

ERI SEE

EDUCATION REFORM INITIATIVE OF SOUTH EASTERN EUROPE

REPORT

On the ERI SEE expert seminar
„ICT in Education: The Role of Teachers and Teacher Training in ICT“
2-3 December 2005, Zagreb, Croatia

Background and Justification

In accordance with the *Memorandum of Understanding* signed by the SEE ministers of education and higher education and based on the proposal of the our partner Bureau Cross, on behalf of the Dutch Ministry of Education and Science, the **Secretariat of the Education Reform Initiative of South Eastern Europe (ERI SEE)** has included in its 2005 working programme, a seminar dedicated to the topic of ICT in education.

The European Commission has been active in supporting and complementing the efforts of EU Member States in this field, by encouraging co-operation, networking and exchange of good practice at a European level. The importance of using ICT in education has been also stressed by the ministers of education and higher education from the SEE. Programmes for enhancing ICT use in educational institutions are in progress.

The seminar took into consideration the recommendations from the expert seminar on "*Ensuring Access to ICT for Everyone*", organised in Graz, on 27-28 November 2003, in the framework of the Education Reform Initiative of South Eastern Europe and the Dutch expertise in the field.

Preparation of the seminar

Objectives of the meeting

A. Initiate new and sustain existing focused discussions among the SEE experts/policy makers and practitioners on the **national experiences, strategies and action plans** for teacher training in ICT and the role of ICT in education, **with a special focus on the use of ICT in the education process**.

B. Facilitate **information exchange** on EU-SEE level and SEE regional level on **international standards** and their **application** in the sector of ICT in education, with a special focus on **teacher training in applying ICT in the education process**, also via **peer exchange** on relevant **quality assurance systems, case studies and good practices**.

Expected outcomes

- **An overview** on the status quo of the national strategies, action plans or activities undertaken in the field of teacher training –use of ICT, ICT infrastructure, etc.
- Collecting **case studies for dissemination** at regional level
- **Recommendations** for a regional cooperation approach
- **Fostering** existing networks

Agenda

The agenda of the workshop included a session dedicated to presentation of the European context and the perspectives: key issues under debate at European level, indicators, strategies, recommendations of the European experts, a focus on the Dutch experience, as well as the opportunity given to the experts from Romania, Bulgaria, Montenegro, Bosnia-Herzegovina and Macedonia to present their strategies in the field of ICT in education and teachers role in promoting ICT. We also benefited by the input of CISCO System on the CISCO Academy for teachers and students in Europe.

In the Annex 1- please find the agenda of the seminar.

Organizers

The workshop has been organised by the ERI SEE Secretariat with the support of the Task Force Education and Youth and the Croatian Ministry of Science, Education and Sport..

Target group/participants

Invitations have been addressed by the ERI SEE Secretariat to all the ministries of education from the SEE (signatory of the Memorandum of Understanding) to nominate two experts.

Organisational details

The ERI SEE Secretariat has supported the cost of participation for 2 representatives of the ministries of education signatory of the Memorandum, respectively: international transportat, accomodation, meals, per diems and visa costs.

Activities performed during the seminar

Participants

A number of 19 experts, representing ministries of education from Albania, Bosnia-Hertzegovina, Bulgaria, Croatia, Macedonia, Romania, Serbia and Montenegro- Rep of Serbia, Serbia and Montenegro-Rep. of Montenegro have attended the meeting. We have also benefited from the experience of invited experts from the Netherlands, CISCO System and SIVECO Romania.Ministries of Education from Kosovo and Moldova have not been represented at the seminar.

In the Annex 2 - the list of participants

Language of the workshop

The working language was **English**.

Topics and instruments

- **Availability and challenges** with the **implementation of strategy/action plans** developed at national level on ICT in education, with a particular focus on teacher training

The contexts of European policies and developments registered at European level have been introduced by the Dutch expert, Mr. Hans Pelgrum, contracted by the Bureau Cross, the Netherlands. Reference materials, statistics and links to the work undertaken by several experts were provided during the presentation, as well as challenging recommendation for application of ICT in education. The recommendations have been approached and discussed during the working sessions and the experts from the SEE endorsed the opinions expressed at the EU level. Still, there is a lot of work to do in the region for ensuring the necessary infrastructure for including ICT in teacher training and in daily usage of e- learning application within the classrooms.

- Presentation of **case studies**

During the seminar, the experts from Romania, Bulgaria, Montenegro, Bosnia-Herzegovina and Macedonia have presented their ICT strategies, with the focus on teacher training (Romania and Bulgaria) or on the general approached of ICT in education (Montenegro, Macedonia and Bosnia-Herzegovina).

