

The Process of Learning and the Basic Mathematical Concepts Difference through Creative Activities

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Abstract

During my professional experience with pupils of the first grade, I have come across a problem that has been annoying me so far even now that I am still working with these pupils. This problem consist of the difficulties that pupils of the elementary school are having with different math mathematical concepts such as assembles, discounts, sends down the change, the first factor, the second factor, the production, the apportioning, divisor and quotient. Taking in the consideration this problem, I have found out through internet many activities and methods that have helped me to solve this kind of problem. I have also received information such as the experience of teachers in case and I used some creative activities I thought to meet the needs of students regarding this issue. Trying to review the available literature on this issue, I observed that the main problem lies in the manner of a mathematics lesson. Often students are required to learn mathematical procedures, rules and definitions not know why they do such a thing. They do not always manage to understand phrases, words and mathematical symbols mechanically often than so different logical mathematical actions. Many exercises performed by students are being learned without knowing that they will really serve them one day in their practical life. And by they are not being offered the opportunity to work by exploring different materials suitable for their age. In most of our schools unfortunately still looks at mathematics as a subject taught with pencil and paper and students remain missing in the world of numbers and mathematical expressions. This issue has motivated me to examine exactly this issue and try to enable students in learning basic concepts and mathematical difference as it will help you to solve problems and different mathematical operations.

Keywords: Mathematics, mathematical concepts, learning, creative activities

Introduction

In XXI century, mathematics increasingly is occupying a central place, not only in the study of natural and technical phenomena, but with its logical and arguing construction, occupies a central place in the overall education of the individual. In more general terms, the teaching of mathematics is devoted to the most precise knowledge of the world in which we live. Learning mathematics, the individual is trained for a more realistic perception of the phenomena that surround it and at the same time trained to reach easily a logical conclusion to solve the many problems of social life. Therefore, the subject of mathematics is among the subjects of general education at primary school, multiple educational -informative and educational tasks. Third grade student has achieved the broader meanings of knowledge about the basic math.

The purpose of this paper is learning basic math concepts through some creative activities, which will positively impact the students in solving a problem and mathematical tasks.

The working hypothesis: Does learning of basic mathematical concept through creative activities affect the understanding of the subject of mathematics? The survey was conducted in elementary schools in the Municipality of Pristine, Republic of Kosovo. The paper samples are 355 students at the three elementary schools in the city and two primary schools in the village. The sample was random. Mostly third grades are explored.

The population of this paper constitutes the Municipality of Pristine students from first grade to sixth grade in elementary school.

Methodology

The methodology of this study was to explore the action. For data collection was used as the main test technician and as auxiliary techniques are also used control sheets that are used as technical and activity monitoring, control tasks in class and exercise sheets. The choice of teaching methods is the competence of the teachers of the subject. It is done in

accordance with the needs, age and requirements of the students, with features educational content topics, teaching base, the level of training of students etc.

Methods and techniques of working with students should be combined, to be more diverse, because promote the dynamics of class, break the monotony, and motivate students to learn. Teaching methods and techniques are as varied as the types of learning itself. The teacher can use some techniques and teaching methods combined to achieve the higher results during the learning process. In order to fulfill the requirements for quality learning, are suggested several different methods and techniques.

Research planning

Firstly, to carry out this work we started with reading, browsing and understanding of different teaching texts, drawn from the book of mathematics for third grade. During almost a month and a half we read different texts, where after reading we asked the students to tell us in words what they remember and what they have observed in books about mathematics multiplication tables and whether they understand. This we have done to see how the students understand math textbooks. After every textbook there are questions in the book, which were formulated by the authors of textbooks. Such questions are scarce in number and not very logical, therefore students cannot derive so much implicit and direct information. It was considered a third class book, namely textbooks, emphasis and attention was paid to the wording of questions. After reviewing the questions in third grade textbook, they are designed stages of the process. Then we designed the questionnaire, which was conducted in two classes, to see if indeed direct questions and implicit influence in learning multiplication table. Through the survey, we pretend to emphasize the difficulties of the students in learning the multiplication table, and specifically wanted to know if students would do impressions numerous implied and direct questions. Results of the survey showed us that students need to serve with direct and implicit questions, and it was a green light for us to implement our plan action to be used by the students playing with dice, playing cards and game with fingers. The survey is conducted twice, the first time was held in the period 15 January to 15 February 2015 and the second time was conducted from 15 March to 15 April 2015.

