


INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR INCLUSION

Finland

1. Policy Frameworks

This information was provided by Pirjo Koivula (Counsellor of Education, National Co-ordinator for Finland).

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

ICT for inclusion is not mentioned in national strategy papers.

We can only look at how it is financed.

The funding for education providers is established in a result contract between the Ministry of Education and Culture and the Finnish National Board of Education (FNBE). It does not separate inclusive education, but funding has been granted for projects that support inclusivity. The development work's aims include:

- Developing and diversifying learning environments;
- ICT education, equipment and network procurement in primary and pre-primary education.

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.

This is promoted in some projects financed by the FNBE.

1.2 (ii) Access to appropriate ICTs as an entitlement

This is promoted in some projects financed by the FNBE.

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

This is promoted in some projects financed by the FNBE.

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

This is also promoted in long-term projects carried out by the Niilo Mäki Institute at the University of Jyväskylä and partially financed by the FNBE and Ministry of Education.

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

This is not carried out.

1.3 Strategic plans for implementing policy on ICT for inclusion

In Finland, schools and municipalities (which, pursuant to the Basic Education Act, arrange education for all children of compulsory school age in their area) are highly autonomous in all decision making.

At national level there are no strategic plans for implementing policy on ICT for inclusion.

Education providers must have an ICT strategy, but it is not mandatory to have an ICT for inclusion section.

Education providers apply for project funding independently if they so decide.



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

There are only project reports for individual development projects.

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

No information is available on this issue.

1.6 Current issues in relation to ICT for Inclusion

Many teachers still do not know how to use ICT or do not use it at all in their work, even though hardware and software are available in their school.

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

There is more high-quality software available today and teachers are well informed about this matter.

We need more pre-service and in-service training.

2. Country Practice

This information was provided by Jukka Vetoniemi (Consulting Teacher), Peetu Toivonen (Communicator), Heikki Koistinen (Special Education Teacher) and Auli Meronen (Consulting Teacher) (agents of the state-owned resource centres).

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 pervasiveness of information technology is a significant change that affects teaching and its planning. ICT is not just a subject anymore, but a tool which is embedded in every subject. Practices that promote inclusive teaching solutions include using interactive whiteboards, information gathering online and opportunities for using personal computers. Moreover, electronic study material has become more diverse (audio books, e-books, videos, sound and image) and the use and distribution of material has become easier. However, emphasis is often placed on technology and its use instead of on actual learning. Nonetheless, we have moved towards co-operative learning all of the time. One significant change is that information is increasingly sought and built together. However, development is still incomplete.

2.1 (ii) Access to appropriate ICTs as an entitlement

Devices are now smaller and more effective. Availability, in terms of selection and price, has improved. The means of control are more diverse (touch, voice or sight control). The means of connection are more simplified; wireless connections (Bluetooth and other radio connections) facilitate the use of applications.

The entry of mobile devices and tablets into teaching practices is revolutionising ICT pedagogics. There are many programs for interactive whiteboards and tablets that are suitable for learning. This enables individualised teaching and the modification of teaching materials according to the pupils' needs. New devices enable visual and multi-sensory learning.



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

In our ICT training and consulting, we have noticed that there are large differences in ICT resources and know-how between different schools and localities. Nevertheless, teachers' skills and their willingness to try new things have improved. Most teachers master the basics of ICT (use of basic programs), but only a minority of teachers actively develop inclusive learning environments. Teachers' ICT skills require constant updating and training, so that information technology can be applied as best as possible.

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

There are a few projects where users have been able to give their opinions on the applications' contents. For example: everyday technologies for special groups (ATE project, Honkalampi Foundation, University of Eastern Finland and Finland's Slot Machine Association, RAY) and the Ruskis special school's citizen's account for doing business (<https://asiointitili.suomi.fi/>).

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

The inclusive possibilities offered by ICT have been researched in, for example, the VETURI touchscreen project (FNBE) and within the EKA game. The game collects information from customers, which is used to design more programs that take learners' knowledge and needs into account. At the same time, the EKA game's use and effectiveness is analysed.

See: <http://www.peda.net/veraja/ecf/veturi>

and <http://www.lukimat.fi/lukeminen/materiaalit/ekapeli>

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

We have active communities, which maintain websites, such as Tikas and Papunet. The FNBE and Tekes's learning environment projects include contents that are connected to ICT development (social media, distance teaching, virtual learning and learning games). The VALTERI service network has special know-how in the pedagogic and support use of ICT applications.

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

When asked about ICT teacher training, people often respond that there is no pedagogic training in the use of programs and applications. The use of applications is learned on the job or if the teachers themselves are interested in the pedagogic use of information technology.

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

Big towns have media centres which train teaching staff. The know-how of teachers responsible for schools' ICT functions varies from school to school. The ICT teachers' training and commitment play a key role in how much time and ability they have to support their colleagues. Younger teachers have a more natural response to ICT and it is easier for them to make ICT part of classroom learning.



The VALTERI network provides training and consultancy on inclusive ICT solutions and evaluates computer use habits in order to determine which devices, programs and means of control pupils need to support their education.

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

International conferences; web searches, for example: "special needs software".

FNBE virtual teaching days; ITK fair in Hämeenlinnassa; teachers' peer network, which spreads good practices; teachers' own interest. ICT's presence on computers, tablets and phones and their combined use train people in making the most of ICT. Facebook, Twitter and other online communities are excellent sources of information and test platforms for new devices and applications. For example: ISOverstas and iPads in children's rehabilitation and teaching. Facebook sites.

See: www.papunet.fi, www.compaid.fi, www.modemo.fi, www.sometu.fi, www.kajo.fi

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

- The lack of information and know-how on devices, functional solutions and the pedagogic use of devices and applications. Although there has been training, it has been irregular and has failed to reach the target audience and its needs in a meaningful way.
- Traditional teaching methods do not support the introduction of inclusive ICT skills. What is needed is a new culture and resources for new equipment and especially for the pedagogic training and guidance of teachers.
- Hardware and software are still not flexible and compatible enough, which means they do not adjust to the needs of all users. Also, there is scant production of educational programs in Finland.

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

- Devices and applications are easy to use;
- Support for co-operation and interactiveness;
- Recognition, support and guidance of individual needs.

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

As is stands, mobile devices make up a ubiquitous learning environment, which just needs to be put actively into operation and also used in teaching. Social media (web 2.0) makes more interactive and social learning environments possible, but at the same time it challenges the traditional school culture to be renewed.

The current renewal of core curricula might improve inclusion. The starting point for development should be pedagogic solutions that answer pupils' individual needs. This can be pursued through ICT solutions, through more concrete guidelines and through developing teacher training. There is also a need for electronic learning material that follows the curriculum, preferably by using public support, which publishers can improve upon with commercial versions.

Inclusive environments exist, but guidance and possibilities for their effective and individual use should be given. Concentration on the medium should be replaced by a new culture of conduct.