# USING THE INTERNET IN TEACHING

#### Abstract

Practical computer technique and information technology should be included in the whole structure of the education system from pre-school to higher education. It is necessary to adapt them to the characteristics of the educational system. Using modern information and communication technologies—ICT in teaching, is of major importance in educating students. An important precondition for students to acquire digital skills is the empowerment of teachers in applying ICT in teaching. An indispensable instrument for the implementation of modern teaching is the internet. It enables users to access a range of information and offers them an easier way of communicating. Teachers have a strong need to use the internet in teaching, primarily to find additional materials for the relevant curricula and bring curriculum material to students. In recent years the increased usage of modern ICT in teaching in primary schools in most European countries has been noted. Perceiving the contemporary European trends, the Republic of Macedonia, through a variety of projects, takes measures to increase the use of ICT in its primary schools. On one side, using the internet in teaching in primary schools brings numerous benefits, but on the other side it has a number of weaknesses. To reduce these weaknesses, there are number of measures that can and should be undertaken in order to successfully use the benefits of the internet in teaching.

Keywords: ICT, student, teacher, primary school.

#### КОРИШЋЕЊЕ ИНТЕРНЕТА У НАСТАВИ

#### Сажетак

Практично рачунарска техника и информационе технологије треба да буду укључени у структуру образовног система од предшколског до високог образовања. При томе је неопходно прилагодити их карактеристикама образовног система у земљи. Коришћење савремених информационих и комуникационих технологија – ИКТ у настави је од великог значаја у едукацији ученика. Важан предуслов ученицима да стекну дигитална знања је оспособљеност наставника за коришћење ИКТ у настави. Неопходан инструмент за спровођење савремене наставе јесте интернет. Он омогућава корисницима приступ низу информација и лакши начин комуницирања. Наставници имају велику потребу за коришћењем интернета у настави, пре свега да би пронашли додатне материјале који су релевантни за наставне планове и програме и да би материјал наставног плана и програма учинили доступним ученицима. У последњих неколико година уочено је повећање употребе савремене ИКТ у настави у основним школама у већини европских земаља. Посматрајући савремене европске токове, Македонија кроз различите пројекте предузима мере за повећање коришћења ИКТ у својим основним школама. Употреба интернета у настави основне школе с једне стране доноси бројне предности, али с друге стране велики број слабости. Да би се смањили ови недостаци, постоји низ мера које могу и треба да се предузму како би се успешно користиле предности интернета у настави.

The development of information society is one of the priority assignments of the governments of all countries. Their visions are similar, but their missions are different. The main reason is the fact that different countries are at different levels of information society development, either from the aspect of technical equipment, or from the aspect of educational structure, or from the aspect of the level of transformation of key segments in the country.

The development of information society depends on the development of education and vice versa:

- Firstly, education should be a leader in promoting the information society and creating specialized and competent staff who can respond to the challenges of information society and the needs of the knowledge based economy.
- Secondly, the quality of the educational process directly depends on the implementation of ICT in it (Макрадули, et al, 2005, p. 4).

In the era of information technology, the computer became part of everyday life of every child, who often uses it for games and communication with the loved ones. But we must make efforts to positively use the large presence of computers in children lives, and these computers should be included in their educational process, as much as possible, so that teaching becomes more interesting, with a huge dose of mutual communication and interaction (Жибак, 2011, p.91-99).

The use of modern ICT in education is of great importance not only for students, but also for teachers because it allows them access to a huge amount of data, and it gives them an opportunity for diverse organization of teaching.

What kind of individuals will be shapd in a society depends on the quality of teaching. It is very important to include modern methods and techniques of teaching, communication and evaluation in the educational process. Today the teacher should not be the only source of information but a coordinator, observer, he/she should cheer and activate students to learn and explore through modern information technology.

