

Summary of CICERO Learning report:

Information and Communication Technology in Teaching and Learning in Finnish Comprehensive Schools

Preface

On 21 June 2007 the Finnish Government made a decision in principle about the aims of the information society policy for 2007-2011. The Government's decision consists of the objectives and focus points in order to accelerate the development of information society in Finland. One of the Government's goals is to carry out a pilot project on ICT enabled teaching and based on the project evaluate the possibilities of computers and information networks in teaching.

Prime Minister Vanhanen's Government notes in its programme that: "the Government will execute a large scale pilot project with the goal of each student (in comprehensive education) having a personal computer as the central tool in learning. The project will be carried out and funded in co-operation with the private sector (industry and commerce)". For the pilot project to be carried out, a background study on current similar projects taking place in Finland and abroad is required.

The Finnish Ministry of Transport and Communications commissioned CICERO Learning Network to carry out the research on ICT in teaching and learning in Finnish comprehensive schools. CICERO Learning is a national multidisciplinary network on researching learning, coordinated by the University of Helsinki. CICERO Learning promotes high level research on learning across the boundaries of different sciences and universities on an international scale. The network strengthens co-operation between researchers, public administration, commercial sector and all those who gain from the results of research on learning. The network gathers Finnish and international high level experts in co-operation which benefits the global research community and the Finnish society on the whole.

This report, produced by CICERO Learning Network, evaluates the current state of schools' information and communication technology from the viewpoint of technological environments, programmes and infrastructure, pedagogic use and effectiveness and the ability to use the resources on offer. The report presents insights on the developmental requirements for the next few years as well as challenges and possibilities with regards to enhancing and increasing ICT in teaching. The content and conclusions of the report are based on Finnish and international research information and also on expert interviews in this field.

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ICT as a national strength – development proposals

This report highlights the following themes as central research and development goals for ICT in teaching and learning in the future.

Multidisciplinary research co-operation

We need multidisciplinary research on national level, to which the best practices of ICT in education can be connected. It is highly important that the processes of practice are modelled on careful research. The central questions related to this topic are: How to promote deep learning? How does multidisciplinary approach support different developmental projects? How is know-how shared? How do teachers and other developers network?

Lifelong learning and new information environments

Research and development projects on ICT in teaching and learning should be planned so that there is a fluid continuation from comprehensive schooling to occupational and adult education. The central theme is to enhance active learning and communal knowledge scaffolding. The foundation for this is built in basic education. Research and development projects should also take into consideration those information environments, which can be accessed through information networks, digital archives and electronic libraries.

Teacher education

Teacher education and its continuing development and dialogue with the educational world are highly essential in terms of promoting ICT in teaching and learning. The current ICT-enhanced education which is integrated in basic and supplementary teaching education should be evaluated. Based on careful evaluation further teacher education should be planned according to the changes in information and learning environments.

Strategic plan

The results of research and development projects should be pooled together as an ICT scenario in order to distribute good practice nationally and internationally. Based on this synthesis a strategic plan according to the research can be drawn for the next decade.