Abstract: This study investigates the role of technological education in cultivating students’ knowledge, skills, and personal qualities for future professions. Emphasis is placed on teachers’ crucial role in imparting information acquisition competence to align educational content with evolving societal demands. The research methodology involves analyzing current technology education practices in general secondary schools. Results underscore the challenges faced and motivations for technology education reform. Additionally, the study reveals key elements essential for the professional growth of technology education teachers. Overall, the findings highlight the critical role of these educators in shaping an informed and skilled workforce for the demands of the modern era.

Keywords: technology, information, competence, motivation
Introduction

Technological education is a process of mental and physical activities performed by students under the guidance of a teacher, and as a result, their knowledge about work tools, tools and processes, as well as practical skills necessary to perform production work in a certain field (Blanch, 2020; Cascio, 2022; Nes, 2021; Rodrigues, 2021; Tsybulsky, 2021). It is an educational subject aimed at developing personal qualities and thinking that allow them to acquire skills and qualifications, consciously choose a profession, and participate in labor activities for the welfare of society and the individual (Chavoshi, 2019; Hernandez-de-Menendez, 2019; Klein, 2019; Linton, 2021; López-Quintero, 2019; Peters, 2019; Wu, 2021).

The purpose of teaching technology education in general secondary schools is to introduce students to mental and physical labor types, processes, and professions, to form their initial labor skills and qualifications, interest in labor and diligence, to prepare them for labor and professions (Chai, 2019; Lakhal, 2021; Perera-Rodríguez, 2019; Pernaa, 2020; van der Rijst, 2019). It consists in carrying out their pre-vocational training by teaching them to understand their importance and preparing them for choosing a profession, and forming a personal quality and mindset that allows them to participate in labor activities for the well-being of society and individuals (Al-araibi, 2019; Bayhan, 2020; da Motta Reis, 2020; Hallström, 2022; Nicolaou, 2021).

Methodology

To achieve this goal, it is necessary to perform the following educational and developmental tasks:

The training sessions organized in the school on technology education include the following tasks:

1. to teach basic information related to the content of various production areas, to be able to use measurement and inspection devices, information sources, to perform work practices, to draw conclusions by comparing the achieved work results with the established requirements;

2. to provide knowledge about the techniques and technologies used in various spheres of the national economy, to enable them to become more familiar with various spheres of human activity through practical work;

3. work with mechanized and electrified tools, technological knowledge and skills, the basics of labor law, safety equipment, sanitary and hygiene rules;

4. to teach students the means of producing high-quality, competitive consumer goods, labor products and delivering the produced products to consumers based on the requirements of the laws of the market economy, forming and developing work management (managerial) elements, patronage, business qualities;
5. to inculcate in students the desire for knowledge and love for work, respect for working people, to educate them in the spirit of community and loyalty to the Motherland;

6. to restore and develop the national spirit, way of life and traditions of the people by teaching folk crafts. To teach national values, historical monuments, the rich heritage of folk masters, to strengthen the skills of using them in their practical activities;

7. to ensure that they study the fields of application of new production and information technologies, new techniques and equipment at the level of modern requirements and in accordance with world experiences;

8. teaching the use of tools, equipment, devices used in professional activities related to various fields.

**Result and Discussion**

In the process of technology education, physical activity combines with mental activity. Pupils will have to solve a number of creative tasks such as design of objects, development of technology for their preparation. Thus, labor education is carried out together with thinking activities, which allows students' mental development.

In the process of technology education, conditions are created for aesthetic education. If students make beautiful things, they will get spiritual satisfaction and aesthetic pleasure from benefiting the society. In this way, artistic taste is cultivated in them, correct ideas about the harmony of forms are formed.

Today, in solving its scientific, theoretical and practical, material-technical, social-pedagogical problems, in reforming its traditional content, the following imbalances and contradictions are evident:

a. the disproportion between the changes taking place in the social, economic, political and spiritual spheres, and the collective provision of labor education carried out in general secondary education schools at the level of scientific-methodological, pedagogical and material-technical requirements of the perspective;

b. −scientific and technical circles, advanced production technologies, new forms and content of modern economy and business management are not sufficiently reflected in the means and methods of labor education;

c. disproportion of professional qualification levels of pedagogues being trained in higher pedagogical educational institutions with promising directions of labor education not implemented in general secondary schools.

The shortcomings and contradictions mentioned above are the main reasons for the need to fundamentally update and reform technology education.