The teacher is the key factor for the transmission of knowledge, teaching, learning and evaluating. The best realization of his/her assignments can be achieved through the use of ICT (Стојановска & Мамакис, 2011, p.119-129).

The internet is an indispensable tool for teachers and students in the educational process, which allows access to a range of information and opportunity for communication (Kabakçi, 2010).

The internet has two identifiable uses for schools:

- It is a source of information, a huge library visited by teachers and students with the opportunity to use a wide range of information;
- It facilitates communication between students and teachers on local and global level through: e-mails, electronic conferencing, video conferencing (Information and Communications Technology (ICT) in the Primary School Curriculum. Guidelines for Teachers. p. 109)

# THE SITUATION OF EDUCATION IN SOME EUROPEAN COUNTRIES IN RELATION TO THE IMPLEMENTATION OF ICT

The rapid development of techniques and technologies, globalization and trends, globally imposed as a necessity and, for its part, brought more complex requirements and expectations of the economy and society. In these conditions, education cannot and should not be seen in isolation from all these changes, turbulence, tendencies and trends because all that permanently affects all participants in the educational process. Within the various projects, the infrastructure of information and communication technologies is provided and installed in schools and every student has access to a computer that is connected to the Internet (Јанкуловски, 2011, p. 81-92). In the section that follows we will present the situation in the educational system, in terms of using ICT, in some European countries as well as in Macedonia.

#### **Finland**

Since 1996 the Finnish National Board of Education supported the development of the technical infrastructure in Finnish schools as well as continuous pedagogical and technical education of teachers. The National Board of Education continued to invest in continuous training of teachers: in 2009-2011 it gave 10.4 million Euros for the training of teachers, training part of which will be focused on teachers' ICT skills.

In 2006 90% of schools had broadband access to Internet and 77% of schools had computers in classrooms. The situation in Finnish schools was on average 17 computers per 100 pupils (Korte & Husing, 2007).

In Finnish schools, students use the Internet as a source of information and communication, and teachers use ICT mainly for improving their teaching.

The application of ICT also carries particular problems. In Finland the most common problem of teachers is time. They do not have enough time to learn how to use modern technological tools and apply them in teaching (The 2AgePro Consortium, 2009, p. 24-25)

### The Netherlands

In recent years there have been great investments in the infrastructure of ICT facilities in the public education system in Netherlands. Between 1997 and 2005 the Netherlands government invested more than 1.5 billion Euros in integrating ICT in education. In the last twenty years, the number of computers in schools was increased by fifteen times. In 2009 schools in Primary education on average had access to one computer on every seven pupils.

The general trend of schools is to invest less in increasing the number of computers and more on improving the quality of ICT.

In elementary schools the most important issue for teachers is improving the ICT infrastructure. It is necessary to put emphasis on improving knowledge and skills of teachers, rather than on increasing the number of computers (The 2AgePro Consortium, 2009, p. 35-39).

# The Republic of Macedonia

The Republic of Macedonia began to reform its education system in order to keep up with modern European education systems. One of these reforms was the intensive computerization and digitization of education. In this sense, changes in education related to the intensive introduction of ICT in the educational process needed to define and strategically restructure the educational system in Macedonia. That involved the preparation of national education policies and strategies that would lead to social and educational development and which at the same time would encourage the creation and incorporation of new and relevant programs and initiatives, and primarily for effective and innovative use of ICT in education (Живановиќ, 2010, р. 3)

Macedonia has been included in various projects to improve and promote ICT and teaching. Some of them are: "e-Школо"(2003-2008), "Македонија се поврзува"(2004-2007), and later "Проектот за основно образование' (2006-2011) in order to provide continued support on computerization in education. In 2005 additional 3000 donated computers have been installed in 360 central and regional elementary schools. Computer labs in elementary schools were supplied with 5-20 computers depending on the number of students (Макрадули, 2005; Hosman & Cvetanoska, 2009). In 2007 additional 1500 computers received elementary schools.

