputera
 - współpraca w Internecie
 - wirtualna klasa
 - nauczanie z wykorzystaniem tablicy interaktywnej
 - nauczanie przy pomocy audycji telewizyjnych
 - tutoriale (wideoprezentacje, wideocasty i screencasty)
 - microlearning (fiszki, SMS-y, tweety)
 - inny (jaki?)
 - 14. Czynniki kulturowe lub zainteresowania
 - 15. W jakich krajach narzędzie jest dostępne?
 - 16. Język
 - 17. Czy narzędzie może być dostępne w innych krajach lub językach?
- 18. Data wejścia na rynek
- 19. Czy jest dostępne wsparcie/pomoc techniczna?

- tak

- nie
- nie wiem
- 20. Szczegóły dostępności pomocy technicznej, np. telefoniczna, poprzez listę dyskusyjną.
- 21. Obecna wersja
- 22. Narzędzie jest:
 - open source
 - komercyjne
 - inne (jakie?)
 - nie wiem
- 23. Cena programu lub narzędzia
- 24. Koszty eksploatacji
- 25. Inne informacje dotyczące kosztów
- 26. Adres strony internetowej narzędzia
- 27. Dane kontaktowe producenta
- 28. Prawne warunki użytkowania / dostępu
- 29. Kompatybilność z innymi technologiami, np. programem udźwiękawiającym
- 30. Personalizacja, np. możliwość włączenia lub wyłączenia funkcji, zmiany tła lub czcionki

Narzędzie zostało zaprojektowane:

- dla wszystkich użytkowników
- dla konkretnej grupy użytkowników (jakiej?)- nie wiem
- 31. Z jakimi systemami operacyjnymi narzędzie może być używane?
 - Windows
 - Apple
 - Linux

- iPhone
- Android
- Blackberry
- Symbian
- inny (jaki?)
- 32. Wymagania dotyczące pamięci RAM
- 33. Wymagania dotyczące pojemności dysku twardego
- 34. Używanie narzędzia z urządzeniami wejściowymi:
 - dowolne
 - konieczna klawiatura lub klawiatura alternatywna
 - konieczna myszka lub alternatywna myszka
 - inne (jakie?)
- 35. Potrzebne urządzenia wyjściowe:
 - dowolne
 - konieczny monitor lub program udźwiękawiający
 - konieczne głośniki
 - konieczna drukarka
 - inne (jakie?)
- 36. Warunki użytkowania / licencja
- 37. Utrzymanie, np. czas, na jaki jest przyznawana licencja, płatne uaktualnienia
- 38. Poziom wiedzy informatycznej wymagany od użytkownika
- 39. Poziom wiedzy z danego przedmiotu / tematu
- 40. Sprawności fizyczne niezbędne do obsługi urządzenia lub programu (np. czy trzeba mieć sprawne ręce)
- 41. Konieczne inne umiejętności
- 42. Dostępność urządzenia w zakresie sprawności wzroku, słuchu lub innych zmysłów (np. na ile dobrze użytkownik musi widzieć lub słyszeć, by korzystać z narzędzia)
- 43. Konieczne wsparcie, np. czy niezbędne jest szkolenie
- 44. Informacja o wypełniającym ankietę:
 - organizacja
 - nauczyciel

- indywidualny użytkownik
- inny (jaki?)
- 45. Kto jeszcze może być użytkownikiem narzędzia/programu?
- 46. Rodzaje użytkowników
- 47. Ocena i rekomendacje
- 48. Pożądane ulepszenia



A. Identifikacija

* A.1Ime svoje organizacije

Društvo za pomoč osebam z motnjo v duševnem razvoju Barka

3.0 Naslov

* 301 Ime ali oznaka orodja/sistema:

3.1 Tip/vrsta IKT pripomočka/naprave/orodja

* 311 Predmet poučevanja

Izberite enega od sledečih odgovorov

312 Teme (samo če se pripomoček nanaša na specifične teme, npr. matematika, Španščina)

313 "Način učenja"

Označi, tiste na katere se nanaša

- samostojno učenje
- 🔽 učenje samo z učiteljem
- 📙 podpora učnim skupinam
- Drugo: Podpoorno uc

* 314 Način-na kratko opišite



3.2 Ciljna skupina in lastnosti / značilnosti končnih uporabnikov

321 Vrsta posebnih potreb



* 322 Nivo izobrazbene stopnje

Izberite enega od sledečih odgovorov

- neznano
- 🗳 neodvisno od stopnje znanja / predznanja
- Nivo 0 (predšolska vzgoja)
- 🖻 Nivo 1 (osnovnošolsko izobraževanje: prva stopnja splošnega izobraževanja)
- Nivo 2 (nižja srednješolsko izobraževanje: druga stopnja splošnega izobraževanja)
- ^C Nivo 3 ((višje) srednješolsko izobraževanje)
- Nivo 4 (izobraževanje po srednji šoli, toda ne terciarno izobraževanje)
- Nivo 5 (višje izobraževanje:prva stopnja terciarnega izobraževanja (ne vodi direktno h kvalifikaciji za raziskovalno delo))

