Methods of teaching younger students the ability to solve cognitive tasks of environmental protection

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Abstract: This article provides data on the methodology for teaching younger students the ability to *solve cognitive tasks of environmental protection. Conditions for the effective use of cognitive tasks in the educational process. The main types of cognitive tasks and their classification.*

Keywords : *Methodology, conditions, environmental protection, ecology, aesthetics, hygiene, economics, cognitive, nature.*

Among the various methods of instruction cognitive tasks occupy an increasingly prominent place, as are medium activation activities of students, develop their creative abilities. In connection with the growing role of theoretical knowledge in all kinds of human activity, increasing the requirements - to the ability to quickly apply them, the school , preparing teaching - to active creative life, should form them the necessary skills. Cognitive problems are a means to strengthen the effectiveness obtain Theorem - cal knowledge, means the formation of self-reliance - qualities necessary for a constant self-education, with acquisition of new knowledge, orientation in the rapidly growing flow of new information. In this regard, cognitive tasks and their use in the educational process can be considered one of the main conditions for the success of the entire educational and cognitive process.

The humanities are often bypassed only by the study of new material, which must be understood, memorized and correctly reproduced. Meanwhile, for the exact and linguistic sciences, this level is absolutely unacceptable. "What we could say - writes M. I. Nuriddinova [1] - about learning a foreign language, mathematics, chemistry, physics, if the teacher demanded from students only memorize and correct reproduction of knowledge (rules, formulas, theorems)?" [1,] p. 153 . The study of these sciences is unthinkable without exercises in the application of theoretical knowledge, the acquisition of experience in solving practical problems. In humanitarian subjects, they are little used, the methodology for their application is almost not developed.

The first and the main condition for the effectiveness of the use of cognitive problems is a systematic their application - in the study of the course of natural history. But it is equally important to use cognitive tasks and other pre - primary education to develop a common educational ability to solve cognitive tasks.

The second condition is the correctness of determining the place of use and the number of cognitive environmental tasks, their correlation with other techniques and methods of educational work.

The third condition - the rationality of teaching methods of solving cognitive environmental objectives: the ability to analyze environmental factors, analyze the conditions that should be considered when developing environmental solutions, etc...

The fourth condition is the sequence of increasing the complexity of cognitive tasks:

a) according to the content of environmental material,

b) the level of complexity of mental activity teaching,

c) according to the degree of autonomy of students in the process of solution - of problem.

The fifth condition is a variety of forms and types of cognitive tasks.

Principles of construction of cognitive tasks and their classification - primarily related to the functions that they perform in the educational process The main features that stand out most authors, - training, raising, developing T .M. Sayfullaev , [2] B. A. Bahromov , [4] M. And . Nuriddinov . [1] literature commonly encountered - classification cognitive tasks according to their degree of difficulty. The complexity of cognitive tasks defined in the dependent - STI from

a) the structure of the problem: the number of data in the condition and the degree of prescription of the solution; the number of actions and intermediates destined - Nij in the course of its decision; the number of conclusions, answers that need to be obtained as a result of its solution;

b) the way of mental activity, which is necessary in the process of its solution: analysis, synthesis, comparison, establishment of cause-and-effect relationships, generalization;

c) the nature of students' activities: reproductive , heuristic, research. Other classifications are also used:

for content-based cognitive problems, according to the didactic purpose of using them in the learning pro - cession (preparation for the study of new material in the course of the study - Niya new material for repetition and consolidation studied - Foot), for didactic tasks (for knowledge, skills, attitudes, beliefs,), in the form of organization of educational activity of students (group, individual), in the form of the educational process (in the classroom, on trips, during the observations and practical works with - like that in the process of doing homework), the material with which students work in the process of problem solving (on the basis of academic or extra letter - tours, maps, teaching aids, visual aids, given - governmental own observations).

Any task performs a complex of functions, but one of them is the leading one. The allocation of task functions is very arbitrary, and in practice, the implementation of a particular function depends on which of them the teacher will focus on. The leading feature of the problem is determined by the main purpose of its formulation and implements first. To carry out each function, one needs its own tasks, their internal definite system, its own method of teaching how to solve them .

Let us show with some specific examples how the principles of building this internal system are determined.

Cognitive tasks are structured in such a way as to cover the entire structure of the content of environmental knowledge.

