



SYSTEM OF USING PEDAGOGICAL TECHNOLOGIES IN TEACHING STUDENTS TO CRITICAL THINKING

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Abstract: The content of the system of using pedagogical technologies in teaching students to think critically is described in detail in the article.

Key word: Future teacher, research, problem, educational technology, thinking, pedagogy, critical, pedagogical technology.

Forming a socio-economic policy in line with world standards and the market economy of the new Uzbekistan requires the training of highly qualified specialists who meet the requirements of the times and the use of pedagogical technologies to train students to think critically.

Therefore, today, the educational process of continuous educational institutions, especially higher educational institutions, which ensure the deep development of skills and qualifications of the youth of our country, and education in the chosen profession, is advanced, scientific and theoretical. practical provision with a new and modern methodology based on

In fact, the main direction of the strategic tasks in the field of education in our country is characterized by the fact that they are focused on the issues of training specialists who can think independently and clearly define the prospects of development necessary for the interests of society and the individual. This creates the need for training, modernization and development of innovative pedagogical foundations of pedagogic personnel.

The main purpose of teaching students to think critically is to develop their independence, creativity, competence and research skills.

The level of physiological, psychological and physical preparation of a person for conducting professional activities based on the training of critical thinking theoretical knowledge, practical skills and qualifications, as well as the acquisition of spiritual and moral qualities.

Development of students' critical thinking is a process of physiological, psychological and physical preparation for the successful development of students' critical thinking, the formation of special theoretical knowledge, practical skills and qualifications, as well as spiritual and moral qualities.

Development of students' critical thinking is the future professional activity of a future specialist in the conditions of objective and subjective education, assimilation of requirements, adaptation to the activity process, level of professional competence.

The theoretical study of the research problem showed that the organizational-pedagogical, educational-methodical and material-technical conditions of higher educational institutions, in particular, pedagogical universities, are among the leading factors in the process of professional adjustment.

On this basis, today, a number of measures are being implemented to improve the material and technical support of pedagogical universities, to expand the range of educational and

methodological opportunities. The practical content of teaching critical thinking has not been improved within the framework of the modern requirements for a professional pedagogue, the results of scientific research in this field are not applied to full-fledged practice, the possibilities and the current situation in the process of training specialists in pedagogical universities

Based on the diagnosis, the lack of full introduction of pedagogical technologies into the teaching system of these educational institutions requires a conceptual approach to the research problem.

In fact, the solution of these issues implies the goal of the fundamental reform of the existing educational system in our republic, the formation of a highly moral person through the formation of a continuous education system. Therefore, higher education institutions have a great role in educating a well-rounded person, forming him as a specialist, and having a decent professional and social position in the society.

Forming and developing students' critical thinking is not an easy task. Of course, for this, the following specific environment and conditions should be created that help the formation and development of critical thinking:

- to create an opportunity for students to think independently and teach them to listen carefully;
- acceptance, sorting, critical and creative evaluation of various ideas and thoughts;
- ensuring students' activity in the educational process;
- convincing students that they should not be laughed at when they express their critical opinions;
- to make each student feel confident that they are capable of critical thinking;
- should appreciate the emergence of critical thinking.

In this regard, students actively participate in the educational process, gain self-confidence and understand the value of their own thoughts and ideas, patiently, attentively listen to different thoughts and ideas, and He should form his critical opinion. It takes time to develop critical thinking. For this purpose, it is necessary to facilitate the students to express their critical thoughts in their own words, to exchange critical thoughts, to be able to fully and clearly express their ideas. In order to have freedom in critical thinking, students should ask for permission before actively engaging in critical analysis and expressing their opinions about favorable and unfavorable ideas. Allowing for critical analysis is based on the principle of mindfulness.

In the process of teaching students to think critically, different thoughts and ideas appear in them. Colorful thoughts and ideas of different contents arise only when the illusion that there is a single answer is eliminated. When the expression of ideas is limited, the students' critical thinking is put to an end. Only when there is only one answer can students find a clear and correct answer using a variety of tools and processes.

Critical thinking is directly related to student activity. Usually, they are poor listeners in class. Because the students believe that the teacher is knowledgeable or his knowledge is reflected in the text of the lecture, and because of this, the teacher is responsible for their education. Active participation of students in the educational process and their responsibility for their studies gives expected results in critical thinking. Pedagogical approach of encouraging students to think critically, to share their ideas and opinions increases their activity.

One factor in critical thinking is valuing students' thought processes. In the process of organized thinking, students respond with deep responsibility and attention only when they understand that their ideas and imaginations are valued by the teacher.

During the organization of the critical thinking process, it is necessary to instill in their minds that the opinions of students and the results of their own critical analysis are valuable. When the teacher requires students to simply process certain material, he should be free from ready-made templates. This leads students to believe that the mechanical reworking of other people's ideas is the most important and valuable. In fact, it is necessary to be able to show students that their opinion, ideas and imaginations related to them are valuable. Students themselves should be able to make sure that their opinions are valuable. They should recognize that their opinion is very important in the process of understanding and discussing the issue, as well as a significant contribution to critical thinking.

