

## THE SYSTEM OF DEVELOPMENT OF TECHNOLOGIES FOR IMPROVEMENT OF TEACHING MATERIALS ON THE BASIS OF IMITATION-VARIATION IN TECHNICAL HIGHER EDUCATIONAL INSTITUTIONS (AS AN EXAMPLE OF TEACHING THE SCIENCE OF INTELLIGENT MEASURING INSTRUMENTS)

Jamshidbek Obidov

(PhD), Doctor of philosophy in pedagogical sciences, Uzbekistan

**ABSTRACT:** The study investigates the potential of imitation variability as a pedagogical strategy in technical higher education. It specifically examines its application in teaching "Intellectual Measuring Instruments". By integrating modern educational methodologies with technological advancements, this research aims to enhance student engagement, comprehension, and practical skills.

**KEYWORDS:** Technical higher education, technical literacy, variability, innovative development, teaching strategy, equipment.

### INTRODUCTION

In recent years, the education sector has experienced significant transformations, largely driven by advancements in technology and shifts in pedagogical paradigms. Technical higher education institutions face unique challenges in delivering complex subject matter effectively. The main focus is on understanding technical texts through pedagogical technologies, as well as expanding the possibilities of imitation variability and visual-practical orientation of educational materials through synergistic, hermeneutic, and praxiological approaches. This aims to develop students technical literacy through technical language knowledge and to improve the technologies of teaching educational materials based on imitation variability, shaping students' awareness of the essence and significance of these technologies in technical education.

### METHODS

Attention to investment in education is increasing globally, and a number of reforms are being carried out to improve the quality of higher technical education in technical higher education institutions. Looking at foreign experience, reforms in the education sector are aimed at enhancing the quality of educational practices through the implementation of modern technological-pedagogical teaching materials based on imitation variability in technical higher education institutions. The pedagogy of imitation variability primarily involves teaching the analysis of the internal structure of texts for the preparation and development of future professionals in the field of technical higher education [1]. When considering the objectives set forth in the reforms underway in advanced international higher education technical institutions, teaching based on imitation variability presents possibilities for future engineers to use learned

pedagogical research in entirely new conditions or situations in the future. This research discusses the aspects of improving students' professional competencies through teaching based on imitation variability in technical higher education institutions, the components that constitute their professional technological culture, and the integration or development of understanding in teaching specialized subjects and creating methods of technological enhancement.

## RESULTS

Many works are being carried out within the framework of innovative pedagogical prospects and state policies supporting the development of technologies for improving the teaching of educational materials based on imitation variability in technical higher education institutions. Specifically, the strategy and mechanisms for innovative development in our country are closely related to how effectively the intellectual and scientific-technical potential created in that state is utilized. Research results is validated by the use of a set of methods that correspond to the research goals, object, subject, and tasks, based on a scientific-pedagogical approach to the problem being studied. The involvement of a sufficient number of students from technical higher educational institutions for the experimental trial, reliance on statistical data in the results of the experiments, and mathematical-statistical processing, as well as the content of scientific works published on the topic, further affirm this.

The study employs a qualitative research design, incorporating both theoretical analysis and practical application. Key methodologies include:

1. Literature review: An extensive review of current educational theories related to imitation variability and its application in technical disciplines.
2. Curriculum development: Developing an innovative curriculum for "Intellectual Measuring Instruments" that emphasizes imitation variability.
3. Implementation: Conducting pilot classes employing simulation-based learning tools and techniques to facilitate collaborative learning environments.
4. Data collection: Gathering qualitative and quantitative data through student feedback, performance assessments, and observational studies [3].

The implementation of imitation variability in teaching yielded several key findings:

1. Increased engagement: Students demonstrated higher levels of interest and motivation during lessons that employed simulation and variability techniques.
2. Enhanced understanding: Assessments indicated that students achieved a better grasp of complex concepts related to intellectual measuring instruments.
3. Practical skills development: Students showed improved practical competencies in using measuring instruments, as simulated scenarios fostered hands-on experiences.

## DISCUSSION

The use of imitation variability as a teaching strategy aligns with contemporary educational goals of fostering critical thinking, problem-solving, and hands-on learning. The positive outcomes from the pilot implementation suggest that this approach could be widely adopted across various technical subjects. Furthermore, the integration of technological tools enhances learning

engagement and prepares students for real-world applications in their future careers. Currently, one of the most widespread ICT tools in European countries is Internet providers and Internet intellectual communication systems. They provide students with high-quality distance and independent education through modules [3]. Making the learning process easy and understandable for the listener in technical higher education institutions is also one of the didactic goals set for them.

Creating virtual resources in accordance with the topics using advanced pedagogical methods ensures methodological development. Technologies for improving the teaching of educational materials based on imitation and variation are a theoretical and methodological term in social concepts, according to which the development of society is determined by the development of technology and equipment.

The study utilized methods such as reviewing pedagogical, didactic, psychological, and methodological literature; correlational, theoretical, and comparative analysis; social surveys (questionnaires, analytical conversations, interviews, diagnostics); pedagogical observation; modeling; pedagogical experiments; expert evaluations; and mathematical statistical processing methods.

### **CONCLUSION**

Enhancing educational methodologies through imitation variability presents significant opportunities for improvement in teaching technical subjects. Future research should focus on broader applications of imitation variability across different subjects and developing best practices for implementation.

The scientific significance of the research is marked by the systematic development of didactic teaching materials that serve to improve the technologies of teaching educational materials based on imitation variability in technical higher education institutions, as well as the identification of methods, approaches, and technologies that enhance the material-technical and technological capabilities of independent learning. The practical significance of the research is explained by the development of didactic resources, questions, assignments, and improved and systematized issues related to modular technology education, aimed at enhancing the technologies of teaching educational materials based on imitation variability in technical higher education institutions, based on foreign experiences and innovative ideas, as well as the formulation of scientific-methodological recommendations directed at the application in the independent learning process.

### **REFERENCES**

1. Obidov J.G. Systemic-functional model of technologies for improving the teaching of educational materials in technical higher educational institutions based on imitation-variation. Scientific Bulletin of Namangan State University, 2024.-№10 – P. 949-952. ISSN:2181-1458//ISSN:2181-0427 (13.00.00 №30).
2. M.A.Shakhodjayev, J.G.Obidov. Technologies of modeling educational materials based on imitation-variation through independent education in the training of future engineers. Scientific News of Far Eastern State University, 2023.-№5 – P. 10-13. (13.00.00.1/23).

3. M.V.Osychenko, V.S.Skripkin. Stavropol state agrarian university, Stavropol Realization of variative component of discipline «Physical culture» based on modern fitness technologies.