Identification of research question

My research topic is motivated by my daily experiences with students and learning the multiplication table in mathematics - third grade. All are aware of the importance of the subject of mathematics. From interviews and conversations I have had with parents, I concluded that not only children are often afraid of mathematics, but yet not at all familiar with mathematics they create prejudice for the case. However, in my opinion and some of my colleagues, during talks or training of this issue, the problem is not the content of mathematics, but how it is explained and interpreted in our schools.

Having reviewed the literature on this issue, I noticed that principal vice problem lies in the way of development of mathematics lesson. Students perform various mathematical operations not knowing that they will serve in their practical life, and above all, the students are offered the opportunity to act as real mathematicians, studying various materials suitable for the age. In fact, in our schools unfortunately still looks at mathematics as a subject taught with pencil and paper, and students remain missing in the world of numbers and mathematical skills. We should note the fact that the role of teachers goes beyond teaching the course and finished disclosure. The role of the teacher is to create learning environment in the classroom, select appropriate targets and to encourage students to learn mathematics, teaching mainly multiplication table. None of the teachers can not give him freedom to work more or learn more only those students who are more versatile by teaching, or in other words, their learning is faster than the companions. I have the impression, and I think that research into action will enable us to identify the factors in learning the multiplication table in the third grade, (Zeiers, 2005: 102).

Review of the literature

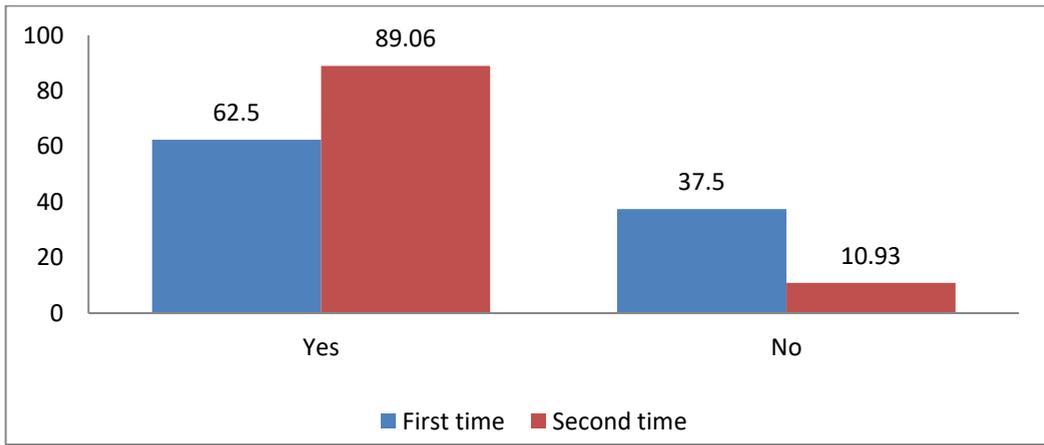
Browsing various literature and recent publications about mathematics, mostly we are forbidden to share where we care more, ie. learning the multiplication table in mathematics through creative activities. Fear of math is present, but its method of approach to change much in our country and other developed countries (Temple, 2006: 183).

Analysis of the results of research

Results of the survey, carried out the first time, are shown in blue, while the second questionnaire results are shown in red color.

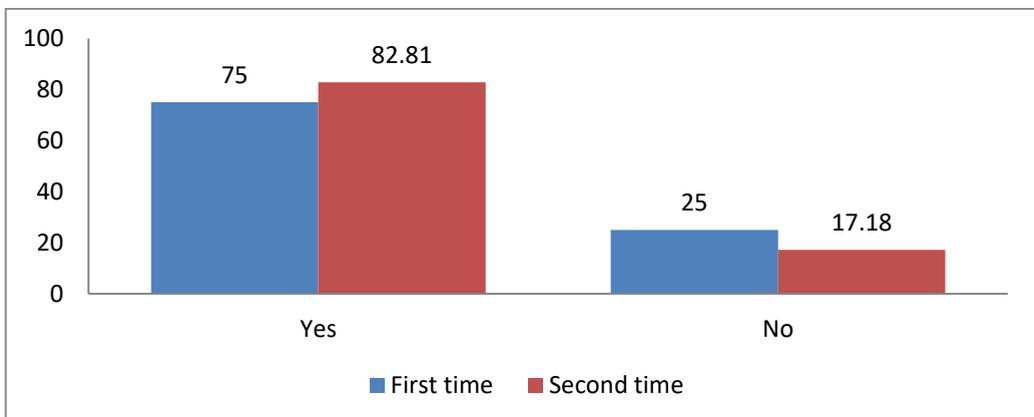
The first survey was conducted from 15 January to 15 February 2015, while the second survey was conducted a month later, from 15 March until 20 April. The data obtained from the questionnaires are presented graphically.