It is known that in the process of critical thinking, questions are used to analyze and interpret information, to restructure the studied topics with their own approximate plans in the analysis of ideas. Senders expressions and Bloom's systematic questions are used to solve these problems. These questions serve as a tool for providing different forms of critical thinking at different levels of difficulty. Memorization or formal level questions refer to the lowest level questions. As a result of assessment or judgment the questions asked are considered as second-level questions that provide critical thinking [1].

In order to develop critical thinking, the following 4 forms of perception should be distinguished when organizing the thinking process:

1. Perception as a whole. It is a form of perception that gives general knowledge about the subject or subject.
2. Explanatory perception. In this type of perception, students illuminate the interrelationships of ideas and events, discuss their essence, combine ideas and information related to various fields of science, even externally related events.
3. Personal perception. Students reflect the structure of personal experience and knowledge that they already have in the process of understanding new knowledge.
4. Critical perception. Putting the content to one side, analyzing it, evaluating its relative value, accuracy, usefulness, and importance within the framework of students' knowledge, understanding, and acceptance.

Of course, in teaching students to think critically, it is determined by the formation of a conscious attitude towards the events taking place in our society through social, economic, political, legal, socio-psychological situations, along with the use of four forms of thinking.

Students stand out against unpleasant situations and realize their ideas despite them. In the development of students' critical thinking, it is necessary to evaluate the specific circumstances of the emergence of critical thinking in them, it always shows what they are capable of as an individual, a person, a subject of activity.

To sum up, the use of pedagogical technologies in developing critical thoughts through information collection, analysis, comparison and thinking provides an opportunity to solve the following important tasks:

- helps students realize their goals;
- ensures activity in training;
- • encourages effective discussion;

- • helps the students themselves to formulate questions and ask them in the form of questions;
- • helps students express their personal knowledge;
- • supports students' personal reading motivation;
- • creates a mood of respect for any opinions;
- • helps to develop students' feelings for the characters;
- • creates conditions for students' valued thinking;
- • a number of expectations are expressed for the critical engagement of students.
- Pedagogical technology is an integral set of personal, instrumental and methodical tools and work procedures aimed at guaranteed achievement of clearly defined, diagnostic goals implemented in the educational process as a project of implementing the system of developing students' critical thinking.
- The technology of developing students' critical thinking is characterized by:
 - Efficiency, as it ensures stable operation, optimal cost-effectiveness, guarantees development. Also, achieving specific goals for students;
 - Management ability: includes the ability to set diagnostic goals, plan, design the educational process; in addition, step-by-step diagnostics, changes in means and methods to correct the results;
 - Structuredness: the technology is designed as a repeatable learning cycle, which includes: defined learning objectives, initial diagnostic assessment, student level, educational procedures and corrections, operational feedback- learning based on feedback, final assessment, results and setting new goals. Such a constructive, instruction-based structure of technology ultimately allows to achieve planned results;
 - Reproducibility: in terms of structure, this cyclical algorithm of technology teacher's actions can be easily repeated in other educational institutions of the same type, in other subjects;

Feasibility: reflects the expediency of technology use.

There are three stages in the process of developing students' critical thinking.

They are: goal setting stage, individual goal implementation stage, and knowledge evaluation and systematization stage. All these stages imply the active participation of students in the educational process[2].

Primary evaluation and understanding of new knowledge from the point of view of achieving the goal is aimed at forming students' personal ideas about the object being studied, preparing the necessary information and evidence for further reasonable discussion.

In the third stage, students actively perceive new information in the process of discussing, analyzing and evaluating the acquired knowledge, exchanging ideas, filling in the gaps in the personal knowledge system, solving problems and contradictions.

The interaction of students' critical thinking and learning material

it is the interaction of objects with each other, the process of their formation.

This relationship has a positive direction, i.e. both factors develop in the same direction. Thus, the quality of mastering educational material combines the characteristics of critical thinking in students, organizes this process in interaction, and also reflects the degree of appropriateness of the result of assimilation.

The technology for developing students' critical thinking is local; develops with associative-reflex and psychogenic and sociogenic.



Person-oriented education is aimed at the development of mental actions and self-management mechanisms of the student's personality; organized on the principle of the "small group" system, including independent work; activation of students' activity through didactic reconstruction of educational material and problem-searching, consciously communicative teaching methods; it is carried out through educational, secular, general education, class-lesson, humanitarian, mass development.

The development of critical thinking in students is a person's critical thinking, reflexivity, communication, creativity, mobility, independence, tolerance, includes the development of basic qualities such as responsibility for the results of one's choices and activities.

In general, critical thinking cannot be formed without a culture of reading, which involves navigating information sources, using various reading strategies, adequately understanding what is read, sorting information according to its importance, "screening" secondary information, new includes the ability to critically evaluate knowledge.

Pedagogical technologies in the development of critical thinking in students have their own characteristics[3]:

- interactive inclusion of students in the educational process, the main focus their independence;
- search for evidence to solve the problem;
- not accepting information as usual; Reasonable answers are sought

Using such a pedagogical technology allows you to aim for a predictable end result, that is, to educate students who think, analyze, and think critically.