Therefore, a teacher of technology education is a person who provides information on new techniques and technology to students of general secondary schools. He should be
knowledgeable in all aspects, talented in his profession. For this, he should acquire in-depth knowledge of general professional subjects in higher pedagogical educational institutions and be able to apply them in his work.

In the introduction of the updated education system, it is an important requirement of today that every future teacher should have the skills to form professional competence related to his subject and the education of the mature generation and to use them consistently in pedagogical activity.

The teacher’s professional competence is characterized by the process of adopting pedagogical solutions. This especially increases the relevance of the problem of developing pedagogues to be able to see the problems that arise in the educational process, to independently set specific pedagogical goals and issues, to find their solutions, to analyze, to evaluate the obtained results.

First, let's talk about the concepts of "competence" and "competence".

The concept of "competence" (derived from the Latin word competenlia, compete - means "to achieve together, to win, to match, to match") in the dictionaries is "about something to have knowledge that allows thinking", means "to be aware, to be entitled".

"Competent" means that a person is recognized as an expert in a certain matter in his work, is informed, has authority, has full rights, has authority in circles, and is capable. In practice, all dictionary compilers demarcate the categories "competence" and "competence". The definition of competence is similar and replaces (complements) each other, while at the same time there is no single interpretation of the word competence, this concept is "a set of powers (rights and obligations) of some body or of an official, this body or other circumstances established by law, regulations", "to have (possess) knowledge that allows one to think about something", "questions about which someone is well informed collection (area)" is understood. Pedagogical competence can also be defined as follows: "a set of issues and phenomena such as authority, perception, experience as a person with pedagogical skills; scope of competences, questions, events, the field in which it is necessary to conduct something", "personal capabilities of the pedagogue" his qualification (knowledge, experience), which ensures participation in the development of decisions in a certain area, or certain knowledge is acquired in exchange for the presence of studies it is understood that it solves 3. Also, the concepts of "competence" and "competence" appear in scientific literature.

Competence is an individual description (indicator) of the level of compliance with professional requirements (A.K. Markova).

Competence is an appropriate type of thinking, which requires a system of concepts and understanding, the ability to carry out practical activities, to quickly solve emerging problems and tasks (Milovanova N.G., Prudayeva V.N.).

Competence is a set of interrelated qualities of a person (knowledge, skills, studies, methods of activity), given for necessary qualitative productivity activities in relation to subjects and processes in a certain area (Khutorsky A.V.).
Competence is one's own opinion about the competence of a person or the opinion of others, but this does not mean that it is reflected in their rights in certain life situations.

Competence - "authority, full rights".

Competence is a requirement for the educational training of a specialist necessary for quality productive activity in a certain field.

Competence is the acquisition of competences related to the subject of activity by a person.

The formula of competence according to the definition of M.A. Choshanov:

Competence is expressed by the student's acquisition of knowledge, skills and abilities necessary for the implementation of personal and socially significant professional activities and their ability to apply them in professional activities. In this place, the essence of the concept of "competence" is fully revealed, it is manifested in the following two forms: competence as a set of personal qualities of students and as basic requirements of the professional field. for all disciplines), interdisciplinary (for a set of disciplines) and subject (for a specific discipline), as it is grouped, it is possible to recognize the following three levels of competence:

1. Basic competence (according to the humanitarian, socio-economic content of education);
2. Interdisciplinary competence (according to the specific framework of educational subjects and educational blocks of general professional training);
3. Competence in one subject (subject) (according to having a clear and certain opportunity within a special academic subject).

Basic competence is determined at the level of educational blocks and academic subjects for each stage of education in pedagogical higher education institutions. In determining the order of basic competence, the essence of social and personal experience, in accordance with the main goals of professional pedagogical education, becomes vital in the process of organizing professional activity in social society. From this point of view, basic competence is divided into the following types: integral - meaningful, social - cultural, educational - knowledge, information acquisition, communicative, social activity, self-improvement of the individual.

The teacher's information acquisition competence is one of the basic competencies and is a necessary link in his professional activity. It is known that independent search, analysis, selection of information by means of real objects (television, television, tape recorder, telephone, fax, computer, printer, modem) and information technologies (audio and video recording, e-mail, mass media, Internet) skills such as acquisition, processing, storage and transmission are formed. This competence ensures the future teacher's skills in the field of study and education, as well as in relation to information in the surrounding world. At the same time, the scope of the teacher's professional competences is quite wide.
The pedagogue's competence in obtaining information is reflected in the presence of a complex of knowledge, skills, competences and reflexive instructions in interaction with the information environment.

