

TEACHER PERCEPTIONS FOR USING COMPUTER AND MEDIA LEARNING (IKT) IN MACEDONIAN LANGUAGE TEACHING CLASS IN PRIMARY EDUCATION⁶

Irena Kitanova

Faculty of Educational Sciences
University "Goce Delcev" Stip, Macedonia
irena.kitanova@ugd.edu.mk

Sadudin Sadiki

Municipal High technical school – Gostivar
satko77@gmail.com

Abstract

The recent reform of education in the Republic of Macedonia has brought innovation in the use of technology in the teaching process as well as in the use of computers as a tool, but also as a method and a way to learn. Also, projects and curricula for computer learning have been developed in both primary and secondary schools.

In this context, this theoretically-empirical research combines the reality of the use of ICT tools in Macedonian language classes in elementary schools with segments defined in Macedonian language curriculum. With the empirical, descriptive and conclusive results gained in this research, where 88 Macedonian language teachers in the primary schools of Skopje, Gostivar and Stip were surveyed, a statistical difference ($\text{sig} = 0.028$) was observed in teacher attitudes per city in terms of level and the impact of ICT tools on the productivity of students in Macedonian language classes as well as the statistical difference ($\text{sig} = 0.043$) in teachers' attitudes by their age. In the end, the hierarchy of IKT tools was determined according to their level of use and the hierarchy of skills developed by the use of ICT tools in Macedonian language classes in elementary schools.

Keywords: computer usage; IKT tools; e-technology; teachers perceptions;

1. Introduction

Schools in the Republic of Macedonia are undergoing a historic change process of their ICT readiness which reflects the wider social integration of ICT technologies leading to the creation of a modern digital society and economy. School education sets the foundations for creating a society based on knowledge and citizens who are ready for active inclusion in the digital society and able to contribute to the development of the domestic economy. Seeing the long-term benefits of a quality and modern education system, The Republic of Macedonia, as its strategic priority, determines the investment in education as the safest way to create strong ones individuals and strong state. In this direction, a number of interconnected and

⁶ Revisional scientific paper

dependent initiatives are being undertaken which together lead to modernization of the educational process and improvement of the the quality of education, inter alia, by integrating digital technologies in teaching.

The use of computers and the Internet in schools is significant increased in the last decade, and one of the most important reasons is the need for students and students to acquire knowledge and skills that are essential for life and work in 21st years century.

Because computers and the Internet enable the use of useful tools and access to a myriad of information, the school teachers they help:

- ✓ Give pupils access to information that would otherwise be difficult available
- ✓ to meet the different ways of learning students (each student is taught with different tempo)

By using computers and the Internet, students can:

- find the desired information
- explore different topics
- develop the ability to find and collect information
- collaborate with other students on projects on the Internet

Anyway, computers and the Internet should be seen as an accessory, and not as a substitute for the traditional way of learning. Teachers' obligation is:

- identify strategies for collecting information
- determine the relevance of the information they find
- develop problem solving skills
- evaluate it efficiency and effectiveness of the solutions

2. Methodology of the research

2.1. Subject of research

This research provides an overview of the level and scope of the use of ICT tools as well as their impact on the productivity of students in the Macedonian language teaching class in the primary schools in the Republic of Macedonia.

2.2. Purpose and nature of the research

The purpose of the research is to examine the attitudes and opinions of teachers in primary education in the subject of Macedonian language on the level and impact of ICT tools in this subject, how many of them are used, what kind of educational needs are and what are the potential differences their views. The objective will be tested in the sense of:

- The level of use of ICT tools in this subject;
- The type of ICT tools outlined in the program plan;
- The impact of these tools in developing a child in each segment;
- Hierarchy of indicators of the psycho-social development of the child from the use of these tools;
- Hierarchy of tools according to the level of use in this subject;

2.3. General hypothesis

According to the attitudes and opinions of teachers in Macedonian language in primary education, the ICT tools allocated according to the curriculum for the subject in Macedonian language are sufficiently used, and they have a positive impact on the productivity and development of the students.