In addition, it is possible to see the problem and find reasonable ways to solve it.

To develop critical thinking, you must:

- creating a unique point of view in the student;
- the ability to justify the preference of one opinion over another;
- ability to solve complex problems;
- to prove the dispute;
- the ability to work together to develop a single idea;
- understanding how life experience affects views and imaginations.

At the same time, students initially perceive these ideas with a certain degree of uncertainty and compare them with opposing points of view. He uses a system of additional considerations to justify them and develops his own point of view based on them. Critical thinking is a complex process of combining ideas and possibilities with creativity, rethinking and reconstructing concepts and information. It is also a process that takes place simultaneously at several levels of active and interactive cognition. A critical thinker is less affected by tricks, and because of his own personal system of views, he is free from various dangers.

In students' critical thinking process, ideas and their importance are examined from the perspective of pluralism and compared with other ideas. This is the highest level of thinking, a mental activity that focuses on analyzing, comparing, interpreting, applying, arguing, innovating, solving problems, or evaluating a thought process. Critical thinking develops communication and teamwork skills. Critical thinking gives enthusiasm to the educational process, makes lessons a joy for the teacher and the student.

Our research revealed that teaching students to read and acquire critical thinking is an important task nowadays. When faced with new information, students should be able to evaluate it independently, look at it from different points of view, and draw conclusions about the possibility of using it for their own needs and goals. In order for students to become real critical thinking people in the future, it is necessary for students to think creatively, test themselves and acquire relevant skills.

References:

1. R. Ishmuhamedov, A. Abdukadirov, A. Pardayev. Innovative technologies in education. Practical recommendations. T: "Talent". 2008.
2. Ochilov M. New pedagogical technologies - T.: "Against" - 2000. 114b.
3. Hoshimov K. Anthology of Uzbek pedagogy. Volume 2. - T.: "Teacher" - 1999. 478p.
4. Hasanboyev J., Torakulov H., Haydarov M., Hasanboyeva O., Annotated Dictionary of Pedagogy. - T.: "Science and technology" - 2008. 480p.
5. Ibragimov X.I., Yoldoshev U.A., Bobomirzaev X., Pedagogical psychology (study guide). - T.: "National Society of Philosophers of Uzbekistan" - 2009. 490b.
6. Davlatmirzayevich, A. A. 应用远程教师专业发展: 基础阶段. SCIENTIFIC RESEARCH OF THE SCO COUNTRIES: SYNERGY AND INTEGRATION, 40.
7. Аскаров, А. Д. (2016). ПРОБЛЕМЫ ОРГАНИЗАЦИИ ДИСТАНЦИОННЫХ КУРСОВ ПОВЫШЕНИЯ КВАЛИФИКАЦИИ ПЕДАГОГИЧЕСКИХ КАДРОВ С УЧЕТОМ ИХ ОБРАЗОВАТЕЛЬНЫХ ПОТРЕБНОСТЕЙ. In Инновационные технологии в современном образовании (pp. 48-52).
8. Askarov, A. (2015). Organizational-pedagogical stages of applying instance professional development of pedagogic personnel. The advanced science journal, (4), 72.
9. Аскаров, А. Д. (2019). ТЕХНОЛОГИЯ ПРОГНОЗИРОВАНИЯ РЕЗУЛЬТАТИВНОСТИ УЧЕБНЫХ ПРОЦЕССОВ В ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЯХ. ПРОБЛЕМЫ И ТЕНДЕНЦИИ НАУЧНЫХ ИССЛЕДОВАНИЙ В СИСТЕМЕ ОБРАЗОВАНИЯ, 11.
10. Куронов, М., & Аскаров, А. Д. (2019). ПЕДАГОГИЧЕСКОЕ СОПРОВОЖДЕНИЕ СЕМЕЙНОГО ДУХОВНО-НРАВСТВЕННОГО ВОСПИТАНИЯ ДЕТЕЙ ДО 18 ЛЕТ (ИЗ ОПЫТА УЗБЕКИСТАНА). In Наука и инновации-современные концепции (pp. 55-59).
11. Аллярова, С. Н., & Аскаров, А. Д. THE NEEDS OF IMPLEMENTING INFORMATION TECHNOLOGIES IN HIGHER EDUCATION (The case of Uzbekistan as an example) НЕОБХОДИМОСТЬ РЕАЛИЗАЦИИ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ В ВЫСШЕМ ОБРАЗОВАНИИ (на примере Узбекистана).
12. Askarov, A. D. (2020). The needs of implementing information technologies in higher education (The case of Uzbekistan as an example). In Информационные и инновационные технологии в науке и образовании (pp. 14-18).
13. Аллярова, С. Н., & Аскаров, А. Д. THE NEEDS OF IMPLEMENTING INFORMATION TECHNOLOGIES IN HIGHER EDUCATION (The case of Uzbekistan as an example) НЕОБХОДИМОСТЬ РЕАЛИЗАЦИИ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ В ВЫСШЕМ ОБРАЗОВАНИИ (на примере Узбекистана).
14. Аскаров, А. Д. (2021). УМУМТАЪЛИМ МАКТАБЛАРИ ЎҶУВЧИЛАРИДА ХАЛҚ ҲУНАРМАНДЧИЛИГИГА БЎЛГАН ПСИХОЛОГИК-ПЕДАГОГИК ИМКОНИЯТЛАР: DOI:

<https://doi.org/10.53885/edires.2021.86.41.080> Аскаров Аброр Давлатмираевич, Педагогика фанлари бўйича фалсафа доктори (PhD), доцент. Термиз давлат университети, Таълим сифатини назорат қилиш бўлими бошлиғи. Образование и инновационные исследования международный научно-методический журнал, (1-Махсус сон), 28-31.

