



The use of computers and the Internet for learning elementary school pupils

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Abstract: *The progress of information and communication technology requires considerable changes in the organization and implementation of the teaching process. The aim of this study is to determine the extent in which pupils use computers, how many are available to them, how often they use the Internet to learn, but also how the frequent use of certain teaching aids. Survey was conducted, and sample consisted of 94 pupils from elementary school. The results indicate that students generally have conditions for learning via computers and the Internet, as well as to pupils relatively often used the computer and outside of class.*

Keywords: *computer; Internet; education*

1. INTRODUCTION

The digital age in which pupils work now and learn, requires implementation of modern technologies in the teaching process. In order to increase the efficiency of teaching and pupils' motivation for learning and facilitate the acquisition of content, it is essential that teachers use the potential of modern information and communication technologies. The survey on attitudes towards the use of ICT both teachers and pupils, indicated a positive attitude towards the use of new technologies, with instant access to information and simple way of sharing the same stand as the benefits of using ICT (Džigurski, Simić, Markovic and Scepanovic, 2013). The same survey noted the opinion of teachers that pupils use ICT more efficiently and with greater attention following classes are more active and acquire functional knowledge. Another study showed that teachers largely (up 80%) use the Internet in the classroom, with emphasis on viewing video clips, as well as the use of a blog (Andevski, Vidakovic and Arsenijevic, 2014). The same survey, which covered the examination to evaluate the effectiveness of learning by using Web 2.0 tools indicates that teachers and pupils believe that the application of web technology leads development and IT competence. (Milenkovic, 2012). Research on the use of computers and the Internet, indicates that 96% of pupils have a computer, and that about the same percentage of pupils have Internet access from home (Vučeljić Šćepanović, 2012).

These pupils express to use computer for several hours a day outside of school. And other studies (Milenkovic, 2012) show that a large number of pupils have access to computers at home, and 65% of the pupils use daily.

Accordingly increasing necessity to innovate teaching and learning approach due to the expansion of new technologies, there is also an increasing need for the development of digital competence of teachers and pupils.

2. ORGANIZATION OF RESEARCH

The subject of research

Object of the research is to investigate the frequency of use of computers and the Internet for learning elementary school pupils.

Research goal

Research goals are gaining of the image on the use of computers and the Internet in order to learn pupils in primary school.

Assignment of this research was to determine how to use teaching aids in primary schools. The basic hypothesis: Students use the Internet and your computer for educational purposes.

Methodology and Framework Research

To examine the use of computers and Internet in schools conducted a survey closed questionnaire prepared for this research. The survey was anonymous.

In the study participated eighth-grade pupils from two primary schools in Cacak.

Examination of students was conducted at the end of December 2015. The testing was conducted in classes.

3. RESULTS AND DISCUSSION

One of the questions in the survey investigated whether the pupils have a computer, Internet access, etc. (Table 1).

Table 1. *The possibility of access to the Internet from a home computer*

<i>Survey Question: Whether at home, you can access the Internet from a computer?</i>	<i>Number of respondents</i>	<i>% reply</i>
I do not have a computer at home	1	1,1%
I have a computer that does not have Internet access	9	9,6%
I have my computer with Internet access	53	56,4%
I can access the Internet only from a computer that I share with some other family members	31	33%
Total	94	100
* Note: the table shows the number (percentage) of students who answered YES		

The fact that even 89% of pupils have a computer home with access to the Internet, whether it be your own computer or shared with family members.

This study investigated how often pupils use the Internet. (Table 2).

Table 2. *The frequency of internet use*

<i>Survey Question: How often do you use the Internet?</i>	<i>Number of respondents</i>	<i>% reply</i>
Daily	45	47,9
Almost every day	22	23,4
Once or twice a week	20	21,3
Once or twice a month	3	3,2
Less than once a month	4	4,2
Total	94	100

Among eight grade pupils who use the Internet, nearly half (48%) use the internet every day, 23% use the internet almost daily.

