
Pedagogical Basis Preparation of Information Technologies in Medical Sciences

Rustam Rasulovich Hamroyev

Senior Lecturer of the Department of Biophysics and Information Technology, Bukhara Medical Institute, Uzbekistan

Abstract: The article shows the concept of information technology, the role of using information technology in increasing the effectiveness of teaching natural sciences. Methods of teaching the subject of information technology are considered.

The dominant activity in the field of social production is the collection, production, processing, storage, transmission and use of information. The modern means of microprocessor and computer technology, as well as based on various means of exchange of information, the active use of the intellectual potential of society and its members in scientific, industrial and other activities, the development of all spheres of social production, the intellectualization of labor activity, the combination of information technologies with scientific, industrial, information high-level services, access to reliable sources of information for any member of society, visualization of the information provided, the importance of the information used and constantly updated information technology, attention is paid to the effective use of an intermediary in the training of medical personnel.

Keywords: information technology, the effectiveness of teaching natural science, microprocessor, intellectual potential, new information technologies, information culture.

Introduction

The introduction of modern information and communication technologies into the educational process has led to the creation of a new form of teaching - distance learning - in addition to traditional teaching methods. Distance learning has become a requirement of the times and has become the basis for the development of the education system. In distance education, the learner and the teacher are in constant communication with each other through the use of specially designed training courses, forms of supervision, electronic communication and other technologies of the Internet.

Dissatisfaction with the quality of education can occur for a variety of reasons. The first and foremost reason for this is to improve the quality of teaching staff using Internet technology and distance learning. It is today that determines the integrity of the education system and the effectiveness of each of its components. The education system of our country is growing along with the education system of other developed countries. In the past, distance learning or information sharing seemed like a daunting task, but today it is applied to all areas of our lives and has become an integral part of it.

A number of software tools have been developed for the establishment of e-universities in the system of distance education, their remote management, the formation of tutors in the system of online and off-line training and ensuring their operation. These include: Ucoz site developers, Claroline, Moodle Distance Learning Platform, OpenACS Distance Learning Platform, Sakai Distance Learning Platform, e-Learning Server Distance Learning Platform,

Atutor Distance Learning Platform and other free and open source we can take the example of coded software tools. With the help of these programs, each distance education professor, ie Tutor, creates his own electronic cabinet, where each student registers at will and has a professor of their choice. learn and learn from the teacher (Tutor) Online and Offline.

From the above, it is clear that the role and place of leading professionals in the development of information and communication technologies (ICT) is invaluable. Improving the effectiveness of distance learning technologies and their teaching in the training of such personnel is one of the most pressing issues today.

Materials and Methods

Information technology is a process that uses a set of tools and methods to collect, process, and transmit data to obtain new qualitative information about the state of an object, process, or event. Information technology helps to constantly update the content, organizational forms and methods of teaching and education. The use of computers to solve professional problems is becoming a mandatory component of pedagogical activity.

The main purpose of information support is to reflect the expectations of professional and pedagogical activities, to provide all potential information needs of the subjects of the educational process with the necessary information.

Informatization of higher education depends mainly on the level of professional and pedagogical competence, part of which is the competence of high school teachers in information technology, their readiness to develop and use teaching methods and tools in their professional activities. students, including information technology database.

The purpose of our study was to analyze and describe the teaching aids developed on the basis of information technology to form the competencies of a teacher of a medical university in the field of professional and pedagogical activity. Curriculum is a micro-model of the educational system and is a set of organically interconnected teaching aids. On the basis of consistent accounting, it reflects the purpose, content and structure of education, the requirements for the organization of the educational process, teaching methods and tools.

Educational-methodical support developed at the department on the basis of information technologies provides teachers with organizational forms of teaching (lectures: problematic, joint, with errors; practical and seminar classes; creative independent work, business games, interactive forms, pedagogical supervision, etc.), teaching methods (problem search, project method, situational method, situational tasks, brainstorming, discussion, web search, video conferencing, videos, etc.). These forms, methods, and teaching aids are then used by teachers in their professional and pedagogical activities at the Medical University.

The project method is one of the most promising teaching methods. In the learning process, students not only search for the necessary information (including on the Internet), analyze and process the collected material, but also bring something specific to the chosen topic, embodying their ideas. Telecommunication projects, if comparative study of the effectiveness of using the same or different (alternative) methods of solving a single problem in the process of their implementation, are pedagogically justified to determine what is most effective, acceptable for any situation. , solution, ie ... to obtain information about the objective effectiveness of the proposed method to solve the problem.

The general pedagogical method of "project teaching" on the basis of information technology is actively used by teachers of medical universities in the form of demonstrations of "live surgery" in professional pedagogical activity. For example, a class can have 500 people. There is a real-time broadcast of two operating urology departments on the podium to

demonstrate the operations. Two moderators (Russian professors - urologists) work on the podium to simultaneously comment on the progress of the operation and to be in constant contact with the surgical teams working in the operating rooms.

Before each operation, the treating physician displays a medical history of the operated patient. The history of medicine is discussed, questions are asked from the audience.

During the operation, the surgeon will talk about the surgical process, answer questions from the audience. The role of moderators is to make an intellectual connection between the auditorium and the operating room, to support the discussion of options for operating techniques. In the course of future professional and pedagogical activities, teachers recommend that students suggest and justify methods of treating a particular disease, and so on.