15. Аскаров, А. Д. (2021). ТЕХНОЛОГИЯ МАШФУЛОТЛАРИДА АХБОРОТ ТЕХНОЛОГИЯЛАРИНИ ҚЎЛЛАШНИНГ ҚИЁСИЙ ТАҲЛИЛИ: DOI: <https://doi.org/10.53885/edires.2021.83.76.005> Аскаров Аброр Давлатмираевич, Педагогика фанлари бўйича фалсафа доктори (PhD), доцент. Термиз давлат университети, Таълим сифатини назорат қилиш бўлими бошлиғи. Образование и инновационные исследования международный научно-методический журнал, (1-Maxsus son), 24-27.
16. Davlatmirzaevich, A. A. (2021). Competences in information and communication technologies.
17. Davlatmirzaevich, A. A. (2021). COMPETENCES IN INFORMATION AND COMMUNICATION TECHNOLOGIES (ON THE EXAMPLE OF UNIVERSITY PROFESSORS).
18. Davlatmirzaevich, A. A. (2021). The online environment for faculty development management environment and its structure.
19. Davlatmirzayevich, A. A. (2022). Main Tendencies and Modern Models of Educational Quality Management. Eurasian Scientific Herald, 6, 16-23.
20. Askarov, A. (2022). RAQOBATBARDOSH KADRLARNI TAYYORLASHDA OLIY TA'LIM SIFATI MENEJMENTINING ZAMONAVIY TENDENSIYALARI. Физико-технологического образования, (3).
21. Аскаров, А. Д. (2022). ОЛИЙ ТАЪЛИМ МУАССАСАНИ РИВОЖЛАНТИРИШ СТРАТЕГИЯСИ ВА БОШҚАРУВ ҚАРОРЛАРИНИ ДИЗАЙН-ТАФАККУР ЁНДАШУВИ АСОСИДА ШАКЛАНТИРИШ. BOSHQARUV VA ETIKA QOIDALARI ONLAYN ILMIY JURNALI, 2(9), 10-18.
22. Аскаров, А. Д. (2022). ОЛИЙ ТАЪЛИМ МУАССАСАСИДА ТАЪЛИМ СИФАТИ МОНИТОРИНГИНИ ТАКОМИЛЛАШТИРИШНИНГ АЙРИМ ЖИҲАТЛАРИ: DOI: <https://doi.org/10.53885/edires.2022.84.66.014> Аскаров Аброр Давлатмираевич, Педагогика фанлари бўйича фалсафа доктори (PhD), доцент. Термиз давлат университети таълим сифатини назорат қилиш бўлими бошлиғи. Образование и инновационные исследования международный научно-методический журнал, (3), 68-77.
23. Аскаров, А. Д. (2022). ОЛИЙ ТАЪЛИМ МАЗМУНИГА БЎЛГАН КАДРЛАР БУЮРТМАЧИЛАРИ ТАЛАБЛАРИ ВА ИЖТИМОИЙ ЭҲТИЁЖЛАРНИ ТИЗИМЛАШТИРИШ. ИННОВАЦИИ В ПЕДАГОГИКЕ И ПСИХОЛОГИИ, 5(5).
24. Shomirzayev M. K. Developing Educational Technologies In School Technology Education //Next Scientists Conferences. – 2022. – С. 14-23.
25. Shomirzayev M. K. et al. National handicrafts of Uzbekistan and its social-economic significance //European Journal of Research and Reflection in Educational Sciences. – 2020. – Т. 8. – №. 8. – С. 129-138.
26. Shomirzayev M. K. Education is personally focused technology //European Journal of Research and Reflection in Educational Sciences Vol. – 2020. – Т. 8. – №. 8.

27.

Shomirzayev M. K. Technology of Educational Process in School Technology Education //The American Journal of Social Science and Education Innovations. – 2020. – T. 2. – №. 07. – C. 212-223.

28. Shomirzayev M. K. The Ethical Characteristics of Traditional Embroidery of Fergana Valley People //European Journal of Research and Reflection in Educational Sciences. – 2019. – T. 2019.

29. Shomirzayev M. K. Local features of the traditional embroidery of the Ferghana valley //European Journal of Research and Reflection in Educational Sciences. – 2019. – T. 2019.

30. Shomirzayev M. K. The Concept Of Pedagogical Technology And Basic Principles. Academicia: An International Multidisciplinary Research Journal.(Affiliated to Kurukshetra University, Kurukshetra, India), Vol. 10, Issue 11, November 2020 Scientific Journal Impact Factor (Sjif 2020-7.13).-Part 1554-1563.