1. Objectives of establishment of multilateral importance at - birth to human (economic, aesthetic, hygienic, scientific, cognitive, humanistic, etc...). An example of such a task can be the following : One of the goals of greening a city *is to* decorate its territory.

2. Challenges for the realization of human impact on under - race as an important factor of change in nature. Tasks of this type include examples of direct and indirect, negative and positive human influence on nature.

3. Challenges for the assessment of natural objects under the influence human activity. For example: assess the state of the soil in your school area. Determine the causes and measures to improve their condition. (Similar tasks are given for assessing the state of plants, reservoirs and other objects).

4 . Challenges for the awareness of the interdependencies between the major - E structural components of environmental knowledge (Obects reasons, motives and actions for Conservation of Nature):

a) the connection between the security measures of the object with the reasons for the need for its protection, the peculiarities of the state of the object at the present time;

b) the connection between the security measures of the object with the motives for which it is protected and restored;

c) communicate the measures with the features of the object, its inter - relationship with other components of nature,

d) connection of the motives of protection with the peculiarities of the nature of the object;

d) communicate the reasons for the protection of the object with the features of its natures s

5. Tasks to comprehend the principles of nature conservation and methods, ways of solving nature conservation problems:

a) protection of nature in the process of its use,

b) a comprehensive account of the values for each person at - native object

c) assessment of long-term positive and negative effects of human impact on the environment and ensuring the qualitative and quantitative recovery of natural rich - Properties. The environmental problems of any nature (scientific, industrial, educational) can be solved by a variety of log files - iCal reasoning , so one of the goals of environmental education is to develop the ability to reason with the Observed - not only the laws of logic in general, but also the environmental logic in particular. The teacher, defining the system of these tasks, must clearly understand its main structural elements and their features. Among the tasks it is necessary to highlight:

- objectives for the establishment of cause - effect relationships,
- comparison tasks,
- tasks for classification (grouping),
- tasks for concretizing general concepts,
- generalization tasks.

The tasks of establishing cause-and-effect relationships are of paramount importance, because cause - and - effect relationships underlie all methods of logical reasoning , thinking in general. The lack of reliance on causality leads to formalism in environmental education . We appropriation of causal relationships - an important condition for the effectiveness of environmental awareness and knowledge, the basis for the formation of the main environmental skills - the ability to anticipate, foresee the consequences of human impact on nature. The purpose of using tasks to establish the cause and consequence - governmental relations lies in the fact, to teach students Various - chat of cause and effect, to establish the causes that lead to positive or negative results of inter - human activities and nature, to establish first a short, local, one-sided, then all more complex varieties - different connection in the relationship between man and nature. For the formation of these skills need constant Train - ka with a gradual increase in difficulty level of cause-trail - governmental relations. How do you define it? The teacher should be able to vary such tasks, first of all, according to the indicators of their logical difficulty, abstracting from all other conditions that may affect the degree of difficulty of the task. The first parameter to be considered in the definition - the division of the complexity of the tasks to establish the cause - consequence - governmental connections - the structure of these relationships, the purely

quantitative ratio. That is the structure of causal- bonds tasks can be complicated depending on the number at - the rank or the consequences of which are given in the problem, or are to be determined. For a better understanding of the links, especially the teacher, it is useful to represent the structure at - politely - effect relationships in a table or chart. Until - We show this with concrete examples. At the initial stage of learning, and later to teach weak students, short connections are used: one reason - one effect. Students under - are found to realize the "cause" and "effect" in the Conservation - content of these concepts)?

Comparison tasks occupy a special place among the types of tasks in terms of the method of students' mental activity. They help to learn characteristics of individual components of nature - protection of knowledge: protected natural objects, causes, mochi - Islands and measures for their protection. A variety of types of cognitive tasks of this group is associated with the peculiarities of the environment in which teaching invited to conduct a comparison. Taking these conditions into account, the internal system of these types of tasks is being built. Various ste - stump complexity of problems depends on a comparison:

From the versatility of the comparison itself, that is, the task to determine only the difference or only the similarity or similarity and difference together. Here are some examples.

Problem 1. Plants of the suburbs of Bukhara , such as a water lily, a swimsuit, are very rare. Determine what are the common reasons for their disappearance and what is common in the measures for their protection.

Task 2. Explain why it is impossible to collect a bouquet of bird cherry in the city, but in the forest it is possible? How to explain the different protection measures for the same plant?

