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THE INFLUENCE OF MODERN FORMS OF LEARNING ON THE EMOTIONAL CLIMATE IN THE LEARNING PROCESS

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Abstract:

Modern forms of learning encourage an active attitude of students towards learning and the knowledge they need to acquire. These forms prepare students for the future and help them navigate the modern society and changes brought about by the 21st century. With the development and modernization of technology, changes also occur in education. Teaching, as the most organized form of education, must keep pace with the time. In modern teaching, there is a greater emphasis on the student and their activity. The teacher must first engage the student in productive work and then develop their motivation for learning. The theoretical part of this paper explores and explains traditional and modern forms of learning. The research part aims to identify students' subjective attitudes towards the application of new forms of learning.

Keywords: *traditional teaching, forms of work, modern forms of learning, modern approach to teaching, differentiated teaching, individualized teaching, student motivation.*

JEL classification: I21

INTRODUCTION

If we start from the basic requirement of the modern approach to education, which is based on the active construction of knowledge, then we must strive to teach students self-learning and problem-solving skills.

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Unlike the prevalent traditional and frontal forms of work, which are based on the passive role of students and a greater emphasis on reproducing the material to be learned, modern forms of learning encourage an active attitude of students toward learning and the knowledge they need to acquire. The theoretical part of the paper explores and explains traditional and modern forms of learning and ways to encourage greater internal motivation among students.

1. TRADITIONAL TEACHING

Based on theoretical foundations, structure, and relationships between teaching factors, there are two groups of teaching systems: traditional and innovative. According to Ilić (2020), “The traditional teaching system is conducted as lecture-based, catechetical, or maieutic teaching, or a combination of these systems and their variants” (p. 219). Lecture-based teaching is the oldest teaching system where the teacher lectures and explains, and students memorize and reproduce that knowledge. This form of teaching is more focused on lecturing and testing, omitting repetition and practice, thus neglecting student activities.

Catechetical teaching is based on conversation. The teacher asks questions, and the student provides pre-prepared answers. The student must have previously learned the material and know the answer to the question. The roots of this teaching are found in medieval church schools.

Maieutic teaching aimed to correct the errors of catechetical teaching. Using the Socratic method, it sought to elicit certain answers from students before they were introduced to the material. It is also called exploratory teaching, where the student receives additional questions based on their answers (R. Krulj, Vidosavljević, 2020).

2. FORMS OF TEACHING WORK

In traditional teaching, the frontal form of work is most common. This is justified by its efficiency and ease of organizing the teaching process. Over time, other forms of work such as individual, tandem, and group work have begun to be applied in classroom-subject teaching to compensate for the shortcomings of lecture-based work. The form of work used during a class depends on the didactic triangle: the teacher, the student, and the content to be learned. That is the class goal, the age of the students, and the teacher’s approach (Simeunović, Spasojević,

2005). With the modernization of educational technology, the didactic triangle in modern teaching expands into a quadrilateral.

3. MODERN APPROACH TO TEACHING

When we say the modern approach to teaching, what does that mean? It primarily refers to the modernization of the educational process, which includes the application of various methods, teaching aids, and forms of work. Knowing that teaching exists for learning, teacher activity cannot be imagined without the creative activities of students. Traditional teaching and learning cannot meet the needs of modern society. Consequently, there is a desire to overcome outdated education and accept more advanced methods already prevalent in the world (O. Dmitrović, 2004a).

4. MODERN FORMS OF LEARNING

It is scientifically proven that what students discover themselves remains in their memory longer, stimulates internal motivation, and students feel great satisfaction with their achieved success. Therefore, students should be encouraged to explore, experiment, and solve problems. Knowing that learning lasts a lifetime, it implies changing the individual based on their activities and previous experience (O. Dmitrović, 2004b; Simeunović and Stojaković, 2005).