Information acquisition competence is a professionally significant integrative quality of a person, which is characterized by the level of mastering a set of competencies necessary for correctly obtaining the goal and functioning in the information world.

Motivations for the development of information acquisition competence of future labor education teachers.

An important factor for improving the educational process is closely related to the formation of professional competence of labor education teachers at a high level in the higher education system. This process creates the need to implement certain changes in the creation of the technology of substantiating the content of the training of the teacher of labor education and the formation of professional competence.

Currently, the curriculum of technology education includes "Informatics and information technology", "Internet system", "Fundamentals of mechanization and automation", "Electrical engineering and radio engineering", introducing students to the fields of application of information and computer technologies. subjects included.

Practice shows that despite the wide development of information and computer technologies, the necessary theoretical and practical, scientific-methodical foundations for use in the process of training future labor education teachers have not been sufficiently developed. There are the following two directions of using computer technologies in the educational process of labor education in higher educational institutions.

In the first direction, the acquisition of knowledge, skills and abilities leads to the knowledge of computer capabilities and the formation of skills in their use in solving various problems.

In the second direction, computer technologies serve as an important means of increasing the effectiveness of the organization of the educational process.

The main issue of the use of information technologies in the educational process of technology education of higher educational institutions is to expand the intellectual capabilities of future labor education teachers. Currently, the very concept of teaching is changing, and mastering knowledge is giving way to the ability to use information and acquire it with the help of a computer.

In determining the forms and methods of using computers in the process of training future labor education teachers, it is necessary to take into account the use of computers to satisfy their need for information in creating a new technical solution and to develop effective ways of its implementation. Based on this, based on the analysis of the tasks of future labor education teachers in improving the use of information technologies, we determined the following main directions of using computers in this process:

Fundamental improvement of the quality of professional-pedagogical training of technology education teacher is directly related to its content. Scientific substantiation of
new approaches that ensure information acquisition competence in the training of teachers of technology education in higher educational institutions is an urgent task.

Information acquisition competence of teachers of technology education is an integral part of their professional competence and creates the ground for them to find their rightful place in the information society in the future.

Information acquisition competence of technology education teachers includes mastering the following experiences:

- experience of cognitive activities in the field of information technologies;
- experience of carrying out news activities in the field of his subject; (experience in solving methodical, project, model problems using information technologies);
- experience of creative activity in the field of career-oriented information technologies;
- the experience of forming a valuable attitude related to the use of information technologies in pedagogical activity.

The main elements of the process of formation of information acquisition competence of technology education teachers are as follows:

a. the ability to use information technologies to display publishing and graphic documents;
b. the ability to use information technologies to present audio and video materials in class;
c. the ability to create presentations;
d. the ability to systematize and process data using tables, technological maps;
e. the ability to create comparative tables and identify patterns using a computer;
f. the ability to use information technologies for modeling processes and objects, preparing drawings and sketches;
g. the ability to use computer testing;
h. the ability to use the Internet to solve pedagogical problems, collect information, participate in teleconferences, and refer to scientific, pedagogical and methodical information.

Pedagogical conditions for the development of information acquisition competence of bachelors in these fields of study are as follows:

a. to update the activity of obtaining information, which is a component of educational activities, at all stages of education;
b. involving the student in specially organized, developing educational activities related to receiving, storing, processing, and transmitting information;
c. ensuring the subjective position of the student in the information world of educational activities.

A technology education teacher with information acquisition competence has the following capabilities:

1. wide access to educational and scientific information;
2. computerization of the educational process;
3. systematization and generalization of information in various forms;
4. creating new information and using it in professional activity;
5. creating or updating new educational programs;
6. quick communication with colleagues.

Conclusion

Three levels of acquisition of information acquisition competencies are distinguished among technology education teachers:

1. at the basic level - basic knowledge, skills and competences are collected to acquire computer literacy, the use of information technologies in professional activities is at a minimum level, and the pedagogue is responsible for creating, editing, storing, transferring, transmitting information in electronic form. learns the rules, presents information in the form of a presentation, acquires the skills to search for information on the Internet.

2. at the technological level - information technology is the main tool of the pedagogue’s practical activity, he will have the ability to evaluate the potential of Internet resources, software tools and global network resources taking into account the basic technological, economic, ergonomic and technical requirements, will have the ability to introduce special resources and technologies into the educational process;

3. at the practical-professional level, a pedagogue can create new software tools, electronic educational resources, creatively approach information technologies in his professional activity.

References


