
INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR INCLUSION

Iceland

1. Policy Frameworks

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1.1 Policies that impact on ICT for inclusion in the compulsory school sector

There is a new National Curriculum Guide for all subject areas from March 2013, published by the Ministry of Education, Science and Culture in Iceland, and ICT is one of the key subject areas and is also a cross-curricular activity. Please see: <http://www.menntamalaraduneyti.is/utgefid-efni/namskrar/adalnamskra-grunnskola/>

1.2 Current policy on ICT for inclusion in relation to the main project themes

1.2 (i) ICT as a tool for promoting equity in educational opportunities.

In the Compulsory School Act (no. 91, 12 June 2008), Article 13 states that:

The compulsory school is the pupils' workplace. All compulsory school pupils have the right to appropriate instruction within an encouraging study environment in suitable facilities which takes into account their needs and general well-being. A compulsory school shall endeavour to organise its activities in such a way that pupils feel safe and able to apply their talents to the fullest. Pupils have the right to enjoy their childhood in all activities organised by the school.

Article 17 states that:


Pupils have the right to have their special needs met regarding studies in compulsory school, without discrimination and regardless of their physical or mental attainment. Pupils, who have difficulties studying because of specialised study problems, emotional or social problems and/or disabilities, cf. Article 2 of the Act on Affairs of People with Disabilities, pupils with dyslexia, pupils suffering from long-term illnesses and pupils with health-related special needs, have the right to special study support, according to evaluation of their special needs.

ICT is not specifically mentioned in the act.

According to the National Curriculum Guidelines (page 79):

All compulsory school pupils are entitled to appropriate teaching without discrimination and regardless of their physical or mental attainment. Pupils, who have difficulties studying because of specialised study problems, emotional or social problems and/or disabilities, dyslexic pupils, pupils suffering from long-term illnesses and pupils with health-related special needs, have the right to special study support, according to evaluation of their special needs.

Pupils that are considered unable to attend school according to doctor's evaluation because of an accident or a long-term illness, have the right to special teaching because of their condition, either in their home or at a medical institution. If possible, schools should utilise information technology and distance learning for these pupils so that they are able to continue their study as best they



can and keep up connections with their school and friends. Special teaching because of medical condition does not apply to illness shorter than a week.

The use of ICT is not specifically mentioned.

According to the Upper Secondary School Act, pupils with special needs shall be provided with instruction and special study support. Specialised assistance and appropriate facilities shall be provided as considered necessary by the Ministry of Education, Science and Culture. Pupils with special needs shall study side-by-side with other pupils, but in addition many schools offer special four-year lines of study where most of the disabled pupils are provided with education according to individual educational plans. All disabled students have the right to attend upper secondary schools and the financial crisis has not affected this provision.

Regulation no. 585/2010 on pupils with special needs in compulsory education and Regulation no. 230/2012 on students with special needs in upper secondary schools stipulate that all students are entitled to education and support programmes in accordance with their assessed needs in inclusive educational settings. Students with special needs – who are identified as having learning difficulties because of specific learning disabilities, emotional or social difficulties and/or disabilities, according to Act no. 59/1992 on the Affairs of People with Disabilities – pupils with dyslexia, pupils suffering from long-term illnesses and pupils with health-related special needs have the right to special study support, according to evaluation of their special needs.

The abovementioned Regulation 585/2010 states that schools should prepare a reception programme for students with special needs. Also, schools should work in co-operation with parents on an individual transition plan for pupils with severe special needs within primary or special schools in order to make the transfer to the next school level smoother and more coherent.

1.2 (ii) Access to appropriate ICTs as an entitlement

Icelandic Health Insurance does not pay subsidies for the purchase of aids to education and employment. There are schools that provide students with specific support, depending on the school. According to the national curriculum, primary schools have the task of catering for all pupils.

Regulation 585/2010 on students with special needs in compulsory education states that it is the responsibility of the principal to arrange and assess whether there are students in the school who require special support. The principal organises educational support for students who have special educational needs (SEN). Parents can also make such requests, for example, for access to the necessary equipment. It is therefore up to the principal to ensure that students with SEN have access to the necessary equipment and information technology.

According to the Regulation, it is compulsory to draw up an annual work plan for the support of learning and teaching in accordance with the assessed needs of individual students. It can be assumed that in such a programme, information about the necessary equipment is included, but the Regulation does not provide further specifications on how the programme should be structured.

Icelandic Health Insurance (see: <http://www.sjukra.is/english>) only pays for computers as communication tools due to very severe problems with verbal and/or written communication. Specialists, such as occupational therapists, psychologists and specialist teachers, are available to determine whether the person can use a computer for communication, by assessing skills, cognitive development and intelligence.