1. Do you like math?



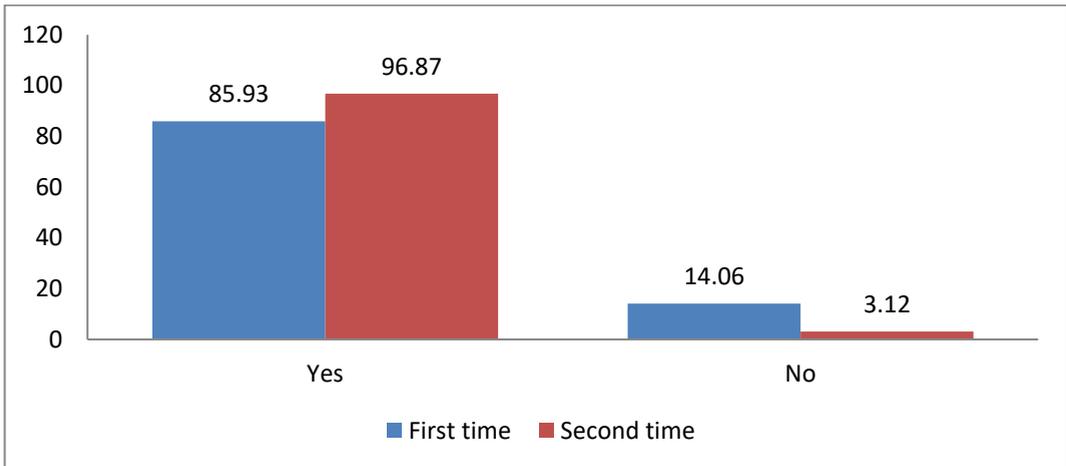
As seen from the data of the results, the majority of third-grade students like mathematics, but unlike the first time testing is done for the second time there has been an increase in the desire for mathematics, launched the fact that in the teaching of this subject are also used different games, which has added the student's desire to learn mathematics teaching.

2. Do you feel pleasure when the math lesson learn through creative play?



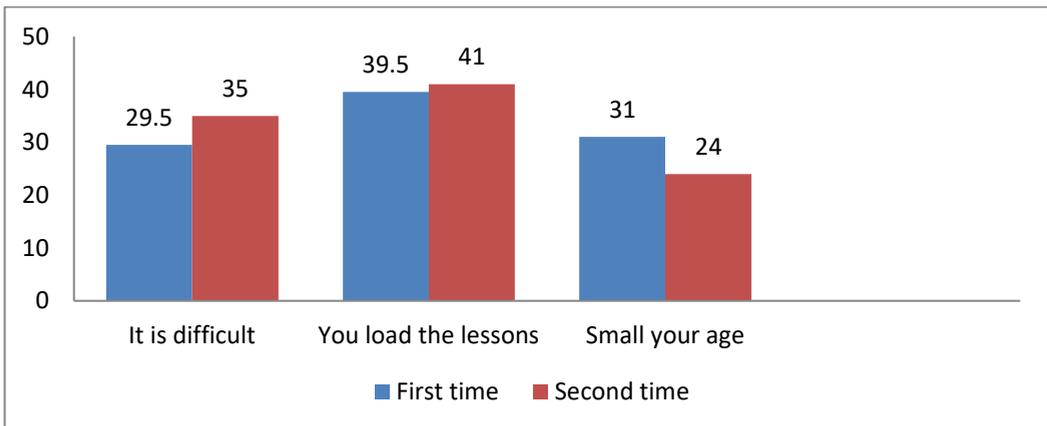
On the second question, whether the delight students learn mathematics, we have the following results: 75% of them declared "yes", despite the 25% no, while the second test have a more pleasant result in terms of desire in studying math through play, where 82.81% said "yes" and 17.18 "no". From the results obtained it is obvious that the majority of students like the teaching of mathematics through games.

