TECHNICAL THINKING AND ITS IMPACT ON SOCIETY

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Abstract: The article deals with the technical thinking and its impact on society. The development of technical thinking affects many aspects of our lives, from innovation in technology to our daily functioning. Technological thinking plays an important role in youth development as it fosters skills in analytical thinking, creativity, problem solving and innovation.

Key words: technical thinking, features, process, improvement, knowledge, ability, learning process, professional, life, future specialists, graduates, self-development and self-realization.

Аннотация: В статье рассматривается техническое мышление и его влияние на общество. Развитие технического мышления влияет на многие аспекты нашей жизни, от технологических инноваций до нашей повседневной деятельности. Технологическое мышление играет важную роль в развитии молодежи, поскольку оно развивает навыки аналитического мышления, креативности, решения проблем и инноваций.

Ключевые слова: техническое мышление, особенности, процесс, совершенствование, знания, способности, процесс обучения, профессионализм, жизнь, будущие специалисты, выпускники, саморазвитие и самореализация.

Annotatsiya. maqolada texnik fikrlash va uning jamiyatga ta'siri haqida so'z boradi. Texnik fikrlashning rivojlanishi hayotimizning ko'p jihatlariga, texnologiyadagi innovatsiyalardan tortib, kundalik faoliyatimizga ta'sir qiladi. Texnologik fikrlash yoshlarning rivojlanishida muhim rol o'ynaydi, chunki u analitik fikrlash, ijodkorlik, muammolarni hal qilish va innovatsiyalar ko'nikmalarini rivojlantiradi.

Kalit so'zlar: texnik fikrlash, xususiyatlar, jarayon, takomillashtirish, bilim, qobiliyat, o'quv jarayoni, kasbiy, hayot, kelajakdagi mutaxassislar, bitiruvchilar, o'z-o'zini rivojlantirish va o'zini anglash.

Introduction

Nowadays, technological progress has globally changed the lives, priorities and thinking of humankind. In the recent past, mankind dreamed of computer technologies, and today they are a necessary tool for almost every activity. And what is especially important is that the process of improvement and change of technical means, as well as of man as a person, continues.

ISSN 3030-3907

New developments not only give us new opportunities to manufacture and improve products, but also direct us to develop a new learning process. This is due to the fact that a graduate must be competent in his or her future field of activity. This means that the learning process must include the study of newly invented systems. But here the question arises, how can this be done? After all, technical progress is so fast moving forward that the knowledge acquired in the process of training becomes obsolete by the time the student enters the professional life.

The main task of modern education of a future engineer is not just the transfer of experience and knowledge in this field of activity, but the preparation of a competent specialist capable of self-development and self-realization, able to solve non-standard problems, predict the result of upcoming activities and focused on universal human values.

The thinking of a modern engineer and highly qualified workers of the 21st century is becoming significantly more complex and includes related types of thinking: logical, imaginative-intuitive, practical, scientific, aesthetic, economic, environmental, ergonomic, managerial and communicative.

Since the sphere of technical design includes environmental reflection, which considers the introduction of a technical system into the human environment, ergonomic reflection, which examines the correspondence of the technical system and human capabilities, and finally, existential reflection, which considers the technical system as a means of realizing human goals, as self-determination of human existence, then thus, the need for communication, coordination and adoption of a systemic decision is manifested.

MATERIALS AND METHODS

The possibility of multiple points of view, their free expression, the organization of understanding, reflection and criticism - these are the essential conditions of modern project culture. Thus, an engineer must have sufficiently high communication skills of communication, interaction, mutual understanding with other specialists, and developed communicative thinking. The formation of communicative thinking and skills is facilitated by knowledge of psychology. Thus, when teaching and training engineers of the 21st century, along with fundamental and technical disciplines, it is necessary to carry out a synthesis with economic, social and managerial, environmental, cultural, and psychological sciences.

Psychological branches of science can have a beneficial effect on various aspects of the formation of an engineer's personality.

Thus, problems of effective interaction between man and technology are studied in engineering psychology and ergonomics; the patterns of constructive

ISSN 3030-3907

activity of an engineer are revealed in the psychology of thinking and creativity, heuristics and engineering psychology; patterns of technical and engineering-management decisions are analyzed in management psychology, social psychology and heuristics; problems of effective interaction between an engineer and people and specialists are revealed in social psychology, psychology of communication, psychodiagnostics, psychotherapy and conflictology; the specifics of an engineer's activity in a market economy are considered in economic psychology and management psychology; the need for continuous training and advanced training of a modern engineer is based on the principles of educational psychology; and, finally, a modern engineer must be able to manage his activities, behavior, mental state, as a result of which he needs knowledge of general psychology, personality psychology, psychology of experiences and stress, and the psychology of self-regulation. Psychological support for all training of modern engineering workers is becoming an actual necessity.

