

Open school and EMILIN's model of work in teaching methodology

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Abstract

EMILIN model-electronic model for innovative-logical research of teaching process, represents innovation which student and teacher can use together through physical contact and live word of teacher, but with assistance of information technologies. School now days are considered organisers, directors and coordinators of all programs related to general development of young people and social environment in which they act and will be more considered as such in future. Therefore, schools, will be less considered as teaching institutions and more considered as organisers of teaching and various social, cultural and teaching actions and programs in environment with larger number of participants from its environment: parents, companies, associations, organisations and order interested subjects. In order to achieve such social intention of school it is necessary to connect, cooperate and act along with social environment.

Aim: The aim of this paper is to examine the level of satisfaction and usage of it and new e-model of innovative-logical research of teaching.

Methods: This research is conducted in primary schools in Bosnia and Herzegovina (Federation, Republic Srpska and district Brcko) during 2018/2019. This research included 797 respondents (539 students and 259 teachers) in 12 primary schools.

Results: Nearly half of respondents evaluated as good or excellent the question about usage of computers and new EMILIN model in teaching and teachers of primary schools have shown approval of its application, but with statistically significant difference in this evaluation.

Conclusion: EMILIN model facilitates learning, and teachers and students are satisfied with new ways of work with help of this model and IT.

Key words: *Open school, inovations, Emilin model, teaching process learning.*

1. Introduction

The modern school enables the adaptation of learning process to each student individually in accordance with his abilities, desires and motivation. Among other things, it also involves usage of gadgets such as tablets, mobile phones, smart boards, and thus while being networked students are able to acquire new knowledge. They are able to work and cooperate in different ways and especially important to be mentioned is encouraged and achieved interaction. (Glasser, 1994)

The school should be the initiator of mutual pedagogical performance. In that sense, it becomes the central environment in which through operating various pedagogical activities, students are gathered and their complete upbringing is enabled. In this way, it is possible to achieve comprehensive opening and bonding with the environment in which it operates and therefore the symbolic name of "open school" is given.

An *open school* cannot be satisfied with teaching alone. The present time demands a content-rich school, which does not mean overloaded students by content. The school should have a good measure of compulsory material and meet the individual interests of students, as well as the needs of the environment. It also involves a good balance of all forms and types of teaching (eg. regular, elective, optional, extended, etc.). Free activities in extracurricular activities should always be added to the obligatory teaching contents. This requires open access and free choice of content and methods of work. Extracurricular activities always provide an opportunity to create a lively school environment, ie a school adapted to the needs of life. They always create divers' activities from multiple fields where greater freedom and independence of students is expected, as well as cooperation between the environment and the family (Puževski, 2002).

In final, the teachers are those who should be involved all these activities, which create an open school. In particularly, teacher engagement must be focused primarily on planning and implementing pedagogical ideas and pedagogical practice. In that way, the school becomes a real place of social upbringing and education of young people. The quality of teaching would certainly be improved by this way of working. Learning would be reduced to what is possible and what is useful, which is in fact our main goal (Aleksić, 2018).

There is no doubt that the electronic model of innovative-logical study of teaching or shorter EMILIN-model is a proposal to improve the teaching process with the help of information technology and certainly represents a new way of working in teaching methodology. This model is designed as a virtual classroom and virtual organization equipped with current electronic and computer devices. All these devices are connected into a single system that has its own software to manage it. In that classroom, the teacher realizes the curricula and contents through specially prepared virtual lessons. Classes are organized and implemented in such a way as to achieve the overall interaction of teachers and students, and also between students and students. Learning new content, practicing what has been learned and checking is done also using a electronic devices (laptop, tablet).

Further on, EMILIN-model implies also a distinctive look and equipment of the classroom, as well as the arrangement of tables and devices within it. One such classroom should include the following: computers, tablets, small storage server, smart board, projector, smartphones, digital cameras, video cameras, microphones, mini television and radio studio for recording and editing shows, photocopiers, scanners, printers, TV sets, speakers, headphones, custom school furniture, etc. Teachers must be professionally trained to determine certain parts of the teaching content that can be converted and realized in the form of virtual lessons (creation of their own films, radio shows, picture galleries, etc.) (Aleksić, Kudumović, 2016).

