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TECHNOLOGICAL PROCESS OF CREATION OF ELECTRONIC EDUCATIONAL RESOURCES

Abstract: *Electronic educational resources are an integral part of a modern training session that improves the quality of students' knowledge. Therefore, the article analyzes the stages of development of electronic educational resources that allow to manage the educational process, take into account the individual characteristics of students and create their own teaching materials.*
Key words: *electronic educational resources, pedagogical technology, educational process, multimedia, interactivity.*
Language: *English*

Introduction

The development of information and communication technologies (ICT) has led to the possibility of creating a new generation of hypermedia electronic educational resources (EER).

There are two main directions of informatization:

1) informatization of the education system, that is, ensuring universal computer literacy, automation of workplaces and the introduction of information systems.

2) informatization of the educational process, that is, the use of a computer as a means of increasing the effectiveness of training.

The invention of a multimedia computer has expanded the possibilities of presenting educational information by combining text, graphics, audio and video information, animation, user feedback, and interactivity in one user product.

In modern domestic pedagogical science, there are different concepts of the content of education, the roots of which go back to the past, in the theory of formal and the theory of material education (V.V.Kraevsky). Each of them is associated with a certain interpretation of the place and functions of a person in the world and society [1].

Traditional group teaching methods are not sufficient to eliminate the constantly emerging deficit of knowledge and the acquisition of skills (A.A. Zolotarev), therefore, it is necessary to use a problematic approach, to connect active activity methods, taking into account the characteristics of the student's personality.

Main Part

ICTs are universal for solving these problems because have advantages over paper and other technical teaching aids:

multimedia presentation of the material provides visualization of an integral inaccessible image at a convenient pace, sequence and form, which is especially effective at the initial stage of training, navigation individualizes training, is indispensable for solving problems and repetition in preparation for control;

productivity frees from routine and forms an information culture through automation: search in large databases, calculations, presentation of results;

modeling makes up for the lack of equipment and reagents, is safe and indispensable in the study of the micro- and macrocosm, social processes (and the organization of virtual laboratories;

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interactive replaces the prompt reaction (consultation) of the teacher and is necessary for self-study, individual training and control with the preservation of parameters and the accumulation of results for a reasonable and objective scoring of training.

communication through the network connects with students, teachers, external consultants, remote (unique, harmful) equipment.

According to experts, ICT training makes it possible to increase the effectiveness of demonstrations in lessons and lectures by more than 50%, practical and laboratory classes in natural sciences by at least 30%, the objectivity of monitoring students' knowledge - by 20-25%.

EER reduce the time of mastering, optimizing educational activities due to structuring, clarity of tasks, prevent the lag of those who missed classes, provide additional materials to increase the level of development of those who wish, enhance motivation through individual settings, adaptation, different types of emotional perception of information, mental activity and game situations [2].

Progress in groups of students using educational ICT is higher on average by at least 0.5 points (with a five-point assessment system) compared to traditional ones.

In the transition to an information society, characterized by a constant increase in the volume and role of knowledge, the ease of updating and replicating the EOR, the productivity of work as a teacher with a multimedia projector, and students with a classroom and home computer, the teacher needs an information culture with the ability to use ICT in the educational process, transferring accent of activity from a repeater to researcher - consultant.

The use of modern and promising technologies of multimedia and "virtual reality" is advisable not so much to support traditional forms and methods of teaching, but to create variable methods that implement the psychological and pedagogical impact of a long-term nature. It is advisable to focus these techniques on:

development of visual-figurative, logical and operational thinking;

education of information and legal culture;

formation of skills for independent acquisition of knowledge;

the formation of skills in educational experimental and research activities.

At the same time, the above ICT capabilities are implemented within the framework of computer teaching methodology (not only methods of programming educational activities and testing, but educational computer modeling and design with information, analytical, design and technological capabilities for creativity) with the accumulation of achievements by the student in a compact electronic portfolio [4].

When creating educational materials, pedagogical goals are at the forefront, for example, to achieve high quality teaching for a specific course under existing financial, material and technical, personnel, group, time or other restrictions. They rely on the capabilities of ESM [5]. The goal of creating a new generation of ESM is a qualitative and quantitative breakthrough in the field of ICT - supporting learning by providing free access to ESM.