2.4. A sample of research and their characteristics

1. Example of municipalities (teachers who teach Macedonian language in the primary schools in Skopje, Gostivar and Stip).

2. A sample of primary schools (a total of 18 elementary schools, 10 in Skopje, 5 in Gostivar and 3 in Stip)

3. A sample of teachers in primary schools (a total of 88 teachers, 45 in Skopje, 17 in Gostivar and 26 in Stip).

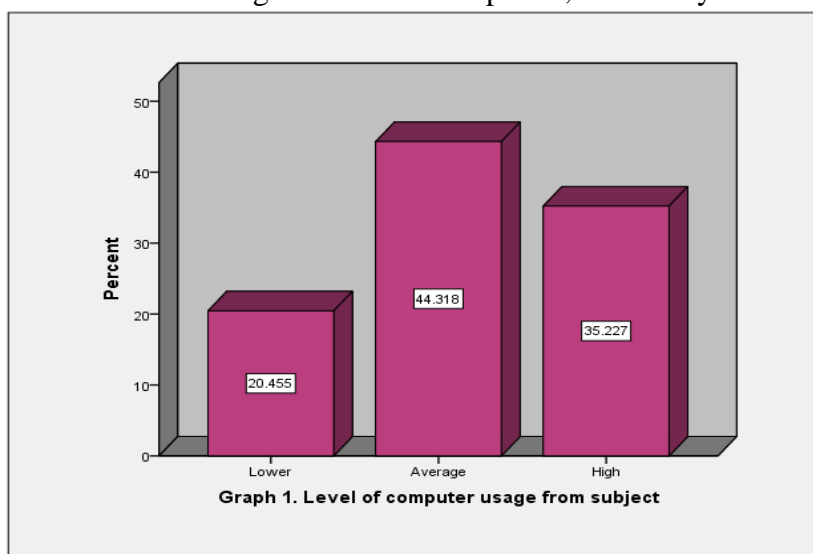
Table 1. Respondents by city

	F	%	Valid %	Cumu. %
Gostivar	17	19.3	19.3	19.3
Skopje	45	51.1	51.1	70.5
Stip	26	29.5	29.5	100.0
Total	88	100.0	100.0	

Table 2. Respondents by Gender

	F	%	Valid %	Cumu. %
Male	33	37.5	37.5	37.5
Female	55	62.5	62.5	100.0
Total	88	100.0	100.0	

According to the level of knowledge and use of computers, the surveyed showed three levels:

