

THE APPLICATION OF ELECTRONIC MULTIMEDIA RESOURCES FOR STUDENTS IN PHYSICS LEARNING

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Abstract. The main task of this paper is study the problem of organizing the educational process or to establish electronic online communication between student and teacher, to include in the site teaching materials for teachers, to provide students with this to work on data and to use other distance learning services. Multimedia tools are a set of hardware and software that allows a person to communicate with a computer using a variety of environments that are natural to him: sound, video, graphics, text, animation, and more.

Key words: teaching technologies, interdisciplinary, educational disciplines, learning problems, graphics, animation, video, and audio.

Применение электронных мультимедийных ресурсов для студентов в изучении физики

Аннотация. Мультимедийные средства представляют собой набор аппаратных и программных средств, позволяющих человеку общаться с компьютером, используя различные естественные для него среды: звук, видео, графику, текст, анимацию и другое. Основной задачей данной работы является исследование проблемы организации учебного процесса и наладить электронную онлайн-коммуникацию между учеником и учителем, включить на сайт учебно-методические материалы для учителей, предоставить учащимся возможность работать с данными и использовать другие дистанционные средства.

Ключевые слова: технологии обучения, междисциплинарность, учебные дисциплины, задачи обучения, графика, анимация, видео, аудио.

Fizika fanindan talabalar uchun elektron multimedia resurslarni qo'llash

Abstract. Ushbu ishning asosiy vazifasi o'quv jarayonini tashkil etish muammosini o'rganish yoki talaba va o'qituvchi o'rtasida elektron on-layn aloqa o'rnatish, o'qituvchilar uchun o'quv materiallarini saytga kiritish, talabalarga ma'lumotlar ustida ishlash va boshqa ta'lim xizmatlari foydalanishni ta'minlashdan iborat o'rganishdan iborat. Multimedia vositalari - bu talabaning kompyuter bilan o'zi uchun tabiiy bo'lgan turli xil muhitlar: ovoz, video, grafik, matn, animatsiya va boshqalardan foydalangan holda muloqot qilish imkonini beradigan apparat va dasturiy ta'minot majmuasidir.

Kalit so'zlar: o'qitish texnologiyalari, o'quv fanlari, o'quv muammolari, grafika, animatsiya, video va audio.

Introduction

Today, along with educating students, one of the most important tasks is to direct them to their future careers. With the transition of secondary schools to 11-year education, students were involved in one-on-one vocational training one day a week after graduation to pursue a career or pursue a career of their choice. However, due to the limited number of professions taught in such institutions, lack of material base, human resources, and incompatibility of existing professions with the wishes of all students and many other reasons, additional vocational education in grades 10-11 was suspended. According to the results of the science of psychology, students' aptitudes related to a science or profession develops from an early age. Timely detection and development is one of the important tasks of the school. In fulfilling this task, the use of the opportunities of educational sciences is very effective. Modern technologies are being installed in them. Large-scale construction is underway across the country. These enterprises need highly qualified workers, engineers and technologists to work with new technologies. For example, in the physics course there are topics related to technological processes used in various fields (mechanical, thermal, electrical treatment of metals, changes in their properties under the influence of high pressure and radiation, etc.). In the study of these topics, career guidance work can be successfully carried out by demonstrating their application in everyday life and in industry and agriculture. It is especially important to do this in grades 10-11. *The following should be taken into account when conducting career guidance in the teaching of physics:*

1. Strengthening the practical nature of the teaching of physics in connection with industry, agriculture, medicine, culture, household services.
2. To show the influence of physics on the development of industrial science and technology.
3. To show the importance of interdisciplinary links, especially in the creation of new technologies through the interaction of sciences such as physics-chemistry, physics-biology.
4. Pay attention to environmental issues in the creation of new technologies. To give an idea about waste-free technologies.

In view of the above, the teacher should also include the following points in the planning of his topic:

- To acquaint students with the professions related to the topic in the study of the program material.
- Exploring and developing students' interests and inclinations in the classroom.

- Involve students in the practical nature of science in the laboratory and practical classes.

In grades 10-11, there are certain problems in performing the above task. Because physics is an experimental science, every physical phenomenon is represented on the basis of experiments. Nowadays, there are difficulties in providing experimental demonstrations and laboratory equipment.

Therefore, it is not possible to directly show the processes and events related to all topics. Such equipment consumes a lot of energy in terms of volume, does not have the ability to use it, and so on. Some processes go very fast, some go in the micro world. Therefore, it is advisable to convey them to students through computer technology. Nowadays, teachers try to make lessons fun on the computer through slides, simple animations. But they are all displayed on the same plane. In this case, the process or industrial technology is not fully represented, so the imagination is not complete.

Video and audio conferencing is a way of organizing education using the Internet and other telecommunications channels to connect two, distant audiences to each other through telecommunications technology. However, for video and audio conferencing, it will be necessary to involve a large amount of specialized equipment, a high-speed communication channel, and service professionals to organize the training. Independent learning through the Internet is a way to work independently and gain new knowledge on a large amount of information available on many Internet sites. E-learning is a way to learn by using the most popular Internet services, communicating between students and teachers through letters. With it, we can send and receive various tests, assignments, questions and answers (in text, graphics, multimedia, programs and other forms).

Remote control systems are a way to acquire knowledge using special systems that allow you to control and operate complex software, systems and equipment in real time. The main function of remote control systems is to provide the student with only practical knowledge. Stimulants, e-textbooks and curricula are mainly ways to transfer theoretical and practical knowledge to students online through computer programs.

Stimulants and e-textbooks are now widely used in education. Testing systems are used to check and evaluate students' practical and theoretical knowledge using special programs. Internet distance learning portal is a special Internet sites (online resources). The main task of these sites is to organize the educational process or to

establish electronic online communication between student and teacher, to include in the site teaching materials for teachers, to provide students with this to work on data and to use other distance learning services. Multimedia tools are a set of hardware and software that allows a person to communicate with a computer using a variety of environments that are natural to him: sound, video, graphics, text, animation, and more.

Conclusion

In conclusion, the prepared electronic resource includes the main text, glossary, lesson plan, film, animation, interactive laboratory work and control materials for independent testing of students' knowledge, which automatically assesses the student's knowledge. This allows teachers to increase the effectiveness of their lessons through the effective use of pedagogical and digital technologies. Career-oriented work is carried out by showing students the application of topics in everyday life and their application in industry and technics.

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