VI меѓународен балкански конгрес за образование и наука: СОВРЕМЕНОТО ОПШТЕСТВО И ОБРАЗОВАНИЕТО

(Охрид, 29. IX - 1. X 2011г.)
Зборник на трудови

VI International Balkan Congress for Education and Science: THE MODERN SOCIETY AND EDUCATION

(Ohrid, 29. IX - 1. X 2011.)
Book of proceedings

Skopje, 2011

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Република Македонија

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Faculty of Pedagogy "St. Kliment Ohridski" – Skopje
Republic of Macedonia

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Despina SIVEVSKA[1] (Macedonia)
Oliver CACKOV[2] (Macedonia)

THE WILLINGNESS OF TEACHERS FOR APPLICATION OF COMPUTERS IN PRIMARY SCHOOL (I-V GRADE)

Abstract

Working with computers is becoming an imperative and an integral part of the development of modern society and one of the main tools that give direction to be moving modern education. For this purpose it's necessary to have appropriately trained teachers who will be able on an effective way to monitor these dynamic changes and to implement them on an appropriate and creative way in education activities.

Through research realized on a representative sample of teachers in elementary school in urban and rural environment, we tried to determine the circumstances in which teaching is carried out using computers and the applicability of e-learning in the classroom, and to determine the attitude of teachers and their professional readiness for the application of computer in teaching process.

Key words: computer, teacher, educational processes

Knowledge and use of ICT in the modern world is one of the basic elements of literacy and culture of man. There is no doubt that the use of the computer greatly facilitates the work and learning.

The changes occurring in society, science and technology impose conditions for change and modernization of the teaching process. Equipment of schools with computer equipment and information literacy of teachers and students becomes one of the priorities for reform in the education system. New means of global communication change the physiognomy of the work in school. The development of science and information technology directly affects the educational process. The rapid development of information and knowledge, the teacher put on entirely new professional roles.

With the introduction of information technologies in the teaching process its import brand new news and expectations of the teacher. He is no longer omnipotent source of knowledge. With these changes significantly affect the education and radically changing the learning and teaching, the way that instruction will be tailored to the interests, needs and abilities of each student. Simultaneously, teachers are provided through the new technological breakthroughs, to collect data, analyze information and prepare for teaching. With the application of modern

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[1] Ass. M-r Despina Sivevska, University "Goce Delcev" Stip, R. Macedonia.
[2] m-r Oliver Cackov, University "Goce Delcev" Stip, R. Macedonia.

educational tools, teachers are provided independently to create applications for learning and knowledge and to check knowledge of their students.

The application of computer in the educational process in primary schools is still difficult to accept. The reason for this may be lack of knowledge or lack of education of teachers. Older generations of teachers are not trained to apply these funds in teaching process, so that it appears certain abhorrence to such funds. However, there are various workshops that teachers can expand their professional knowledge and simultaneously to improve. In contrast, there are generations of young teachers, partly or wholly, are prepared in a proper way to instruct students to use the computer and various educational tools in their daily learning.

In order to examine the opinion of teachers about their preparedness and training for use of computers in everyday teaching practice we conducted research in which we examined teachers who teach in lower grades, from elementary schools in urban and rural environment in the municipality of Stip. The sample comprised teachers from 65 instructors, of which 11 were from the rural environment, and 54 of the urban environment. It was included the following schools: OU "Toso Arsov", OU "Goce Delcev" (with colony Tri Cesmi), OU "Dimitar Vlahov", OU "Straso Pindjur" Karbinci, with school in village Selce.

When comparing the conditions in both areas, in terms of space and material equipment of classrooms implementing the teaching using the computer, we noticed that there are differences in terms of implementation of such teaching in urban and rural environment.

Students from schools located in urban environment had better material and spatial conditions for the implementation of instruction using the computer (almost anywhere there is computer for each student). In contrast to the schools from urban environment, or there are no computers, or even if there are in a minority, there is no possibility that each student works individually on a computer.

From this we can conclude that although there are great efforts to implement and deliver teaching using a computer in some of our elementary schools, especially those located in rural areas, have not yet created favorable conditions in terms of appropriate spatial and material equipment (missing computers and their networking) for implementation of instruction using a computer. For that purpose should be made some radical changes in the methodology and organization of teaching. In most schools still apply the traditional way of working, with very little use of computer technology.

The application of information technology in teaching process itself entails the issue of competence of teachers. To have quality education process requires teachers to have certain information and communication skills as trainers, skill to choose the contents that are suitable for this kind of processing and presentation. The professional development of teachers, attending of trends and changes in information and communication technology is a necessary process which ensures progress in modern society.

