American Journal of Science and Learning for Development

Volume 1 | No 2 | Dec-2022

Scientific Technologies and Digitalization in Medical Education

[1]Xamrayeva Guli , [2] Akramova Nasiba Khamitovna

[1] *Assistant of the Department of Uzbek Language and Literature with Russian, Samarkand State Medical University*

[2] *Assistant of the Department of Humanities Samarkand State University Kattakurgan branch*

Abstract: *The pandemic has fueled the spread of virtual learning after the urgent suspension of traditional learning. To counter this learning crisis, various online learning strategies have been developed. The transition to distance learning was carried out by digitalization specialists together with the Ministry of Education. Several online seminars were held for staff and students on the value and procedures of such a shift. Student satisfaction was recorded in relation to the effectiveness of live learning events and online assessment. This paper discusses in detail the procedures and benefits of the transition to digital learning, which were evaluated by students and teachers. He recommended the adoption of future theoretical online courses, as well as the development of computer technology in the educational process.*

Keywords: *digitalization, e-learning, medical education, virtual education.*

Results. Students have been satisfied with the overall transition to this collaborative e-learning environment.

Digital learning tools have contributed to student achievement and knowledge sharing among peers.

The role of computer technology in medicine during the COVID-19 pandemic has been evident in advancing student, research skills and technical competencies.

Introduction. Scientific technology and digitalization are having a huge impact on increasing efficiency and productivity in virtually every area of the modern era, from agriculture to healthcare and innovation, and have proven to be an effective tool to make people's lives better and easier.

Online learning is considered a feasible and compatible method of teaching and scientific meetings, as well as the sustainability of learning.

The expansion of global virtual learning depends on the availability of technology-enhanced active learning tools, and online learning options and their role in medical education cannot be ignored.

The use of digital technologies in medical education is now considered to be critical for teaching resources.

This not only broadens the understanding of the subject, but also prepares students for a more practical study of their specialty.

The corona virus disease (COVID-19) pandemic requires virtual classrooms to develop students' creative thinking and problem-solving abilities.

The existing digital platform has made it possible to connect with lower barrier learners, and online learning has proven to be a method that has challenged our traditional approach.

The curriculum of medical schools is based on modular education, in which students gain knowledge by actively participating in the real world and participating in personally meaningful projects.

Along with this, highly qualified teachers give lectures and teach students the skills used in modern medicine.

In December 2019, the earliest suspected case of COVID-19 was reported to the World Health Organization (WHO) in the city of Wuhan, located in the Hubei province of the People's Republic of China. At the time, no one could have predicted that this new virus would take the form of a deadly pandemic that would halt daily activities and require social distancing. On January 30, 2020, WHO declared COVID-19 a public health emergency of international concern, and on March 11, 2020, it was declared a pandemic. March 2, 2020 The first case of COVID-19 was reported in Uzbekistan on March 15, 2020. To prevent the spread of this infection among the population of Uzbekistan, the Ministry of Health has begun implementing a number of preventive measures, including social distancing. All educational institutions in Uzbekistan were closed, and educational activities were transferred to a digital learning environment so as not to overload the educational process. It was challenging to continue educational activities on a regular basis, so classes were moved to digitized classrooms equipped with all forms of e-supported learning tools, allowing students to share information and collaborate with their peers and teachers.

A commission was formed, which included teachers of medical schools, and was given the task of digitizing learning activities through the use of available learning resources necessary to ensure effective medical education. The digitalization process has been divided into two main functional parts. The first was to digitize various learning activities, including lectures, workshops, and self-study. The second task was to create electronic evaluation logs.

In the present study, it turned out that the educational platform mt.sammi.uz was the main software used to conduct most of the educational activities. The rest of the live broadcast session was conducted through Zoom Cloud Meetings, Telegram as an alternative online platform used if access to the official platform was not possible. In addition, the faculty development department organized several training sessions annually for the effective use of e-learning and moved to a new level of development of informatics and distance learning. In addition, experienced online learning staff were selected, especially in the first week of e-learning practice.

