METHODS OF TEACHING INFORMATICS AND INFORMTION TECHNOLOGIES

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Abstract: *In this article, modern methods and tools are used to guide children to programming, in particular, "Toward digital thinking!" The set of intellectual national game programs and methods of using its database are explained.*

Keywords: *Programming, methodology, game program, database, digital thinking.*

In our country, a lot of work is being done to direct children to the field of programming. Today's pedagogues emphasize that each child should be treated differently based on his or her individual interests and capabilities. So, is it necessary to deal with each child individually? While individual education has a number of advantages, it also has its own disadvantages. In particular, lack of physical capacity of the pedagogue. Of course, digitization of education using methods based on modern technologies can serve as an optimal solution to the problem. A number of works are being carried out in this regard, and it has already shown its positive results. Developed "Toward Digital Thinking!" the set of intellectual national game programs named

In the software package, which of the children's forms of thinking are developed to what extent is determined with the help of a multimedia psychological test in the nature of a game. Test results are stored in certain fields of the database. (Fig. 1.) It has the following columns:

- Visual movement form of thinking
- Topological component of figurative thinking
- Projective component of figurative thinking
- Orderly component of figurative thinking
- Metrical component of figurative thinking
- Compositional component of figurative thinking
- Algorithmic way of thinking
- A form of logical thinking
- Abstract form of thinking

The program gives a unique number (ID) to each user, and in each column, the result of the user's thinking is reflected in the numbers according to the test result he specified. In the multimedia psychological test, if the component representing the thinking is less than 70%, it means that this thinking is not well developed, and the game that develops it is selected from the base of games that are suitable for the user's age. Tables are organized for each game in the database, and parameters such as game complexity level, start time, number of actions, thinking time and completion time are stored in the tables. (Fig. 2.) If the chosen game is difficult for the child, that is, if he

cannot succeed in the game within the specified time, the game returns to the previous (simpler) one stage. The beginning of each game begins with a guide animation.

There are a number of advantages of online database organization in the game collection. In particular, during technical and pedagogical testing of programs, the necessary information can be easily copied and processed from the table. It is also possible to determine the region in which the user lives through the IP address, and it is possible to obtain a number of information such as which children's thinking lags behind development or which profession the children in which region are more interested in. This is an important statistic for the distribution of personnel and what measures should be taken to prevent unemployment.

REFERENCES:

1. Berdiqulova, N. R., & Fayziyeva, N. T. (2023). BIOLOGIYANI O ‘QITISHDA O ‘QUVCHILARDA TADQIQOTCHILIK KO ‘NIKMALARINI SHAKLLANTIRISH. Journal of new century innovations, 12(5), 16-18.
2. Boltayeva, M. D., & Berdiqulova, N. R. (2023). O ‘QUVCHILARNI TABIIY-ILMIY DUNYOQARASHINI RUVOJLANTIRISHGA TA’SIR ETUVCHI OMILLARNI. Ustozlar uchun, 19(1), 228-231.
3. Janbayeva, M. S., & Qorayev, S. B. (2021). BOSHLANGICH SINFLARDA SINFDAN TASHQARI ISHLARNI TASHKIL ETISHNING ZAMONAVIY TAMOYILLARI. Экономика и социум, (5-2 (84)), 837-843.
4. Qorayev, S. B., & Janbayeva, M. S. (2022). BOSHLANG’ICH TA’LIMDA O’QISH DARSLARIDA INTERFAOL METODLARNI SAMARALI QO’LLASHNING O’ZIGA HOS JIXATLARI. Academic research in educational sciences, 3(1), 1079-1085.
5. Арсланова, Г. Д. (2023). СКАЗКОТЕРАПИЯ КАК ОДИН ИЗ МЕТОДОВ ВОСПИТАНИЯ МЛАДШИХ ШКОЛЬНИКОВ. TOSHKENT DAVLAT PEDAGOGIKA UNIVERSITETI, 1(1), 623-625.
6. Арсланова, Г. Д. (2023). МЕТОДЫ И ПОДХОДЫ ФОРМИРОВАНИЯ КУЛЬТУРЫ РЕЧИ У МЛАДШИХ ШКОЛЬНИКОВ. ИНТЕГРАЦИЯ ОБРАЗОВАНИЯ И ОБУЧЕНИЯ, 1(1), 246-247.
7. Арсланова, Г. Д. (2022). Практические методы и педагогические приёмы преподавания предмета «воспитание» в начальных классах. Academic research in educational sciences, 3(12), 421-428.
8. Арсланова, Г. Д. (2023). Диагностика личности младшего школьника. Academic Research in Educational Sciences, 4(3), 297-301.
9. Karimovna, K. K. (2023). Taking the Education System to a New Level with the TALIS International Assessment Program and Action Strategy. Central Asian Journal of Literature, Philosophy and Culture, 4(4), 245-249.

