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USE OF INFORMATION TECHNOLOGY IN THE FIELD OF EDUCATION AND CULTURE TO MAINTAIN THE QUALITY OF EDUCATION IN A MODERN SOCIETY

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Abstract:

This article analyzes professional competence, qualification requirements for modern specialists, effective use of methods and tools aimed at forming their professional competence in the process of training informatics and information technology teachers.

Keywords: Competence, professional competence, modern specialist, Insert method, traditional lesson, professional training, professional activity.

Introduction

Today, education is being improved in every way, it is being organized based on the requirements of the times and it is being highly effective. The quality and effectiveness of education is determined only by trained personnel. Based on this, it is appropriate to approach the preparation of cards based on modern requirements. The concept, study, place and importance of competent approach. The expression of competence is a term widely used in modern literature and covers issues such as education, personnel selection, performance evaluation, educational success, professional orientation, and so on. Today, in terms of meaning, it is considered not to be fully clarified. Appeared in many Western European countries in the 1970s, the competency became a new direction of professional training.

The term "competence" refers to the set of abilities and skills that education is not only related to the acquisition of individual, technical or experiential knowledge and skills, but also serves as a basis for the further development of an individual. But this idea was expressed differently in all European countries. For example, in Germany, since the 1980s, the expression "competence in professional activity" has expressed the goal that must be achieved during initial professional training. This course of study was interrelated, technical complex and general knowledge summation, which would enable the graduate to continue working in various workplaces. This general qualification cannot remain unchanged, it must develop, because the demands and conditions of the world of work are also changing due to the interests of the individual and society.[1]

The problems of training teachers and specialists in higher education institutions are covered in a number of literatures by our republic and foreign specialists. The issues of formation of a

future teacher and specialist in the process of higher education were studied in the researches of M.A. Abdullajonova, O.A. Abdulina, A.A. Akbarov, K. A. Abdurakhmanova, S. V. Safonova, N. A. Muslimov. Pedagogical scientists who researched the professional skills of the teacher

H. Abdukarimov, N. Azizkho'jaeva, A. Aliev, Yu.A. Akhrorov, A.A. Verbitsky, R.H. Jo'raev, B.R. Jo'raeva, J.G'. Yoldoshev, S.M. Markova, G.M. Makhmutova, A.A. Hamidov , researched in the works of F.R. Yuzlikaev.

Competence is the ability to do something effectively, the ability to perform according to the standards used in a certain profession.

There are the following types of competence:

1. Behavioral (behavioral) competence is understood as the competence that characterizes the individuality of a person during the performance of his professional duties. 2. Technical (professional) competence is understood as the competence that is directly related to the results of work, the standards of performance of professional obligations.

3. General competence is the competence that characterizes all people engaged in a certain profession.

4. Special competence - the competence necessary for effective performance of specific professional obligations is understood.

5. Basic competence - the basis, basic competences necessary for the worker to perform the assigned professional tasks are understood.

6. Executive competence is the competence that determines the quality of the achieved result.

7. Differential competence is a competence that helps to differentiate effective performers at one or another level.

Use of educational methods and tools aimed at the formation of competence in the process of teaching informatics and information technologies.

When developing his model based on the requirements for a pedagogue, the following conditions specified in the State Educational Standards of higher education were taken as a basis [10]:

- pedagogue's fields of activity: education; management.
- types of activities of the pedagogue: training; methodical; educational; organizational; scientific (leadership); work with personnel; entrepreneurship; expertise etc.
- educational establishments: pre-school education; general secondary education; secondary special, vocational education; higher education; post-secondary education; extracurricular education; educational authorities. The content of the requirements for the teacher's personality was based and a description was given for each of them.

The provided information should be in accordance with the content of the subject of the training, and should consist of assignments and tasks that ensure the formation of necessary skills and qualifications in students, determine the volume of information that students should master, and be presented in a certain logical system. , it is necessary to comply with the

principles of coherence and continuity, finally, to be able to respond to the principle of systematicity. Also, it is considered desirable that the information corresponds to the level of preparation of students.

Modern information technology tools include: computer, scanner, video camera, LCD projector, interactive whiteboard, fax modem, telephone, e-mail, multimedia tools, Internet and Intranet networks, mobile communication systems, database management systems, artificial intelligence. systems can be included.

