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THE EFFECTIVENESS OF MENTAL ARITHMETIC COURSES IN PRE-SCHOOL EDUCATION

Abstract: The organization of mental arithmetic courses in preschool educational institutions in order to teach children accurate and quick calculation has become one of the current topics. This article provides information about the “effect of completing mental arithmetic courses in preschool educational institutions” when teaching children to calculate quickly and conveniently arithmetic calculations.

Key words: education, upbringing, perfect personnel, mental arithmetic, preschool educational institutions, accounting, consciousness, memory, attention.

Language: English

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Introduction

“Speaking about education, which is of vital importance to our lives, we have to reiterate the wisdom of Abdulla Avloni: education is a matter of life and death for us. No matter what industry we are in, we cannot achieve any change or prosperity without bringing up our modern and qualified staff. The training of such personnel, the healthy generation of the nation, first of all begins with the pre-school education system”[1].

In today's globalization, all sectors are growing at a rapid pace. Techniques, sports, culture, arts and education are also developing today. Preschool and primary education play an important role in the organization of the effective educational process. An important task of preschool and primary education is to educate the young generation in the areas of study, which they are attracted, so that they can become professionals in their chosen field in the future [2].

In preschools it is advisable to develop mental arithmetic courses for children to develop their mental and cognitive activity, to strengthen their memory, to stimulate their interest in certain subjects including mathematics, physics. In the kindergarten age,

children's brains work very fast and can easily store information in the memory. At this time, it is possible to attract children to mathematics and develop their ability to calculate quickly.

What is Mental Arithmetic? Mental arithmetic emerged in Japan more than two thousand years ago. This method was created to develop both hemispheres of the brain. As a result of the usage of specific methods of learning, the memory of the children has been strengthened, their attention has been increased, and the speed of various mathematical calculations in the mind has amazed even the scientists. Mental arithmetic is a unique program that promotes the development of intellectual and creative activity of a person. This makes it easier to perform special calculations in the brain in a short period of time[4]. Because of the fact that the age of education for this method is from 4 to 16 years of age, the coverage of children from 3 to 6 years in the pre-school education system shows that providing the basic concepts of mental arithmetic is a proof of expediency. Currently, this method is used in 52 countries of the world [5].

By developing mental arithmetic in preschools, children get creative cognitive skills, and learn how to

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find the only real solution in any problem situations. It also promotes not only creative abilities of children in mathematics, but also in other fields of science. The classes are conducted by various interactive activities including communication with each other, dancing and singing, as a result, it helps continuous development of both hemispheres of the brain [7].

In the pre-school institutions, children from 4 to 6 years of age are introduced to the initial concepts of the course in mental arithmetic, such as generating numbers using an abacus, having them tell what numbers are indicated in the abacus (Figure 1-2) [8]. It is also possible to detect numbers based on the shape of the Abacus loops (Figure 3-4) [8]