The tasks of creating an ERM:

Unification of ESM in accordance with the relevant federal standards.

High level of ESM multimedia.

Centralized storage, maintenance and provision of access to ESM for all participants in the educational process, including via the Internet [3].

Conclusion

Active use of EER in the implementation of educational programs of basic general and secondary (complete) general education in institutions of general, primary and secondary vocational education in the subject, including:

creating conditions for independent work on educational material, allowing the student to choose a convenient place and time of work, as well as the pace of the educational process;

deeper individualization of training and provision of conditions for its variability;

the ability to interact with models of the studied objects and processes; with virtual images of the studied objects and phenomena (cognitive graphics); the ability to present unique information by multimedia means;

the possibility of automated control of knowledge, skills and abilities;

structuredness and the ability to automatically search for information;

the possibility of distribution on local media: selected EUM from the aggregate content of open multimedia systems, together with the implementation program, are easily transferred to a CD;

expansion of training modules along the axes: the inclusion of a new topic, new pedagogical methods in new options [1].

The tasks are implemented according to the strategy of informatization due to the modularity of the structure of the ERM and the allocation of EEM - independent educational objects (described according to the SCORM 2004 specification):

interoperability: the ability to transfer objects created by one set of development tools or platform to others and use without changes (investment protection);

Ability to compose courses from EUMs, flexibility when used in different contexts (reuse of objects).

The developed ESM will provide a meaningful basis for informatization of general education in order

to radically increase its accessibility and quality, since will allow you to get systematized content on the subject, which can be used and supplemented with separate modules and expanded with new educational sections both at the federal, regional and local levels.

References:

1. Gatiyatulina, R.M., & Inoyatov, S.D. (2018). Using information technologies in education (Distance education in Uzbekistan). *Eastern European Scientific Journal Germany*. Auris - kommunikations Und verlagsgesellschaft mdh 5-2018, pp.82-85.

2. Hasanov, A.A., & Gatiyatulina, R.M. (2016). Interdisciplinary communication as a didactic conditions of increase of efficiency of educational process. *Eastern European Scientific Journal Germany*. Auris - kommunikations Und verlagsgesellschaft mdh 5-2016, pp.107-111.

3. Suleymanova, R., & Sharipov, N. (2019). The Process of Creation of Electronic Educational Resources under Conditions of Reforming Continuous Education. *International Journal of Advanced Research in Science, Engineering and Technology India.* Volume 6, Issue 10. October 2019.

4. Khasanov, A.A. (2017). Methods and methods of forming economic education through interdisciplinary communication through information technology. Education, Science and Innovation. *Spiritual-Educational, Scientific and Methodological Journal*, №3, pp. 38- 44.

5. Osin, A.V. (2004). *Mul`timedia v obrazovanii: kontekst informatizacii*. (p.320). Moscow: Agentstvo «Ideal`nyj servis».

6. Bagbekova, L.K. (2019). Opportunities of massive open online courses. *European Journal of Research and Reflection in Educational Sciences*, Vol. 7 No. 12, 2019 ISSN 2056-5852, pp.768-771.

7. Sajfullaeva, R.R. (2019). Odnorodnye skazuemye v prostyh predlozhenijah. *Filologija masalasi*, №10, pp.24-30.

8. Sayfullaeva, R.R., & Abuzalova, M.Q. (2019). *Milliy Qadriyatlarni Ifodalovchi Ayrim Nomlar. Zamonavij filologija tarakkijotida innovacijalarning roli.* Halkaro ilmij konferencijasi. 15-17 nojabr` 2019.

9. Sayfullaeva, R., & Abuzalova, M.K. (2020). Structural generality of Uzbek language clauses. *International Journal of Psychosocial Rehabilitation*, Vol. 24, Issue 06, 2020. ISSN: 1475-7192, pp. 3011-3015

10. Sadullaeva, N.A., Mamatova, F.B., & Sayfullaeva, R. (2020). Classification of Euphemism and its formation in the Uzbek language. *Journal of Critical Reviews*, ISSN-2394-5125 Vol 7, Issue 4, 2020, pp. 426-430.

11. Shahabitdinova, Sh., Sayfullaeva, R., & Sadullaeva, N. (2020). General Philosophical issues of language research. ISSN- 2394-5125 Vol 7, Issue 9, 2020, pp. 226-231.