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Tools for Forming the Professional Competence of Future Teachers of Informatics

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A B S T R A C T

The article analyzes the process of forming professional competence, qualification requirements for specialists in modern informatics education, effective use of methods and tools aimed at forming their professional competence in the process of training informatics teachers. Theories of their application in universities of Uzbekistan in teaching computer science and their significance are analyzed.

A R T I C L E I N F O

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I. Introduction

Teaching and upbringing are the only tasks of pedagogical activity, which are the basis of the teacher's readiness for social life. This is achieved by teaching him and the teacher to assimilate all social experience. The social significance of pedagogical activity lies in the processing and transfer of knowledge and skills of society and the organization of the pedagogical process.

In recent years, there have been significant changes in the content of the professional activity of a computer science teacher, since in the new educational information environment, the requirements for professional skills and qualifications of specialists are growing. However, there is no rapid development to improve the professional skills and quality of teachers in education.

However, we can say that the topics are not yet related to new information technologies, in particular, they are not focused on modern technologies. Significant changes are required in the field of professional training of future teachers of informatics, their methodological contacts, with the exception of the introduction of mastered professions and innovative educational technologies. Addressing these issues will help improve the personality, professionalism and skills of future teachers.

Today in the field of education such issues as complex improvement, organization in accordance with modern requirements and high efficiency arise. The quality and effectiveness of training is determined only by trained personnel. Based on this, it is advisable to approach the production of cards based on modern requirements. The concept, study, place and importance of a competent approach is one of the most widely used terms in modern literature, covering issues such as education, recruiting, performance appraisals, academic success, career guidance, etc. Competence emerged in the 1970s years in many countries of Western Europe, where competence marked a new direction in vocational training. The term "competence" refers not only to the acquisition of individual, technical or experimental knowledge and skills, but also to a set of skills and abilities that can serve as a basis for the further development of an individual.

It is necessary to activate and enrich the educational activities of such intellectually formed individuals with such factors as spiritual and national values, legal, psychological knowledge, professional, social culture, self-government and assessment. One of the key factors in reforming the education system is the introduction of modern information technologies in the educational process.

II. Literature review

Theory and methods of implementation of information and communication technologies in education, use of information technology in the educational process, the problem of the use of distance learning technologies Scientists Republic: A. A. A. bduqodirov, M. H. Allambergenova, M M Aripov, U. Sh. Begimqulov, F I Zakirova, N A Muslimov, QT Olimov, RH Hamdamov, JA Hamidov, M. Soy lar; Mustaqil Davlatlar Hamdo`stligi davlatlari olimlari: O. V. Bolukh, RE Gerasimova, PD Volkov, V V Dovgan, I G Zakharova, A V Osin, E A Pervezeva, E. S. Polat, IV Robert.

The theoretical and practical aspects of the formation of an information educational environment and the creation of information and communication technologies were discussed by Russian scientists R.Kh. Dzhuraev, N.I. Tailakov, A.A. Abdukadirov, M.M. Aripov, O. Kh. Turakulov and others, scientists of the Commonwealth of Independent States E.G. Azimov, A. Bashmakov, I. Bashmakov, M. Bovtenko, A. Bogomolov., A. Garsov, E. Ilyasova, V. Krasilnikova, E. Polat, O. FOR EXAMPLE. Skibiski et al. Foreign scientists Lindsay B. Curtin, Laura A. Finn, Quinn A. Czosnowski, Craig B. Whitman, Michael J. And others.

Acquaintance with the content of theoretical sources, studying the practice and theory of preparing students for professional activity in higher educational institutions and an analytical analysis of the accumulated experience in the implementation of information and communication technologies in a higher educational institution. The relevance and incomplete pedagogical study shows. that it remains the source of a number of problems that need to be addressed.

III. Analysis

The information provided should be relevant to the content of the lesson, as well as tasks and assignments that give students the necessary knowledge, skills and abilities, determine the amount of information that students need to learn, should be presented in a certain logical system, comply with the principles of continuity and continuity, and finally , be able to respond to the principle of structure. It is also desirable that the information corresponds to the level of training of the students. Modern information technology tools include: computer, scanner, video camera, LCD projector, interactive whiteboard, fax modem, floor data, data mining, telephone, email, multimedia, Internet and intranet, mobile communication systems, database management data. systems, artificial intelligence systems. The teaching methods are multifaceted. Therefore, there are many classifications of them. In these classifications, methods are grouped according to one or more characteristics.

1. Traditional classification. The source of knowledge is taken as a common feature.

- Practical: experiment, exercise, independent work, laboratory work.
- Demonstration: illustration, observation.
- Oral: explanation, story, conversation, lecture.
- Working with the book: Reading, Quick Review, Quote, Narration, Retelling, Summary.
- -Video method: preview, exercise.

