



Научно-образовательный электронный журнал

ОБРАЗОВАНИЕ И НАУКА В XXI ВЕКЕ

Выпуск №25 (том 4)
(апрель, 2022)



Международный научно-образовательный
электронный журнал
«ОБРАЗОВАНИЕ И НАУКА В XXI ВЕКЕ»

УДК 37

ББК 94

**Международный научно-образовательный электронный журнал
«ОБРАЗОВАНИЕ И НАУКА В XXI ВЕКЕ». Выпуск №25 (том 4) (апрель,
2022). Дата выхода в свет: 30.04.2022.**

Сборник содержит научные статьи отечественных и зарубежных авторов по экономическим, техническим, философским, юридическим и другим наукам.

Миссия научно-образовательного электронного журнала «ОБРАЗОВАНИЕ И НАУКА В XXI ВЕКЕ» состоит в поддержке интереса читателей к оригинальным исследованиям и инновационным подходам в различных тематических направлениях, которые способствуют распространению лучшей отечественной и зарубежной практики в интернет пространстве.

Целевая аудитория журнала охватывает работников сферы образования (воспитателей, педагогов, учителей, руководителей кружков) и школьников, интересующихся вопросами, освещаемыми в журнале.

Материалы публикуются в авторской редакции. За соблюдение законов об интеллектуальной собственности и за содержание статей ответственность несут авторы статей. Мнение редакции может не совпадать с мнением авторов статей. При использовании и заимствовании материалов ссылка на издание обязательна.

© ООО «МОЯ ПРОФЕССИОНАЛЬНАЯ КАРЬЕРА»

© Коллектив авторов

O'ZGARUVCHILARNI AJRATISH USULI HAQIDA Merajova Shahlo Berdiyevna, Saidova Nilufar Muhammadovna	1601
O'QUVCHILARDA MANTIQIY TAFAKKUR MALAKALARINI RIVOJLANTIRISHNING ROLI VA TUTGAN O'RNI Sayfullayeva Shahlo Shavkatovna	1609
INDUKTIV TAFAKKURNI RIVOJLANTIRISHNING AHAMIYATI HAQIDA Sayfullayeva Shahlo Shavkatovna	1615
IMPROVEMENT OF TECHNOLOGICAL CLASSES ON THE BASIS OF INTERACTIVE EDUCATIONAL TECHNOLOGIES Rasulova Zilola Durdimurotovna	1623
МЕТОДЫ РАЗВИТИЯ ПЕДАГОГИЧЕСКОЙ КОМПЕТЕНЦИИ БУДУЩИХ УЧИТЕЛЕЙ Расулова Зилола Дурдимуротовна, Каримова Нилуфар Азимовна	1632
TRIGONOMETRIK MASALALARNI YECHISHDA BA'ZI EKVIVALENT NISBATLARNI TADBIQ ETISH Saidova Nilufar Muhammadovna, Otajonova Sitorabonu	1640
«ЧАЛА КВАДРАТ ТЕНГЛАМА» МАВЗУСИНИ ЎҚИТИШДА «БУМЕРАНГ» ТЕХНОЛОГИЯСИ Абдуллаева Муҳайёхон Абдувоҳид қизи, Тулаева Мадина Нутфуллоевна	1651
«DETERMINANT VA ULARNING XOSSALARI. DETERMINANT TUSHUNCHASI VA UNI HISOBLASH» MAVZUSINI O'QITISHDA SVETOFOR METODINI QO'LLASH Abdullayeva Muhayyo Abduvohid qizi, Shukurova Maftuna Davlat qizi	1661
МОВАРОУННАХР АРАБ ТИЛШУНОСЛИГИ ВА УНДА АБДУРАҲМОН ЖОМИЙНИНГ TUTGAN ЎРНИ Жўраева Мадина Абдужалиловна	1671
ФУНКЦИОНАЛЬНЫЕ ИЗМЕНЕНИЯ ЖЕЛУДОЧНО- КИШЕЧНОГО ТРАКТА У БОЛЬНЫХ С САХАРНЫМ ДИАБЕТОМ Жураева М.А., Солиев Д.К., Зокиров А.С., Ашуралиева М.А.	1676
ИССЛЕДОВАНИЕ ЭЛЕМЕНТНОГО СОСТАВА ВЕЩЕСТВ И МАТЕРИАЛОВ С ИСПОЛЬЗОВАНИЕМ НЕЙТРОННО- АКТИВАЦИОННОГО АНАЛИЗА Эргашев О., Киличев З., Курбанов Б.И., Полвонов С.Р.	1688
ПРОБЛЕМА ОБУЧЕНИЯ РУССКОМУ ЯЗЫКУ УЗБЕКСКОЙ МОЛОДЁЖИ В УЗБЕКИСТАНЕ Косимова Раъно Исмаиловна	1691
КОНЦЕПТУАЛЬНЫЕ ОСНОВЫ ИЗУЧЕНИЯ ТВОРЧЕСТВА ЗАХИРИДДИНА МУХАММАДА БОБУРА В ШКОЛАХ Кушбакова Фарида Наильжановна	1695