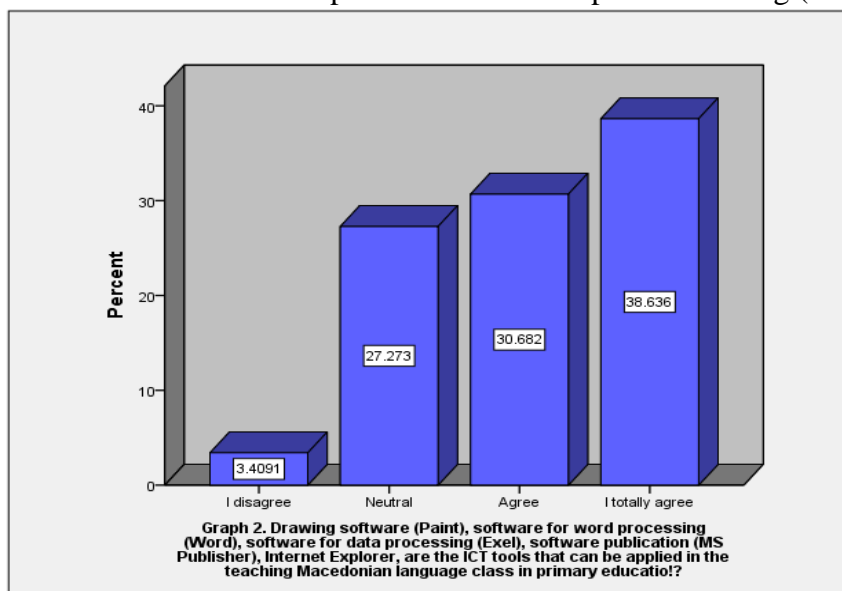


2.5. Data processing

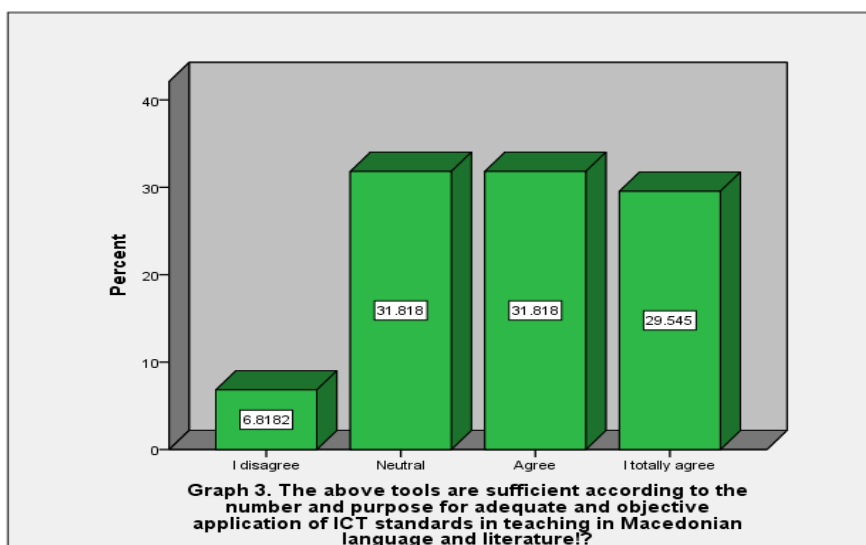
The research uses quantitative and qualitative data processing. In quantitative processing, several statistical procedures in the field of descriptive and inferential statistics are used, as follows: determines the frequency distribution, percentage and graphical representation of frequencies, t-test (data obtained from the questions from the native type). For the processing of data of this nature, the Statistical System for Social Sciences (IBM SPSS 20.0) is used. The remaining data, obtained from open issues, are qualitatively processed and analyzed.

3. Research results

After processing the data and their grouping, it was found that over 69% (30.682% Agree + 38,636% Totally Agree) of the surveyed teachers agree that Drawing software (Paint), software for word processing (Word), software for data processing (Exel), software publication (MS Publisher), Internet Explorer, are the ICT tools that can be applied in the teaching Macedonian language class in primary education. Which means that the percentage of teachers who do not agree with these tools as small and auxiliary tools that advocate for improving the productivity and development of the psycho-social skills of students in the teaching tools that are listed and in the plan of the ICT Prospectus teaching (Graph 2.).