Active learning

In line with the present, which is rich in various societal changes and accelerated technological development, the approach to student learning is also changing. According to Veličković (2005), “Active learning is a conscious and planned effort to acquire new knowledge. It involves full mental activity, reasoning, thinking, comparing, creative engagement, and maximum concentration” (p. 168). The emotional climate is crucial for students’ knowledge acquisition and progress. The teacher’s personality plays a significant role in creating a favorable working atmosphere and motivating students to learn (Omerović, Džaferagić-Franca, 2012).

4.2 Learning through problem solving

In modern teaching, problem-based learning and teaching have found application in all subjects from the earliest age. Some advantages of problem-based learning include: stimulating students' internal motivation; achieving more quality and long-lasting knowledge; developing critical thinking; connecting previous knowledge with new information; and enhancing student collaboration. However, every learning method has its drawbacks, such as not all teaching topics being suitable for this form of learning, requiring more time for realization, and being demanding. Therefore, various forms of learning should be used (Ljubisavljević, 2019).

Project-based learning

Another form of independent and active learning that has come to prominence at the beginning of the 21st century is project-based learning. John Dewey's ideas have been revived through students' creative research. John Dewey (1859-1952) was an American educator who sharply criticized the verbalistic model of learning and teaching and shifted the focus to how to learn, i.e., student activity. According to him, the student should learn independently and form their knowledge along the way. He is the precursor of constructivist knowledge.

Discovery learning

Discovery learning or creative learning is essentially learning with the help of instructions. The student discovers principles and rules based on their curiosity and investigative spirit. This learning helps students develop discovery techniques, form their knowledge, and stimulate internal motivation. This learning is a form of individualized teaching based on many theoretical principles, eventually forming concepts and solving problems (Mihajlović, 2013).

Computer-based learning

In the 21st century, children encounter computers from an early age and accept them as part of their daily lives. The application of computers in learning offers great opportunities for students. Besides significantly activating students for independent work, it allows for the

individualization of teaching. This form of learning encourages students' self-initiative and success in their work (O. Dmitrović, 2004b).

5. RESEARCH METHODOLOGY

Problem and subject of research

The research subject will encompass both theoretical and research parts. The theoretical part of the work will approach the study of traditional and contemporary forms of learning. In the second research part, the focus will be on identifying the impact of contemporary forms of learning on the emotional climate of students.

The problem of the research is to what extent the application of contemporary forms of learning enhances the motivational framework of learning and the supportive emotional climate in the classroom among students. By ensuring these assumptions, from a passive position in traditional teaching, the student becomes an active participant and to a greater extent the bearer of individualized and differentiated teaching, with the teacher as a collaborator on that path. If we want to form young people who will strive for independent and lifelong learning, then education should be directed accordingly.

The theoretical, spatial, temporal, and disciplinary determinants encompass the subject of this research. The spatial determination of the research subject will include students from the second triad of the Public Elementary School "Petar Kočić" in Nova Topola. The temporal determination of the research is focused on both past and present times. The past time is analyzed through previous research, practical experiences, and traditional approaches to teaching. The present time is investigated through contemporary forms of learning, methodological assumptions, and practical research results.

Research goals

The general goal of this theoretical study and research is to obtain data on the impact of applying modern forms of learning on establishing a positive emotional climate in the learning process.

Research tasks

Determine whether modern forms of learning affect a more favorable emotional climate for acquiring new knowledge and relationships among students.

Hypothesis

It is assumed that modern forms of learning positively influence the emotional climate for acquiring new knowledge and relationships among students.

Research variables

For this research, independent and dependent variables have been defined.

Independent variable: Application of modern forms of learning.

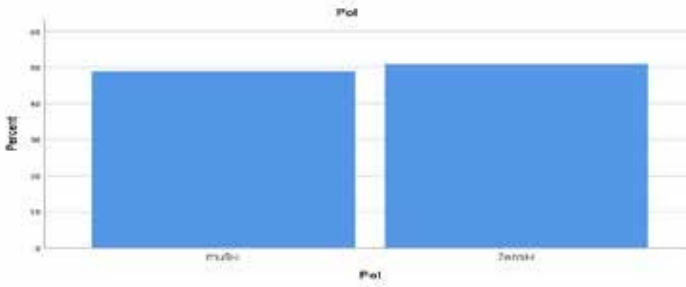
Dependent variable: Emotional climate in the learning process.