Conclusion

The design-based teaching method allows teachers to develop questions of a problematic, exploratory nature. In order to implement the project, it is recommended to creatively develop a specific idea - practical (for example, conducting classes with students using certain methods) or creative (improving the courses of the medical profile) development of proposals).

Nowadays, it is necessary to train the student not only as a carrier of information, but also as a person who can understand it, analyze it and adapt to the reality in which he lives. In this regard, vocational education in higher education requires a new direction of the educational process based on modern educational technologies, including information technology. One of the leading trends in modern education is its transition to a high-tech level. This is reflected in the active introduction of information technology tools in the field of educational activities.

List of used literature:

1. Resolution of the President of the Republic of Uzbekistan dated March 19, 2021 No PP-5032 "On measures to improve the quality of education and development of scientific research in the field of physics"
2. Bazarova S.J., Khaletskaya O. Integration of science and industry. Materials of the International distance conference "Mining, oil and geocological education in the 21st century." -Moscow Russian Federation. 2004. - S. 147-151.
3. Bazarova S.Dj., Baychaev F. Specialization-oriented practical training is a factor in the development of education and production. *Journal of Advances in Engineering Technology* " <https://sciencealgorithm.uz>. Vol.1(1), September, 2020.82-85 -pages
4. Shagina Yu.V. "Formation of professional competencies of future engineering specialists in the context of the integration of education, science and production" Author's abstract: dis. Candidate of Pedagogical Sciences. - Samara .: 2010 .-- 23 p.
5. Maksimova N.A. "Formation of professional competence of students of a technical university" Author's abstract: dis. Candidate of Pedagogical Sciences. - Yakutsk .: 2010 .- - 20 p.
6. Lavrinenko S.V. "Optimization of professionally oriented training of students in a modern technical university" Author's abstract: dis. Candidate of Pedagogical Sciences. - Veliky Novgorod .: 2019 .-- 25 s

7. Zeer, E.F. Psychology of vocational education - M.: Publishing house of the Moscow Psychological and Social Institute; Voronezh: NPO Modek Publishing House, 2003. - 480 p.
8. Y.V. Shagina "Formation of professional competencies of future engineering specialists in the context of the integration of education, science and production" Author's abstract: dis. Candidate of Pedagogical Sciences. - Samara.: 2010. -- 23 p.
9. Maksimova N.A. "Formation of professional competence of students of a technical university" Author's abstract: dis. Candidate of Pedagogical Sciences. - Yakutsk.: 2010 - 20 s.
10. Атоева М.Ф. Периодичность обучения физике. Аспирант и соискатель. – Москва, 2010. – №6. – С. 41-43.
11. M.F. Atoyeva. Interdisciplinary relations in physics course at specialized secondary education. The Way of Science. – Volgograd, 2016. – №9 (31). – P.22-24.
12. M.F. Atoyeva. Didactic foundations of inter-media relations in the training of university students. International Scientific Journal. Theoretical & Applied Science. p-ISSN: 2308-4944 (print) e-ISSN: 2409-0085 (online). Year: 2020 Issue: 06 Volume: 86, P. 124.
13. M.F. Atoyeva. Pedagogical Tests As An Element Of Types Of Pedagogical Technologies. The American Journal of Applied Sciences, 2(09), (TAJAS) SJIF-5.276 DOI-10.37547/tajas Volume 2 Issue 9, 19.09.2020. ISSN 2689-09. 92 The USA Journals, USA www.usajournalshub.com/index.php/tajas 164-169. Имп.5.2.
14. Farkhodovna, A. M. (2020). The problems of preparing students for the use of school physical experiment in the context of specialized education at secondary schools. European Journal of Research and Reflection in Educational Sciences, 8 (9), 164-167.
15. Hamroyev Rustam Rasulovich, The importance of information technology in training medical personnel. European Journal of Research and Reflection in Educational Sciences 8 (12), 2020, Progressive Academic Publishing, UK Page 179 www.idpublications.org.
16. Hamroyev Rustam Rasulovich, Teaching Ict In The Training Of Future Doctors. The American Journal of Interdisciplinary Innovations and Research 2 (11), November 30, 2020 | Pages: 169-172 <https://doi.org/10.37547/tajir/Volume02Issue11-29>, <http://usajournalshub.com/index.php/tajir>,
17. Hamroyev Rustam Rasulovich, S.Q.Qahkorov. The role of the internet in the study of information technology. World Bulletin of Social Sciences 4 (11), 111-114, November 25th 2021, <https://www.scholarexpress.net>,
18. Hamroyev Rustam Rasulovich, Tibbiyot xodimlarini tayyorlashda axborot texnologiyalar fanini o'qitish vositalari, Общество и инновации 2 (2/S), 699-705, 2021, <https://inscience.uz/index.php/s>, (<https://creativecommons.org/licenses/by/4.0/deed.ru>)
19. Hamroyev Rustam Rasulovich ? Axborot texnologiyalarining bilimlarni uzatishdagi integrallashgan o'rnı, Жамият ва инновациялар (1/S), 170-177, 2021, <https://inscience.uz/index.php/socinov/issue/view/25>, (<https://creativecommons.org/licenses/by/4.0/deed.ru>)
20. M.F. Atoyeva. Use of Periodicity in Teaching Physics. Eastern European Scientific Journal. – Düsseldorf-Germany, 2017. № 4. –P. 35-39.