

**THE ATTITUDES AND THE OPINIONS OF THE
ELEMENTARY SCHOOL TEACHERS IN GRADES I-III IN
SEVERAL PRIMARY SCHOOLS IN SKOPJE AND THE
SURROUNDING AREAS ABOUT THE GAME ACTIVITIES AS
MOTIVATORS DURING MATHEMATICS INSTRUCTION.**

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ABSTRACT:

Motivation is the main factor of teaching and encouragement that increases student activity, their interest and willingness to learn. Motivation is a process that should be initiated by the teacher, to motivate means to encourage internal resources of individuals, their sense of skill, respect, autonomy and self-realization. An essential factor which affects students' motivation is the game. The game as an activity that is accomplished in math classes is the best way to awaken interest in learning. The attitudes and opinions of lower primary teachers in elementary schools regarding game activities as motivators in math classes are one of the key indicators for the effect of their implementation. The survey sample consists of 123 surveyed teachers (who in the 2014/2015 school year lecture in the first, second and third grade) from nine elementary schools from Skopje with its surroundings. The research results will help teachers' self-awareness about the importance and impact of games as motivators in math classes. Hopefully the results of this research are to push creativity and advancement of seeking the ideal model to motivate students to mathematics.

Key words: Students, game, motivation, learning, mathematics

INTRODUCTION

For a long time many experts, such as pedagogues, and mathematicians were engaged in debates about the role of the games and their influence in instruction and the effective learning of mathematics. Some experts support the game activities and others do not. However, arguments are produced to support the game activities, and also place them high in the program of the educational policy, researches and the everyday practice of the teachers.

The motivation and the work habits and skills have proved to be a more important factor for the development of the students and their progress in the area of mathematics and some researches show that the students who are more motivated for work achieve better results than students with a higher IQ.

The motivation is the main factor of the instruction and a catalyst that increases the activity of the students, their interest and learning will. This is why, it is often said that a good teacher is the one who motivates the students to learn. Hence, the motivation is a process initiated by the teachers, and carried out by them when they have at their disposal means and efficient practices that will have positive influence on the subjects. This means that a positive learning environment in the classroom can only be achieved through the learning motivation of the students (during their instructional activities).

An essential element that influences the motivation of the students is the game. It is the real way for increasing the motivation of the students during the mathematics activities. In order to motivate the students to a maximum level, for the entire duration of the lesson, in the didactic games in the mathematics instruction, we need to maintain a high level of self-confidence of the students during the entire duration of the activity. The game, as an activity carried out in the mathematics instruction is the best way for awakening the learning interest of the students. The didactic means or the games in which the students take part are motivational. The stimulating instructional tools are also important. For example, a classroom, which has quality and clean desks and chairs, maps and portraits, works from students on the walls, projectors and other illustrations, has partial factors that influence the motivation of the students.

This means that these means need to be used adequately and in the right way. Without a question, the teachers want to listen and respect the opinions of the students.

It would be very constructive, if during the games the teachers accept each opinion with curiosity, surprise and great interest. The teachers can leave a good impression in the students and make them feel like subjects who can contribute for themselves and the classrooms by supporting the expression of interest with “bravo, “continue with your work, it is very good”, “thank you for your opinion, it is very interesting”, etc.

The students who sit in closed premises, without motivation, interest or who are introverted need to be continuously engaged. The teachers need to determine and identify such cases and take the needed measures for their active integration during instruction. To motivate means to encourage the internal sources of the individuals, and their sense for their potentials, self-respect, autonomy and self-realization.

SUBJECT, GOAL AND OBJECTIVES OF THE RESEARCH

123 elementary school teachers in nine primary schools are the subject of the research. Six of the primary schools are located in the city

of Skopje, and three are in the rural areas of Skopje. In 2014/2015 these teachers carried out instruction in grades I,II, and III.

The goal of the research was to determine the attitudes and opinions of the elementary school teachers in grades I,II,III in several primary schools in Skopje about the game activities as motivators during the mathematics instruction and as productivity factors.