In 2006 two projects for computerization and digitization of education simultaneously started to be implemented: the government project "Компјутер за секое дете" (2006-2012) and the project "Проектот за основно образование ПЕП" (2006-2011).

The project "Компјутер за секое дете"(КСД)3 is an initiative and investment by the Government of Macedonia to modernize the Macedonian education. This project provides a computer for every child, software solutions and tools for each subject, advanced ICT skills among teachers and students, a national system of testing students, and interactive online classes (Андреева, 2008).

For the past 8 years, these programs allowed providing and installation of ICT equipment, software and Internet infrastructure, as well as providing training for teachers to integrate ICT in their teaching (Hosman and Cvetanoska, 2009).

Inclusiveness and openness that promotes and practices the Internet as well as new information technologies are not applied effectively in the educational process although educational reforms on a global level are mostly based on intensive application of information technologies and the Internet. In addition to that process, the number of digital materials that support the educational process and scientific research activities are growing rapidly. However, the existing system is faced with the inability to channel and impregnate these newly generated resources (Живановиќ, 2010, p.5).

# Conclusion

Information and computing technology as an imminent segment of the daily educational process imposes a unique approach to the today's student, putting him/her in the center of teaching. The new role of teachers involves the use of ICT in teaching, which means using different styles, methods and techniques in teaching and learning. When it comes to the use of ICT in education, attention has to be given to the following aspects: firstly to good equipment with modern technology in schools and the connection of computers to the Internet, and secondly to their skillful and proper usage by teachers and students in teaching. Hence we can conclude that the dynamics of our environment requires continuous progress and improvement in all areas of life, especially in the educational process, its constant research and creation.

#### References

Information and Communications Technology (ICT) in the Primary School Curriculum. Guidelines for Teachers. Retrieved on March 28 from <a href="http://www.ncca.ie/uploadedfiles/ecpe/ictenglish.pdf">http://www.ncca.ie/uploadedfiles/ecpe/ictenglish.pdf</a>

Јанкуловски, J. (2011). ИКТ-неограничени можности за учење. Научно-стручен собир со меѓународно учество, Битола, Р. Македонија, Зборник на трудови, 81-92.

- Kabakçı, I., Fırat, M., Izmirli, S, & Buğra Kuzu, E. (2010). Opinions of Teachers on Using Internet Searching Strategies: An Elementary School Case in Turkey. *Turkish Online Journal of Qualitative Inquiry*, 1(1), 49-61.
- Макрадули, J., Јованчевски, Ѓ., Стојановска, В., Јосимовски, С., Далипи, Ф., Митревски, П., Марку, П. & Бучковска, А. (2005), *Нацрт-програма за развој на ИКТ во образование (2005-2015)*. Скопје: Министерство за образование и наука на РМ.
- Министерство за образование и наука (2010). Програма за развој на ИКТ во образованието. Манико графикс, Македонија.
- Стојановска, Б., Мамакис, Г. (2011). Информатичко технолошка комуникација во наставниот процес. Научно-стручен собир со меѓународно учество, Битола, Р. Македонија, Зборник на трудови, 119-129.
- The 2AgePro Consortium. (2009). *Common ICT tools used in teachers' daily work: Current state description*. Oulu, Finland: University of Oulu, Learning and Research Services.
- Здружение за унапредување на родовата еднаквост Акција здруженска, (2011). Родовите прашања и инклузивноста во "Националната Стратегија за евклучување на Р. Македонија, 2011-2014", Скопје: Центар за институционален развој.
- Жибак, М., (2011). Информатичко технолошка комуникација (ИТК) во наставниот процес. Научно-стручен собир со меѓународно учество, Битола, Р. Македонија, Зборник на трудови, 91-99.
- Живановиќ, Р. (2010). Употребата на компјутери и интернет во образовниот систем на Република Македонија. Скопје: Фондација Институт отворено општество Македонија: Фондација Метаморфозис.