• Nivo 6 (druga stopnja terciarnega izobraževanja (vodi direktno do kvalifikacije za raziskovalno delo))

323 Jezikovne zmožnosti



324 Starostne značilnosti

Starost varovancev variira od 1		

* 325 Značilnosti glede na spolglede na orodje

Izberite enega od sledečih odgovorov

- E spol ni pomemben / ni odvisno od spola
- C bolj za učenke/ bolje za učence ženskega spola
- ^C bolj za učence/ bolje za učence moškega spola

326 Druge specifični podatki /informacije glede na spol

Več imamo varovancev ženskega spola kot moškega

327 Zaželjeni pristopi k učenju

Označi, tiste na katere se nanaša

- Uirtualno učenje(secondlife igra)
- Kombinirano učenje (računalniško podprto in tradicionalni način)
- 🔽 Na voljo vsebine, ki se jih deli in skupina uporablja
- 🔽 Učne skupnosti / skupine
- Računalniško podprto sodelovalno učenje
- 🗖 Sodelovanje preko spleta
- Virtualna učilnica
- Interaktivna tabla (SmartBoard)
- Poslovna TV

- Pospešeno/ hitro E-učenje
- 🛄 Mikro učenje
- Drugo: Vecina ucenja

328

Kulturne značilnosti in interesi



3.3 Dostopnost

331 Države, kjer je to dostopno / omogočeno



* 332 Jezik



333 Možnost prenosa (kje se lahko uporablja)

Metode, ki jih uporabljamo, jih izvajamo tak 🔺
▼ ▼

334 Datum začetka



* 335 Je podpora omogočena?

Izberite enega od sledečih odgovorov

- 🔹 🖸 da
- 🖸 ne
- ne poznam

335b Podrobnosti omogočene podpore(imajo navodila ali sami upravljajo)

Nekateri sami upravljajo z računalniki in dr

336 Trenutna verzija

337 Odprtokoden, prosto dostopen ali licenčni program

Izberite enega od sledečih odgovorov

- C odprto koden
- 🗳 licenčni program
- Drugo: Nimamo poset
- Brez odgovora

338a Stroški

- Stroški nabave, če so poznani
- Stroški vzdrževanja, če so poznani

338b Drugi podatki o stroških



339a URL

339b Drugi in kontaktnipodatki o proizvajalcu

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3310 Podatki o zakonodaji za dostop in /ali uporabo



3.4 Informacije glede dostopanja

341

Kompatibilnost z drugo standardno IKT opremo (npr. čitalec zaslona)



342 možnosti prilagajanja (npr. možnost vklapljanja in izklapljanja ukazov, tip in velikost pisave, avdio / video / avdiovizualno / besedilo, pomoč)



343a

Izberite enega od sledečih odgovorov

- **C** primerno za vse
- C primerno za specifične skupine uporabnikov
- E brez odgovora

3.5 Tehnične zahteve

351 Prosimo, izberite operacijski sistem in določite, če je znan

Označi ustrezne

•	Windows
•	
•	
-	
•	
•	
•	
•	Symbian
•	Drugo:

352 Spomin

V ta polja se vpisuje samo številke

- minimalen potreben spomin za dostopanje (RAM) (MB)
- minimalna potrebna kapaciteta trdega diska (MB)

353a Potrebne (vhodne) naprave za zagon

Označi ustrezne

- posebna vhodna naprava potrebna
- tipkovnica ali dodatna tipkovnica obvezni
- 🗖 miška ali dodatna miška obvezni
- Drugo:

353b Potrebne izhodne naprave

Označi ustrezne

- posebna izhodna naprava potrebna
- Zaslon (ali čitalec zaslona) obvezen
- 🗖 zvočniki obvezni
- Liskalnik obvezen
- Drugo:

354 Pogoji uporabe/ licenca

4	v

355

Vzdrževanje



3.6 Zahteve za uporabnike

361 Znanje in zmožnosti rabe IKT opreme / kompetence (napreden, osnovno znanje)

Nekateri bi imeli znanje in zmožnosti venda	
	-
	_

362 Poznavanje predmeta poučevanja/tem



363 Potrebne fizične sposobnosti



364 Druge potrebne sposobnosti



365

Pogoji za dostop



366 Pogoji za podporo



3.7 Izkušnje in priporočila

371 Način evalvacije

Izberite enega od sledečih odgovorov

- C organizacija
- 🖸 učitelj
- 🖸 uporab<u>niki</u>
- C drugo:
- **C** brez odgovora

372 Razširjenost uporabe



373 Tipični uporabniki

*
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374 Evalvacija in priporočila



375 Zaželjene izboljšave

