World Bulletin of Social Sciences (WBSS)
Available Online at: https://www.scholarexpress.net
Vol. 2 August-September 2021
ISSN: 2749-361X

ABOUT THE METHODOLOGY OF FORMATION IN PRESCHOOLERS OF THE SIZES AND SIZES OF OBJECTS

Mardanov Eshim Muratovich
Associate Professor, Candidate of Pedagogical Sciences,
Ostanov Kurbon
Associate Professor, Candidate of Pedagogical Sciences, ostonovk@mail.ru
Achilov Utkir Isomitdinovich
Teacher, department of theory and methodology of preschool education
Totliev Ulmas Khusniddin oglu
Teacher, department of theory and methods of preschool education
Abdullaeva Dildora Mamarakhimovna
Master's student of the Department of Theory and Methods of Preschool Education Samarkand State University

Article history:
Received: July 20th 2021
Accepted: August 20th 2021
Published: September 27th 2021

Abstract:
This article examines some of the issues of the methodology for the formation of the sizes and sizes of objects in preschoolers. Emphasizing that the sizes of objects children learn mainly by sensory methods in the process of examination, comparison and comparison, grouping, and values - by measuring objects and using numbers for the purpose of quantitative assessment, the sequence of mastering values in preschool age is given, ways of mastering by children of preschool age measurement of quantities, as well as methodological requirements for teaching children of five years of measuring activity.

Keywords: Size, value, measurement, development, preschool age, cognition, measuring activity, measuring instruments.

In connection with the problem of the development of sizes by children of preschool age, the term "size" is most often used in the literature. As you know, preschool children can, in order to understand the world around them, be aware of the three-dimensionality of volumetric objects, determine the length, width, height, depth, volume of liquid in any vessel, the mass of loose substances (mainly by weighing on the palms of the hands "). The general idea of measurement using a system of measurement standards, such as liter, meter, kilogram, preschoolers 4-6 years old acquire in the process of observing the activities of adults.

1. The sequence of the development of quantities in preschool age. Children learn the sizes of objects mainly by sensory methods in the process of examination, comparison and comparison, grouping, and sizes - by measuring objects and using numbers for the purpose of quantitative assessment.

The ability to distinguish size as a property of an object and to characterize it is necessary to understand the relationship between objects: the same in mass, different in length. Awareness of the size of objects has a positive effect on the mental development of the child, since it is associated with the formation of the ability to identify, recognize, compare, generalize. Reflection of size as a spatial feature of objects is based on perception, focus on identifying and examining an object, disclosing its features. Various analyzers are involved in this process: visual, auditory, tactile-motor.

Cognition of dimensions, on the one hand, is carried out on a sensory basis, and on the other, it is mediated by thinking and speech. Adequate perception depends on the experience of practical handling of objects, the level of development of the eye, inclusion in the process of word perception, the participation of thought processes: comparison, analysis, synthesis, etc.

The ability to perceive the size of an object begins to form at an early age in the process of object-related actions. But the relativity of magnitude makes differentiation difficult.

Preschoolers firmly fix the sign of size for that specific object that they are familiar with: "The elephant is large, and the mouse is small." They have a hard time mastering the relativity of size estimation. If you put in front of a child 4-5 toys, gradually decreasing in size, and ask to show the biggest one, then he will do it right. If you then remove it and again ask to point to the largest toy, then children 2-3 years old, as a rule, answer: "Now there is no big one."

Children of three years of age, as a rule, perceive the size of objects undifferentiated, that is, they are guided only by the total volume of the object, without highlighting its length, width, height. When

World Bulletin of Social Sciences (WBSS)
Available Online at: https://www.scholarexpress.net
Vol. 2 August-September 2021
ISSN: 2749-361X

three-year-olds need to find the tallest or the longest among several objects, they usually choose the largest one.

Four-year-old children have a more differentiated approach to the choice of objects in height, length or width, if these signs are pronounced. When, for example, the height significantly exceeds other measurements, babies easily notice this. In low objects, they do not distinguish between heights at all. Most children of this age insist that there is "no height" in a "cube" that is 2 in height, 4 in width, and 16 cm in length. For them, it has a height only in an upright position, that is, when the height is 16 cm and prevails over other measurements.

Most often, children characterize objects according to any one length, which is more pronounced than others, and since length, as a rule, is predominant in most objects, it is precisely the allocation of length that the child most easily succeeds in. Significantly more mistakes are made by children (including older ones) when showing the width. The mistakes they make indicate an insufficiently clear differentiation of width from other measurements, since children show instead of width and length, and the entire upper edge of the object (box, table).