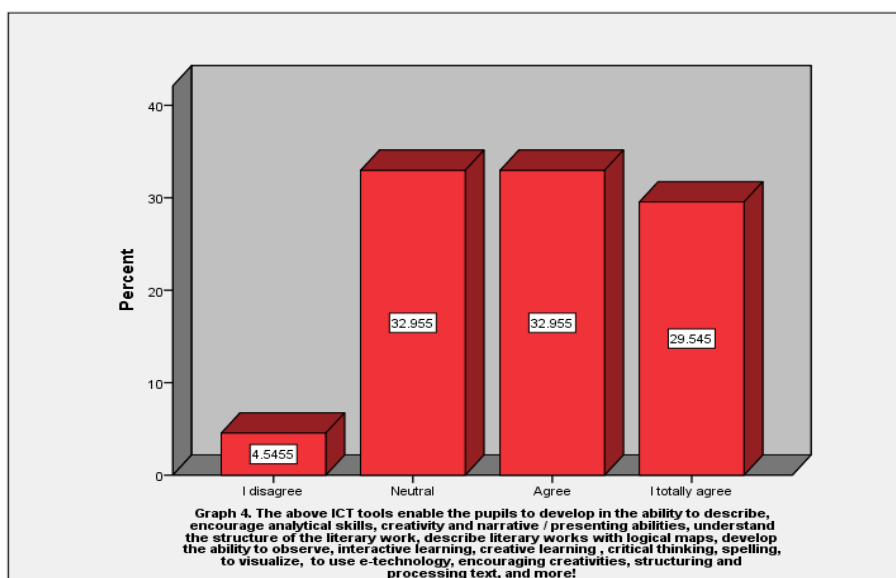


Regarding the question whether the above mentioned tools are sufficient according to the number and goal for appropriate and objective application of ICT standards in Macedonian language teaching, teachers have different opinions and that over 31% have no opinion on this, while around 7% think they are not enough and over 62% think that these tools are sufficient and that there is no need for other such tools to be targeted in the prospectus for ICT teaching (Graph 3.).

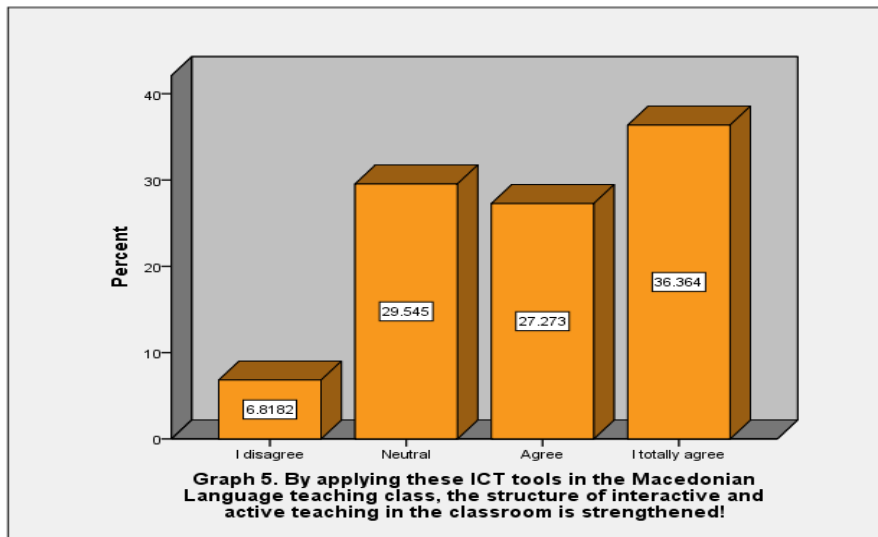


Almost the same proportion occurs on the next question that the above ICT tools allow the student to develop in the ability to describe, encourage analytical skills, creativity and narrative / presenting abilities, understand the structure of literary work, describe literary works with logical cards, develop ability to observe, interactive learning, creative learning, critical thinking, spelling, visualization capability, developing the ability to use e-technology, encouraging the creative abilities, structured and word processing, and more!

In this, about 62% are in favor of this, about 33% have a significant percentage with no opinion, and a lower percentage of 5 think that these tools do not allow students to develop the abilities and abilities mentioned above (Graph 4.).



Also, with a similar percentage, the teachers think that using these ICT tools in the class of Macedonian language strengthens the structure of interactive and active classroom instruction, and over 63% agree with this, about 30 do not have attitude and over 6% disagree with this (Graph 5.).