ФИО автора: *Rasulova Zilola Durdimurotovna*

Bukhara State University

Associate Professor of the Department of Technological Education

Название публикации: «IMPROVEMENT OF TECHNOLOGICAL CLASSES ON THE BASIS OF INTERACTIVE EDUCATIONAL TECHNOLOGIES»

Annotation: This article shows the factors for achieving efficiency in the activities of labor education clubs using interactive methods. The ease with which some interactive teaching methods can be used in the learning process with different mindfulness learning technologies has been developed. In order to increase the effectiveness of students' knowledge and skills, there are ways to develop an overall lesson plan and set goals correctly.

Key words: the notion of method, interactive methods, teaching, education, the form, method, facility, knowledge, skills, development.

Introduction. Today, all attention is paid to creating conditions for the realization of creative and intellectual potential of students, further development of science and active involvement of talented young people in scientific activities, and we have great confidence in the future teachers. Hence, information and in the educational process The introduction of modern teaching technologies will serve as a basis for improving the quality and efficiency of education.

The role of interactive teaching and interactive methods in the organization of the educational process in this regard, based on a creative approach to the study of technology circles is invaluable. After all, by their very nature, they have the ability to motivate students to be active, to provoke heated debates and discussions in the educational process. Good preparation for lessons not only ensures that the lesson is orderly, meaningful and interesting, but also helps students to master the knowledge effectively.

Preparing for a club session is not difficult for a club leader who knows his or her specialty well. The focus should be on developing an overall lesson plan and setting goals:

- ensuring logical continuity in the training;
- Methodologically correct organization of training;
- be able to organize the training properly.

The main part. The use of interactive teaching methods in the organization of club sessions is very effective. Interactive teaching methods are used in the educational process in the form of discussions, debates, discussions, reflections, analysis in the dialogue between teacher and students, students and teachers. These methods help students grow into independent thinkers, mature people by developing their speech, thinking, reasoning, intellect, talent, and intelligence.

The term "interactive" is derived from the English word "interact" ("Inter" - "together", "act" - "action"), ie the interaction of teacher and student. Interactive learning is a special type of organization of cognitive activity. The interactive teaching method is implemented by each teacher at the level of available tools and their own capabilities. First of all, the word "Method" comes to mind in the first place. "Method" is interpreted in the sense of "way, method" derived from the Greek word (metodos). Interactive methods are those methods that activate learners and encourage independent thinking, with learners at the center of the learning process. When these methods are used, the educator encourages the learner to actively participate. The learner is involved throughout the entire process.

The benefits of a learner-centered approach include:

- higher learning outcomes;
- high level of motivation of the student;
- taking into account previously acquired knowledge;
- Adaptation of the educational process to the goals and needs of the learner;
- support the initiative and responsibility of the student;
- study by practice;

- creation of conditions for bilateral discussions.

Interactive learning technology - ensures that the teacher conducts lessons that all students master as intended. At the same time, each student-student, having their own motives and intellectual level, masters the lesson at a pre-determined level.

There are several types of interactive methods, which are widely used in educational processes today.

“Working in small groups” method, “B/B/B” method, “Round table” method, “Cluster inter-network” method, “Syncway” method, “Brainstorming” method, “Decision Tree” method, “6/6/6” method, “Debates”, “Socrates” method, etc.

It is advisable to choose these methods based on the didactic task of each circle session. While maintaining the traditional form of the lesson, enriching it with a variety of methods that activate the activities of learners leads to an increase in the level of mastery of learners. Today, in a number of developed countries, the methods that form the basis of extensive experience in the use of modern pedagogical technologies that guarantee the effectiveness of the educational process are called interactive methods. Interactive teaching methods are currently the most common and widely used in all types of educational institutions.

However, there are many types of interactive teaching methods, and they are now suitable for the purpose of performing almost all the tasks of the educational process.

In practice, they can be used appropriately for specific purposes by separating them. This situation has now led to the problem of choosing the right interactive teaching methods to achieve certain goals. They can be described as follows.

Business or role (situational) game. Business or role-playing games are a type of problem-solving task in which a life situation is staged in which students (role-players) play roles instead of just textual learning material. This method is for students (students) to conduct practical classes together creates opportunities and further increases the interest in the profession by making all participants think about the specifics of the work of the practical process.

Business and role-playing games serve the following functions as a method of education:

- teacher: formation of general education skills; develop creative ability;
- this including explaining, identifying and analyzing new situations;
- developer: the study of logical thinking, speech, environmental conditions ability development;
- motivational: to motivate students to study, to draw independent conclusions to encourage;
- educational: formation of responsibility, independence.