6. RESEARCH METHODS, TECHNIQUES, AND INSTRUMENTS

This study employs methods, techniques, and instruments selected according to the problem, subject, goal, and research tasks. For developing this research concept to be conducted within one school, a descriptive method was applied. Within the descriptive method, surveying was used as the research technique, and the survey questionnaire was the research instrument. The questionnaire consists of closed, open, and combined questions.

7. POPULATION

The research population consists of fourth and fifth-grade students from the Public Elementary School "Petar Kočić" in Nova Topola. The sample included students from two fourth-grade classes - 43 students (21 boys and 22 girls) and three fifth-grade classes - 57 students (28 boys and 29 girls).



Graph 1: Comparative graphical representation of gender representation in the research.

Gender			
		Frequency	Percent
Valid	Male	49	49,0
	Female	51	51,0
	Total	100	100,0

Table 1 Gender structure of fourth and fifth-grade students

From Graph 1 and Table 1, we can see that 100 students participated in the research. Of the total number of students, 49% were male and 51% were female. From this, we can conclude that the gender structure of the research sample is balanced.

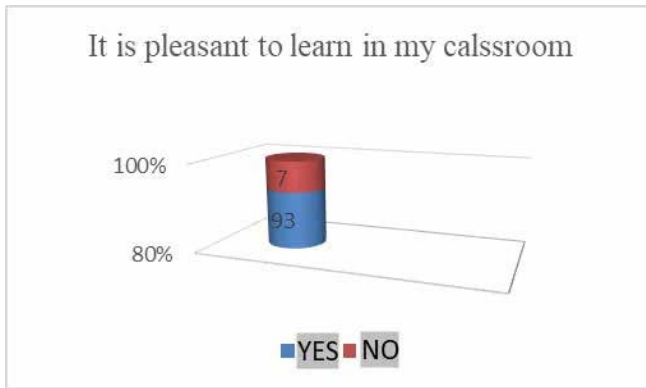
8. ANALYSIS OF RESEARCH RESULTS

The research conducted on a sample of 100 students aimed to identify the impact of contemporary forms of learning on the emotional climate for acquiring new knowledge.

9. CONTEMPORARY FORMS OF LEARNING HAVE A MORE FAVORABLE IMPACT ON THE EMOTIONAL CLIMATE FOR ACQUIRING NEW KNOWLEDGE

It is pleasant to learn in my classroom

A classroom with a pleasant atmosphere and a place where students learn together positively influences the internal motivation of students.



Graph 2: It is pleasant to learn in my classroom

		Frequency	Percent
Valid	YES	93	93.0
	NO	7	7.0
	Total	100	100.0

Table 2 It is pleasant to learn in my classroom

According to the data from Table 2 and Graph 2, students agreed that 93% of them find it pleasant to learn in their classroom. The statistical significance of this question is represented by a T-test sample.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error
1. U mojoj učionici mi je lijepo učiti	100	1,07	0,256	0,026

One-Sample Test

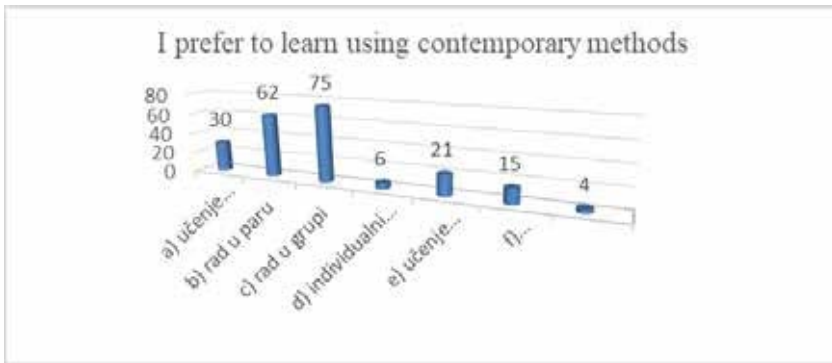
Test Value=1.5						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
1. U mojoj učionici mi je lijepo učiti	-16,769	99	0,000	-0,430	-0,48	-0,38