Student assessment is an integral stage in assessing the knowledge gained by them in the learning process. In our research, we found that conducting online assessments through digital means is a beneficial strategy. In this regard, many medical schools conducted all examinations using digital means, for example in the form of testing. During digital learning, students were not only assessed based on their scores in multiple-choice final exams, but they were also assessed based on various other methods. Enthusiasm among students attending distance learning courses is also an important aspect, because if students do not grow in interest, this will lead to a high dropout rate. Some students did not like online testing to accurately test their knowledge. Standard online surveys and feedback were taken from students to learn about and overcome the disadvantages of virtual learning. The motivation of the majority of students to introduce theoretical online courses in the future was observed. However, psychomotor skills implemented in practical and clinical settings required direct practical training, as in real life. Students have to deal with practical laboratory procedures and real patients that require direct human interaction. According to the research we conducted, in the survey, the majority of medical students considered e-learning to be an effective way of learning; however, they do not see it as a replacement for traditional teaching methods. During digital learning, we also encountered several limitations, including insufficient learning resources, such as the overload of the formal learning management system, which required constant updating and maintenance. In addition, there was a lack of information technologists, as well as an optimal online learning experience for staff and students. They can be overcome by developing and integrating computer informatics technologies in the field of medical education, collaborating with other universities that have a good practice of distance learning methods, and increasing digital literacy among students. This transition was appreciated by both students and teachers of the medical

educational institution. The study recommended the development of computer informatics technologies to promote learning with improved technologies and the introduction of online courses in the coming years.

LIST OF USED LITERATURE:

1. Хамраева Г. Н. РОЛЬ ХУДОЖЕСТВЕННОЙ ЛИТЕРАТУРЫ В НРАВСТВЕННОМ ВОСПИТАНИИ ГАРМОНИЧНО РАЗВИТОЙ ЛИЧНОСТИ //Fizika, matematika va axborot texnologiyalari. – С. 38.
2. Разыкова Л. Т., Джамалдинова Ш. О. СОДЕЙСТВИЕ ТВОРЧЕСТВУ И ИННОВАЦИЯМ В СИСТЕМЕ ОБРАЗОВАНИЯ //TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI. – 2022. – Т. 2. – №. 8. – С. 70-77.
3. Obloberdiyevna D. S., Tuychiyevna R. L. Distance Learning in the System of Higher Education //Web of Scholars: Multidimensional Research Journal. – 2022. – Т. 1. – №. 4. – С. 53-59.
4. Djamaldinova, Shaxlo. "PROBLEMIC METHODS OF LEARNING UZBEK LITERATURE IN ENGLISH IN AMERICAN AUDIENCES." *Central Asian Journal of Education* 5.2 (2021): UDC-398.
5. Хусанбоева К. П., Джамалдинова Ш. О. ПРОБЛЕМЫ ПРЕПОДАВАНИЯ УЗБЕКСКОЙ ЛИТЕРАТУРЫ В АНГЛИЙСКИХ (АМЕРИКАНСКИХ) АУДИТОРИЯХ И ПУТИ ИХ РЕШЕНИЯ //SCIENCE AND WORLD. – 2013. – С. 56.
6. Джамалдинова Ш., Бекирова Э. ОБУЧЕНИЕ НАВЫКАМ РЕШЕНИЯ ПРОБЛЕМ НА ЗАНЯТИЯХ //InterConf. – 2020.
7. Obloberdievna, Djamaldinova Shahlo, and Bekirova Elzara Seydalievna. "AVICENNA'S CONTRIBUTION TO WORLD MEDICINE." *Galaxy International Interdisciplinary Research Journal* 9.11 (2021): 238-241. Retrieved from https://giirj.com/index.php/giirj/article/view/479
8. Джамалдинова Ш., Кучкарова О. РОЛЬ СОЦИАЛЬНЫХ МЕДИА В ФОРМИРОВАНИИ ЭМОЦИОНАЛЬНОГО РАЗВИТИЯ МОЛОДЁЖИ //InterConf. – 2020.
9. Obloberdievna, D. S., & Seydalievna, B. E. (2021). AVICENNA'S CONTRIBUTION TO WORLD MEDICINE. *Galaxy International Interdisciplinary Research Journal*, *9*(11), 238-241.
10. OBLOBERDIEVNA D. S., NEMATJONOVNA M. S. RESEARCH APPROACHES TO IMPROVING THE EDUCATIONAL SYSTEM //International Journal of Philosophical Studies and Social Sciences. – 2022. – Т. 2. – №. 3. – С. 225-229.
11. Obloberdiyevna, D. S., & Tuychiyevna, R. L. (2022). Distance Learning in the System of Higher Education. *Web of Scholars: Multidimensional Research Journal*, *1*(4), 53-59.
12. Obloberdiyevna D. S., Odilkhonovna K. U. VIRTUAL LEARNING AS THE ONLY SAFE LEARNING OPTION DURING A PANDEMIC //International Journal of Intellectual Cultural Heritage. – 2022. – Т. 2. – №. 3. – С. 117-121.
13. Джамалдинова Ш. О. ЭТИКА В ОБРАЗОВАТЕЛЬНОЙ СИСТЕМЕ //BOSHQARUV VA ETIKA QOIDALARI ONLAYN ILMIY JURNALI. – 2022. – Т. 2. – №. 8. – С. 50-53.
14. Хусанбаева К., Джамалдинова Ш. The agony of longing //in Library. – 2020. – Т. 20. – №. 2. – С. 2004-2008.
15. Obloberdiyevna, D. S., & Odilkhonovna, K. U. (2022). TEACHING LANGUAGES USING MODERN EDUCATIONAL METHODS. *International Journal of Intellectual Cultural Heritage*, *2*(3), 105-111.
16. OBLOBERDIYEVNA, D. S., & YULDASHEVNA, X. G. (2022). PROBLEM-BASED STUDY OF LITERARY WORKS IN THE SCIENCE OF METHODOLOGY. *International Journal of Philosophical Studies and Social Sciences*, *2*(3), 205-213.