10. Qarshiboyeva, X. K., & Muminov, Z. S. (2023). Boshlang‘ich sinf ona tili va o‘qish savodxonligi darslarida o‘quvchilarining nutqiy faoliyatini rivojlantirish usullari. Mugallim ilmiy metodik jurnali, 1(3), 269-274.

11. Qarshiboyeva, X. K. (2023). TALIS xalqaro baholash dasturining ahamiyati va afzalliklari. Mugallim ilmiy metodik jurnali, 1(3), 72-77.

12. Qarshiboyeva, X. K. (2020). Boshlang’ich sinf o’quvchilarining ona tili va o’qish darslarida nutqiy faoliyatini takomillashtirish yo’llari. Konferensiya, 1(1), 379-382.

13. Qarshiboyeva, X. K. (2021). Yozma savodxonlikni oshirishda boshlang’ich sinflarda chiroyli yozuv malakalarini shakllantirish. Konferensiya, 1(1), 286-289.

14. Qarshiboyeva, X. K. (2023). TALIS xalqaro baholash dasturining ahamiyati va afzalliklari. Mugallim ilmiy metodik jurnali, 1(3), 72-77.

15. Arslonovna, J. Z. (2023). Methodology for developing engineering skills of students through solving experimental problems. Open Access Repository, 9(5), 210-213.

16. Jumayeva, Z. A. (2023). Engineering communications construction and installation the importance of teaching physics in the sciences. MATERİALS OF THE REPUBLİCAN SCİENTİFİC AND PRACTİCAL CONFERENCE, 1(1), 22-26.

17. Jumayeva, Z. A. (2023). Engineering communications construction and to study physics in the ways of installation importance. FIRST RENAISSANCE: ABU RAYHAN BERUNIY AN, 1(1), 15-20.

18. Jumayeva, Z. A. (2023). Fizikani kasbga yo‘naltirib o‘qitish jarayonida ilg‘or pedagogik texnologiyalardan foydalanish metodikasi. 1(6), 146-148.

19. Qambarova, S. A. (2020). Partiya tashkilotlarida kadrlarga munosabat (1917-1940 yillar misolida). Academic research in educational sciences, (2), 296-305.

20. Камбарова, Ш. А. (2017). История печати в Туркестане. Молодой ученый, (4-2), 15-16.

21. Қамбарова, Ш. А. (2014). XX асрнинг 20-30 йилларида олиб борилган маданий сиёсатнинг халқ қ имиз маънавий ҳ ҳ аётига таъсири. In Сборники конференций НИЦ Социосфера (No. 22, pp. 157-161). Vedecko vydavatelske centrum Sociosfera-CZ sro.

22. Ахмедов, Б. (2018). Oliy ta'lim muassasalarida chet tili o'rganish jarayonida elektron ta'lim kurslarini qo'llash tamoyillari. Toshkent davlat pedagogika universiteti, 1(1), 51-56.

23. Ахмедов, Б. А. (2023). Таълим жараёнида масофавий таълим муаммолари ва ечимлари. PEDAGOG, 1(5), 93-97.

24. Akhmedov, B. A. (2022). Using of Information Teaching Technologies in the Teaching Physics in Higher Education. NeuroQuantology, 10(10), 524-536.

25. Akhmedov, B. A., & Jakhongirova, Y. J. (2022). Methodology of teaching english: approach of national way. Uzbek Scholar Journal, 10, 218-224.

26. Ахмедов, Б. А. (2022). Повышение питательности завтрака с помощью биодобавок для укрепления здоровья студентов. Uzbek Scholar Journal, 11, 7-11.

27. Ахмедов, Б. А. (2021). Таълимда ахборот технологиялари фанининг модулларини ўқитишда кластерли-инновацион технологиялардан фойдаланиш тамойиллари. O‘zbekiston respublikasi oliy va o‘rta maxsus ta’lim vazirligi, 441(15), 18-21.