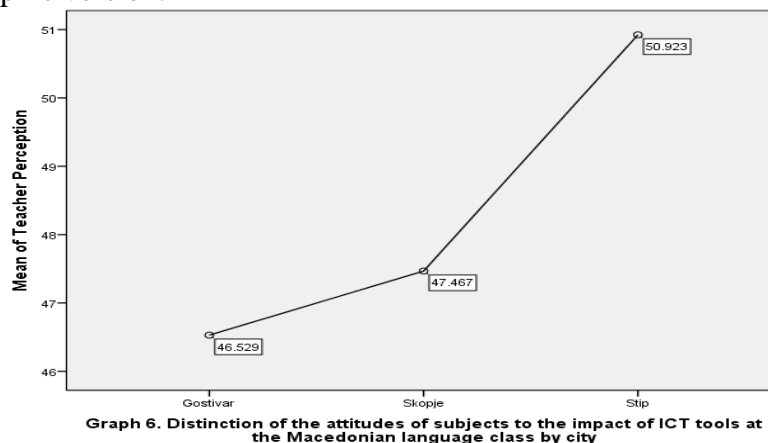


On the other hand, with statistical operations for significant statistical difference with T-test, these attitudes of teachers vary according to the city of living and acting, and according to significance in Table 3 below we can conclude that there is a statistical difference ($0.028 < 0.05$) in the attitudes of teachers according to the city, and the teachers from the city of Stip have positive opinions about the application and impact of ICT tools in the Macedonian language teaching class versus the teachers from the city of Skopje and Gostivar.

Table 3. Significance for mean of Teachers perception according the city - ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	263.434	2	131.717	3.720	.028
Within Groups	3009.281	85	35.403		
Total	3272.716	87			

Displayed in graphic version:

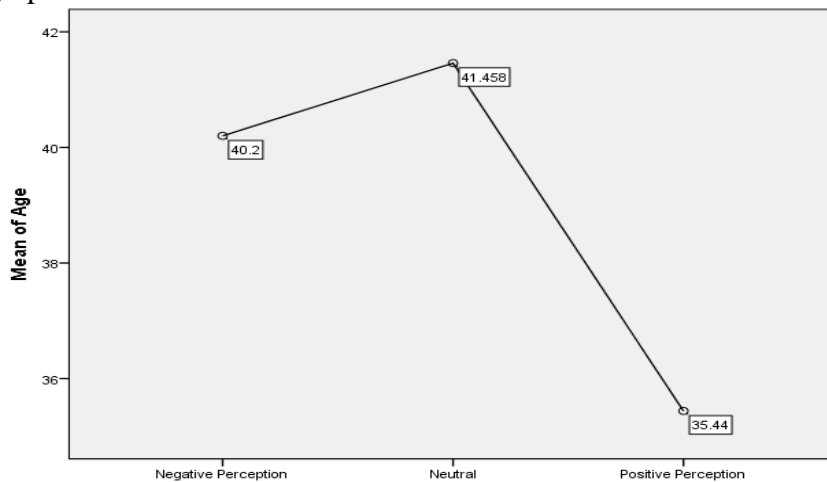


Also, a statistically significant difference ($0.043 < 0.05$) in teachers' attitudes towards the application of ICT tools in the Macedonian Language teaching curriculum also occurs according to the age of the teachers themselves, and younger teachers have positive attitudes (in this case the processing of the data the smaller value shows by a positive attitude) about the application of ICT tools to the more experienced and seniors teachers who have lesser or more negative views on the use and application of ICT tools in the Macedonian language class in primary education.

Table 4. Significance for mean of Teachers perception according age - ANOVA

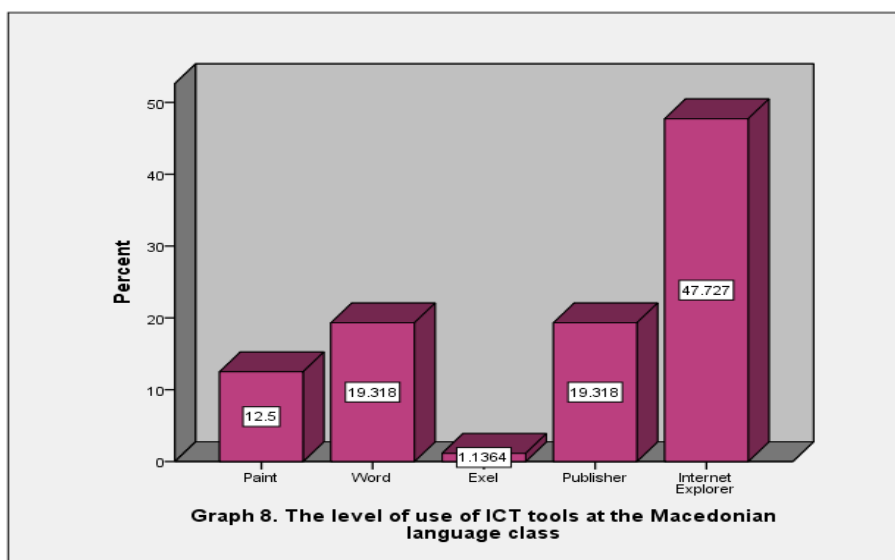
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	603.421	2	301.711	3.272	.043
Within Groups	7838.477	85	92.217		
Total	8441.898	87			

