

PEDAGOGICAL CONDITIONS OF INCREASING THE EFFICIENCY OF TEACHING BIOLOGY TEACHING METHODOLOGY WITH THE HELP OF IT

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Abstract: This article discusses the importance, possibilities, advantages, convenience and relevance of electronic educational resources in the subject of biology teaching methodology at the Higher Education Institution. The use of information and communication educational resources in the educational process serves as an important tool for increasing the effectiveness of the educational and educational process of higher education institutions. One of such methods of information and communication technology is electronic educational resources.

Electronic educational resources are a modern pedagogical program and tool for increasing students' interest in science, independent education, formation and development of professional competence.

In connection with the possibility of using interactive electronic educational resources in the classes organized on the subject of biology teaching methods, increasing the importance of providing educational information to students, using different methods and forms of teaching, by them ensuring the visibility of any learned educational information, learning based on modern methods of independent methods, applying methods of differentiation and individualization, ensuring successful learning of all categories of students.

Key words: Digital technologies, electronic educational resources, interactive communication, cognitive activity, educational interactivity.

Аннотация: В данной статье рассматриваются важность, возможности, преимущества, удобство и актуальность электронных образовательных ресурсов в методике преподавания предмета биологии в вузе. Использование информационно-коммуникационных образовательных ресурсов в образовательном процессе служит важным инструментом повышения эффективности учебно-воспитательного процесса высших учебных заведений. Одним из таких методов информационно-коммуникационных технологий являются электронные образовательные ресурсы.

Электронные образовательные ресурсы – это современная педагогическая программа и инструмент повышения интереса студентов к науке, самостоятельного образования, формирования и развития профессиональной компетентности.

В связи с возможностью использования интерактивных электронных образовательных ресурсов на занятиях, организованных по предмету «Биология», повышается значимость предоставления учебной информации учащимся, используя различные методы и формы обучения, обеспечивая ими наглядность любого изучаемого учебного материала. Информационное, обучение на основе современных методов самостоятельных методов, применение методов дифференциации и индивидуализации, обеспечивающее успешное обучение всех категорий обучающихся.

Ключевые слова: цифровые технологии, электронные образовательные ресурсы, интерактивное общение, познавательная деятельность, образовательная интерактивность.

Annotatsiya: Ushbu maqolada OTM da Biologiya o'qitish metodikasi fanidan elektron ta'lim resurslarining ahamiyati, imkoniyatlari, afzalliklari, qulayliklari va dolzarbligi haqida fikr yuritilgan. O'quv jarayonida axborot komunikatsion ta'lim resurslarni qo'llanish oliy ta'lim muassasalarining ta'lim va tarbiya jarayoni samaradorligini oshirish uchun muhim vosita bo'lib xizmat qiladi. Shunday axborot komunikatsion texnologiya usullaridan biri bu-elektron ta'lim resurslaridir.

Elektron ta'lim resurslar talabalarning fanga bo'lgan qiziqishini oshirishga, mustaqil ta'lim olishga, kasbiy kompetentligini shakllantirish va rivojlantirishda zamonaviy pedagogik dasturiy vosita hisoblanadi.

Biologiya o'qitish metodikasi fanidan tashkil etiladigan mashg'ulotlarda interaktiv elektron ta'lim resurslaridan foydalanish, talabalarga o'quv ma'lumotlarning taqdim etish salmog'ini oshirishga, o'qitishning turli usullari va shakllaridan foydalanish imkoniyati bilan bog'liq holda, ular tomonidan

o'rganilgan har qanday o'quv ma'lumotni ko'rinishini ta'minlash, mustaqil uslublarning zamonaviy usullarini o'rgatish asosida bilim olish, tabaqalashtirish va individuallashtirish usullarini qo'llash, barcha toifadagi talabalarni muvaffaqiyatli o'rganishini ta'minlaydi.

Kalit so'zlar: Raqamli texnologiyalar, electron ta'lim resurslari, interaktiv aloqa, kognitiv faollik, o'quv interaktivligi.