Method of pedagogical games. Conducting pedagogical games is divided into four stages:

Phase 1: the game leader solves organizational issues (explaining the rules of the game based on the content of the game, giving advice, dividing the game participants into groups);

Phase 2: Preparation of game symbols (attributes) (project, drawing, room selection). Disseminate information about the game content to the game manager, its participants;

Phase 3 analysis and conclusion of the conducted pedagogical games and evaluation of the activities of the game participants. It is recommended to use an evaluation criterion (evaluation scale).

The technology of combining the personal activities of teachers and students is used in the process of mastering new concepts, rules and vocational training of students, which involves the repetition and thorough mastering of a method or action in combination with elements of play [1-38].

Assignments of this type usually lead to interesting discussions, (student) developing students' worldview, reasoning, proving their point of view and approach, decision-making, and the ability to work independently in general.

The teacher introduces only the terms of the assignment, and the rest of the work is done by the (student) students themselves. To perform such tasks, students are required

to conduct independent research outside the classroom, while also being encouraged to develop professional and practical skills.

Topics and assignments for project work can be taken from life events, evidence, and examples. The study of processes and objects studied in specific disciplines can also be given as projects that are accomplished through a variety of assignments. To this end, the lesson process should be organized rationally, by increasing the interest of the learners by the educator and making them active in the learning process continuous encouragement, breaking down practical exercises into small pieces, using techniques such as brainstorming, working in small groups, discussion, problem situation, reference text, project, role play, and encouraging learners to do practical exercises independently.

Conclusion. An interactive method is to solve an activity or problem in a dialogue, in a discussion, in a collaborative way. The advantage of these methods is that the whole activity (student) teaches the student to think independently and prepares them for independent living. The choice of interactive methods of teaching takes into account the purpose of education, the number and capabilities of students, the educational and material conditions of the educational institution, the duration of education, the pedagogical skills of the teacher and others.

REFERENCES

1. Olimov Sh.Sh. The innovation process is a priority in the development of pedagogical sciences. *European Journal of Research Development and Sustainability*. 2:3 (2021), pp. 86-88.
2. Olimov S.S., Mamurova D.I. Graphic Information Processing Technology and its Importance. *European Journal of Life Safety and Stability*. 10 (2021), pp. 1-4.
3. Olimov Sh.Sh. The differentiation of education is an important factor of pedagogical technology. *European Journal of Research and Reflection in Educational Sciences*. 8:11 (2020), pp. 161-165.

4. Rasulova Z.D. Pedagogical peculiarities of developing socio-perceptive competence in learners. *European Journal of Research and Reflection in Educational Sciences*. 8:1 (2020), pp. 30-34.
5. Расулова З.Д. Дидактические основы развития у будущих учителей креативного мышления. *European science*, vol. 51, no. 2-2 (2020), pp. 65-68.
6. Расулова З.Д. Значения обучающих технологий направленной личности на уроках трудового обучения. *Ученые XXI века*, Т. 47, № 12 (2018), С. 34-35.
7. Olimov S., et. al. The innovation process is a priority in the development of pedagogical sciences. *European Journal of Research Development and Sustainability*. 2:3 (2020), pp. 86-88.
8. Олимов Ш.Ш., Ходжиева М.Ш. Возможности применения педагогических технологий в образовательном процессе. *Молодежь и XXI век-2020*, 2020, С. 228-231.
9. Bakaev J.N., Olimov Sh.Sh. Modern approaches to diagnosis, etiology and pathogenesis of the upper permanent canine retention formation (Literature Review). *European Journal of Molecular & Clinical Medicine*. 7:3 (2020), pp. 3815-3830.
10. Rasulova Z.D. Conditions and opportunities of organizing independent creative works of students of the direction Technology in Higher Education. *International Journal of Scientific and Technology Research*. 9:3 (2020), pp. 2552-2155.
11. Каххоров С.К., Расулова З.Д. Роль дистанционного обучения а развитии творческих навыков студентов. *Проблемы педагогики*. 49:4 (2020), С. 26-29.
12. Каххоров С.К., Расулова З.Д. Компьютерные технологии обучения как важный фактор для улучшения процесса преподавания. *Современные инновации*. 36:2 (2020), С. 44-46.
13. Kakhkhorov S.K., Rasulova Z.D. Methodology of improving the professional activity of the future teacher of technology on the basis of modern educational technologies. *Universal J. of Educational Research*. 8:12 (2020), pp. 7006-7014.
14. Olimov S.S., K.K.Khomidov. Preparing Future Teachers To Solve The Tasks Of Patriotic Education Of Children And Youth. *The American Journal of Social Science and Education Innovations*. 2:12 (2020), pp. 132-136.

