

Корносенко // Фізичне виховання та спорт : збірник наук. пр. – 2021. – № 4. С. 65-71.

8. Про фізичну культуру і спорт: Закон України
(<http://zakon2.rada.gov.ua/laws/show/3808-12>)

Mekhed Olha,

Doctor of Pedagogical Sciences,
professor, head of the biology department,
Chernihiv Collegium National University
named after T. G. Shevchenko,
Chernihiv, Ukraine

Mekhed Dmytro,

Candidate of Pedagogical Sciences, Associate Professor
Chernihiv Polytechnic National University
Chernihiv, Ukraine

THE ROLE OF MODERN TECHNOLOGIES IN FORMING DIGITAL SECURITY COMPETENCES OF FUTURE HEALTHCARE SPECIALISTS

The formation of digital security competencies among students requires a comprehensive approach and consideration of various aspects. The main methods by which this process can be carried out include curriculum integration, which involves the introduction of mandatory courses or modules on digital security in educational programs and ensuring that various aspects are covered, such as cyber hygiene, cyber security, internet ethics, etc. Also, practical trainings, which include simulations of cyber attacks to teach students to identify and respond to cyber threats, are becoming extremely relevant; regular practical exercises on protection of personal information and safe use of technology. Special attention should be paid to electronic resources and educational platforms that provide the use of interactive online resources for self-study of digital security and the involvement of virtual laboratories and simulators in training. It is also often recommended to use the so-called extracurricular activity: the organization of groups for students and pupils who have an interest in studying digital security to participate in student or school cyber security competitions. Partnership with industry requires the involvement of representatives of the digital security

industry for lectures, workshops and internships; establishing connections with companies that can provide real experience in the field of cyber protection. To study the level of competence formation, assessment and monitoring is used, which involves the use of assessment systems that take into account the level of competences in digital security and regular updating of programs based on assessments and changes in cyber threats. The study of the effectiveness of the use of technologies in education is an important direction for the continuous improvement of methods of training future specialists in the field of health care [3]. The role of modern technologies in the formation of professional competencies of future specialists is critical for ensuring high quality and efficiency of medical practice. The use of innovative technologies contributes to the development of new approaches in education and training of future specialists [4]. Further research into the impact of modern technologies on the formation of professional competencies is necessary for the continuous improvement of the medical education system and the training of specialists in the field of health care.

The work of leading domestic and foreign scientists, including O. Aleksandrov, V. Bykova, N. Burdeina, A. Vardanyan, N. Dymar [1], G. Zagrychuk, is devoted to the problems of the formation of the competence of medical specialists, the intensification of the educational process, and the peculiarities of the implementation of distance learning. , H. Krytska [2], T. Golub, V. Kushnir, O. Novikova and others.

The purpose of the article is the analysis of scientific approaches to the definition and study of the features of the use of modern technologies in institutions of higher education and the determination of ways of implementing the relevant types of activities in the educational process of the higher school with the aim of forming competencies in future specialists in the field of health care.

The use of virtual reality for training future doctors can have many advantages and contribute to improving the quality of their training. In particular, the use of virtual reality technologies can provide students with the opportunity to practice medical procedures and operations in a virtual environment, which allows them to gain practical experience without real clinical situations. In addition, virtual reality can simulate

clinical scenarios and cases where students need to make decisions about the diagnosis and treatment of patients based on presented symptoms and disease histories. Also, this technique can be used to train healthcare professionals to interact with patients, families, and colleagues, which helps develop empathy and effective communication, and can be an excellent tool for studying anatomy and physiology, allowing students to explore the internal structures of the body in a three-dimensional format [4]. It should also be noted that virtual reality can simulate emergency medical scenarios, such as wound treatment, resuscitation, and others, which helps students learn to respond effectively in crisis situations and can be used to train future psychiatrists and psychologists in working with patients with various mental conditions. states, allowing them to learn and respond to different clinical scenarios. These technologies are becoming more accessible and improved over time [5], which makes them a powerful tool for training and training future medical professionals.

Artificial intelligence can help analyze individual patient data and create personalized approaches to diagnosis and treatment based on the unique characteristics of each patient and help detect abnormalities and pathologies in the early stages, allowing for faster response and prevention of disease [10]. Another advantage of the use of artificial intelligence is the optimization of treatment - namely, the analysis of medical data with its help makes it possible to optimize treatment regimens, taking into account the effectiveness and side effects of various treatment methods for each patient. The use of simulation technologies allows students to reproduce real situations and learn to respond to them, increasing the level of training and confidence in their own knowledge and skills [7]. Distance learning systems and online platforms enable students to obtain up-to-date knowledge and interact with teachers and colleagues, regardless of their location [8].