31. Shomirzayev M. K. The concept of pedagogical technology and basic principles //ACADEMICIA: An International Multidisciplinary Research Journal. – 2020. – T. 10. – №. 11. – C. 1551-1560.

32. Shomirzayev M. K. Ethnic characteristics of national traditional crafts //European Journal of Research and Reflection in Educational Sciences Vol. – 2020. – T. 8. – №. 12. – C. 216-225.

33. Shomirzayev M. K. Practical lessons in technology: Characteristics of organization and conduct //Asian Journal of Multidimensional Research. – 2021. – T. 10. – №. 4. – C. 991-1001.

34. Shomirzayev M. K., Yuldashov K. K. The Educational Importance of Teaching Knowledge to Secondary School Students //CURRENT RESEARCH JOURNAL OF PEDAGOGICS. – 2021. – T. 2. – №. 08. – C. 132-142.

35. Shomirzayev M. K. Ethnic peculiarities of artistic embroidery of the peoples of the Ferghana valley //European Journal of Research and Reflection in Educational Sciences.-7 (12).-P. – 2019. – T. 967.

36. Shomirzayev M. K. Combined In Technology Courses Use Of Technologies //The American Journal of Social Science and Education Innovations. – 2021. – T. 3. – №. 05. – C. 389-396.

37. Shomirzayev M. X., Karimov I. I. Innovative pedagogical technologies in teaching technology //T.:“Universitet. – 2020. – T. 125.

38. Shomirzayev M. X. Innovative processes in Uzbek national handicrafts //T.:“New edition. – 2019.

39. Шомирзаев М. X. Мактаб технология таълимида миллий ҳунармандчиликнинг спектрал-вариатив компонентларини фанлараро тақомиллаштириш. Педагогика фанлари бўйича докторлик (DSc) дисс //T.: Tafakkur. – 2020. – T. 164.

40. Shomirzayev S. National followers in the students use of educational technologies instruction of interests //International Journal of Linguistics, Literature and Culture. – 2021. – T. 7. – №. 3. – C. 152-157.

41. Shomirzayev M. X. Ways to increase the effectiveness of teaching technology //Methodological manual. – 2019.

43. Texnologiya fanini o'qitishda, Shomirzayev MX. "innovatsion pedagogik texnologiyalar. Darslik." T.: "TerDU nashr-matbaa markazi 226 (2020).

44. Shomirzayev M. K., Yuldashov K. K. Use of Some Historical Materials in Technology Education Classes //International Journal of Multicultural and Multireligious Understanding. - 2021. - T. 8. - №. 11. - C. 184-195.

45. Shomirzayev M. K., Yuldashov K. K. Student-Folk Craft for Young People Teaching History as a Factor of National Education //International Journal of Multicultural and Multireligious Understanding. - 2021. - T. 8. - №. 8. - C. 475-486.

46. Texnologiya fanini o'qitishning S. M. X. samaradorligini oshirish yo'llari //T.: "Gold print nashr. - 2019. - T. 42.

47. Shomirzayev M. K. Pedagogical technologies-as a factor to increase student knowledge in school technology classes //current research journal of pedagogics. - 2021. - T. 2. - №. 05. - C. 84-96.

48. Shomirzayev M. K., Pakhratdinova R. O. Characteristics of Organization and Conduct of Practical Courses on National Crafts in Technology //Asian Journal of Research in Social Sciences and Humanities. - 2021. - T. 11. - №. 9. - C. 182-192.

49. Shomirzaev M. X. The use of modern teaching methods in teaching school students folk crafts //The teacher is also constantly informed.-Nukus. - 2020. - C. 42-46.

50. Shomirzaev M. X. Problem-based education in the lessons of" Technology" //Modern education. Tashkent. - 2020. - №. 6. - C. 91.

51. Шомирзаев М., Авазов Ж. OLIY TA'LIM TIZIMIDA BO 'LAJAK MUHANDISLARNING TAYYORLASHNING BA'ZI JIHATLARI //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). - 2021. - Т. 4. - №. 4.

52. Шомирзаев М. Х. ТЕХНОЛОГИЯ ФАНИНИ ЎҚИТИШДА ИННОВАЦИОН ПЕДАГОГИК ТЕХНОЛОГИЯЛАРИДАН ФОЙДАЛАНИШ МЕТОДИКАСИ: DOI: <https://doi.org/10.53885/edinres. 2021.44. 86.020> Шомирзаев Махматмурод Хурамович Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc) //Образование и инновационные исследования международный научно-методический журнал. - 2021. - №. 1-Махсус сон. - С. 321-330.

53. Shomirzaev M. X. Theory and practice of interdisciplinary improvement of spectral-variable components of national crafts in school technology education. Monograph //T.: Tafakkur. - 2020.

54. Шомирзаев М. Х. Ўқувчиларда халқ ҳунармандчилиги касбларига қизиқиши фанлараро шакллантириш омиллари //Мактаб ва ҳаёт. - 2019. - С. 23-24.