It was investigated how often pupils use the Internet for various learning activities (Table 3).

Table 3. *Use of the Internet for learning purposes*

<i>Survey Question: How often do you use the Internet for the following activities for the purpose of learning?</i>	<i>Everyday</i>	<i>1-2 times a week</i>	<i>1-2 times a month</i>	<i>Rarely</i>	<i>No</i>	<i>Total</i>
You use the Internet for learning	27	36	12	15	4	94
Search for an website	52	20	3	8	11	94
Are you looking for ready-made tasks	9	14	18	17	35	94
Your visit forums	11	15	19	6	43	94
You use the system for e-learning	8	16	6	14	50	94
Interchange e-mails	21	13	14	17	29	94
You read and write blogs	17	6	5	4	62	94
Your visit social networks	60	12	6	4	12	94
You talk in chat	42	12	10	10	20	94
You learn with the help of tutorials	11	18	9	13	43	94

Pupils visit social networks on a daily base (60%), a slightly smaller percentage (48%) browsing Web sites, at least visit the forums and rarely read and write blogs. Internet for learning, the greatest number of pupils used once or twice a week.

Comparing (Percentage) of responses with answers (and percentage) of frequencies to the internet, deriving a conclusion about the insufficient use of the Internet for educational purposes.

In addition to determining the frequency of use of the Internet for learning and access to the Internet for students, examined the frequency of use of different teaching aids during classes.

Table 4 shows the use of the teaching resources.

The results showed that:

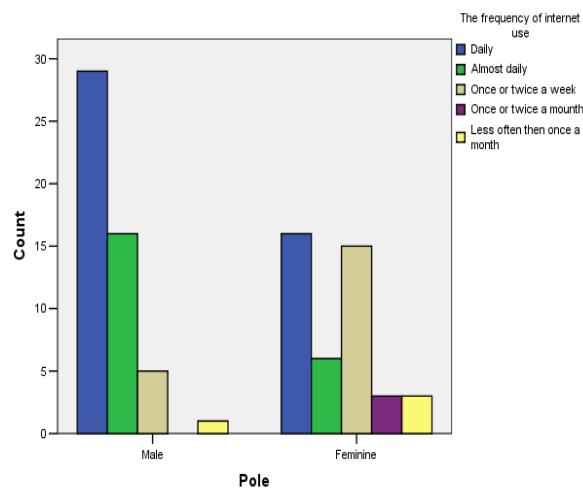
- a) the computer is the most used in teaching lessons;
- b) use the projector as a teaching tool is slightly smaller, but no less represented by using a computer;
- v) interactive board is an innovative teaching tool, but its use is somewhat smaller;
- g) the use of tablets is very small, as well as the use of a mobile phone;

Table 4. *The use of teaching resources*

<i>Medium</i>	<i>Every day</i>	<i>%</i>	<i>1-2 times a week</i>	<i>%</i>	<i>1-2 times a month</i>	<i>%</i>	<i>Rarely</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Computer	30	31,9	40	42,6	13	13,8	5	5,3	6	6,4	94	100
Projector	14	14,9	45	47,9	24	25,5	1	1,1	10	10,6	94	100
Interactive board	4	4,3	13	13,8	7	7,4	10	10,6	60	63,8	94	100
Tablet	6	6,4	2	2,1	2	2,1	1	1,1	83	88,3	94	100
Mobile phone	19	20,2	6	6,4	1	1,1	3	2	65	69,1	94	100

Research results confirmed the basic hypothesis of this study, and it is for pupils to use computers and the Internet for educational purposes.

Also was compared how often boys and girls use the computer.

**Figure 1.** *Frequency of using the Internet*

By frequency of Internet usage boys use it on a daily basis, unlike the girls.

4. CONCLUSION

The results of this study show that among pupils use of the Internet and digital devices is widespread.

Implications or recommendations to further research was to determine the motivation of pupils to use the Internet, as well as their assessment of efficiency as their assessment of the internet use in teaching.

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