Displayed in graphic version:



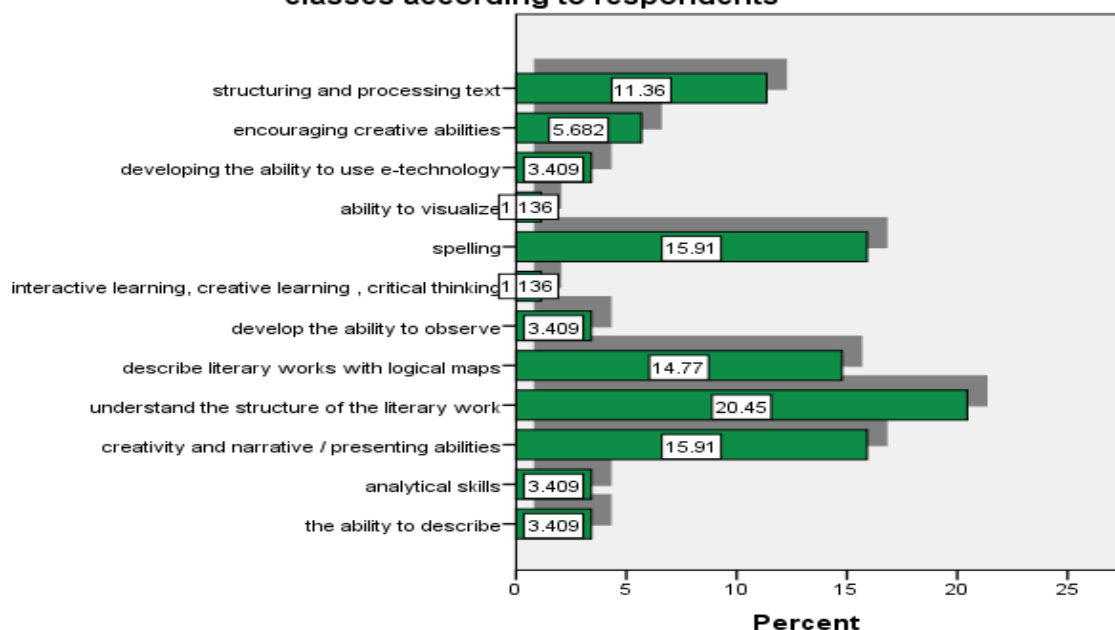
Graph 7. Distinction of attitudes of subjects on the impact of ICT tools at Macedonian language hours according to their age

According to the predetermined previous research goal, the graphs below show the levels of use of ICT tools by the surveyed teachers and the hierarchy of indicators for developing skills and abilities of students according to teachers who use and apply these above ICT tools in Macedonian language teaching and literature in primary education. Thus, according to Graphic 8, over 47% of teachers use an Internet Explorer during Macedonian language classes, with about 19% using the Publisher and the Word, and somewhat less, Paint and Exxel.



Also, according to teachers, the above ICT tools enable the student to develop in the ability to describe (3,4%), encourage analytical skills (3,4%), **creativity and narrative / presenting abilities (16%), understand the structure of the literary work (20,45%)**, describe literary works with logical maps (14,77%), develop the ability to observe (3,4%), interactive learning-creative learning-critical thinking (1,2%), **spelling (16%)**, ability to visualize (1,1%), developing the ability to use e-technology (3,4%), encouraging creative abilities (5,6%), structuring and processing text (11,36%)!

