

**Analysis of existing
certification pathways
in the field of ICT
and people with disabilities**



EASY



Education and Culture DG - Lifelong Learning Programme
Leonardo da Vinci



EasyICT

ICT skills of youngsters with intellectual disabilities

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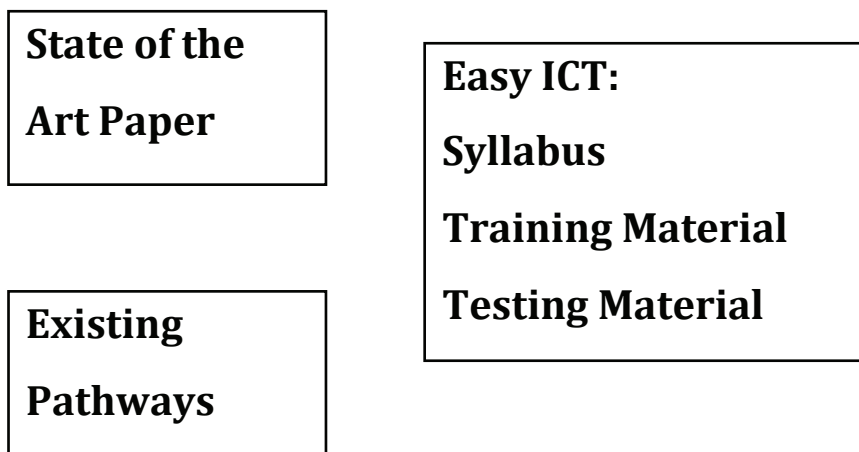
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1. Introduction

This current paper serves as a basis to analyse the existing certification pathways regarding ICT skills for people, especially young people, with intellectual disabilities. Furthermore, existing certification pathways - if suitable - should be integrated into the current initiative of EASY ICT.

Graph 1: The relation between State of the Art Paper, Research and EASY ICT outcomes



This paper therefore completes the State of the Art research in the different partner countries, describing the diverse needs of learners, parents and teachers regarding ICT skills for young people with intellectual disabilities. EASY ICT is based on a research process that analyses comparable approaches

- a) in the field of ICT
- b) specifically for persons with disabilities

The applied research methodology is based on desktop research, primarily using search engines on the World Wide Web.

The research process aimed to identify those approaches, which both can serve as a model of reference regarding

- Certification
- Specific needs of (young) learners with intellectual disabilities.



2. ECDL: European Computer Driving License (or also International Computer Driving Licence ICDL)

The European Computer Driving Licence (ECDL) is internationally recognised as the global benchmark for end-user computer skills and is an important certification to be adopted by governments and education, international organisations and corporations alike. The ECDL/ICDL Syllabus is unique in that it has been designed to be entirely vendor-independent.

The institutional bases of the ECDL are the following:

- **ECDL Foundation**
- **Council of European Informatic Societies**
- **Diverse Societies**

The ECDL represents a test of practical skills and competencies and consists of seven modules

- Module 1: Concepts of Information Technology
- Module 2: Using the computer and managing files
- Module 3: Word Processing
- Module 4: Spreadsheets
- Module 5: Database
- Module 6: Presentation
- Module 7: Information and Communication

Furthermore, the ECDL includes preparatory exercises and training for the learner. In preparatory courses learners are able to become familiar with the specific tasks and items and are prepared for the testing process (mostly in individual or group settings). In some countries the whole procedure is web-based.

The ECDL focuses on individual testing procedures, which allow the learner to receive individual feedback regarding his/her skills (based on clear cut-off-criteria). These cut-off-criteria are defined (independently regarding the needs and/or approaches of the learner) and are comparable for all participating learners.

The tests are available as manual and automatic (e.g. by means of a Manual Question Test Base – MQTB). The costs of the certification processes depend on each country.

The scores of the individual answers are summarised for personal scores, which



are represented in individual skill-cards and serve as a basis for the certificate.

The results of the individual testing (if a certain cut-off score is reached) are saved (within a web application) and are valid for three years and serve as the basis of the certificate.

The ECDL certification therefore is a **criteria-based** approach with a highly **selective function**.

Regarding EASY ICT, what can be transferred from the ECDL?

- **A) the general structure (modules)**
- **B) approaches towards a general compatibility**

- **C) the focus on observable skills**
- **D) the personalised approach**
- **E) web access to our database**
- **F) courses (e.g. in school) or self-learning-units**
- **G) trusting in one's own knowledge**
- **H) passing a type of examination structure or process**
- **I) getting certificates!**

The individual certificate, provided by the ECDL Foundation is valid for three years. Currently, open source approaches are discussed in the training centres.