The mean value of 1. It is pleasant to learn in my classroom, $M(99) = 1.07$, is statistically significantly different from the test value $\mu = 1.5$ (for question 1. It is pleasant to learn in my classroom ($\mu = 1.5$), $t(99) = -16.769$; $p < 0.001$). Based on these data from the T-test sample for question 1. It is pleasant to learn in my classroom, the specific hypothesis

1. I assume that contemporary forms of learning have a more favorable impact on the emotional climate for acquiring new knowledge.

I prefer to learn using contemporary methods

Teaching in the 21st century requires students to take a more active and independent role in learning. The teacher, with the help of appropriate methods, tools, and techniques, should help the student towards independence and active construction of their knowledge.



Graph 3: I prefer learning using contemporary methods.

	Frequency	Percent
2. I prefer learning - a) discovery and exploration learning	O 70	70.0
	Da 30	30.0
2. I prefer learning - b) working in pairs	O 38	38.0
	Da 62	62.0
2. I prefer learning - c) working in groups	O 25	25.0
	Da 75	75.0
2. I prefer learning - d) individual work	O 93	93.0
	Da 7	7.0
2. I prefer learning - e) learning through computers	O 78	78.0
	Da 22	22.0
2. I prefer learning - f) cooperative/team learning	O 85	85.0
	Da 15	15.0

Table 3: I prefer learning using contemporary methods.

From the attached Graph 3 and Table 3, we can see that students like and apply contemporary learning methods. Interestingly, students even in 64.3% like to learn in pairs and groups. The statistical significance of this question is represented by a T-test sample.

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
I prefer learning - a) discovery and exploration learning	100	0,30	0,461	0,046
I prefer learning - b) working in pairs	100	0,62	0,488	0,049
I prefer learning - c) working in groups	100	0,75	0,435	0,044
I prefer learning - d) individual work	100	0,07	0,256	0,026
I prefer learning - e) learning through computers	100	0,22	0,416	0,042
I prefer learning - f) cooperative/team learning	100	0,15	0,359	0,036
I prefer learning - g) other	100	0,00	,000 ^a	0,000

One-Sample Test						
	Test Value = 0.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
2. I prefer learning - a) discovery and exploration learning	-4,342	99	0,000	-0,200	-0,29	-0,11
2. I prefer learning - b) working in pairs	2,460	99	0,016	0,120	0,02	0,22
2. I prefer learning - c) working in groups	5,745	99	0,001	0,250	0,16	0,34
2. I prefer learning - d) individual work	-16,769	99	0,000	-0,430	-0,48	-0,38
2. I prefer learning - e) learning through computers	-6,725	99	0,000	-0,280	-0,36	-0,20
2. I prefer learning - f) cooperative/team learning	-9,753	99	0,000	-0,350	-0,42	-0,28

The mean value of 2. I prefer learning using contemporary methods - b) working in pairs

$M(99) = 0.62$ is statistically significantly different from the test value $\mu = 0.5$ (for question 2. I prefer learning using contemporary methods - b) working in pairs ($\mu = 0.5$), $t(99) = 2.460$;

$p < 0.05$; $p = 0.016$). The mean value of 2. I prefer learning using contemporary methods - c) working in groups $M(99) = 0.75$ is statistically significantly different from the test value $\mu = 0.5$ (for question 2. I prefer

learning using contemporary methods - c) working in groups ($\mu = 0.5$), $t(99) = 5.745$; $p < 0.00$

The research hypothesis is that there are differences in the opinions of respondents regarding question 2. I prefer learning using contemporary methods – b) working in pairs and - c) working in groups is supported.

