

FORMATION OF PRINCIPLES ON THE CONCEPT OF TECHNOLOGICAL DETERMINATION IN STUDENTS IN TEACHING TECHNICAL SCIENCES

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ABSTRACT

This article provides information on how to improve the knowledge of students of technical higher education institutions on the concept of technological determinism.

Keywords: technological determinism, constructivism, trends, momentum, unintended consequences, autonomy, competition, selectionism, levels of analysis, functionality, power.

INTRODUCTION

Technological education, being a part of the higher education curriculum, is presented as a factor and a means of students’ socialisation and as “a process and a result of active learning by higher education students the general and professional technological culture, general and special ways of technological transformation of reality, and the development of technological competency and creative abilities of a person”.

The integrative approach of teaching Science, Technology, Engineering and technical sciences has been advocated as a pedagogical means to advance education for the 21st century [1]. However, there is a lack of validated instruments that are theoretically grounded to account for the various forms of knowledge that teachers need in order to effectively implement techno-ethic education. This study adopts the technological pedagogical content knowledge framework to develop the Technological Pedagogical techno- Knowledge Survey to assess teachers’ self-efficacies of the proposed dimensions of knowledge. It also investigates the interrelationships of the four knowledge dimensions (i.e., technological pedagogical science knowledge, technological pedagogical mathematics knowledge, technological pedagogical engineering knowledge and integrative) proposed in this paper.

REFERENCES ANALYSIS AND METHODOLOGY

Many sociological and pedagogical studies have been carried out on the negative aspects of man-made civilization, the

process of human automation and robotization, the competition of artificial intelligence with human consciousness, by improving the knowledge of the basics of the concept of technological determinism among students of technical higher education institutions, and such research is still being conducted today and is being conducted regularly. [2]

Therefore, a series of systematic and functional scientific studies were carried out to improve the knowledge of students of technical higher education institutions about the concept of technological determinism. In particular, the theoretical, conceptual and technological basis of increasing knowledge of the basics of the concept of technological determinism R.Kh.Djuraev, A.R.Khodjabaev, U.I.Inoyatov, N.A.Muslimov, Q.T.Olimov, E.O.Turdikulov, M.B.Orazova, J.A.Hamidov, M.Tashov, O.A.Abduquddusov, M.Jumaniyozova, R.A. Mavlonova and others have been studied to a certain extent.

Development of an educational methodology aimed at creating, using and improving technology through the foundations of the concept of technological determinism in the scientific research of scientists such as V.S. Stepanov, B. Stepin, M. I. Shchadov, Yu. A. Chernegov, N. Yu. Chernegov in the countries of the Commonwealth of Independent States socio-pedagogical aspects are also covered.

Against the negative effects of the crisis of man-made civilization in Western countries, the problems of improving the knowledge of the basics of the concept of technological determinism among students of technical higher education institutions, scientists J. Martin, H. Beck, F. Dessauer, S. Hawking, N. Vig, J. Ellul, M. Heidegger, K. Jaspers, D. Meadows research studies.

However, the fact that the innovative pedagogical bases of improving the knowledge of the basics of the concept of technological determinism among the students of technical higher education institutions in the research works of the above-mentioned scientists has not been specially studied increases the importance of this scientific article. This scientific article summarizes existing research works and focuses on improving the theoretical foundations of the development of knowledge about the concept of technological determinism among students of technical higher education institutions based on new approaches.

DISCUSSION AND RESULTS

Criteria and standards for improving knowledge of the basics of the concept of technological determinism among students of technical higher education institutions have been developed and the effectiveness of empirical evaluation has been determined;

A methodology for organizing cooperative pedagogy for improving the knowledge of the basics of the concept of technological determinism among students of technical higher education institutions has been developed;

Pedagogical technology aimed at the rational use of integrated education in improving the knowledge of the basics of the concept of technological determinism among students of technical higher education institutions has been developed;

On the basis of existing research works and approaches, interactive methods have been developed that demonstrate the effectiveness of innovative technological education in improving the knowledge of the basics of the concept of technological determinism among students of technical higher education institutions.

CONCLUSION

There is time and necessity to improve the knowledge of students of higher technical educational institutions regarding the concept of technological determinism and to create a curriculum and program of the science "Basics of technological determinism" that directs their knowledge in this regard to professional activities and include them in the educational world. The main goal of teaching this subject is to develop the knowledge of future specialists in the field of technology regarding the concept of technological determinism, to familiarize them with the views of scientists about the connection of man-made civilization with social development based on the chain of cause and effect, and through this, their technological outlook is cultivation.

It is important to be able to choose an effective educational methodology, to be able to develop a useful educational technology in improving the knowledge and worldview of the concept of technological determinism among students of higher technical educational institutions. Because the correctly chosen educational methodology has a positive effect on the quality of education and is an important factor in the formation of professional skills.

As the technical progress increases, so do the number of conflicts, obstacles and crises that it creates. In particular, environmental pollution, depletion of non-renewable resources, globalization of potential risks are among them. Therefore, it is necessary to constantly recalculate the financial resources allocated to research to compensate for the damage caused or to find a substitute for the dwindling resources. It was found that the development of knowledge about the basics of the concept of technological determinism among students of technical higher education institutions depends on the level of content of the motivational-value-oriented component, which determines that the development of knowledge about the basics of the concept of technological determinism is

aimed at the formation of a person's axiological attitude to technology.

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