The meaning of technical thinking is a successful solution of technical problems, in the process of solving them necessary qualities of technical thinking are formed. In this regard, the basis of the educational resources for the development of technical thinking of students are traditionally tasks. In general, educational resources, determining the development of technical thinking, we refer to the means, technologies, techniques, methods and development environments of students' technical abilities and diagnostic tools for assessing their level of development. The development of technical thinking in English lessons is accompanied by the development of technical abilities, which are interrelated and manifest independently from each other personal qualities: ability to understand technology in English, understanding technical terms, handling equipment, making technical products and technical invention. Along with some general ability, which can be considered as a general technical talent or technical experience acquired by a person in working with equipment, there are independent factors: spatial representations and technical understanding. By spatial representations they mean the ability to operate with visual images, for example, when perceiving geometric shapes. When entering a higher educational institutions, the first stage is the in-depth study of technical disciplines that were previously studied in school. This stage is necessary for the development of students' thinking and identifying abilities in various directions. Technical thinking is one of the important means of polytechnic education and vocational guidance, contributes to the formation of students' sustained interest in technology, the development of rationalization and inventive aptitudes, technical thinking, contributes to improving the scientific level of education. Students are involved in creative work in connection with the study

ISSN 3030-3907

of the fundamentals of science, familiarity with industry, the achievements of science and technology. Most often, technical thinking manifests itself in the design of models, instruments, mechanisms, simple machines and other technical objects.

What influences the development and quality training of a technical university specialist? It is obvious that in order to form such a harmonious specialist with systemic and even globally civilizational engineering thinking, it is necessary that the teachers themselves of technical colleges and technical universities overcome their narrow professional view of the tasks of teaching and the role of their academic discipline, it is necessary that the teachers themselves have a comprehensive fundamental-technical, economic-ecological, humanitarian-psychological-pedagogical basis of scientific ideas, as a result of which, even when teaching narrow technical disciplines, the complex erudition and systematic thinking of the teacher will allow students to provide students with comprehensively synthesized scientific information, to form a comprehensively developed personality of a person of the 21st century.

The nature, features, and conditions of professional tasks set the direction in which the process of thinking itself unfolds as a solution to the problem. And although this process turns out to be mediated by internal conditions (initial knowledge, abilities, characteristics of the nervous system), the objective direction and content of the thought process is set by the task itself. Therefore, it is necessary to analyze technical and production tasks and highlight their specific features.

Technical thinking has a high degree of usefulness for society, since it helps strengthen the logical apparatus and prevents the “confusion” of the consciousness of a modern technical specialist.

RESULT AND DISCUSSION

In today"s world, technical thinking is very much required. Development in technical thinking is very influential in today's life which impacts everything-from technical innovations to the way we function daily. The effects of technical thinking on society:

1. Innovation and Technological Advancement: It is the backbone of all innovations and technological progress. With technical thinking, we would be able to develop an entirely new technology or improve our existing inventions and create completely new innovative products and services that further modern society towards enhancement.

2. Solving Complex Problems: Using technical thinking as an area that makes possible solutions for quite complex technical, engineering, and scientific problems, used for developing techniques for addresses that may include environmental, health, energy, and many more.

ISSN 3030-3907

3. Economic Growth: The development of technical thinking in itself causes economic growth through innovation and technological change that improve production while increasing efficiency or creating employment opportunities.

4. Global Challenges: By providing technological answers, tech thinking plays a major part in tackling different global challenges from the likes of climate change, poverty, health, and access to education.

Then, from the above aspects, take the methods of employing technical thinking in society as follows:

1. Education: Introducing learning that inculcates the development of technical thinking in schools of all levels.

2. Innovation Environment: Conditions governing research, development, and innovation such as encouragement for startups, research laboratories, technology parks.

3. Popularization of STEM Areas: Make science, technology, engineering, and mathematics cool so that young people will be turned on toward developing technical thinking.

4. Networking: Joint promotion of brain roles in industry, education, science, and state in fostering technical thinking and innovation.

CONCLUSION

However, the advances must also consider the social-cum-ethical issues involved with the use of technology concerning the very otherwise impacting societies and environments, and also involve the diverse societies in the evolution of technical-cum-ethical thinking. Thus, developing technical thinking would entail deep consideration of contemporary society, and its promotion strategies would also be quite essential in ensuring that benefits in technology usage are maximized and responsible for the greater good.

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ISSN 3030-3907