Individuals who have an IQ below 50 do not receive funding for computers. Before a computer is assigned to a mentally disabled and/or autistic person, they must have undergone the minimum training and attained sufficient experience for the computer to facilitate and improve communication.

In general, disabled children do not receive funding for computers until the calendar year in which they reach the age of six.

Users pay for general maintenance of computers and printers, while Icelandic Health Insurance pays for repairs of special equipment:

- desktop computers: 100% (maximum support);
- repair of computer equipment: 100%;
- computer communication equipment in electric wheelchairs: 100% (maximum support);
- work on computers: 100% (maximum under price survey at any time).

1.2 (iii) Training of educational staff in the use of general and specialist ICTs

In teacher training at university, students have access to the ICT equipment that is necessary for their studies.

1.2 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

No information is available on this issue.

1.2 (v) Data collection and monitoring in the use of ICT in inclusion

Widespread data is not available, but is sometimes collected and used in specific research.

1.3 Strategic plans for implementing policy on ICT for inclusion

According to the new National Curriculum Guide for 2013, the main purpose of teaching ICT is to promote information and media literacy amongst students and help them to gain good general technical skills and technological literacy. The ICT opportunities include, among other things, the ability to utilise a variety of tools, technical equipment and a range of coping strategies. Technology literacy includes utilising equipment to acquire and disseminate knowledge; information includes the ability to collect, sort and process information critically and creatively; and media literacy includes the ability to identify, reach, evaluate and create media messages. Students will thus be literate in text, images and numerical data and will acquire solid technical skills and skills in information and media literacy. It is expected that students will have acquired extensive skills in information and media literacy by the end of their compulsory schooling. According to the curriculum, ICT is crucial for active citizens in a democratic society and helps pupils to safeguard any rights and to express their views in this regard in a variety of ways.

ICT promotes flexibility and equality in education and gives room for creativity in many areas.

This policy is being communicated to compulsory schools and all stakeholders, with a special emphasis on teachers and parents. The municipalities are responsible for the implementation of the curriculum, but the Ministry of Education supports that implementation in various ways, for example through courses, teaching material and conferences. The schools themselves rewrite their own school curriculum based on the



new National Curriculum Guide, but there is a great deal of autonomy for implementation in individual schools.

1.4 Monitoring and evaluation of policies or strategic plans relating to ICT for inclusion

Strategic plans have not been monitored or and evaluated.

1.5 Main policy developments in ICT for Inclusion that have taken place since 2000

Since 2000, schools have been working with ICT and media literacy as a cross-curricular theme. Emphasis has been placed on introducing students to the techniques and methods of collecting, processing, creating and disseminating information in relation to other studies and subject areas.

So-called information centres in schools have been developed. This involves school libraries and computer laboratories co-operating in order to develop a co-ordinated centre that supports education in general and thus plays a key role in promoting information and technology literacy, encouraging diversity in teaching methods and improving access to education that is suitable for all in inclusive schools. The information laboratory centre is based on co-operation between teachers and other professionals in the field of ICT and literacy. If students are to acquire skills in information and media literacy, it is important that they can benefit from interdisciplinary collaboration between educators and professionals in the ICT field.

1.6 Current issues in relation to ICT for Inclusion

Students need to be prepared for active participation in the local community as well as in the international community, where communication, collaboration and international relations play an important role. Students must identify the main ways of securing internet-based communications and develop good ethics in web-based learning. By giving each student a coherent vision and training to work in most aspects of society, such as art and science, they will be better able to respond to the ever-changing environment. It is a challenge to empower all students in this way in inclusive educational settings and the variety of ICT equipment can affect its degree of success.

1.7 Important short and long-term developments in ICT for Inclusion

It is important to take into account the fundamentals pillars of education, as set out in the general section of the National Curriculum Guide for all school levels on how ICT can be utilised in implementing the pillars at all levels. In planning the programme, all competence goals need to be considered within the framework that ICT has in the national curriculum. It is important that students understand that information and media literacy is a process by which they promote lifelong learning, both in education and preparing for employment. One of the planned long-term developments is to implement ICT in all subject areas of the curriculum.

2. Country Practice

This information was provided by Sigurður Fjalar Jónsson (Advisor and Head of an SNE department at upper secondary school level).



2.1 Main developments in practice in ICT for Inclusion since 2000 in relation to the main project themes

2.1 (i) ICT as a tool for promoting equity in educational opportunities

The use of ICT in Iceland has increased drastically since 2000, and computers and all kinds of modern smart devices are available in almost every home. Icelanders embraced internet use at an early stage and almost every home has had an internet connection for quite some time. Schools have also followed this trend and most schools are well-equipped in this field. However, development has slowed down in the wake of the financial crisis, especially in schools and development for ICT use in classrooms. At the moment, Iceland is recovering from the crisis, but ICT hardware and software in most schools is old and out-dated. In this period there has been a pedagogical shift towards individually-based learning environments. More and more schools use ICT to facilitate this flexibility and the increased use of iPads in classrooms is a good example of that. The newest curriculum change was for all school levels in 2011, where inclusion is promoted at all levels, with a focus on equality for all and increased democracy, with ICT visible in all subject areas.