Task 3. All vegetation of our region carefully. However, the measures for the protection of forest vegetation in general and of such representatives as lily of the valley are different. Problem 4. Compare the value of plants in the forest of our region and green spaces in the city for a person. About t given the complexity of the comparison conditions, the conditions - Via tasks may include features defined for comparison of objects (phenomena), and they only need to use or reveal these features, and then compare.

Problem 5. The plains are used for the cultivation of racesteny more than the highlands. Task 6. Compare the possibility of using for plains and mountains.

From the complexity of the specified conditions, their adequacy or inconsistency of the compared objects. Given these conditions, the teacher determines the site uses - Bani problems in the educational process in general and for specific groups of students in particular. In the process of solving these problems by teaching master the comparison operation, which is necessary to perform the classification task, grouping, organizing various environmental knowledge. Challenges for the classification of environmental knowledge can be connected: a) collecting the information, examples, relevant set - Nome basis; b) with the definition of a feature that is common for the proposed list of natural objects or for any of their characteristics. For example, if the theme "Nature of our region" defines characteristics of individual components at - childbirth and their significance for the economy and human health, the classification task can contain the job identified - of objects that are protected by man for economic, aesthetic or hygienic reasons. In particular, the teaching can offer to list their objects of nature areas, which are used to preserve the beauty of nature or of particular importance to the promotion of human health, or the need for factories. Classification grouping are skills is required - mymi for mastering

following her thinking more complex operation - generalization. Generalization presupposes the ability to curtail the connections between natural phenomena and the economic activities of people at a sufficiently high level, to draw conclusions of a world outlook. For the formation of these skills, the following tasks can be proposed:

Rate generally favorable opportunity uses - Bani reservoirs for economic activity, health and human recreation. Prove with specific examples. Determine how the objects of protection measures connected with prichi - us, cause deterioration in the quality of the nature of these objects. Give examples. Generalization and specification - two mental operation that for younger pupils should as often as possible to coexist, to be used together, for their characterized - thorns generalizations based on small material, sometimes insignificant, signs that often leads to false conclusions. Therefore, proposing tasks for generalization at the level of a component of nature as a whole and the economic activity of people, it is necessary to include tasks for concretizing general provisions. T. Akim, the cognitive tasks form at young alike - student ability to navigate the new environment, to assess the new facts of human relationship with nature - establishing the causes of the negative consequences of the impact of economic activity Luden on nature. All these skills are necessary not only to replenish environmental knowledge on their own, but also to develop the correct environmental position in any life situations. All of the above allows us to conclude that cognitive tasks are an important means of improving the quality of teaching natural history in general and environmental education and upbringing in particular .

References:

1. M.I. Nuriddinova "Methods of teaching natural history" Tashkent 2005 . from 153
2. G.M.Saifullaev "Extracurricular work in nature studies " Bukhara 2020 from 47

A. Bakhronov " Natural science grade 3-4 textbook" Tashkent 2019 from 20

3. Khamroev A. STUDENTS'CREATIVE ACTIVITIES IN DESIGNING MOTHER TONGUE EDUCATION //Scientific Bulletin of Namangan State University. – 2019. – T. 1. – №. 7. – C. 285-296.
4. Yusufzoda S. Organization of independent work of students in mathematics //Bridge to science: research works. – 2019. – C. 209-210
5. Khamraev A. R. Modeling Teacher's Activity in Designing Students' Creative Activities //Eastern European Scientific Journal. – 2019. – №. 1.
6. Azimov Y. Hamroyev A //Husnixat va uni oqitish usuliyoti (Maruza matnlari). Buxoro, 2003,- 52 bet. – 2003.
7. Hamroev A. R. MODELING ACTIVITIES OF TEACHERS WHEN DESIGNING CREATIVE ACTIVITIES OF STUDENTS //European Journal of Research and Reflection in Educational Sciences Vol. – 2019. – T. 7. – №. 10.
8. Adizov B. R., Khamroev A. R. MODELING ACTIVITIES OF TEACHERS WHEN DESIGNING CREATIVE ACTIVITIES OF STUDENTS //ILMIY XABARNOMA. – C. 69.
9. Avezmurodovich O. R. Difficulties in learning to write and read left-handed children //European Journal of Research and Reflection in Educational Sciences, 8 (8), 40. – 2020. – T. 45.