Graph 9. Skills developed with the use of these ICT tools at Macedonian language classes according to respondents



4. Conclusion and Recommendations

According to the main objective, which resulted in the main hypothesis of the research, "According to the attitudes and opinions of teachers in Macedonian language in primary education, the ICT tools allocated according to the curriculum for the subject in Macedonian language are sufficiently used and positively influence the productivity and the development of the students, we can conclude and conclude that a statistically significant number of

teachers have a positive opinion on the use and application of ICT tools after the hour in Macedonian language tour and that the application of these tools allows students to gain new skills and abilities that are positive about their psiko social development.

According to them, according to the students, using the tools in the Macedonian language class, it is possible to develop creativity and narrative / presenting abilities (16%), understand the structure of the literary work (20,45%), excellent spelling (16%).

4.1. Recommendation

- Determination of teachers' competence standards, on which basis they will the levels of training of ICT teachers are in accordance with / sets of professional and professional competencies of teachers in terms of titles (assistant teacher, teacher, teacher mentor).

- Assessment of the needs of teachers for the application of ICT in the educational process school work (can be done on the basis of self-assessment of the teachers of their competence and training on the educational use of ICT and the the contribution of ICTs to fulfill their new roles).

- Determining the possibilities of correlation with some projects that are already being realized in the primary schools, and within which the training of teachers for the teachers is also covered using ICT in the educational work in the school.

- Education / creation of teacher training modules, grouped into three levels (one team is desirable to work comprised of various experts - informatics, teacher, university professor in the field of education, competent persons from some project activities that in some way have experience, connection or it promote the application of ICT in the process of learning and teaching).

 - Education of manual materials / guides for teachers and other necessary resources.

 - Selection and appointment of trainers / service providers who will hold the training for teachers.

- Selection of teachers from different schools that will be covered by the training and which after the end of the training they will be appointed teachers for their schools (may be teachers already involved in some project activities or teachers who have a great desire or basic knowledge in the field of ICT).

- Determination of the dynamics of the coverage of teachers from the schools from the whole Republic.

- Determination of the duration for realization of individual modules, by levels, provided for the training of teachers.

- Preparation of the plan at the intervals for realization of the training (weekly or daily, for how many hours, etc.).

 - Preparation of materials for the teachers needed for the training.

 - Evaluation of the results of the training realized.

 - Producing and awarding certificates to teachers who attend the training.

- Engaging teachers who have completed three levels of training as mentors for transferring the acquired experience (knowledge and skills) for the application of ICT to teachers from their schools.

REFERENCES

- Burkhardt G., Monsour M., Valdez G., Gunn C, Dawson M., Lemke C., Coughlin E., Thadani V., Martin C., (2003), enGauge 21st Century skills: Literacy in Digital Age, North Central Regional Educational Laboratory and the Metiri Group
- Chigona A., Chigona W, (2010) An investigation of factors affecting the use of ICT for curriculum delivery in the Western Cape, 18th European Conference on Information System, Pretoria, South Africa
- Molnar G., (2007) New ICT Tools in Education – Classroom of the Future Project, The fourth international conference on informatics, educational technology and new media in education. A. D. Novi Sad. 332-339.
- Morehead P., LaBeau B., (2005), The Continuing Challenges of Technology Integration for Teachers, Essays in Education, Volume 15, fall 2005
- Syed Noor-Ul-Amin, (2013), An Effective use of ICT for Education and Learning by Drawing on Worldwide Knowledge, Research, and Experience: ICT as a Change Agent for Education, Department of Education, University of Kashmir.
- Бакаловска, И. (2014) „Прирачник за наставниците за користење на ИКТ во наставата
- Живановиќ Р., (2010), Употреба на компјутери и интернет во образовниот систем на РМ, Метаморфозис фондација за одржливи информатички решенија
- Министерство за информатичко општество, (2010), Национална стратегија: Стратегија за развој на е-содржини 2010-2015, Министерство за информатичко општество