Teachers are required to be able to use and work with computers and computer programs of different types, as well as video cameras and to create videos, take photos etc. Teachers must be

specially prepared for this way of working. Also, they are expected to be ready for daily improvement and upgrading of their competencies according to the lesson which they will deliver, because each lesson requires special attention individually and therefore particular way of performing. One of the good solutions for the introduction of information technology in teaching is the creation of special applications for each subject. In these applications, special tools are created that monitor the needs of the teaching content of a particular subject.

Applications would be different from already designed and used computer programs in the teaching process and would be adapted to the characteristics of teaching content and different systems for its learning. As an example, we can cite the creation of an application for learning the mother tongue called PROJEZ (application created for learning the curriculum of the mother tongue). This application includes the following tools, such as literary processing tools, grammar processing tools, expression culture processing tools, and special tools that can link that content to some other content from the internet and other files. In the group of tools for processing literature, there are those which helps to find faster and easier unknown words in the texts, characters, characteristics of the characters and some other possibilities. Tools for processing grammar lessons include underlining certain types of words (nouns, adjectives, verbs), then sorting those types of words, etc.

The work plan and schedule of classes according to this model is somewhat different from the classical teaching. For this way of working, a block of classes of two subjects is planned in accordance with the correlative contents that are taught according to the operational plan. Thus, a block class of mother tongue and art culture is created, if similar contents are taught at the same time. The block class for work is planned due to the time spent preparing for the work of various devices, as well as their storage after finishing work, students are well motivated and their attention is greater throughout the time. Since the contents from different subjects would be used and connected, then it takes enough time to import it all into one whole (Aleksić, Kudumović, 2021)

2. Methodology

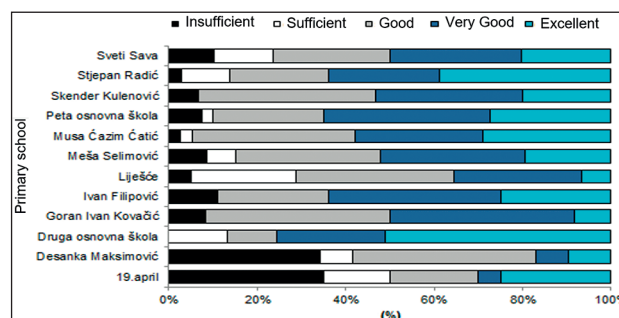
The research was conducted as applied research, using different research methods, including method of theoretical analysis, descriptive method, causal method and Survey method. Various techniques (surveying, scaling, testing, interviewing) were also used in the research. The descriptive method in the research of upbringing and education is a set of scientific-research procedures that describe phenomena in upbringing and education (Aleksić, 2018). The research was conducted in primary schools of Bosnia and Herzegovina in both entities (Federatia and Republic Srpska) as well as in primary schools of Brčko District, and in several schools in the Republic of Croatia. A total of 797 respondents were included.

3. Results

The research covered a total of 12 primary schools. Respondents were informed in advance about the time of the survey, as well as the main goals of their participation in the research. The content of the survey was prepared in advance so that the questions used to collect the data needed to examine and describe the given phenomena were clearly specified.

To the question: “How much does the use of computers and the new EMELIN model in teaching make learning easier for you?”, The answers are shown in table 1.

Out of a total of 539 students, one fifth of the respondents (21.4%) rated the use of computers in teaching as insufficient or Sufficient to facilitate learning, 30.1% of them graded with medium grade (good), while close to half of the respondents or 48.5% graded as very good or excellent (Aleksić, 2018).



Graph 1. How much does using a computer make learning easier for you?

Out of a total of 539 students, the majority of respondents (53.5%) are satisfied or very satisfied with the use of computers for learning purposes, as well as with the use of the new learning model.

EMILA’s model by teachers checking knowledge through computers, 19.3% of them graded as good, while 27.3% of respondents graded as insufficient or sufficient.