17. Джамалдинова, Ш. О. Изучение произведения Антуана де Сент-Экзюпери «Маленький принц» на основе проблемного метода / Ш. О. Джамалдинова. — Текст : непосредственный // Молодой ученый. — 2022. — № 2 (397). — С. 196-198. — URL: https://moluch.ru/archive/
18. Тошкулова М. И., Джамалдинова Ш. О. Внедрение научных открытий в клиническую практику посредством функциональной медицины. – 2021.
19. ДЖАМАЛДИНОВА Ш. О ‘ZBEKISTON MILLIY UNIVERSITETI XABARLARI, 2020,[1/3] ISSN 2181-7324.
20. Джамалдинова, Ш. О. (2022). ТЕОРЕТИЧЕСКИЕ ОСНОВЫ ПРОБЛЕМНОГО ОБУЧЕНИЯ И НЕОБХОДИМОСТЬ ИХ ИСПОЛЬЗОВАНИЯ В ШКОЛЬНОМ ЛИТЕРАТУРНОМ ОБРАЗОВАНИИ. *Наука, образование и культура*, (2 (62)), 40-42.
21. Hayitova S. D. THE LEVELS OF STUDENTS'INDEPENDENT LEARNING ACTIVITIES AND THE WAYS TO IMPROVE WORKING INDEPENDENTLY //Mental Enlightenment Scientific-Methodological Journal. – 2022. – Т. 2022. – №. 2. – С. 136-149.
22. Джамалдинова Ш. Ўзбек адабий таълимида муаммоли ўқитиш кечимининг ўзига хос хусусиятлари ва фойдаланишнинг амалий намунаси //Общество и инновации. – 2022. – Т. 3. – №. 4/S. – С. 539-546.
23. Джамалдинова Ш. О., НЕОБХОДИМОСТЬ Т., ОБРАЗОВАНИИ И. Наука, образование и культура. 2022. № 2 (62) //URL: https://cyberleninka. ru/article/n/teoreticheskie-osnovy-problemnogo-obucheniya-ineobhodimost-ih-ispolzovaniya-v-shkolnom-literaturnom-obrazovanii