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Use of Information Education in Improving Competence of Information Teachers Information Technologies

Kadirov T, Kadirov@gmail.com, (1)

Samarkand Regional Training and Retraining Center, Uzbekistan

SettingsAminov I.B, aminov@gmail.com, (0)

Samarkand Regional Training and Retraining Center, Uzbekistan

⁽¹⁾ Corresponding author

Abstract

This article discusses the purpose of public education reforms in the country, the conditions that enable teachers of specific sciences to enhance the competence of information technology.

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Introduction

Nowadays, as in all areas of training, special attention is paid to the efficient use of modern computer and information technologies, and the ways of its development and enhancement are becoming more and more popular. This is an important basis for improving the competence of teachers' information technology to educate, educate and educate gifted, independent, self-confident students.

To date, a new system of modern educational technologies has been created in the country. One of the most important issues is the availability of computer, information and computer technology is developing.

Main part

This will help to link the disciplines in the course of the lesson, to better understand the subject and to master it.

The following information and communication capabilities are important for defining a modern teacher's readiness to work in the information environment:

Retraining is to carry out professional tasks using modern means and methods of informatization using information and communication technologies;

Already formed personal qualities, reflecting the level of readiness to use information and communication technologies in professional activities;

□ Ability to create subject-specific knowledge and skills that can effectively assess the situation and make effective decisions in the pedagogical activity using information and communication technologies.

Any innovation, design and production line of science cannot be done without complicated mathematical calculations. In order to facilitate such calculations many modern and universal integrated systems, ie applications packages are being created.

Analyses

The importance of software development for teachers of the exact sciences is to increase the practical level of information technology competence of teachers by using the software package in conjunction with practical and systematic programs.

The concept of creating a new generation of educational and methodical literature, in addition to the use of traditional materials, involves the development and implementation of the following electronic educational and methodological materials:

□ electronic directories;

□ Electronic textbooks;

□ Electronic diaries;

□ Electronic encyclopedias, etc.

Information education means justification of the development of new software products in the field of teaching of specific subjects, use of specific software products. There is now a great deal of computer software required for the manufacture of various electronic devices in the teaching of exact sciences. The tools for training include information and educational tools.

Information education tools include:

□ Training programs;

□ educational and training programs;

□ test programs;

Software for creating e-learning materials, reference systems, etc.

1. One of the most important issues in using information and communication tools is the practical skills that a computer teacher can acquire in this area.
2. Achieving the competence of teachers to use information tools in their learning activities depends on how well they respond to different requirements and can be divided into three major groups:

- didactic requirements;
- psychophysiological requirements;
- technical requirements.

The principal difference between the new information environment and the traditional one is that it is a small technological system. After all, any educational institution undergoes radical changes in the integration of information and communication technologies into the educational process, in all other didactic, organizational, economic, theoretical and methodological subsystems of education.

Specific science teachers will need to interact with them more effectively in organizing classes to build skills for using information-learning tools. The organization of lessons by the use of information technology for the teachers of exact sciences, on the one hand, improves the quality and effectiveness of the lessons, and on the other, gives teachers the knowledge and skills needed to develop information technology competencies.

As we know, specific sciences play a special role in the formation of students' knowledge, worldview, imagination. Because the exact sciences are widely used in the study of many other subjects, the acquisition of new techniques and technologies, and the media.

Currently, teachers need to improve the competence of information technology to enable them to better master and master the learning materials, to retain their content, to enhance their knowledge, and to enhance students' interest in the subject.

In fact, the teacher can easily organize his lesson using information tools such as the Word text editor used with the Windows operating system, Power Point, Internet, Excel and other special applications, multimedia tools.

In the education system, the use of modern information technology tools, especially in the teaching of specific subjects, is widely used, including the Excel program and the mathematical package Maple. These programs are different from other tools because of their versatility and ease of use.

Discussions

Excel provides classes in simple lessons such as complex calculations, calculating simple expression values, solving networking and repetitive processes, generating tables and graphs of functions, solving numerical and equation systems in numerical and graphical ways.

The use of Excel in teaching certain subjects in secondary schools provides interdisciplinary integration, on the other hand, enhancing the students' knowledge, activity and interest in learning and demonstration of the lesson.

The Maple environment offers ample opportunities for analytical replacement of mathematical formulas and expressions. These capabilities include simplification, reduction of expressions, multiplication, opening brackets, making rational fractions normal, and so on.

These Maple environments can be used extensively in teaching mathematics lessons in elementary schools. This will be an important factor in developing students' knowledge and skills in simplifying and reducing expressions in math lessons.

As we know, the learner receives more information than the visual perception and can see its meaning and its essence. This encourages teachers to look for ways and ways to convey information easily and quickly to the student's mind through a visual demonstration rather than verbalizing an item.

Results

The development of demonstrative electronic didactic developments in explaining elements of specific disciplines and their direct use in the learning process will result in increased educational efficiency, which is an important role in deep learning of science, expansion of world outlook, and expansion of space vision. Also, in mathematics and geometry classes visual and graphic representations of various functions in space, visualization of space objects, their arrangement, and spatial understanding of different parts of the plane and planes are important.

Another dimension of the convenience of information learning tools in teaching the exact sciences is modeling some learning situations. The purpose of using modeled programs is to ensure that materials that are difficult to visualize can be understood when using other teaching methods.

By modeling, data can be presented to students in the form of computer multimedia in graphical mode. As such, they tend to have a deeper understanding of certain subjects and a greater independence in the learning process.

Conclusion

The use of information education tools in teaching, organizing, and explaining new topics, while enhancing the competence of teachers in information technology, enhances the knowledge, skills and abilities of students to apply theoretical knowledge to practice.

In computer technology, the ability to perform texts, images, sounds, shapes, and the like, with the help of special programming, is much easier and faster. Therefore, the use of computer technology in teaching mathematics, physics, chemistry, biology and other disciplines is yielding positive results.

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