It can be concluded that teachers of 12 primary schools express satisfaction with the use of the EMILIN model and IT (there is a statistically significant difference) and evaluate that satisfaction

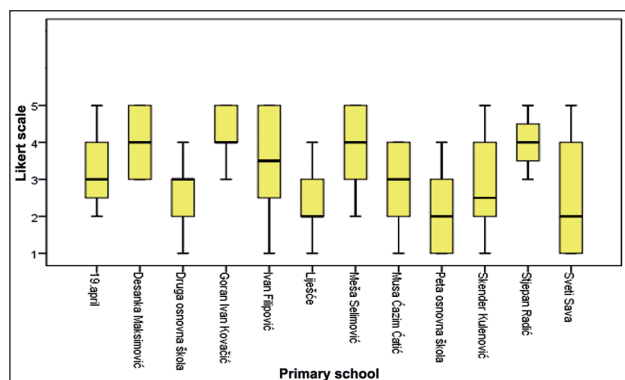
Table 1. How much does the use of computers and the new EMELIN model in teaching make learning easier for you?

Primary school	Insufficient		Sufficient		Good		Very good		Excellent	
	N	%	N	%	N	%	N	%	N	%
19.april	7	35.0	3	15.0	4	20.0	1	5.0	5	25.0
Desanka Maksimović	28	34.1	6	7.3	34	41.5	6	7.3	8	9.8
Druga osnovna škola			6	13.3	5	11.1	11	24.4	23	51.1
Goran Ivan Kovačić	2	8.3			10	41.7	10	41.7	2	8.3
Ivan Filipović	4	11.1			9	25.0	14	38.9	9	25.0
Liješće	3	5.1	14	23.7	21	35.6	17	28.8	4	6.8
Meša Selimović	4	8.7	3	6.5	15	32.6	15	32.6	9	19.6
Musa Ćazim Ćatić	1	2.6	1	2.6	14	36.8	11	28.9	11	28.9
Peta osnovna škola	3	7.5	1	2.5	10	25.0	15	37.5	11	27.5
Skender Kulenović	1	6.7			6	40.0	5	33.3	3	20.0
Stjepan Radić	1	2.8	4	11.1	8	22.2	9	25.0	14	38.9
Sveti Sava	10	10.2	13	13.3	26	26.5	29	29.6	20	20.4

Table 2. How satisfied are you with the use of computers for learning purposes and the EMILIN work model by your teachers?

Primary School	Insufficient		Sufficient		Good		Very Good		Excellent	
	N	%	N	%	N	%	N	%	N	%
19.april	5	25.0			1	5.0	4	20.0	10	50.0
Desanka Maksimović	39	47.6	9	11.0	11	13.4	9	11.0	14	17.1
Druga osnovna škola	6	13.3	6	13.3	6	13.3	4	8.9	23	51.1
Goran Ivan Kovačić	2	8.3	1	4.2	1	4.2	10	41.7	10	41.7
Ivan Filipović	1	2.8	2	5.6	6	16.7	11	30.6	16	44.4
Liješće	5	8.5	3	5.1	22	37.3	14	23.7	15	25.4
Meša Selimović	7	15.2	1	2.2	10	21.7	16	34.8	12	26.1
Musa Ćazim Ćatić	2	5.3	4	10.5	9	23.7	12	31.6	11	28.9
Peta osnovna škola	2	5.0	2	5.0	7	17.5	17	42.5	12	30.0
Skender Kulenović	3	20.0			3	20.0	4	26.7	5	33.3
Stjepan Radić	4	11.1	3	8.3	9	25.0	13	36.1	7	19.4
Sveti Sava	17	17.3	23	23.5	19	19.4	20	20.4	19	19.4

statistically significantly differently ($H = 70.956$; $df = 11$; $p < 0.001$), (Aleksić, 2018).



Graph 2. (EMILIN model)

4. Conclusion

Teachers and students are satisfied with the new ways of working, with the help of the EMILIN model of teaching and IT. Almost half of the students graded as very good or excellent, when asked about the grade for the use of computers and the new EMILIN model in teaching, and primary school teachers express satisfaction with its application, there is a statistically significant difference in that grade.

Schools must think about their future and the needs of modern society and thus modernize their work organization. With the help of the EMILIN model of teaching, it is quite possible to achieve this, because it certainly represents a reform of the traditional way of working.

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