INTRODUCTION: One of the main aspects of improving the education system of our country is the modernization of the digitalization of the educational process. "Digitalization of the educational process is a system of methods, processes and software and technical tools combined for the purpose of collecting, processing, storing, distributing and benefiting from the training."

With the introduction of digital technologies, the specific characteristics of education will change, and the scope of using information and communication educational resources in the educational process will increase. This serves as an important tool for increasing the effectiveness of the educational and training process of higher education institutions. One of such methods of information and communication technology is electronic educational resources.

Electronic educational resources are a modern pedagogical program and tool for increasing students' interest in science, independent education, formation and development of professional competence. Therefore, the implementation of electronic educational resources in higher education institutions and the development of their adaptation remains one of the urgent problems today.

In this regard, our country, the Commonwealth of Independent States and abroad G.S. Ergasheva, U.B. Bakhodirova, A.N. Gvintovkin, M.E. Waundorf-Sisoeva, V.V. Gura, O.V. Danilova, J.G. Brooks, A. Scientific research works were carried out by scientists such as J. Hilbelink, B.A. Bixler, E.R. Saldwell, R. Sastaneda, B. Shen, B.A. Shroeder. In their research, it was noted that it is possible to achieve independent education of students, formation and development of subject competence in the department of electronic educational resources in the educational process of higher educational institutions.

The material learned from electronic learning resources is effective for students and professors. Because its visual component and the visual clarity of the studied material. It serves as a modern educational tool for the formation and development of the competences of future biology teachers, based on its use as an important visual tool in the presentation of science-related processes and events [2].

According to G.S.Ergasheva, they noted that electronic educational resources have a special feature in the effective organization of the educational process. This makes future biology teachers an active participant in the education process [7].

The methods and forms of improving students' knowledge, skills and abilities should be in line with modern reality, therefore, the scope of using interactive electronic educational resources in the process of biological education is increasing [4]. In this regard, according to V.A. Ilin, "Interactive electronic educational resources are designed to be used in the implementation of educational programs, providing information and learning to the learner based on information and computer technologies. is a tool aimed at the development of

If we take into account the evolution of electronic products, graphic text has been replaced by interactive, virtual and multimedia e-learning resources for the web. Building a learning process in the context of interactive e-learning resources involves changing the role of a professor-teacher as a source of knowledge to a teacher-coordinator, who encourages the student to take an active position as a participant in the learning process [2].

Pedagogical research in this area shows that the use of electronic learning resources in the teaching process helps teachers to implement innovative ideas and directions of individualization of education and

information, for example, individual educational trajectories. allows to use[5]. This ensured the implementation of the principles of competent approach to the educational process by students studying in higher educational institutions, and increased their independent activity.

In this regard, according to D.Raven, O.N.Uarigin, A.A.Korostelev, introducing interactive electronic educational resources into the higher education system can improve the effectiveness of teaching subjects and effectively organize independent education of students. stated that it can be achieved.

MAIN PART

The main tasks of the implementation of interactive e-learning resources for the process of training specialists in higher education institutions are as follows[4]:

- presentation of educational information related to science in a visual form;
- providing distance learning opportunities for students with disabilities;
- ensuring interactive communication between students and professors;
- development of audio and video materials for lectures and development of stages and algorithms of their use;
- increases the amount of educational materials studied by various interactive interaction methods;
- introduces didactic materials to students' independent educational activity.

Therefore, in the department of interactive e-learning resources, the professor-teacher focuses on the organization of active types of cognitive activity of students in the subject of biology teaching methodology, not as the goal of teaching educational information, but as a means of teaching. uses cognitive activity as a means of organization. In this case, the student, in turn, is a subject of activity together with the professor-teacher, and the basis of his personal development serves as one of the educational goals.