Accordingly we raised the question of how teachers who work with these students is ready to apply and use the computer for educational purposes. For these purpose, teachers were asked the following questions. When asked if they had attended training in work with computers, all teachers covered by the sample

responded affirmatively. Then came the issue of who have attended training. Toolkid, ITK, Edubuntu, were verified as common.

Most teachers (95%) believe that such training is helpful for improving the education process. While a small number (2%) of them believe that they are useful, as well as some of them (3%) had no opinion about whether they are useful or not.

When asked "Do you need additional training of teachers for the application of computer in teaching process", most of them (67%) said they needed, some of them answered that they are not needed (19%), and a small part of them (14%) said they do not know whether such training is useful or not for promoting teaching process.

Chart 1: Do you think that it's necessary additional training for teachers to use the computer in the teaching process?

Do you think that it's necessary additional training for teachers to use the computer in the teaching process?
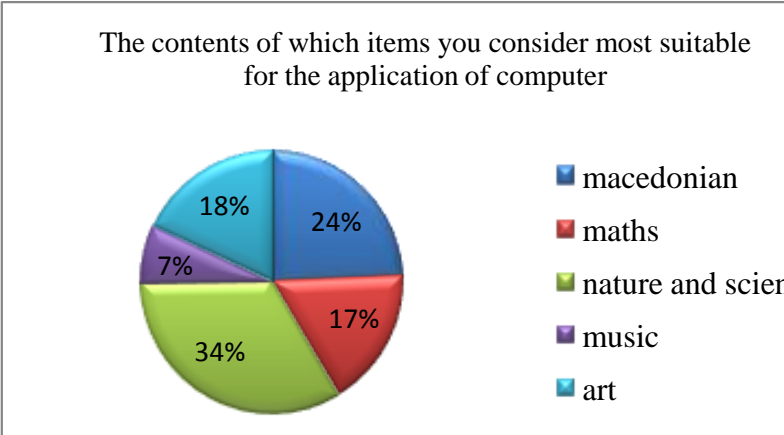
14%

19%

67%

- yes
- no
- don't knc
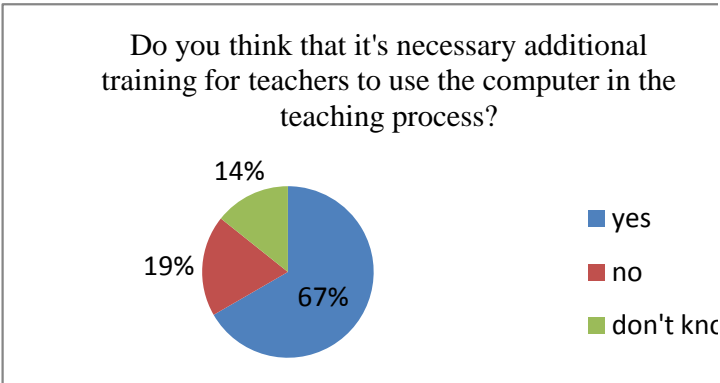
The application of ICT in the teaching process is not intended to apply only narrowly specialized ICT courses but also in teaching other subjects. For this purpose we tried to examine the opinion of teachers about the subjects that most use computer in their teaching practices. Most of them answered that usually applied computer in the teaching of macedonian language (27%) and teaching nature and society (26%) and least art (11%).

Chart 2: The subjects who usually use the computer

The subjects who usualy use the computer

17%

27%

11%

26%

19%

- macedonian
- maths
- nature and scier
- music
- art
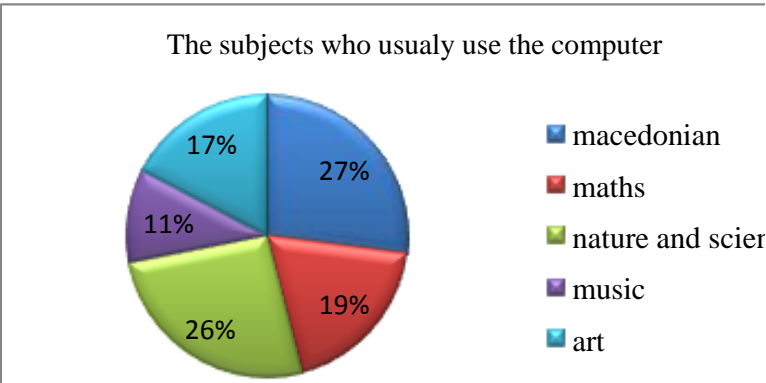
We tried to examine the opinion of teachers for which teaching content are best suited for implementation using a computer. Most of them believe that the most optimal appropriate is teaching nature and society (34%), and at least consider the subject suitable music education (7%).