Teaching methods are versatile. For this reason, there are many classifications of them.

In these classifications, methods are grouped by one or more characters.

1. Traditional classification. A source of knowledge is taken as a common sign.

-Practical: Experience, Exercises, Independent work, Laboratory work.

-Visual: Illustration, Observation.

-Oral: Explanation, Storytelling, Conversation, Lecture.

- Working with the book: Reading, Quick Review, Quoting, Narrating, Paraphrasing, Synopsis.

- Video method: Review, Practice.

2. Currently, three large groups of teaching methods are distinguished:

- methods of organizing and implementing learning activities;

- methods of control and self-control of educational activities;

- methods of stimulation and motivation of educational activities;

It is known that the main task of the educational subject "Informatics and information technologies" is to introduce students to some general ideas of modern information technologies, to reveal the practical application of information technologies and the role of computers in modern life. But, taking into account the didactic principles, it is necessary not only to give students a strict scientific statement of facts, but also to use various interesting methods of teaching.

Today, one of the main goals is to educate students to think independently. The solution to this problem largely depends on the use of interactive teaching methods. First of all, let's clarify the concept of "interactive". The word "interactive" comes from the English word "interact". "Inter" means mutual, "act" means to work. Such methods are aimed at involving everyone in the audience, requiring collaborative work. The essence of interactive teaching is to organize the educational process in such a way that all students are involved in the learning process and have opportunities for free thinking, analysis and logical reasoning.

For the organizers of training using the interactive method, in addition to purely educational goals, the following aspects are important:

- in the process of mutual communication of students in the group, to understand the abilities of others; - the formation of the need to interact with others and need their help;

- development of competition and competitive moods in students.

Therefore, in teaching groups using interactive methods

Two main functions must be performed for successful operation:

- the necessity of solving the educational problem with the pragmatic aspect of teaching;

- solving educational issues (supporting group members during cooperative work, forming behavioral norms).

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

1. Reading the text by hand with a pencil.
2. Putting special symbols in the text during reading:

+ I know that;
- I didn't know that;
? I wanted to know it perfectly;

3. After a thorough reading of the text, the following table is filled in: Table of Insert technology

I knew that I didn't know that I want to know perfectly
+ — ?

Development of a lesson on database science based on the working curriculum. Topic: Creating queries in Microsoft Access.

Training time - 2 hours Number of students: 15 Training form Informative lecture

Lecture plan l. Creating questions and its importance.
2. Create simple queries.
3.Query Constructor.

The purpose of the training session: to give students an understanding of creating queries in Microsoft Access, its importance, using the Query Builder, managing data using queries,

Pedagogical tasks: - Giving an understanding of requests; - Showing the stages of creating requests and its possibilities; - Formation of students' knowledge about the ability of Microsoft Access to work with queries. Learning outcomes: - Can tell about inquiries; - Can reveal the stages of creation of requests and its possibilities; - Can explain the process of creating queries using Microsoft Access.

The students of the group are divided into 2 groups and one excellent student is selected for export.

It is located as follows

Stages and timing of the activity Content of the activity Training learners

1. Introduction to the topic (20 minutes) 1.1. He tells the name of the topic, the plan of the topic, the purpose and shows it through a slide. 1.2. Introduces key words and phrases related to the topic; gives a list of literature for independent work. 1.3. They introduce the methods and tools used during the lesson, evaluation criteria. They listen and record. They clarify, ask questions

2. The main stage (50 minutes) 2.1. Explains the main theoretical aspects of the topic by showing and explaining slides using Power Point software 2.2. To reinforce the learned topic, groups complete the "Two-Part Diary" chart

2.3 They describe the procedure for organizing the educational process in accordance with the plan and structure of the lecture. 2.4 Together with students, the teacher reinforces the topic

using the "Why" scheme. is filled. 2.5 They listen and write using the "Brainstorming" method. Answers the given questions. They work in groups. They fill in the tables in the application

3. The final stage (10 minutes) 3.1. Answers students' questions on the topic, makes a final conclusion. 3.2. They announce the student's grade according to the evaluation criteria. 3.2. Gives a task for independent work: "Resume" table Gives questions. Writes down the task.