2.1 (ii) Access to appropriate ICTs as an entitlement

There is little change in this area. One recent development is the use of iPads at compulsory and upper secondary level to facilitate learning.

2.1 (iii) Training of educational staff in the use of general and specialist ICT

Development has been slow. There have been minor changes at the University of Education (Menntavísindasvið) and also a change of focus at Ministry level. In recent years, there have been developments in creating web-based platforms and internet-based resource centres, called educational centres and special educational forums, but the effects are still unclear. Please see: www.tungumalatorg.is

2.1 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

No information is available, but development has been slow.

2.1 (v) Data collection and monitoring in the use of ICT for inclusion

No information is available on this issue.

2.2 ICT to promote learning in inclusive settings

2.2 (i) Country-based networks to support teachers in using ICT to promote inclusive learning

- TMF Computer Centre, please see: <http://tmf.is/>
- Professional teachers' and educational centre, for example SEN Internet Forum.

2.2 (ii) Initial teacher education in using ICT to promote inclusive learning

There are some courses at the University of Education (www.hi.is) where information technology in education is dealt with, such as the use of ICT in language learning and communication. Information technology is involved in many stages without being specifically mentioned in the description of studies, as technology has become part of learning and teaching in general. There are limited support services for the selective use of information technology, e.g. to support students with specific learning difficulties or disabilities.



2.2 (iii) Practical support in classrooms to help teachers' use of ICT to promote inclusive learning

Teachers receive very limited support in the use of information technology to support them in developing a comprehensive programme. Individual schools or local authorities have consultants to support the use of information technology, but there are few of them and they are not specialised in the use of ICT in the whole curriculum.

Teachers can and have turned to the TMF Computer Centre for in-service training and support in information technology. They also have the option of taking courses held by professional organisations or seeking public computer courses.

2.2 (iv) Important information sources about new developments, hardware and software products and ideas for using ICT to promote learning in inclusive settings

The TMF Computer Centre organises seminars that may be suitable and also gives information on its website (www.tmf.is) and Facebook page. The ICT teachers' association, 3f, (<http://wp.3f.is/>) maintains an ambitious Facebook page for ICT in education, as does the professional association of upper secondary school teachers in SEN departments. There is also a newly-formed internet-based forum (<http://serkennslutorg.is/>), the aim of which is to strengthen the community of teachers of students with SEN. Rannum (department of information technology and communication, see: <https://skrif.hi.is/rannum/in-english/>) has organised lectures/presentations on ICT in education, but little or none of this is directly related to students with SEN or a comprehensive education policy. Teachers are increasingly looking to such internet-based communities to provide information and support for ICT in education. Individual teachers also maintain blog pages to discuss information technology in education, such as www.sfjalar.net

2.3 Current obstacles to using ICT to promote learning in inclusive settings

- Computer equipment in schools is old and in many cases out-dated.
- Training for teachers is insufficient and opportunities for lifelong learning are rather limited. Provision of in-service education, such as timing and presentation of courses, may also have a negative impact.
- The government's enthusiasm and initiative are limited. Some years ago, the Ministry of Education, Science and Culture organised annual ICT conferences, but this has not happened in recent years. Grants to professional associations have been cut because of the financial crisis.

2.4 Factors that support using ICT to promote learning in inclusive settings

- Information technology offers a wide range of presentation materials, makes materials widely available and offers various possibilities for working with it.
- Information technology allows teachers to adapt the curriculum and teaching to students' specific needs.
- Information technology is a powerful tool for educators to communicate and obtain information on factors associated with relevant professions.

2.5 Perceived short and long-term developments that will have an impact on ICT for Inclusion practice

Great interest and increased use of computers, iPads and other smart devices is very evident among today's teachers. These tools can be greatly beneficial in learning and



teaching, especially for students with SEN. Motivation will result in stronger schools and more and better use of information technology for all students.

Increased co-operation and communication among teachers in internet-based learning communities, websites and forums is also evident. The most popular internet community, with over 1,400 members, is on Facebook.

The emergence of new speech synthesisers has been revolutionary in terms of using such technology in education.

Reverse instruction (flipped classroom practises) has attracted much interest from teachers and will hopefully increase access to quality videos presentations for students with SEN, where they can replay the presentation as often as required. This method seems to capture the students' attention and is also interesting. See for example information about flipped classroom practices: <http://www.keilir.net/is/keilir/frettir/vinnudagur-um-speglada-kennslu>

In general, motivation regarding information technology in education has clearly increased.