2. Currently, there are three main groups of teaching methods:

- methods of organizing and conducting educational activities;
- Methods of control and self-control of educational activities;
- methods of stimulating and motivating learning activities;

It is known that the main task of the subject "Informatics and Information Technologies" is to acquaint students with some general ideas about modern information technologies, the practical application of

information technologies and the role of computers in modern life. However, taking into account the didactic principles, it is necessary not only to provide students with a solid scientific explanation of the facts, but also to use various interesting teaching methods. Today one of the main goals is to teach students to think for themselves. The solution to this problem depends largely on the use of interactive teaching methods. First of all, let's define the concept of "interactive". The word "interactive" comes from the English word "interact". Inter means mutual, to act means to work, to work. Such techniques are designed to reach everyone in the audience and require collaboration. The essence of interactive learning is to organize the learning process in such a way that all students are involved in the learning process and have the opportunity to think freely, analyze and think logically. In addition to purely educational purposes, the following aspects are important for organizers of interactive learning:

- to understand the abilities of others in the process of interaction of students in a group;
- the need for interaction with other people and the need for their help;
- Development of competitive mood among students.

Therefore, using interactive methods, you should implement two main functions necessary for successful work in study groups:

- a condition for solving a learning problem with a pragmatic aspect of learning;
- Solving educational issues (helping team members in the process of joint work, the formation of behavioral norms).

An example of an interactive method is the Insert method. This method is designed to work with new text and includes:

1. Read the text with a pen in hand.

2. While reading, make special notes in the text:

+ I know that;

- I did not know that;

? I wanted to know this perfectly;

3. After reading the text, the following table is filled in: Insert technology table

I know it	I did not know that	I wanted to know it perfectly
+	-	?

Students of the group are divided into 2 groups and one excellent student is selected as an expert. It is located as follows

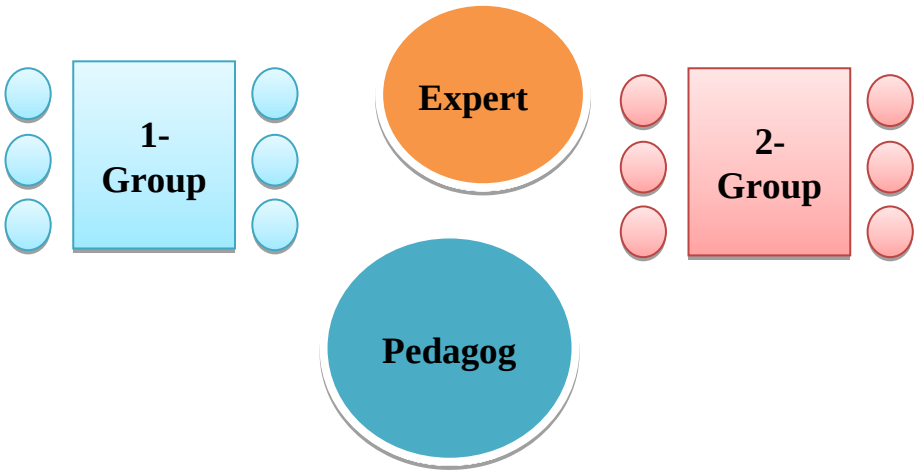


Figure 1. Placing groups using the INSERT method

TECHNOLOGICAL TRAINING CARD

Stages and terms of work	Activity content	
	Educator	Pupils
1. Introductory stage of the topic (20 minutes)	1.1. Speaks the title of the topic, outline of the topic, purpose and demonstrates this on a slide. 1.2. Introduces keywords and phrases related to the topic; list of references for independent work. 1.3. Explain the methods and tools used during the lesson and the assessment criteria.	They listen, they record. Clarify, ask questions
2. Basic phase (50 minutes)	2.1. Explains the main theoretical aspects of the topic with presentation and interpretation of slides using Power Point 2.2. To reinforce the topic, the groups compose a two-part diary. 2.3. Describe the procedure for organizing the educational process in accordance with the plan and structure of the report. 2.4 The teacher, together with the students, reinforces and completes the topic using the Why diagram. 2.5 Using a brainstorming method, a new topic is reinforced.	They listen, write. Answers the questions asked. They work in groups. Fills tables in the application
3. Final stage (10 minutes)	3.1. Answers students' questions on the topic, makes a final conclusion. 3.2. The student's grade is announced according to the assessment criteria. 3.2. Gives an assignment for independent work: Table "Summary".	Asking questions. Writes a task.

IV. Discussion

As a result of using the above methods and recommendations in computer science classes, this serves to improve the indicators of the development of technical creativity, the content and quality of education.

The essence of the educational process consists of three interrelated factors - training, upbringing and development. A large body of literature on this topic has been analyzed. The views and research of scientists have been studied. The methods and tools recommended by them were analyzed. Based on this, based on the topic and purpose of the lesson, the lesson organizer was organized to be effective and acceptable to the listener.

CONCLUSION

Analysis of current sources showed that in the context of informatization, mobilization and integration of education, innovative electronic information from future teachers is innovative forms, methods and tools of teaching in the educational environment, interaction with students. Requires constant search and search for effective ways. be in touch.

The data on the use of ICT resources, teaching materials and teaching aids related to computer science in the development of students' creative abilities are analyzed.

The literature on the use of innovative technologies to improve the professional competence and effectiveness of future teachers of informatics is analyzed.

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