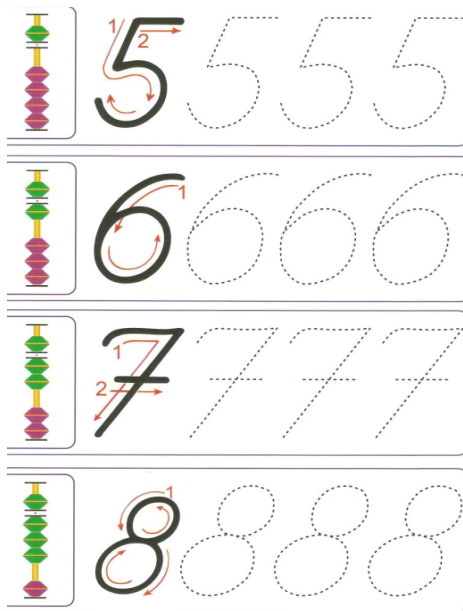


Figure 1

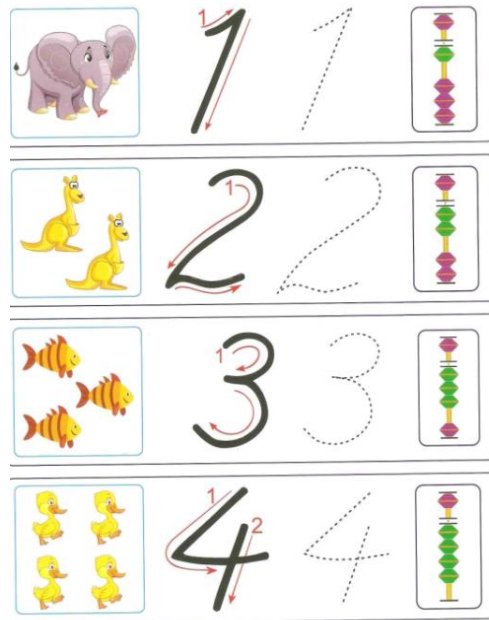


Figure 2

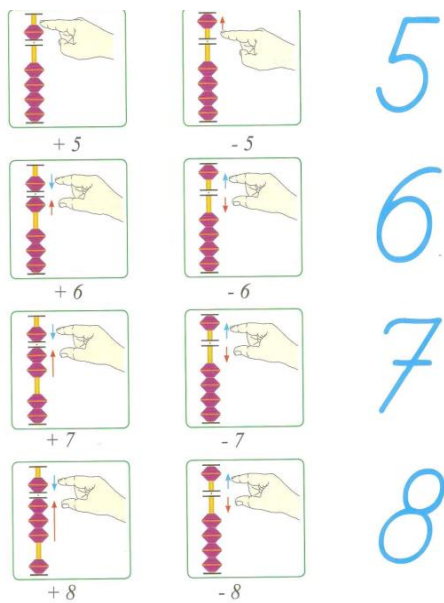


Figure 3

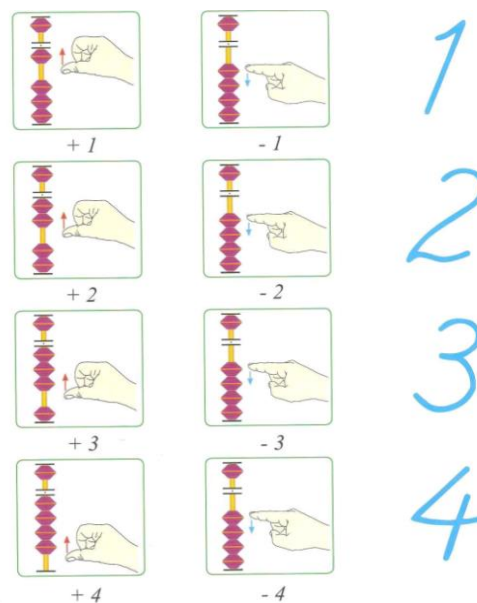


Figure 4

After learning the position of numbers in such a way in abacus, children can add numbers or subtract as follows (Figure 5-6) [8]:

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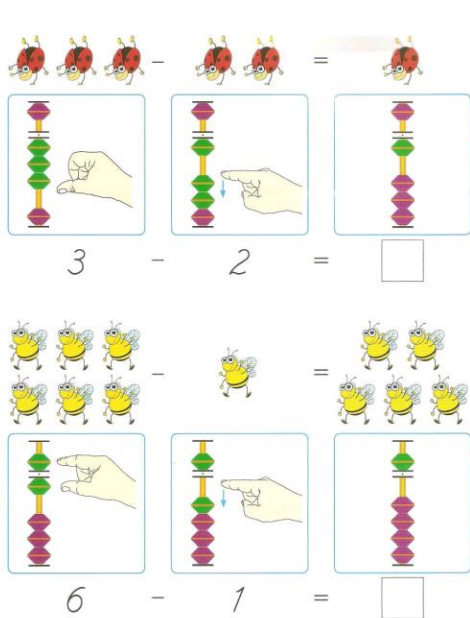


Figure 5

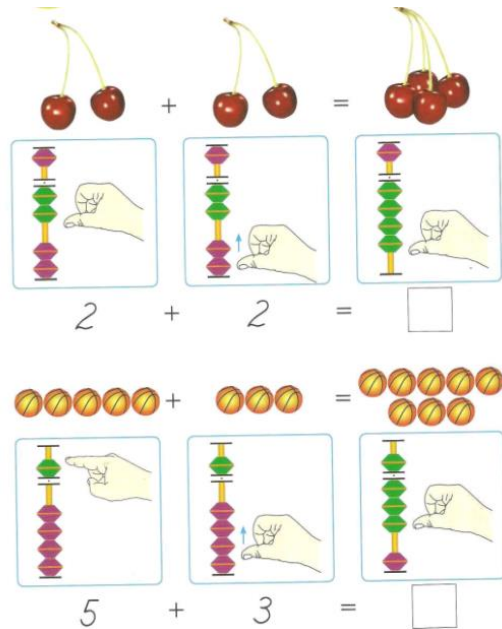


Figure 6

In this sequence, children gradually learn to calculate, but at the same time, they develop their own photographic memory and creative thinking with a high concentration of attention.

It is vital to mention that the conducting of mental arithmetic courses in preschools, and the arithmetic understanding of the courses must be appropriate to the psychology of the children of this age and the extent of the knowledge provided. It is recommended to give them the following information when forming mathematical concepts for preschool children: [10]:

- forming the concept of quantity in children;
- forming knowledge about numbers;

- forming ideas about the form of objects in children;

- forming spatial imaginations;
- giving initial information about notion of time.

“It is considered priority to attract well-trained, skillful educators who approach individually to each children in kindergartens in order to properly shape the mind of generation from infancy. By this way, it is easier to bring up a fully developed generation”.

Teaching children the basics of mental arithmetic has a positive effect on their thinking. However, it is important to remember that this type of training should be performed by a specialist.

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