Chart 3: Opinion of teachers for whom teaching content are best suited for the application of computer

The contents of which items you consider most suitable
for the application of computer

- macedonian
- maths
- nature and scier
- music
- art

24% 17% 34% 7% 18%

Most teachers have said that the application of computer in teaching process increases motivation and creativity among students (78%), while fewer are those who think they are not increasing (16%), and very few of those not noticed any changes in motivation and creativity of students using the computer in teaching practice (6%).

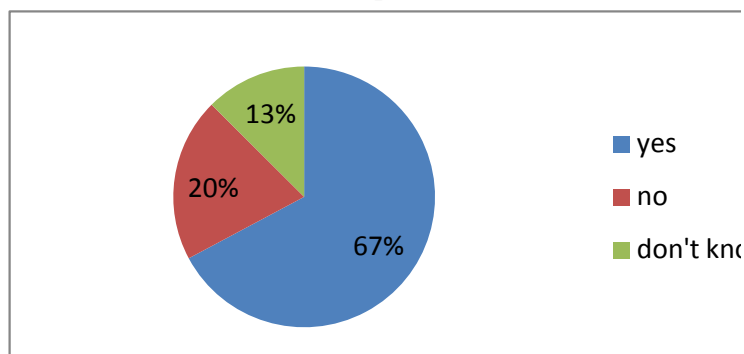***Chart 4: Do you think using the computer increases the motivation and creativity among students?***

6% 16% 78%

- yes
- no
- haven't noti
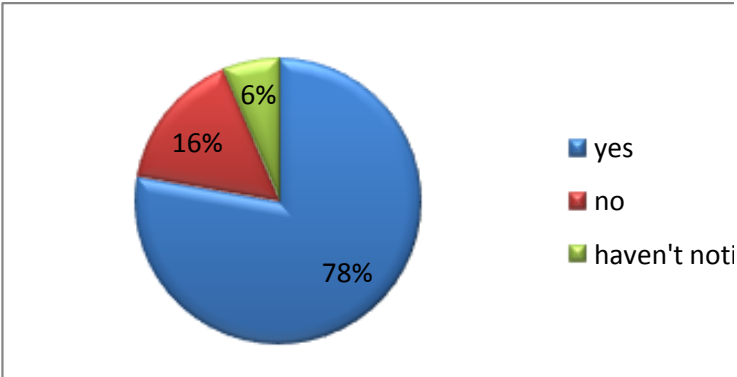
The question: "Do you improve the success of students, the objects that implement the computer?" respondents declare as follows: (chart 5).

Most of them (67%) believe that there is improvement in student success. This leads to the conclusion however that the use of computers and modern technology in the teaching process contributes to increasing the motivation and creativity among students, while it works and increase their school success.

Almost all schools covered by the sample, teachers reported to have internet in their school (97%). The question "Do you use resources from the Internet, outside the educational process to improve your educational practice?", most answered yes (85%), while the lower part was not used (15%).

In terms of what portals / tools teachers use in their teaching practice, teachers gave the following responses: 33% of them use ToolKid, 26% use online resources, 19% of the web portal korstat Skoool, 18% used materials Bureau of education, quite small fraction of them use other resources (3%) and Moodle (1%).

Chart 6: Which portal / tools you use in your teaching practice?
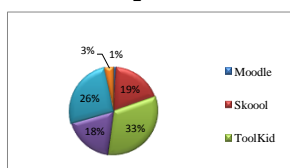
Finally we tried to examine the opinion of teachers, about the pros and cons of the use of computer in teaching process in class teaching. Common denominator of the opinions of teachers is that they approve use the computer in teaching, noting that it too should not be used, and only in certain school districts. In this context we attach the most typical responses from teachers themselves, for the question of the role of computer in enhancing educational practice:

- ➢ "There is a growing independence among students, themselves come to knowledge, pictures and data about what they learn";
- ➢ "Using the computer facilitates the promotion of the educational process";
- ➢ "We need to develop educational software for teaching all subjects";
- ➢ "The computer should be applied but not too often only on certain content";
- ➢ "Is useful but to sertain extent. It's to much present. It wears many negatively, it distract children from the essential task".

Conclusion

In recent year's modern information communication technology widely applied in all areas of the teaching process. The facts point to the conclusion that the application of computer in teaching contributes to improving the teaching process, in terms of increasing motivation and creativity among students and improve their school success.

For quality and proper application of computers in the educational process is necessary and appropriate quality education and preparation of teachers. From the data obtained we concluded that teachers are adequately trained to use the computer in teaching process, but also stressed that such training is not enough. This suggests that it is necessary to organize additional training and organizing a number of seminars in which teachers could confirm or improve their knowledge and also get the opportunity to be in step with the latest trends in the field of computerization of educational educational process.

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