Children most successfully determine specific sizes in objects by directly comparing two or more objects. When the attention of children is drawn to the size of the object, educators prefer to use the same phrase, which is polysemantic (for example, the same in color, shape). They should still be supplemented with a word denoting a sign by which objects are compared (find the same in length, width, height, etc.).

By highlighting this or that size, the child seeks to show it (runs his finger along the length, shows the width with his open arms, etc.).

The inability to differentially perceive the size of objects significantly affects the designation of objects of various sizes by the word. Most often, children 3-4 years old in relation to any objects use the words big - small. But that doesn't mean that in their vocabulary there are no more specific definitions. In some cases, children use them with varying degrees of success. So, the neck of a giraffe is said to be long, about a matryoshka - thick. Quite often, some definitions are replaced by others: instead of thin they say narrow, etc. This is due to the peculiarities of perception, development of speech, the fact that the adults around children often use inaccurate words to designate sizes.

It is well known that in relation to a number of objects it is legitimate to speak as large or small, since the object as a whole change (large - small chair, large - small ball, large - small house, etc.), but when in relation to the same items we want to emphasize only any essential aspect, then we say: buy a tall tree, the child needs a low chair, etc.

These assumptions in the use of words in their relative meaning are a prerequisite for inaccuracy, which often causes deliberately incorrect expressions: a large (small) cord, a large ruler (instead of a long one), a large pyramid (instead of a long one), a thin ribbon (instead of narrow), etc. Therefore, when a child, following adults, uses such general verbal designations for the size of objects as large - small, instead of specific high, low, etc., although he sees the differences, but inaccurately reflects this in speech.

Children 4-7 years old were asked to look at boxes with pronounced lengths (in one - in height, in the other - in length, in the third - in width) and show the length, width, height of each of them. Children made the following mistakes:

- height (length, width) was shown and named only for those boxes in which it is especially pronounced;
- the height was shown by touching the top edge of the box with the hand, and not by moving the hand from the bottom up;
- they made mistakes in identifying the length and width, "replaced" one length with another.

The least number of mistakes the children made when showing and naming the length, at most - the width and height. The most successful in performance were children of the seventh year of life. Most of them correctly showed and named 3 dimensions in objects (boxes).

Based on the peculiarities of children's ideas about the size of objects, it is necessary to develop in children the idea of size as a property of an object. Children learn the ability to highlight this property along with others, using special examination techniques: application and overlay. Practically comparing (measuring) contrasting and equal-sized objects, babies establish an "equality - inequality" relationship. Comparison results are reflected in speech using words longer, shorter, the same (equal in length); above, below, the same (equal in height); more, less, the same (equal in size), etc. Thus, initially, a pairwise comparison of objects by one property is mastered. In the future (by the age of 4), children begin to compare the size of several objects (3-4), find among them the same height (length, width) and combine them (group).

Further, when comparing several objects, children use one of them as a reference. Application

World Bulletin of Social Sciences (WBSS)
Available Online at: https://www.scholarexpress.net
Vol. 2 August-September 2021
ISSN: 2749-361X

and overlay techniques are used by them to compose ordered sequences. Then children learn to create such sequences (rows) according to the rule.

At the age of 5-6 years, children make up the series of quantities not only in a visual-figurative plan, but also in representation. They can preliminarily sketch out the possible arrangement of objects in a row, determine the place of an object in an imaginary sequence, find the missing object, continue the row in two directions, tell about the way objects are arranged in a row.

Thus, in younger and middle preschool age, children determine the size of objects by directly comparing them (application or overlay), in the older one, an indirect method of comparison is also used (assessment of the size of perceived objects in comparison with well-known, previously encountered in the child's experience). ; use of schematization; measurement by conventional measure). The content of children's knowledge of sizes is gradually becoming more complex. At a younger age, children learn about the ability to compare objects in size, on average - about the relativity of sizes, and at an older age - about the variability and transformation of quantities.

2. Mastering the measurement of quantities by preschool children. Currently, teaching measurement is carried out on the basis of the child's development of ideas about the number and counting skills.

The measurement activity is quite complex. But the use of conventional measurements makes measurement accessible even for young children.