55. Kh S. M. Young People from" Technology" to Profession Training as a Factor of Competitive Personnel Training //International Journal of Multicultural and Multireligious Understanding. - 2021. - T. 8. - №. 4. - C. 580-591.

56. Shomirzaev M. X. Improving the orientation of students to the professions of folk crafts in technology education //Science and society (Science is also society).-Nukus. - 2020. - C. 98-100.

57. Shomirzaev M. X. Psychological and pedagogical potential of folk crafts in school technology education //Tafakkur ziyozi.-Jizzax. - 2020. - №. 4. - C. 154-155.

58.

59. Шомирзаев М. Х. Ўқувчиларда халқ миллий хунармандчилиги касбларига қизиқиши шакллантиришда таълим технологияларидан фойдаланиш //Қорақалпоқ давлат университетининг хабарномаси.–Нукус. – 2019. – Т. 4. – №. 45. – С. 98-102.

60. Shomirzaev M. X. The use of educational technologies in the formation of students' interest in the professions of national crafts //Karakalpak State University Bulletin.-Nukus. – 2019. – Т. 4. – №. 45. – С. 98-102.

61. Shomirzaev M. X. Factors of interdisciplinary formation of students' interest in folk crafts //School and life. – С. 23-24.

62. Shomirzayev M. K., Yuldashov K. K. Carpenter, jewelery, knifecourse development of application methods //Asian Journal of Multidimensional Research. – 2021. – Т. 10. – №. 8. – С. 302-308.

63. Shomirzaev M. X. Interethnic peculiarities of embroidery //Sources of knowledge. Urgench. – 2020. – №. 4. – С. 189-192.

64. Шомирзаев М. Х. Ўзбекистонда миллий хунармандчилик ривожла-нишининг тарихий-ижтимоий асослари/Таълим-тарбия контекстида фанлараро синхрон ва асинхрон боғланишлар. Илмий-услубий мақолалар тўплами //Т.: Noshirlik yog'dusi. – 2019. – С. 52-57.

65. Шомирзаев М. Х. Технология обучения народному-прикладному искусству, трудовое и эстетическое воспитание учащихся V-VII классов общеобразовательных школ. Монография //Т.: Yangi nashr. – 2019.

66. Шомирзаев М. Х. Технология фанини ўқитиши жараёнида интерфаол методлардан халқ хунармандчилигида фойдаланиш имкониятлари/Таълим-тарбия контекстида фанлараро синхрон ва асинхрон боғланишлар. Илмий-услубий мақолалар тўплами //Т.: Noshirlik yog'dusi. – 2019. – С. 130-136.

67. Shomirzaev M. X. Vocational education: national embroidery //Pedagogy. – Т. 2019. – С. 122-129.

68. Shomirzaev M. X. Problems of using educational technologies //Modern education. – С. 25-3.

69. Шомирзаев М. Х. Технология таълимида ўқувчиларни халқ хунар-мандчилиги касбларига йўналтиришни такомиллаштириш //Fan va jamiyet (Ilim ham jamiyet).– Нукус. – 2020. – С. 98-100.

70. Shomirzaev M. X. Interdisciplinary improvement of spectral-variable components of national crafts in school technology education. Monograph //Т.“Tafakkur. – 2020.

71. Shomirzayev M. X. Ways to increase the effectiveness of teaching technology //Methodological manual. – 2019.

72. Shomirzayev M. X. Genesis of formation and development technology of Uzbek national handicrafts //Т.:“Yangi Nashr. – 2019.

73. Shomirzayev M. X. Spectral-variable components of Uzbek national handicrafts //Т.:“Yangi Nashr. – 2019.

74. Шомирзаев М. Х. Ўзбек миллий хунармандчилигида мато тайёрлаш-нинг ўзига хос жиҳатлари //Тафаккур зиёси.–Жиззах. – 2019. – С. 69-71.

75. Шомирзаев М. Х. Бойсун қуроқчилик санътини ўргатишида тарихий анъаналарнинг ўрни //Бойсун-моддий ва номоддий маданияти бешиги" мавзусидаги Халқаро илмий-амалий конференцияси.–Т.: Yangi nashr. – 2018. – С. 62-67.

76.

Shomirzaev M. X. Genesis of formation and development technology of Uzbek national handicrafts. Educational-methodical manual //T.: New edition. – 2016.

77. Rakhmatillayev A. et al. Dynamics of the effectiveness of interactive methods //T.: "Avu press-consultant. – 2015. – C. 60.

78. Abdiev K. M. et al. COMPARATIVE EVALUATION OF NEW TREATMENTS FOR IMMUNE THROMBOCYTOPENIA //NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal NVEO. – 2021. – C. 10160-10166.

79. Шомирзаев М. Х., Хайруллаев И. Н. МАКТАБ ЎҚУВЧИЛАРИНИ ХАЛҚ ҲУНАРМАНДЧИЛИГИГА ЎРГАТИШДА ИННОВАЦИОН ТАЪЛИМ МЕТОДЛАРИДАН ФОЙДАЛАНИШ: DOI: <https://doi.org/10.53885/edinres.2021.50.31.014> Шомирзаев Махматмурод Хурамович Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc). Хайруллаев Исматулло Нуруллаевич Термиз давлат университети доценти //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 367-371.