These are the objectives of the research:

- Learning how to reason and the attitudes of the teachers about the game activities as motivators during the mathematics instruction.
- An analysis of the curricula and syllabi adapted from Mathematics for grades I, II, III, according to the syllabi of the International Center for Syllabi of “Cambridge”, which include mathematical games in a large number.

METHODS OF WORK

The sample of the research covers:

- The sample of the research covers 123 teachers (from elementary education, who 2014/2015 carried out mathematics in grades I,II, III) in nine primary schools. Six of the primary schools are located in the city of Skopje, and three in the rural areas in Skopje.

The sample shows that 72 teachers who work in the city and 51 teachers who work in rural areas were part of the research.

The independent variables of this research are:

- The games – a table to one hundred, red, yellow, blue and green chips to 1000, a square, triangles, rectangles and circles in different colors...

- Subject: Mathematics

The dependent variable of this research is

- The changes in the work approach.
- The data are collected through questionnaires. This technique was chosen because of economic reasons and the potential for collecting relevant data as much as possible. Also, we needed to use this technique in order to collect fundamental data about the matter and the subject of research, which in this case, are the game activities in function of socialization of the children and the productivity in mathematics instruction.

- The questionnaires were given to teachers, who in 2014/2015 carried out instruction in grades I,II,III (the first year in which the Cambridge syllabi were used). The teachers shared their opinions about the game activities as motivators in the mathematics instruction. The

questionnaires included open-type questions and questions with ready-made answers.

The pedagogical documentation – The curricula and syllabi according to the International Center for Syllabi of “Cambridge”.

The analysis and the interpretation of the results from the questionnaires are below:

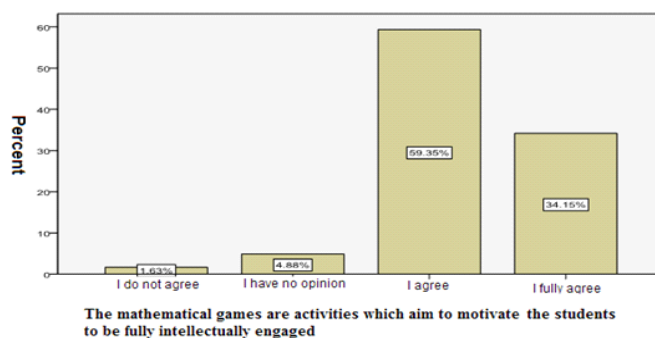
RESULTS AND DISCUSSION

Table 1.

The mathematical games are activities which aim to motivate the students to be fully intellectually engaged

	Frequencies	Percent	Cumulative percent
I do not agree	2	1,6	1,6
I have no opinion	6	4,9	6,5
I agree	73	59,3	65,9
I fully agree	42	34,1	100,0
Total	123	100,0	

Image 1.



According to the processed results of the question whether the mathematical games are activities which aim to motivate the students to be fully intellectually engaged, we can see that 34.15% of the teachers stated “I fully agree”, 59.35% of the teachers answered “I agree”, 4.88% of the teachers opted for “I have no opinion” and 1.63% of the teachers said “I do not agree”. 93.5% of the teachers chose the answers “I agree” and “I fully agree”. This allows us to conclude that 93.5% of the teachers

share an opinion that the mathematical games aim to motivate the students to be fully intellectually engaged.

CONCLUSION

From the results of the survey of the teachers about their attitudes and opinions regarding the game activities in the function of the motivation of the children and the productivity in the mathematics instruction, we came to the conclusion that learning mathematics through game is an interesting form of work and that the students always learn through it. At the same time, the game motivates the students to be fully intellectually engaged and to socialize with their peers.

The results also led us to the conclusion that the teachers who use games in the mathematics instruction agree in great percentage that the games are great for motivating during the mathematics instruction. As many as 93.5% of the teachers agree with this, whereas the percentage of teachers who have no opinion or disagree with this is very low.

The new curricula and syllabi of “Cambridge” give a lot of space to the games as activities, thus making the success inevitable in the school period covering grades I, II, III. The syllabi which focus on the motivation of the students and their learning skills are perhaps the most important way for improving the abilities in the area of mathematics, and probably in the other subjects as well.

The greatest pleasure for the teachers are the results that the students have during the mathematics instruction, in which they use games as activities.

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