The wide implementation of interactive educational materials and multimedia resources is an important aspect in increasing the professional competence of the future doctor, as it determines a more effective perception of information, which allows students to better assimilate complex medical information through visual, audio and textual elements, which increases their understanding and memorization of the material

[6]. Interactive materials encourage students to actively engage in the learning process, for example, through multiple-choice exercises, interaction with virtual scenarios, tests, and interactive labs. The use of various multimedia resources helps students develop skills for working with modern technologies, which are necessary for medical practice in the era of digitalization [9].

Conclusions. The study of digital security is very relevant in today's world, as the rapid development of technology leads to an increase in the number of digital threats and cybercrimes. Learning digital security skills allows individuals to protect their personal information online, avoid fraud and keep sensitive data safe. With the growth of digital infrastructure, the importance of cyber security is becoming key to ensuring national security and avoiding cyber attacks on critical infrastructure, creating a growing demand for digital security professionals who are able to detect, prevent and resolve cyber security issues at various levels. Studying digital security is becoming a necessary component of education as it helps prepare people to effectively interact with the digital environment, protect sensitive data, and respond to growing cyber threats.

REFERENCES

1. Димар Н. М., Сойка Л. Д., Шевчук А. М. Формування професійних компетентностей фахівців медичних спеціальностей в умовах дистанційного навчання. *Іноваційна педагогіка*. 2021. Вип. 39. С.139-142.
2. Крицька Г.А., Крицький І.О., Загречук Г.Я. Перспективи та труднощі ефективного використання інноваційних технологій для забезпечення професійної підготовки студентів-медиків при вивченні клінічних дисциплін. *Медична освіта*. 2017. № 2 (74). С. 33–36.
3. Мехед Д. Б., Мехед О. Б. Оцінювання навчальних досягнень студентів в умовах дистанційної освіти. *Вісник Чернігівського національного педагогічного університету*. Вип. 120. Серія : Педагогічні науки : Збірник. Чернігів : ЧНПУ імені Т. Г. Шевченка, 2014. С. 83 - 86.
4. Мехед О. Б., Дейкун М. П. Використання інформаційно-комунікаційних технологій в освітньому процесі вищої школи. Проблеми та інновації в

математичній, цифровій, природничій і професійній освіті Кропивницький: РВВ ЦДУ ім. В. Винниченка, 2023. С. 46-47

5. Мехед О. Б. Розвиток наукової та інноваційної діяльності в системі професійної підготовки майбутніх фахівців біологічної та здоров'язбережувальної галузей. Суспільство, наука, освіта: актуальні дослідження, теорія та практика. Біла Церква : «Білоцерківський інститут економіки та управління Університету «Україна», 2023. С. 38-40

6. Мехед О. Формування компетентностей цифрової безпеки у здобувачів освіти. *Сучасні проблеми підготовки та професійного удосконалення працівників сфери освіти: електронний збірник матеріалів ІХ Міжнародної науково-практичної конференції / за редакцією Н. Носовець, О. Пронікова, Т. Янченко. Чернігів: НУЧК імені Т. Г. Шевченка. 2024. С. 45-47*

7. Морзе Н. В., Нанаєва Т., Омельченко Н. О. STEM в освіті : навч. посіб. Київ, ACCORD GROUP. 2018. 116 с.

8. Носко М., Мехед О. Науково-дослідницька робота студентів як складова частина підготовки до соціально-педагогічної діяльності. *Наука і освіта. 2022. №2. С. 39-43. DOI:https://doi.org/10.24195/2414-4665-2022-2-6*

9. Поліхун Н. І., Сліпухіна І. А., Чернецький І. С. Педагогічна технологія STEM як засіб реформування освітньої системи України. *Освіта та розвиток обдарованої особистості. Київ, 2017. №3. С. 5–9*

10. Chystiakova, I.A., Ivanii, O.M., Mekhed, O.B., Nosko, Y.M., Khrapatyi, S. PhD Training Under Martial Law in Ukraine *Journal of Higher Education Theory and Practice, 2022. 22(15), pp. 151–163*