10. QO'LDOSHEV R. Chapaqay bolalarni maktabga qanday tayyorlash kerak //Pedagogik mahorat. Ilmiy-nazariy va metodik jurnal Buxoro 2020-yil, 3-son 145-147 b.
11. Quldoshev R. A. Assistant pedagogue to children left-handed reading in the last year //Globe Edit. – 2020.
12. Hamroyev R. A., Qoldoshev A. R., Hasanova A. M. Methods of teaching 1st grade students to use writing tools effektively //Asian Journal of Multidimensional Research (AJMR). – 2021. – T. 10. – №. 1. – C. 168-174.
13. Avezmurodovich Q. R. Psychological aspects of left-handedness: Concept, causes, and peculiarities //ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL. – 2021. – T. 11. – №. 1. – C. 623-631.
14. Qoldoshev A. R., Yodgorova F. G. How to find out right or left //Asian Journal of Multidimensional Research (AJMR). – 2021. – T. 10. – №. 1. – C. 154-163.
15. Hamroyev R. A., Qoldoshev A. R., Hasanova A. M. Methods of teaching 1st grade students to use writing tools effektively //Asian Journal of Multidimensional Research (AJMR). – 2021. – T. 10. – №. 1. – C. 168-174.
16. Avezmurodovich, Qoldoshev Rustambek. "Psychological aspects of left-handedness: Concept, causes, and peculiarities." *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL* 11.1 (2021): 623-631.
17. Xoliqulovich J. R. Toponymics-a Linguistic Phenomenon in The Work of Sadriddin Aini //Middle European Scientific Bulletin. – 2021. – T. 8.
18. Avezmurodovich Rustambek Qo'ldoshev, & G'aforovna Habiba Jumayeva. (2021). Forming Writing Skills in Left-Handed Students. *Middle European Scientific Bulletin*, *10*(1). https://doi.org/10.47494/mesb.2021.10.309
19. Qo'ldoshev A. R. PSYCHOLOGICAL ASPECTS OF LEFT-HANDEDNESS: CONCEPT, CAUSES, AND PECULIARITIES //Psychology and Education Journal. – 2021. – T. 58. – №. 1. – C. 4981-4988.
20. Qo'ldoshev A. R. et al. Forming Writing Skills in Left-Handed Students //Middle European Scientific Bulletin. – 2021. – T. 10. – №. 1.
21. Polatovna A. Y. Psychological characteristics of speech cultivation by working on the text in primary school reading lessons //ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL. – 2021. – T. 11. – №. 1. – C. 490-501.
22. Pulatova A. Y. Scientific and Theoretical Foundations of an Integrative Approach to the Formation of Literary Concepts in Primary School Students //Middle European Scientific Bulletin. – 2021. – T. 8.
23. Asadovna Y. Psychological Characteristics of Speech Cultivation by Working on the Text in Primary School Reading Lessons //Annals of the Romanian Society for Cell Biology. – 2021. – C. 437-446.
24. Qo'ldoshev A. R. PSYCHOLOGICAL ASPECTS OF LEFT-HANDEDNESS: CONCEPT, CAUSES, AND PECULIARITIES //Psychology and Education Journal. – 2021. – T. 58. – №. 1. – C. 4981-4988.