3. Do you remember the multiplication table easily when you learn through creative games?



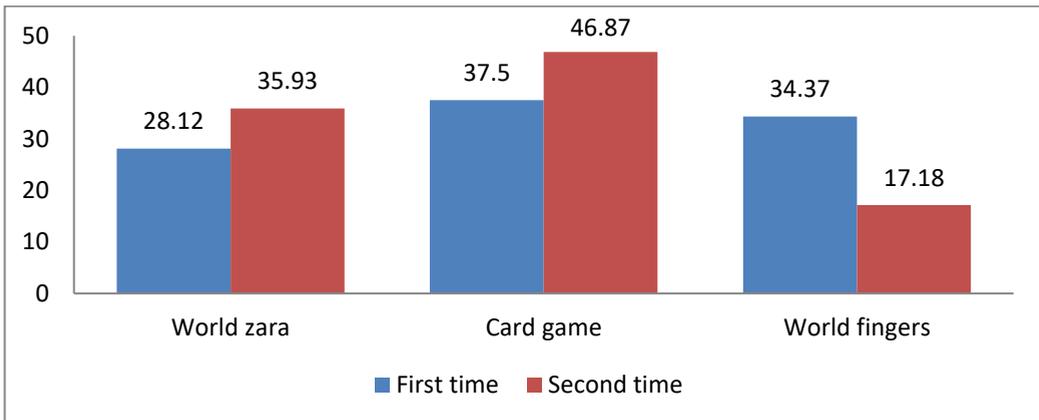
In the third question about memorizing the multiplication table when the learn by playing, 85.93% said "yes" the first time, against 14.06% "no" and the second time we have a better result or said otherwise with the highest percentage, with 96.87% said "yes" against a small percentage of 3.12 "no". From these results we can conclude clearly that remembering the multiplication table is easier when taught through play.

4. What are the reasons that you forget the multiplication table?



Prefixed to the question of what are the reasons to forget the multiplication table third grade students, the majority of them - 39.5% stated that they load on tutorials, 29.5% that it is difficult, while 31% are at a young age to remember. Compared with the second survey, where 35% stated that it is difficult, 41% have academic load, and 24% are very young to remember. Of the two surveys, as the first and the second, it is clear that obstacles or his main concern is that the load on tutorials is the main factor that they forget multiplication table.

5. Which of the games that you have learned in class more like learning multiplication table through the game?



On the question of the fifth and final for the games you like most to learn mathematics, we have the following results: the first research 28.12% declared to the game of balls, 37.5 declare the card game and 34.37% declared to the game with fingers. While in the second survey we have the following results: 35.93% declared to the game of balls, 46.87% for the game cards, and 17.18 for the game with fingers. As the first research, also the second research bearings game is the game that students like most to learn the multiplication table.

Conclusions

Results from this research proved that mathematics can be just as easy to learn as well as other subjects if found right way to explain. According to data released by research, it is clear that the majority of students like mathematics as a subject, but rather they like to learn through creative games. One of the important factors for this is their age because they learn the multiplication table pretty much, for the multiplication table and it is important that the use of different techniques during the class gives the child learning pleasure and relief at learning and memorizing the multiplication table. From the results obtained have noticed that more students have problems to notions of mathematical operations and Hersin change, we have also noticed that the notions taught mechanically to a large number of children.

Recommendations

- First, students need to explain the importance of mathematics and its connection to all areas of life.
- Teachers should develop games that promote learning calculations with numbers.
- Encourage children to make creative activities in their homes by their parents to more easily adopt the multiplication table.
- Teachers in interpreting and clarifying concepts to link common words so that students understand, to learn and to easy distinguish these notions.
- Also I recommend every teacher who works with students of this age to use many creative activities.
- Creative activities to be more self controlled and prepared by students as children learn more by creating.
- Explain to the students the importance of learning and of distinguishing the concepts of mathematics and mathematical basis of their connection with all other knowledge of mathematics.

Bibliography

- [1] Bep, (2013) Developing 21st century skills in mathematics.
- [2] Developing 21st Century Skills in mathematics-Basic Education program.
- [3] Dedej, K, Spahiu, E, Zana, K. Libri Matematika, 2,3,4,5, Tiranë.
- [4] Haxhimali, N. Hoxha, Dh. (2011) Matematika 1, Tiranë.
- [5] Miller, Bonnie, (2005) Communicating with children, OPEA, Ferizaj, Kosova.
- [6] Musai, Bardhyl, (2014) Teaching Methodology, CDE, Tirana.
- [7] Musai, Bardhyl, (2005) Mësimdhënia dhe të nxëniet ndërveprues, CDE, Tiranë.
- [8] Murati, Xheladin (2004) Metodologjia e kërkimit pedagogjik, Tetovë, Çabej.
- [9] Teaching and interactive learning, (2005) CDE, Tirana.
- [10] Van De Wale, John A. (2004) Elementary and middle school mathematics: teaching developmentally. Pearson-Education, Inc.
- [11] Vula, Eda, (2015), Research in action, Basic Education Program, Prishtina.
- [12] Sefa, Shefki, Matematika, 2010, Albas, Tiranë.