3) ECDL for People with Disabilities

ECDL barrier-free (www.ecdl.a/bf/ecdl_demo.html)

The programme “ECDL barrierefrei” (ECDL barrier-free) supports the integration of people with special needs into the workplace. “ECDL barrierefrei” was developed to enable training for the visually impaired and blind, for the hearing impaired and deaf and for the mobility and/or movement impeded as well as people with learning difficulties or special learning needs.

Until now, modern information technology did not offer adequate opportunities to enter the world of ICT or the World Wide Web - also taking into account the challenges on the labour market. Besides missing training offers, ICT skills were not “recognised” by possible employers, etc.

ECDL barrier-free provides access for people with disabilities to the world of ICT - taking into account the diverse specific needs regarding the usage of the computer. As ECDL barrier-free is oriented towards the ECDL, a high interchangeability is reached.

Characteristics of ECDL barrier-free:

easy reading	usage of well-known terms
phrases with a lower complexity (e.g. grammar)	graphs as text

Transferability of ECDL barrier-free

- A) adaptation of items and the learning environment to the needs of young persons with disabilities
- B) user-friendly and motivating access

It should be mentioned that ECDL barrier-free is mainly used by people with sensory impairment or with physical impairment. The main target group consists of adult people with disabilities.



4. Equalskills (www.bcs.org.uk/equalskills)

Equalskills is the ideal introduction for people that have never used a computer before to show them the basics about what a computer can do, from learning how to switch on a computer, use a mouse, to exploring the Internet for the latest weather updates and holiday bargains.

Equalskills covers four topics:

- a) Computer Basics
- b) Introduction to the Desktop
- c) World Wide Web
- d) E-mail

Equalskills is not specifically designed for the needs of people with disabilities nor for children and adolescents.

5. ECDL for kids

http://ejunior.bitmedia.cc/content/scorm-content/ejunior/scotest/cap/dashboard.html?contentpath=..%2fcontent_demo&configfile=configejunior.xml



The ECDL for KIDS is a specific approach for children towards an introduction of the world of ICT for children. It combines the general structure of the ECDL, but it also introduces aspects of easy access and stimulating games for children. The important issues of motivation and user-friendly layout (regarding the needs of children) should be taken into account regarding aspects of transferability.

Another comparable strategy is “Computers 4 Kids”, which is specialised in providing a unique **ECDL Foundation endorsed Integrated ICT Curriculum**, as well as all the backup, support and in-service training to ensure the ICT centre works for the learners! Our integrated ICT curriculum works on Microsoft, Mac as well as Open Source platforms (<http://www.computers4kids.co.za>). Some aspects regarding transferability are the existence of a user friendly environment and the importance of child-centred motivation.



6. Other initiatives

It should be mentioned that other initiatives in the field can be recognised (e.g. the WAI-not initiative in the Netherlands), which provides broad experience in the field of work with persons with disabilities, but which - until now - did not introduce the aspect of certification.

WAI-NOT - ICT in the Framework of educating/coaching mentally disabled Children/Young people

The WAI-NOT project aims to encourage the use of ICT as an educational tool for mentally disabled children and young people through the development of an ICT environment adapted to their needs.

The WAI-NOT portal will consist of a central 'Internet playground' adapted to the children's abilities, web pages with locally oriented information, an information server providing information about the latest research findings, and the WAI-NOT web site with information on the project and its results.

This project addresses four target groups: children and young people with a mental disability, schools for children with 'special needs', 'coaching' organisations/ persons, ICT companies and organisations.

The expected outputs are: web sites designed for children and young people, a tailor-made e-mail client, an ICT implementation guide, a European colloquium, an ICT information server, an advisory desk, publications and a project web site.



7. Conclusion of the analysis process:

There are no **observable certification/assessment instruments or processes** based on our analysis regarding the **needs of young learners with intellectual disabilities in the field of ICT**. There are some observable initiatives to cover the needs of adult persons with disabilities (especially regarding sensorial or physical disabilities), but not towards young persons with intellectual disabilities.

Easy ICT **therefore is an innovative approach**, which should include existing approaches within the European/International Community, but - on the other hand - should initiate a significantly new approach regarding the needs of young learners.

Based on aspects of transferability, the following aspects should be taken into account:

- **Being person-centred (based on the individual needs of the young people (computer-game oriented))**
- **Motivation and interest-focused**
- **Reinforcing existing interests and skills**
- **Individual possibility regarding the certification**
- **Practice-oriented (e.g. regarding the daily life activities of the young people with a computer)**