In connection with the use of interactive electronic educational resources in the classes organized on the subject of biology teaching methodology, the possibility of increasing the importance of providing educational information to students, and the possibility of using different methods and forms of teaching, by them ensuring the visibility of any learned educational information, learning based on modern methods of independent methods, applying methods of differentiation and individualization, ensuring successful learning of all categories of students. At the same time, modern research in the field of effectiveness of interactive electronic resources in the teaching methodology of biology allows to give priority to the development of pedagogical technologies. Using them allows you to perform the following tasks:

- support and development of students' thinking consistency;
- supporting all types of student's cognitive activity;
- implementation of the individual principle while maintaining the integrity of the educational process.

Therefore, the use of electronic educational resources (multimedia technologies and presentations, video, audio, virtual stands, virtual laboratories, presentation materials provided with animation and graphic elements) is an effective tool for fully conveying scientific topics to the minds of students. lib serves [1].

On the basis of the given analysis and data, interactive e-learning resources provided the following opportunities to increase the efficiency of teaching biology teaching methods in higher education institutions:

- increases students' activity, motivation and interest in science;
- ease of use, ability to model and predict the situation, complex impact on the senses, enhance audio-visual effects, and develop information, research, search ability;
- on the basis of information technology tools, it allows to combine with traditional sources of information, to make the educational process dynamic, unconventional and interesting;
- involving the learner in the process of active cooperation. The active participation of the student is ensured based on individual and differentiated training. As a result, the student becomes an active subject of the educational activity and consciously absorbs knowledge, which, of course, leads to an increase in cognitive activity and the formation and development of competence;
- improvement of the independent education system. On the basis of interactive electronic educational resources, students will be able to independently study the parts of the Biology teaching methodology that they have not mastered, as well as study topics that they could not participate in classes for some reason. This is especially important for the education of students with limited opportunities;
- quick feedback environment is provided (educational interactivity);
- improving the assessment and control system. Professors-teachers monitor students, their objective assessment is achieved [6].

CONCLUSION:In conclusion, in order to improve the quality of training of future biology teachers in higher education institutions, it is necessary to improve the mechanism of comprehensive use of interactive electronic educational resources together with innovative forms and methods of teaching. It is important to use interactive e-learning resources to increase the effectiveness of teaching the subject of biology teaching methods in the training of future biology teachers. In contrast to the traditional technical means of biology teaching methodology, not only the student can be filled with a large number of relevant, strictly selected, properly organized knowledge, but also the intellectual and creative abilities of the students, develops the ability to work with various sources of information in independent acquisition of knowledge.

REFERENCES:

1. Артюхина М.С. Особенности современных средств обучения в контексте интерактивных технологий [Текст] // Журнал «Вестник РУДН» Серия «Информатизация образования». – Москва: ИМП, 2014. – С. 56.
2. Begimqulov U.SH. Pedagogik ta'lim jarayonlarini axborotlashtirishni tashkil etish va boshqarish nazariyasi va amaliyoti. Pedagogika fanlari doktori ilmiy darajasini olish uchun yozilgan dissertatsiya. – Toshkent,2007. – 280 b.
3. Богомолова А.А. Системный подход к изучению мира живой природы в курсе биологии 6-7 классов общеобразовательной школы // Диссертация на соискание ученой степени кандидата педагогических наук.–Москва, 2006. – 284 с.
4. Ваганова О.И., Алешугина Е.А., Максимова К.А. Проектирование электронных учебных курсов // Азимут научных исследований: педагогика и психология. 2019. Т. 8. – № 3 (28). – С. 57-59.
5. Исупова Н. И. Методические особенности применения электронных образовательных ресурсов. Сборник научных трудов Sworld. 2012. Т. 23. – № 4. – С. 92-95.
6. Кутепов М.М. Дидактические возможности интерактивных электронных образовательных ресурсов // Baltic Humanitarian Journal. 2020. Т. 9. – № 3(32). – С. 128-130.
7. Ergasheva G.S. Biologiya ta'limida interaktiv dasturiy vositalardan samarali foydalanishni takomillashtirish // Pedagogika fanlari doktori (DcS) dissertatsiyasi avtoreferati. –Toshkent, 2018. – 56 b.