25. Avezmurodovich O. R. Difficulties in learning to write and read left-handed children //European Journal of Research and Reflection in Educational Sciences, 8 (8), 40. – 2020. – T. 45.
26. Quldoshev R. A. Assistant pedagogue to children left-handed reading in the last year //Globe Edit. – 2020.
27. Bakhtiyorovna A. N., Bakhtiyorovna A. N. The role of the fun genre in children's spiritual development //Middle European Scientific Bulletin. – 2020. – T. 4. – C. 38-40.
28. Bakhtiyorovna A. N., Bakhtiyorovna A. N. The role of oikonyms in microtoponymis of Bukhara district //Middle European Scientific Bulletin. – 2020. – T. 4. – C. 41-43.
29. Hakimova M. K. THEORITICAL AND METHODOLOGICAL BASES OF THE NON-PROBLEMS FOR THE DEVELOPMENT OF THE MATHEMATICAL THINKING IN PRESCHOOL AND INITIAL TRAINING //Scientific Bulletin of Namangan State University. – 2019. – T. 1. – №. 4. – C. 356-363.
30. Homitovna H. M. A model of continuity in the formation of mathematical concepts in kindergarten and primary school pupils //ACADEMICIA: An International Multidisciplinary Research Journal. – 2020. – T. 10. – №. 11. – C. 1756-1764.
31. Хакимова М. Х. ПРОБЛЕМЫ ОБЕСПЕЧЕНИЯ ПРЕЕМСТВЕННОСТИ ДОШКОЛЬНОГО И НАЧАЛЬНОГО ОБРАЗОВАНИЯ ПРИ ФОРМИРОВАНИИ МАТЕМАТИЧЕСКИХ ПОНЯТИЙ У УЧАЩИХСЯ //European reseach: innovation in science, education and technology. – 2020. – C. 69-71.
32. Xoliqulovich J. R. Toponymics-a Linguistic Phenomenon in The Work of Sadriddin Aini //Middle European Scientific Bulletin. – 2021. – T. 8.
33. Xoliqulovich, Jumayev Ro'ziqul; ,"THE NAMES OF PLACES ASSOCIATED WITH FOLK CRAFTS IN SADRIDDIN AINI'S ""MEMORIES""",EPRAInternational Journal of Multidisciplinary
34. Saidova M. EDUCATE STUDENTS BY SOLVING TEXTUAL PROBLEMS //European Journal of Research and Reflection in Educational Sciences Vol. – 2019. – T. 7. – №. 12.
35. Babaeva B. S. et al. The basics of communicative competence are the guarantee of the development of speech in primary schoolchildren in the lessons of their native language //ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL. – 2021. – T. 11. – №. 1. – C. 518-529.
36. Бабаева Ш. Б. и др. Работа со специальными текстами на уроках русского языка начальной школе» сборник материалов VIII Международной научно-практической конференции «Актуальные вопросы современной науки и образования» который состоялся 20 февраля 2021 года в г //Пенза МЦНС «Наука и просвещение» стр. – С. 194-197.
37. Raximqulovich I. S. METHODS OF WORKING WITH TEXT IN LITERARY READING LESSONS IN ELEMENTARY SCHOOL //EPRA International Journal of Multidisciplinary Research. – 2020. – T. 1. – C. 345-347.
38. Yunus Y. S. Features of Logical Thinking of Junior Schoolchildren //Middle European Scientific Bulletin. – 2021. – T. 10. – №. 1.

39. Yunus Y. S. Methodology Of Teaching Assignments To Work With Non-Standard Solution In Primary School Mathematics Education //The American Journal of Social Science and Education Innovations. – 2021. – Т. 3. – №. 02. – С. 439-446.
40. Yusufzoda S. Organization of independent work of students in mathematics //Bridge to science: research works. – 2019. – С. 209-210.
41. Rustamova G. B. THE INTERPRETATION OF THE WILLOW IMAGE IN UZBEK FOLKLORE //ЛУЧШАЯ НАУЧНАЯ СТАТЬЯ 2020. – 2020. – С. 53-57.
42. Azimov Y., Babaeva S. Use of innovative technologies in lessons of writing in primary classes //Bridge to science: research works. – 2019. – С. 214-218.
43. Azimov Y. Hamroyev A //Husnixat va uni oqitish usuliyoti (Maruza matnlari). Buxoro, 2003,-52 bet. – 2003.
44. Umurov Z. L. DIDACTICAL FOUNDATIONS OF EDUCATIONAL AND Cognitive problems in the primary school // Science, technology and education. - 2020. - No. 3 (67).
45. Abdugafforovich A. N. SCIENTIFIC THEORY OF AL-KHAKIM AT-TERMEZI //European Journal of Research and Reflection in Educational Sciences Vol. – 2019. – Т. 7. – №. 11.
46. Ачилов Н. А. ВЛИЯНИЕ УЧЕНИЯ АЛЬ-ХАКИМ АТ-ТИРМИЗИ В ИДЕЙНОМ НАСЛЕДИИ МЫСЛИТЕЛЕЙ INFLUENCE OF THE TEACHING OF AL-HAKIM AT-TIRMISI IN THE IDEAL HERITAGE OF THINKERS //Журнал выпускается ежемесячно, публикует статьи по гуманитарным наукам. Подробнее на. – 2018. – С. 70.
47. Juraeva D. IMPROVE THE METHODOLOGICAL TRAINING OF FUTURE TEACHERS TO DEVELOP STUDENTS'CREATIVE ABILITIES USING NON-STANDARD TASKS //European Journal of Research and Reflection in Educational Sciences Vol. – 2020. – Т. 8. – №. 3.