80. Шомирзаев М. Х. "ТЕХНОЛОГИЯ" ФАНИ ДАРСЛАРИДА МУАММОЛИ ТАЪЛИМ //Современное образование (Узбекистан). – 2020. – №. 6 (91). – С. 28-36.

81. Шомирзаев М. Х. Зардўзлик ҳунарини ўқувчиларга ўргатишда миллий анъаналарнинг аҳамияти. – 2019.

82. Shomirzaev M. X. Opportunities for the integration of sciences in the formation of students' interest in the professions of national crafts //Science and society (Science and society).-Nukus. – 2019. – №. 3. – С. 106-108.

83. Шомирзаев М. Х. Ўзбек каштадўзлигининг шаклланиш генезиси ва ривожланиш технологияси //Муғаллим ҳем узлуксиз билимленидиў.-Нукус. – 2019. – С. 73-82.

84. Шомирзаев М. Х. Анъанавий каштадўзлиқда маҳаллий жиҳатлар //Илм сарчашмалари.-Урганч. – 2019. – С. 140-144.

85. Шомирзаев М. Х. Технология фани жараёнида ўқувчиларни тадбиркорлик ва кичик бизнес фаолиятига тайёрлаш/Таълим-тарбия контекстида фанлараро синхрон ва асинхрон боғланишлар. Илмий-услубий мақолалар тўплами //T.: Noshirlik yog'dusi. – 2019. – С. 176-178.

86. Шомирзаев М. Х. Касбий таълим: миллий каштадўзлик //Педагогика. – 2019. – С. 122-129.

87. Шомирзаев М. Х. Ўзбек миллий ҳунармандчилигига инновацион жараёнлар. Ўқув-услубий қўлланма //T.: Yangi nashr. – 2017. – Т. 48.

88. Исмаилов Х. Х. и др. Матер. конф." Фотоэлектрические явления в полупроводниках-2004. – 2004.

89. Шомирзаев М. Х. Ўзбек миллий ҳунармандчилигининг спектирал-вариатив компонентлари. Услубий қўлланма //T.: "Янги нашр. – 2019. – Т. 48.

90. Шомирзаев М. Х. Технология фанини ўқитишнинг самарадорлигини ошириш йўллари. Ўқув-методик қўлланма //T.: Gold print nashr. – 2019. – Т. 56.

91. Шомирзаев М. Х. Миллий ҳунармандчилик одоби. – 2018.

92. Кадыров Б. Э. ЎҚУВЧИЛАРИНИГ ҲУНАРМАНДЧИЛИККА ОИД ТАЯНЧ КОМПЕТЕНЦИЯЛАРИНИ ЭЛЕКТРОН АХБОРОТ ТАЪЛИМ МУҲИТИДА РИВОЖЛАНТИРИШНИНГ ДИДАКТИК МОДЕЛИ: DOI: <https://doi.org/10.53885/edinres>.

2021.37.

29.058

Қодиров Бахтиёр Эшмурзаевич Термиз давлат университети, педагогика фанлари бўйича фалсафа доктори (PhD) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 128-132.

93. Shomirzaev M. K., Astanakulov K. D., Babaev K. M. Research into the perforated surface of the double staged grinder-crusher //IOP Conference Series: Earth and Environmental Science. – IOP Publishing, 2022. – Т. 1076. – №. 1. – С. 012035.

94. Astanakulov K. D., Kurbonov F. K., Shomirzaev M. K. Development of fish feed distributor device //IOP Conference Series: Earth and Environmental Science. – IOP Publishing, 2022. – Т. 1076. – №. 1. – С. 012032.

95. Шомирзаев М. Х. ТЕХНОЛОГИЯ ТАЪЛИМИДА ЎҚИТИШ ШАКЛЛАРИ ВА МЕТОДЛАРИ: DOI: <https://doi.org/10.53885/edinres.2021.11.39.016> Шомирзаев Махматмурод Хурамович Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 353-358.

96. Shomirzayev M. ЎҚУВЧИЛАР ТАЪЛИМ ВА ТАРБИЯСИДА КАШТАЧИЛИКНИНГ ЎРНИ //Физико-технологического образования. – 2022. – №. 3.

97. Shomirzayev M. ЎҚИТИШДА ИННОВАЦИОН ПЕДАГОГИК ТЕХНОЛОГИЯЛАРИДАН ФОЙДАЛАНИШ //Физико-технологического образования. – 2022. – №. 3.

98. Xuramovich S. M. Individually Directed some Features of Technology //Eurasian Journal of Engineering and Technology. – 2022. – Т. 4. – С. 59-65.

99. Xuramovich S. M. IN TEACHING TECHNOLOGY TEACHER'S CREATIVE APPROACH //World Bulletin of Social Sciences. – 2022. – Т. 8. – С. 32-37.

100. Kh S. M. National Crafts And Socio-Economic Activity //The American Journal of Applied sciences. – 2021. – Т. 3. – №. 04. – С. 32-46.