15. Khaitova I.I., Olimov S.S. The Main Problems Of Studying Electronic Information And Educational Environment Of The High School: Experience Of Analysis Of Scientific Literature. *The American Journal of Social Science and Education Innovations*. 2:12 (2020), pp. 127-131.
16. Олимов Ш.Ш., Сайфуллаева Н.З. Возможности использования «метода проектов» в процессе обучения. *Молодежь и системная модернизация страны*. 2020, С. 276-278.
17. Расулова З.Д., Содикова А.Х. Возможности использования компьютерных технологий в технологическом образовании. *Вестник науки и образования*. 19 (97), часть 2 (2020), С. 68-71.
18. Расулова З.Д. Эффективность дистанционной организации процессов обучения в высшем образовании. *Academy*. 62:11 (2020), С. 31-34.
19. Каримова М.Н., Расулова З.Д. Использование учебных инструментов в развитии творческого мышления учащихся. *Проблемы педагогики*, № 5 (50) (2020), С. 19-22.
20. Расулова З.Д. Наука и образование в период пандемии. *Наука, техника и образование*. № 11 (75) (2020), С. 101-104.
21. Олимов Ш.Ш., Сайфуллаева Н.З. Педагогико-экономические аспекты интеграции образования, науки и производства в условиях региональных вузов на современном этапе. *Сибирский педагогический журнал*. 3 (2019), С. 71-82.
22. Sharofovich O.S., Zakiralievna S.N. Parametric Modeling of Assessing The Development Level of Economical Thinking of Students. *International journal of recent technology and engineering*. 8:3 (2019), pp. 238-242.
23. Олимов Ш.Ш. Педагогическое мастерство преподавателя и его профессионализм в системе образования. *Научные школы Молодежь в науке и культуре XXI в. Материалы международного научно-творческого форума*. Челябинск. 31 (2017), С. 320-322.
24. Олимов Ш.Ш., Сайфуллаева Н.З. Основные принципы развития духовно-нравственного мировоззрения у студентов. *“Инновационная экономика:*

- перспективы развития и совершенствования”. Научно-практический журнал. 5:10 (2017), С. 45-51.
25. Олимов Ш.Ш., Гасанова З.Д. Применение педагогических технологий в образовательном процессе. Т.: Наука и технологии, 2014.
26. Rasulov T.H., Rasulova Z.D. Organizing educational activities based on interactive methods on mathematics subject. *Journal of Global Research in Mathematical Archives*, 6:10 (2019), pp. 43-45.
27. Расулова З.Д. Технологии развития творческих способностей будущего учителя. *Наука, техника и образование*. 77:2-1 (2021), С. 34-37.
28. Расулова З.Д. Роль электронного учебно-методического комплекса в оптимизации учебных процессов. *Academy*. № 3 (66) (2021), С. 27-30.
29. Расулова З.Д. Технологии развития творческих качеств студентов. *Наука и образования сегодня*. 60:1 (2021), С. 34-37.
30. Расулова З.Д. Программные инструменты - важный фактор развития творчества учащихся. *Вестник науки и образования*. № 21 (99) (2020), часть 2, С. 37-40.
31. Кулиева Ш.Х., Расулова З.Д. Формирование профессионально-педагогической компетентности будущих специалистов на основе информационных технологий. *Молодой учёный*, №8 (112) (2016), С. 977-978.
32. Олимов Ш.Ш., Сайфуллаева Н.З. Влияние социального развития на духовно-нравственное воспитание. Тренды развития современного общества: управленческие, правовые, экономические и социальные аспекты. 2014, С. 186-188.
33. Олимов Ш.Ш. Некоторые вопросы организации урока на основании педагогических технологий. *Молодой ученый*. №5 (2013), С. 752-754.
34. Ахмеджанов М.М., Олимов Ш.Ш. Понятие и потребность духовно-нравственного воспитания. *Молодой учёный*. № 11-2 (2010), С. 100-102.
35. Кулиева Ш.Х., Расулова З.Д. Инновационная деятельность педагога в образовании. *Молодой учёный*, № 8 (112) (2016), С. 978-979.

36. Аноркулова Г.М., Кулиева Ш.Х., Расулова З.Д. (2015). Методологические основы системного подхода при подготовке учителей профессионального обучения. *Молодой учёный*, 93:13, С. 588-590.
37. Аноркулова Г.М., Кулиева Ш.Х., Расулова З.Д. Модель подготовки учителей профессионального образования на основе системного подхода. *Молодой учёный*, 93:13 (2015), С. 590-592.
38. Кулиева Ш.Х., Хамроева Х.Ю., Расулова З.Д. Учебный процесс как педагогическая система в процессе подготовки учителей профессионального обучения. *Молодой учёный*, 56:9 (2013), С. 383-385.