As general overviews:

- There are different stages of development of the ICT strategies e.g. Albania is at the beginning, drafting a national strategy, Serbia –draft version of the implementation strategy is prepared, Bosnia- Herzegovina- several strategies and action plans at the level of cantons, Macedonia- focus on hardware and software and providing Internet connection to educational units, Croatia- being in an advanced stage, Internet connection already provided to all schools including in the remote area and good cooperation with the private sector, Montenegro- the ICT strategy designed, steps undertaken in ensuring the infrastructure(hardware and Internet connection), preparatory measures for teacher training, Romania- a good public-private national programme with results certified at international level, Bulgaria- the second ICT strategy approved and focus on key competencies and infrastructure to be provided to educational institutions. **As a preliminary conclusion of the debates: is easier to buy computers and software; it is hard to train and use the human resources in the most efficient way.**
- **Support for implementation** is offered by several partners: World Bank – for the Educational Information System (Serbia and Bosnia), USAID and China for Macedonia, Microsoft for Croatia, SIVCO Romania- a public-private partnership with the Romanian Ministry of Education and Science, CISCO, e.g. partnership with Romania- a Memorandum of Understanding signed with the Ministry of Education and Science and others.
- The **development of educational software** is important for increasing the attractiveness of the subjects taught in the classroom and an important tool for the teachers
- Financing of the ICT strategies at national level is a problem that may jeopardize the success of the implementation process. **Sustainability of the process is crucial** for the succes of the

national programmes developed by the Ministries of education from the region. The **private-public partnership** developed with solid companies could be a solution in the region together with the support from the local authorities. Political support for the strategy is important as well as the role of teachers in promoting ICT in education.

- **The role of teachers and teacher training in ICT are of utmost importance** for the success of the ICT a strategy. Changing mentalities and working together with the teachers in designing the e-content as well as including ICT in pre-service and in-service training are necessary steps to be followed.
- For comparing the situation in the SEE and ensuring monitoring tools for the process of implementation is necessary to support **the use and development of indicators** as well as collecting the relevant data
- There is a **gap in Europe between the demand and the offer on experts for networking**. The survey conducted by CISCO provided some important results for educational systems in Europe and results could be extrapolated for the SEE. The development of CISCO Academies for teachers and training could be a solution for training of human resources necessary for networking.
- There are necessary efforts to develop a **common vision regarding ICT in education** between Ministries of education-schools-universities-local communities and IT providers
- It is important not to forget the **social aspect**: is the new way of teaching, including ICT in the teaching process bringing new societal values? Also we need to take into consideration the environmental consequences of ICT.
- **Further cooperation on e-content** has been asked to share the experience and maybe to develop new partnerships in the region.

General Outcomes of the seminar

- Information on the current status quo of the ICT strategies in the region
- Identification of the areas for regional cooperation
- Active participation of the experts
- Platform for presentation of best practices and experiences shared
- Endorsed recommendations issued by the European experts for policy makers in education in SEE
- Public-private partnership identified as a key area for further activities

Recommendations for policy makers: The experts participating to the ERI SEE seminar have endorsed the recommendations prepared by EENet, respectively:

1. **Holistic approach to policy development:** *"A holistic model for policy development for ICT in schools should be considered by policy makers. Future innovation needs to involve all players in the education system, including the public and private sector."*
2. **Bottom-up/top-down convergence** *"For teachers to take ownership and implement ICT strategies effectively, policy makers should listen and respond to successful and appropriate ICT developments which start at the school level, when developing large-scale policies."*
3. **Sustainability:** *"Policies and strategies for implementation should be designed to achieve the sustainable and generalisable use of ICT in education. It should be borne in mind that sustainability can only be achieved through a synthesis of economic and human measures."*

4. **The Curriculum:** *"Ideally, comprehensive plans for implementing ICT's should start with learning targets related to the curriculum. Linked to this, examination and assessment systems should be reviewed to ensure that they are appropriate to the digital age. "*
5. **Teacher Training:** *"Specific measures need to be taken to ensure that ICT use is covered in all pre-service training courses and that all serving teachers have access to appropriate in-service training that responds to their individual needs. "*
6. **A wider concept of learning:** *"Policies and implementation actions need to recognise the wider concept of learning that generalised ICT use will bring and should reflect the consequential empowerment of the learner that is likely to take place. This empowerment will demand new and more subtle skills from teachers as they are less able to rely upon the formal didactic aspects of their role."*
7. **The importance of research:** *"Decision makers at all levels must take more account of existing educational research, within Europe and beyond, when formulating their education policies and actions. Research on new topics with relevance for this area should also be initiated. Consideration should also be given to the literature on innovation and change at organisational level."*
8. **Content and national languages:** *"Most countries need to address the issue of the shortage of multimedia and Web-based content for educational use in national languages. It may in some cases require government pump-priming to stimulate market activity and it is sensible to encourage commercial developers to use teachers and others as advisors or to help at the trialling stage."*
9. **Monitor and evaluate the system:** *"Central ministries and regional authorities should co-operate in gathering, analysing and disseminating data, not only on inputs into the system such as pupil: computer ratios, but also on process variables such as deployment and pupil/teacher access times and actual outcomes."*

Reccomendations for ERI SEE

- the ERI SEE to continue to develop regional meetings on the topic of ICT in education- there is a huge interest in the region for learning from other's experiences
- the ERI SEE to support and lobby for bilateral and multilateral cooperation on the topic
- topics to be tackled in 2006: indicators for evaluation, mechanisms to identify and valorise the best practices at national level, development of national strategies, development of private-public partnerships: necessary steps, development of e-content/ e-learning applications