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THE FORMATION OF IDEAS ABOUT NUMBER IN THE PROCESS OF CREATING MATHEMATICAL PROJECTS IN CHILDREN OF UPPER-KINDERGARTEN AGE

The State Standard of Preschool Education of Ukraine emphasizes the need to create favourable conditions for the development of children in accordance with their age and individual characteristics and tendencies. Number is a complex mental activity, in the process of which unity is established between numbers and each element of the set and the number of these elements is determined [3].

Preschool age is the most sensitive period for the formation of initial mathematical concepts in general and learning numbers in particular, due to the features of psychophysiological development, which determine the high plasticity of the nervous system, increased copying and special susceptibility. The memory of a preschool child is selective; he remembers more easily what interests him. Accordingly, for effective teaching of counting and counting activity, it is necessary to make this activity as convenient and exciting as possible. Great opportunities for this are provided by project activities using didactic games. It gives children the opportunity to experiment, synthesize acquired knowledge, develop creative abilities and communication skills, and also contributes to further successful adaptation to the situation of schooling. The game is the leading type of activity in preschool age, allowing to make the process of learning exciting and, therefore, successful [2].

The problem of the formation and improvement of number education of preschool children was relevant for many foreign and domestic scientists. So, for example, I.G. Pestalozzi, Ya.A. Comensky, believed that it is necessary to start learning the basics of arithmetic in the third year of life. K.D. Ushinskyi, taking into account the peculiarities of preschool children, suggested teaching numbers using visual objects. Psychologist V. Preiner also emphasized the importance of visual methods and suggested to use the number of objects that exceed the limit, placing them in a row, to stimulate the learning of numbers. M. Montessori considered it possible to use money exchange as an interesting form of numbering for a child to teach numbers in her mathematical system [4].

A.M. Leshyna examined the patterns of development of ideas about number and identified the main stages of development of counting activity and ideas about number. An interesting approach to teaching numbers was considered by N.A. Zaitsev, proposing to teach children with the help of a number tape right up to the first hundred. The famous educator-innovator B.P. Nikitin attached great importance to the timely development of preschool children and suggested using intellectual games for this. E.I. Tykheyeva

proposed to teach preschoolers only in play and everyday life. F.N. Blecher also suggested teaching numbers to preschoolers with the help of didactic games and actively using natural materials for this [6].

The analysis of literary sources shows that in pedagogical practice, the means of project activity are not sufficiently used for the formation of numbers and teaching of numbers to preschool children. The analyzed literature does not contain all aspects of the research direction.

So, **the purpose of the article** is to investigate the method of the formation about number and teaching numbers to children of upper-kindergarten age in the process of creating mathematical projects.

At this age, there is further formation of ideas about the number of sets, ways of forming numbers, quantitative assessment of values by measurement. Under the guidance of the teacher, the child learns the techniques of counting objects, sounds, movements by touch within 10; determines the number of conventional measures when measuring long objects; learns to form numbers by increasing or decreasing by one; to compare sets in terms of the number of items, provided that there are quantitative differences between them from one to three elements. Children continue to count the number of objects according to the named number or sample; are trained in generalizing by the number of items of a number of specific sets that differ in spatial and qualitative features based on perception by different analyzers. In the older group, children can count objects at a distance, about themselves. Children are also reminded of the techniques of counting sounds and objects by touch: they independently reproduce a certain number of movements according to the sample and the specified number.

Thus, quantitative representations of children of upper-kindergarten age are more generalized than in the previous group. Children are able to list objects and generalize them by number, regardless of their external features. They have accumulated practical experience in the counting activity of individual subjects, groups, as well as the use of conventional measures. An idea of the relationship between the numbers of the natural series has been formed. In various types of activities, numbers, comparisons, measurements, elementary operations on numbers become available to children. In the preparatory group for children:

- the accuracy and speed of counting, the reproduction of the number of objects larger and smaller by one than the given number are worked out;
- there is preparation for assimilation of numbers by measuring and using numbers in various types of children's activities;
- skills to compare numbers, awareness of their relativity are improved;
- ideas about the regularities of the formation of numbers of the natural series, their quantitative composition from units, addition of numbers up to 5 from two smaller ones are clarified [2].

Children continue to practice counting and counting objects within the first ten, consolidating counting and counting skills, it is important to continue training children in counting groups consisting of homogeneous objects. In order to practice numeracy skills,

it is necessary to actively use the possibilities of game activities, teaching children the numeracy of groups of objects, highlighting the relationships "whole - part" and identifying the corresponding dependencies. Before entering school, children must learn to count and arrange objects from left to right, acting with the right hand. But the main thing they should learn is that you can count in any direction without missing a single item and not counting any item twice.

So, children of upper-kindergarten age continue studying quantitative relationships, the consolidation of counting activities, the definition of larger and smaller numbers and it is combined with training in numbers with the participation of various analyzers: in the number of sounds, movements, in the number of objects by feeling.

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