“eee-pc@school” – Netbooks as tools for primary education

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Abstract: The goals of the actual project “eee-pc@school” of the Observation Primary School, that started in September 2008 in cooperation with the Austrian Federal Ministry of Education, Arts and Culture an ASUS Germany GmbH, are to discover possibilities of modern, mobile ICT-equipment, to develop modern didactics for education of mobile-ICT-supported hard- and software, to test the usability of Eee-PCs and comparable Netbooks etc. – The most important difference to similar projects is the fact, that in this project each child of the project class has got its own unit to use at school, but also at home. Barriers as consequences of social differences or vested interests in this project are no longer existing.

Keywords: primary education, ICT, mobile learning, netbook, webbook, notebook, e-learning, …

1. A short view to the ICT-history at the Practice-School

As a consequence of the vision to be a very special “Practise, Modell- and Research-School” the Observation Primary School of the Ecclesiastical University College of Teacher Education Vienna/Krems, Campus Vienna/Strebersdorf (the former Practice School of the Pedagogic Academy of the Archdiocese of Vienna) is one of the most innovative, active and leading school in Austria in working, testing and evaluating modern ICT in primary education: Since many years a very modern ICT-structure was established and developed. It was always important to work with state-of-the-art equipment and to establish new technologies and new possibilities of modern ICT in primary education.

One of the most innovative projects of the last years was the “ppc@school – Small Computers For Small Hands”-project: Each child of the former project class got its own Pocket-PC (HP IpaQ 2210 and some additional hardware) for personal use at school and at home. Never before all pupils of a regular school-class at the
age of eight (!) years had their own and personal ICT-equipment. – This project was quasi the pilot to this actual project “eee-pc@school” and it builds on the former PPC-project.

2. Goals of the project

The newest project “eee-pc@school” is also a very dedicated project for the future of primary education in Primary Schools with efficient use of modern, mobile and multifunctional ICT. Thanks to this project the use of computers at school is getting really personal, not bounded to a small number of exclusive hardware for the teacher and/or a small group of children.

2.1 Social goals

Till today not every child has got unconditional access to usefull ICT-hardware: So it is also a very social goal to give every child the same chances and possibilities in learning with helpful, efficient ICT. – The access to modern ICT should no longer be limited by social differences, gender-caused facts, the ability to assert oneself etc.

2.2 Basic ICT-Skills

Since many years teachers all around the world are talking about e-learning and mobile-learning. In the literature there are many examples how to use ICT in secondary or tertiary education, but the primary education seems to be neglected. Although there are many software-products especially for younger children, the most important thing seems to be missing: The access to useful hardware, that is affordable, not restricted, and for example not simplified in the wrong way.

Children have to be guided how to use ICT in a responsible and helpful way. The earlier they get in contact to ICT and its effective use, the better they are able to use new technologies for their own way of (lifelong) learning and working.

2.3 Evaluation of the hardware

The above in a short way described social and educational goals of the project are based on a hardware-decision by teachers. To evaluate the usability in context of childish use at the age oft children of the project-class, it is necessary, that children are working in different ways and at different places, with and without the help of adults. Outcomes of the project should be statements for example about
usability and robustness, quality and size of the screens and the keyboards, didactic and methodical usability of the different features (e. g. multimedial attachments) and additional hardware.

2.4 Evaluation of software

It is not our main-interest to evaluate special software for children or education, but to find out, in which ways standard operating systems and standard software-applications are useful for elementary education and as a first step for continuing education.

3. Hardware decision

The decision to test netbooks in the Primary School is a consequence of my experiences and after due consideration:
- Weight: light enough for daily use and transport
- Size: small enough for transport, big enough for adequate childish use
- Power: rechargeable battery with enough power for a day at school
- Configuration: connectivity, multimedia use, storage

4. Evaluation

The most important part of the evaluation will be the daily observance and paperwork by the teachers working in the project. The team of teachers doing the daily educational-work is responsible for the instructions concerning to the handling of the hard- and software, developing showcases for lessons, designing special digital material etc. In addition to the educational work and its documentation there is education-scientist involved to the project-team to design the empirical surveys and to collect and interpret the data.

The guiding questions of the evaluation:
- Does the use of netbooks contribute to the realization of constructivistic and pupil centered methods of instruction?
- What didactic changes does the instruction of the netbook cause in primary education?
- In what way does the netbook affect the learning of pupils in and out school?
- Does the netbook contribute to the acquisition of competence?
- Are learning objectives better achieved by employing the netbook, are there any additional objectives?
The methods for the scientific evaluation will mainly be questionnaires for children, parents and teachers, standardized interviews, analysis of observations of lessons and checks of the competences of the pupils.

References