101. Шомирзаев М. Х. ТЕХНОЛОГИЯ ТАЪЛИМДА ЎҚУВЧИЛАРНИ ХАЛҚ ҲУНАРМАНДЧИЛИГИ КАСБЛАРИГА ЙЎНАЛТИРИШ: DOI: <https://doi.org/10.53885/edinres.2021.81.45.017> Шомирзаев Махматмурод Хурамович, Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 346-352.

102. Шомирзаев М. Х. МАКТАБ ТЕХНОЛОГИЯ ТАЪЛИМИДА ЎҚУВЧИЛАРНИ МИЛЛИЙ ҲУНАРМАНДЧИЛИКНИНГ СПЕКТРАЛ-ВАРИАТИВ КОМПОНЕНТЛАРИ БИЛАН ФАНЛАРАРО ТАНИШТИРИШДА ТАРИХИЙЛИК ПРИНЦИПИ: DOI: <https://doi.org/10.53885/edinres.2021.88.48.019> Шомирзаев Махматмурод Хурамович, Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 331-341.

103. Шомирзаев М. Х., Мухамадиева Н. К. МИЛЛИЙ ТАРБИЯДА КАШТАЧИЛИКНИНГ ЎРНИ: DOI: <https://doi.org/10.53885/edinres.2021.78.80.018> Шомирзаев Махматмурод Хурамович, Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc). Муҳамадиева Наргиза Құдратовна, Термиз давлат университети Таълим ва тарбия назарияси ва назарияси (Технологик таълим)

мутахассислиги магистранти //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 342-345.

104. Шомирзаев М. Х. ТЕХНОЛОГИЯ ФАНИДАН АМАЛИЙ ДАРСЛАРНИ ТАШКИЛ ЭТИШ ВА ЎТКАЗИШ МЕТОДИКАСИ: DOI: <https://doi.org/10.53885/edinres.2021.26.95.021> Шомирзаев Махматмурод Хурамович, Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 312-320.

105. Шомирзаев М. Х. TEXNOLOGIYA TA'LIMIDA TARBIYA JARAYONINI TEXNOLOGIYALASHTIRISH: DOI: <https://doi.org/10.53885/edinres.2021.67.13.031> Shomirzaev Maxmatmurod Xuramovich, Termiz davlat universiteti texnologik ta'lim kafedrasи dotsenti, pedagogika fanlari doktori (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 263-268.

106. Шомирзаев М. Х. ТЕХНОЛОГИЯ ФАНИ ДАРСЛАРИНИ ТАШКИЛ ЭТИШНИ ТАКОМИЛЛАШТИРИШ: DOI: <https://doi.org/10.53885/edinres.2021.16.53.015> Шомирзаев Махматмурод Хурамович, Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 359-366.

107. Шомирзаев М. Х. TEXNOLOGIYA TA'LIMIDA TA'LIMNING SHAXSGA YO 'NALTIRILGAN TEXNOLOGIYASI: DOI: <https://doi.org/10.53885/edinres.2021.49.15.032> Shomirzaev Maxmatmurod Xuramovich, Termiz davlat universiteti texnologik ta'lim kafedrasи dotsenti, pedagogika fanlari doktori (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 255-262.

108. Шомирзаев М. Х. ТЕХНОЛОГИЯ ТА'ЛИМИДА ЎҚИТИШ ШАКЛЛАРИ ВА МЕТОДЛАРИ: DOI: <https://doi.org/10.53885/edinres.2021.11.39.016> Шомирзаев Махматмурод Хурамович Термиз давлат университети технологик таълим кафедраси доценти, педагогика фанлари доктори (DSc) //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1-Махсус сон. – С. 353-358.

109. Shomirzayev M. K. Developing Educational Technologies In School Technology Education //Next Scientists Conferences. – 2022. – С. 14-23.

110. Шомирзаев М. PEDAGOGIK MAHORAT: ЎЗБЕКИСТОН РЕСПУБЛИКАСИ ИЖТИМОЙ-ИҚТИСОДИЙ СОҲАСИ РИВОЖЛАНИШИДА МИЛЛИЙ ҲУНАРМАНДЧИЛИКНИНГ АҲАМИЯТИ //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu.uz). – 2020. – Т. 2. – №. 2.

111. Shomirzaev M. K. Factors in the development of national art. – 2020.

112. Шомирзаев М. Х. Таълим технологияларини қўллаш муаммолари //Современное образование (Узбекистан). – 2019. – №. 9 (82). – С. 25-31.

113. Якубов С. Х., Шомирзаев М. Х. Инновационные подходы к совершенствованию уроков технологии в средних общеобразовательных школах Республики Узбекистан //МИР ОБРАЗОВАНИЯ—ОБРАЗОВАНИЕ В МИРЕ. – 2019. – С. 110.

114. Sidikov I. K., Shomirzaev B. U. Two-level fuzzy adaptive regulation of dynamic objects //Management. – 2018. – Т. 2018. – №. 4. – С. 7.

115. Kh S. M. Innovation Pedagogical Technologies Used in School Technology Education.