A conventional measure is both the object used in the measurement and the unit of measurement in each specific case. With tape, rope, stick, step, the length of the path in the garden can be measured. With a spoon, cup, jar, glass, the volume of liquid and bulk substances is determined. The measurement of objects with conventional measures is peculiar: the unit of measurement is chosen arbitrarily, depending on the situation and specific conditions (this does not require knowledge of the generally accepted system measures).

Learning to measure leads to the emergence of more complete ideas about the surrounding reality in children, influences the improvement of cognitive activity, contributes to the development of the sense organs. Children begin to better distinguish the length, width, height, volume, that is, the spatial characteristics of objects. Orientation in individual properties, the ability to distinguish them are required when choosing a conditional measure adequate to the measured property. In measurement, the objective side of reality appears before the child from a new, yet unknown side to him.

Measuring practice activates causal thinking. Combining practical and theoretical activity, measurement stimulates the development of visual-effective, visual-figurative and logical thinking of the preschooler. Methods and measurement results, highlighted connections and relationships are expressed in speech form.

Measuring lengths and volumes allows you to clarify and deepen a number of mathematical concepts. Based on the measurement, it becomes possible to acquaint preschoolers with some mathematical connections, dependencies and relationships: part and whole, equality - inequality.

Measurement prepares the child to understand arithmetic operations with numbers: addition, subtraction, multiplication and division. Measurement exercises also make it possible to obtain numerical data that is used in composing and solving problems.

Teaching children of five years of measuring activity requires:

- the experience of a differentiated assessment by children of the length, width, height, size of the object as a whole, which allows the child to focus on the actual measuring actions;
- the ability to coordinate the movement of the hand and eyes, which is an indispensable condition for accuracy when performing measurements;
- a certain level of development of counting skills and quantitative representations for a successful combination of measurements and counting;
- the ability to generalize, which is an important factor in understanding the essence of measurement.

The preparation of children 4-5 years old for measurement with the help of a conventional measure consists in modeling the measurement (children put several equal short sticks in a row, reproducing the length of one long stick), using a measure - an intermediary. These tools are used for comparing, leveling and completing objects according to size. The water from the jug can be poured into identical glasses. Two cabinets are compared in height using the same cord, etc.

You should familiarize children with the rules of measuring a conventional measure, help them in highlighting objects, measuring instruments and results. Develop the ability to give verbal reports on the measurement. On this basis, deepen the understanding of the connections and relationships between numbers, use measurement skills to divide the whole into parts.

World Bulletin of Social Sciences (WBSS)
Available Online at: https://www.scholarexpress.net
Vol. 2 August-September 2021
ISSN: 2749-361X

At preschool age, children master several types of conventional measurement. The first type should be attributed to the "linear" measurement, when children, using strips of paper, sticks, ropes, steps, etc., learn to measure the length, width, height of various objects. The second type is the determination of the volume of bulk substances (with a mug, glass, spoon and other containers measure the amount of cereals, sugar in a bag, in a bag, in a plate, etc.). Finally, the third type is the measurement of the volume of liquids. Children will find out how many glasses or mugs of milk are in a can, water in a decanter, tea in a teapot, etc.

Some teachers offer as the initial "linear" measurement, others - the determination of the volume of liquid and bulk substances. Considering that children in practice most often deal with the measurement of lengths, preference should be given to the "linear" measurement.

Objects for measurement and measurement can be specially made by adults with the involvement of children (strips of paper, sticks, ribbons, etc.) or taken ready-made. Natural measurements are widely used: a step, a handful, arms spread apart, etc. The child himself can find objects for measurement in the surrounding environment.

Practical means of teaching measurement can be pencils, scissors, the so-called counter-equivalents - small homogeneous objects that serve for accurate counting of the number of measurements.

REFERENCES:

1. Mikhailova A., Nosova E. D., Stolyar A. A., Polyakova M. N., Verbenets A. M. Theory and technology of mathematical development of preschool children. Publishing house "Childhood-press". Saint Petersburg, 2008
2. Beloshistaya A. V. Formation and development of mathematical abilities of preschoolers. Lecture course. - M.: Vlados, 2004.
3. Development of ideas about value in children / Theories and methods of technology of mathematical development of preschool children. Reader / Comp.: 3. A. Mikhailova, R. L. Nepomnyashchaya, M. N. Polyakova. - Moscow: Center for Pedagogical Education, 2008.
4. Shcherbakova EI Methods of teaching mathematics in kindergarten. - M.: Academy, 2000.