The essence of the educational process is made up of three interconnected factors - teaching, upbringing and development. A lot of literature on the topic was analyzed. The views and researches of scientists were studied. The methods and tools they recommended were analyzed. Based on this, based on the topic and purpose of the training, it was established that the training was effective and acceptable for the listener's learning.

In conclusion, focusing on the process of covering each subject and subject, first of all, on the formation of high-level knowledge and professional competence of students, will help them to become high-potential and competitive personnel in the future.

The concept of modernization of education in Uzbekistan from 2021, as one of the main conditions for improving the quality of general education, determines the transfer of a part of general education schools to specialized education. The President's decision "On measures to improve the quality of education and scientific research in the field of physics" (March 19, 2021, PQ-5032) was adopted. The decree approved a comprehensive program of measures to improve the quality of education in physics and ensure the effectiveness of scientific research in the field of physics in 2021-2023. One of the main tasks of the Complex program is the training, retraining and improvement of their qualifications, system development in the field of physics. In 2021-2022, 28 specialized basic schools for in-depth teaching of physics will be established in the republic's territories, and departments of higher educational institutions will be attached to them. Also, in 2021-2023, 175 schools will organize in-depth physics classes[3].

Information technology is a process that uses a combination of tools and methods of data collection, processing and transmission to obtain new quality information about the state of an object, process or event. It is a remote data transfer based on telecommunication-computer networks and modern technical means of communication.

Modern information technology relies on advances in computer technology and communication tools. Currently, the rapid development of computer equipment and information technologies will stimulate the development of the information society aimed at the effective use of various information. most workers in this society are busy with the development, storage, processing and implementation of information, its highest form of knowledge. The process of computerization in the information society allows people to use reliable information sources, to ensure a high level of automation of information processing in production and social spheres. In this society, not only production, but also the entire lifestyle and value system will change. Compared to the industrial society, which is focused on the production and consumption of total activity products, thinking, knowledge is produced and consumed in the information society, which leads to an increase in the share of intellectual labor. The material and technological basis of this society is made up of various systems based on computer equipment and

computer networks, information technologies, and telecommunications. Currently, some work is being done in our Republic on the development of educational materials. Leading specialists are involved in this, and educational materials are being created according to educational directions.

As you can see from the drawing above, the first stage of preparation of presentation materials is the formation of an idea about the material to be prepared. That is, the creator has several ideas about who the material is intended for and what it should look like. In the second stage, the necessary information on the material is collected. This information should be relevant and targeted. Otherwise, it will lead to the collection of unnecessary and useless information and waste of time. The third stage is the planning stage, where materials are sorted and placed in a logical sequence. In the fourth stage, the text for the slide is selected from among the selected materials. It is not advisable to have too much text on the slides. Texts are selected in abbreviated form. Texts on one slide should not exceed 7-8 lines. The teacher explains abbreviated texts in the course of the lesson, completing them orally. At the stage of design selection, the font of the text, additional images, drawings, graphics and colors are selected. After that, in the sixth step, all selected materials are animated. Animation has the ability to move text and images, give voice to it. The use of animation makes the material more lively and interesting. This, in turn, helps the learner retain the material in their memory for a long time and increases their motivation.

Today, the term "design" is widely used in pedagogical literature and practice.

It is connected with the development of specific lessons, individual subjects, integrated educational subjects, educational activities or complexes of subjects and helps to develop technological pedagogical objects, including pedagogical processes.

Based on the designed pedagogical processes, there are ideas that gradually lead to a positive result based on the laws of formation of professional qualities of a person.

Today, problem teaching, step-by-step formation of mental activities, computer technology of education, modular education technology, etc. are widely used and they are the basis for designing the pedagogical process.

In today's rapidly developing era, techniques and technologies are rapidly becoming obsolete.

On the basis of comparison with production, it can be said that during the professional activity of a pedagogue, educational technologies are replaced by 2-3.

For example: until recently, a personal computer was one of the rarest means of education, and not all teachers could deal with it. Today, computer technology is widespread in education. It should be done in a way suitable for students and in accordance with the curriculum.

In short, pedagogical design is related to the development of effective activities of pedagogues and students. With the help of carefully designed pedagogical processes, technologies and other objects, the pedagogue achieves the development of the student's personality and self, reduces the impact of various negative factors.

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