When we have a sufficiently large sample (when $N > 50$), Pearson's correlation coefficient is used.

N=100	a) Discovery and exploration learning	b) Working in pairs	c) Working in groups	d) Individual work	e) Learning through computers	f) Cooperative/team learning	
2. I prefer learning when-a) discovery and exploration	r	1	0,018	-0,126	-0,094	-0,084	0,153
	p		0,859	0,212	0,352	0,404	0,129
2. I prefer learning when-b) working in pairs	r	0,018	1	0,167	-0,189	-0,131	-0,017
	p	0,859		0,098	0,060	0,193	0,864
2. I prefer learning when-c) working in groups	r	-0,126	0,167	1	-,204*	-0,028	-,210*
	p	0,212	0,098		0,042	0,783	0,036
2. I prefer learning when-d) individual work	r	-0,094	-0,189	-,204*	1	-0,146	-0,115
	p	0,352	0,060	0,042		0,148	0,254
2. I prefer learning when-e) learning through computers	r	-0,084	-0,131	-0,028	-0,146	1	0,115
	p	0,404	0,193	0,783	0,148		0,255
2. I prefer learning when	r	0,153	-0,017	-,210*	-0,115	0,115	1
	p	0,129	0,864	0,036	0,254	0,255	

There is a negative correlation (Pearson's correlation factor) between
 2. I prefer learning - c) working in groups and
 2. I prefer learning - f) cooperative/team learning

The correlation is weak but statistically significant $r(100) = -0.210$;
 $p < 0.05$; $p = 0.036$.

CONCLUSION

To face new challenges at work, students need to adopt skills in communication, information management, technology usage, and complex problem-solving alongside factual knowledge. It is beneficial for students to learn how to learn from an early age. The application of contemporary learning forms helps and stimulates them in this regard.

Interaction is something that drives us and directs us towards the desired goal. The environment is very important for successful learning as it affects the student's energy and persistence in achieving a certain desired goal. The teaching process should use learning strategies that will motivate the student. By applying various contemporary methods, techniques, and strategies, the development of knowledge, skills, and attitudes in students is encouraged. It is important that students know how to apply their knowledge in new situations, be ready to persist in finding solutions to problems, and be socio-emotionally prepared to cooperate with others and take responsibility for their actions.

Research results have shown that contemporary learning forms have a positive impact on student motivation. Students have expressed particularly positive attitudes towards group work, competitive spirit, collaboration, independence, motivation, and friendship, all of which are encouraged by the application of contemporary learning forms. These learning forms also contribute to better student socialization, improve communication, foster creativity and critical thinking, and help in developing more lasting knowledge.

UTICAJ SAVREMENIH OBLIKA UČENJA NA EMOCIONALNU KLIMU U PROCESU UČENJA

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Abstrakt:

Savremeni oblici učenja podstiču aktivan stav učenika prema učenju i znanju koje treba da usvoji. Oni pripremaju učenika za budućnost i snalaženje u savremenom društvu i promjenama koje donosi XXI vijek. Sa razvojem i modernizacijom tehnologije dolazi do promjena i u obrazovanju. Nastava kao najorganizovaniji oblik obrazovanja treba da ide u korak sa vremenom. U savremenoj nastavi veći je akcent na učeniku i njegovoj aktivnosti. Nastavnik treba prije svega da uključi učenika u produktivni rad, a zatim i da razvija njegovu motivisanost za učenje. U teorijskom dijelu ovog rada pristupa se istraživanju i objašnjavaju tradicionalnih i savremenih oblika učenje. Dok u istraživačkom dijelu rada želi se identifikovati kakav je subjektivni stav učenika o primjeni novih oblika učenja.

Ključne riječi: *tradicionalna nastava, oblici rada, savremeni oblici učenja, savremeni pristup nastavi, diferencirana nastava, individualizovana nastava, motivacija učenika.*

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